

# Yesterday, tomorrow, today

Munich Re is guided by the principle of sustainability, even and particularly in these difficult times for our Group. We take what might be termed a holistic view of sustainable activity, one that embraces economic performance as well as cultural, social and, of course, ecological aspects. In all these areas we aspire to create growing and lasting value. To this end, we draw on experience from the past, combine it with prospective analysis, and actively shape our future now.

Yesterday, tomorrow, today.

# Competence in handling risks: The Munich Re Group

Reinsurance, primary insurance and asset management complement each other in our Group to form a strong blend of financial services.

Reinsurance: We have been in the business of insuring insurers since 1880.

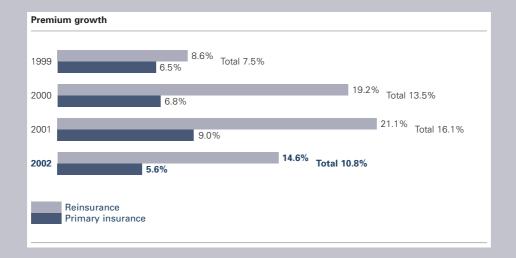
**Primary insurance**: Our primary insurers – the ERGO Group with its brands VICTORIA, Hamburg-Mannheimer, DKV and D.A.S. plus Karlsruher and Europäische Reiseversicherung – provide cover for private individuals and for small and medium-sized businesses.

**Asset management**: Our subsidiary MEAG offers investment products for private clients and institutional investors.

# **Our vision**

As a Group we aspire to be one of the leading risk carriers and providers of financial services. We create lasting value by systematically building on our strengths:

- the competence and skills of our staff
- our global knowledge base
- our financial strength
- partnership and trust within our business relationships



### Munich Re Group 2002 Key figures (IAS) 2002 2001 +/- in % 36.1 Gross premiums written €bn 40.0 +10.8 809 Result before amortisation of goodwill €m -415 €m -574 -1,040 +44.8 Minority interests in earnings €m -69 145 Profit for the year €m 1,081 250 +332.4 Investments €bn 156.3 162.0 -3.5 -27.9 Shareholders' equity €bn 13.9 19.4 138.6 Net underwriting provisions €bn 143.0 +3.1 41,396 38,317 Staff at 31 December +8.0

	2002	2001	+/- in %
€	6.08	1.41	+331.2
€	1.25	1.25	_
€m	223	221	+0,9
	114.0	305.00	-62.6
€bn	20.4	54.0	-62.7
	€ — €m — €	€ 6.08 € 1.25 €m 223 € 114.0	€       6.08       1.41         €       1.25       1.25         €m       223       221         €       114.0       305.00

Shares of Group premium income from reinsurance and primary insurance, broken down by life and health and property-casualty  $\!\!\!\!\!^*$ 

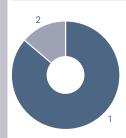
# Reinsurance 58.6%

Life and health Property-casualty 13.9% 44.7%

# Primary insurance 41.4%

Life and health Property-casualty 29.4% 12.0%

\* After elimination of intra-Group transactions across segments.



# Share of premium income from outside Germany (57%)

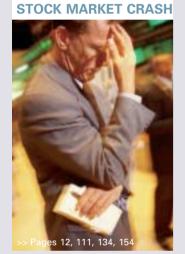
1 Reinsurance	86.2%
2 Primary insurance	13.8%

# Future Climate Innovation Partnership Risk Security



# **AMERICAN RE**





**GREEN LIGHT FOR CORPORATE** 



# **AN AGEING FUTURE**



# **PLAUDITS**



**ERGO AND HVB** 



# **WORLD SUMMIT, JOHANNESBURG**



# **OPEN DAY**



**REINSURANCE STREAMLINED** 



**CLIMATE EXHIBITION** 



**EXTREMUS AGAINST TERROR** 



**SUBMERGED** 



01.2002 >> 12.2002

# Notable events in 2002

# American Re on a new course

Key changes have been made at American Re. With a new management and organisational structure, plus stronger capitalisation, it is in a much better position today than one year ago.

>> Page 71

### Stock market crash

Developments on the international capital markets last year were dramatic – with serious repercussions for our investments, our share price and our rating.

>> Pages 12, 111, 134 and 154

### An ageing future

Pensions were one of the major topics at our primary insurance subsidiaries last year. Our insurers successfully marketed over 530,000 "Riester" products, set up their own pension funds and arranged company pension schemes with many firms.

>> Page 69

# World Summit, Johannesburg

"People, Planet, Prosperity" was the motto of the World Summit on Sustainable Development in Johannesburg, South Africa. For Munich Re, it was an important opportunity to present its assessment of future risks, such as man-made climate change.

>> Page 120

### **Plaudits**

We received special recognition for our investor relations work, for MEAG'S EuroRent fund, and for our role as an employer. External specialists acknowledged our work with awards. Our clients also gave us excellent marks in a survey conducted by Flaspöhler Research.

>> Pages 23, 37 and 114

### "Open for ..."

Under this motto, Munich Re invited staff, their families and friends to an open day in October 2002. Over 8,000 people, large and small, got to know Munich Re from the inside: our buildings and our work, the art in our passageways and our openness.

>> Page 59

# ERGO and HBV – A good partnership

ERGO and HypoVereinsbank work together in insurance and banking business. Last year their partnership started to bear fruit.

>> Page 83

# **EXTREMUS** against terror

Munich Re was co-initiator, founder member and provider of capital for EXTREMUS AG, a specialist German insurer for terrorism risks. The company offers German industry a new opportunity to insure itself against terrorism.

>> Page 252

# Climate Exhibition at the Deutsche Museum

In November 2002, the Deutsche Museum unveiled its Climate Exhibition in Munich, the result of close collaboration with Munich Re. Our objective is to heighten public awareness of climate change.

>> Page 44

# Reinsurance streamlined

To enable us to exploit further synergies in the Group and to concentrate our core competences in reinsurance, VICTORIA Re ceased underwriting at the end of the year and transferred its business to Munich Re.

>> Page 145

# Green light for corporate governance

In December, Munich Re published its first declaration of compliance with the German Code of Corporate Governance. We fulfil virtually all the Code's requirements and recommendations.

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# Submerged

The biggest natural catastrophe loss event for us in 2002 was the summer flooding, which cost nearly €500m.

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# Yesterday, tomorrow, today

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**DR. HANS-JÜRGEN SCHINZLER**CHAIRMAN OF MUNICH RE'S BOARD OF MANAGEMENT

# Dear Shareholders,

Munich Re stands for professional risk handling. In our 123-year history we have coped with extreme fluctuations in claims experience on many occasions and have thus gathered valuable experience in dealing with the volatility of reinsurance business. After the almost apocalyptic events in New York in September 2001, which led to one of the worst underwriting results in Munich Re's history, a harder year seemed barely conceivable. Yet despite a markedly better result for the year, 2002 was again particularly testing for Munich Re, albeit for other reasons.

The first quarter, with a more favourable market situation in reinsurance and only few natural catastrophes, brought encouraging results. These reflected the enormous efforts of our staff to improve our business. But by the summer – following the change of management at American Re – a very thorough analysis had led us to a bitter conclusion: we would have to strengthen the loss reserves of our American subsidiary by Us\$ 2bn, notably for asbestos-related and environmental claims dating back many years as well as for losses from Us liability and workers' compensation business arising out of the more recent past. In addition, we took the precaution of increasing our provisions for the World Trade Center loss by a further Us\$ 500m.

But even worse was to come. In the summer a new disaster loomed - the capital markets experienced an unprecedented crash. In Germany, our home market, the trend was especially dramatic: after the DAX had suffered large losses in the two preceding years, it fell by a further 50% within the space of a few months. The dimensions of this immense capital depletion are truly mind-boggling. At the end of 1999 the total market capitalisation of all DAX stocks exceeded €1,000bn. By the end of 2002 they were worth around €400bn, and in March 2003 - not least owing to the influence of the war in Iraq - they fell by another 15%. It follows that as one of the biggest institutional investors in Germany, we were particularly badly hit by these massive losses in stock values. Thanks to the confidence of our shareholders, Munich Re shares were initially able to resist the disastrous downward trend, but in the wake of a rapidly accelerating price slide, they lost 60% of their value within a period of three months. In March 2003, they then fell to their lowest level since the end of 1992. We were virtually powerless in the face of such dramatic value destruction. The effects of this quite exceptional development on the value of our investments and naturally also on our capital base were correspondingly grave, especially given that the focus of our investments is on German financial stocks. One of the painful consequences for us was that the rating agencies Standard & Poor's and Moody's lowered Munich Re's rating by two grades. It was all the more gratifying, then, to witness the confidence shown in Munich Re by the capital markets in spring 2003 when the bonds we issued to strengthen our capital base were substantially oversubscribed.

Ladies and gentlemen, we should not delude ourselves. The insurance industry, and especially Munich Re, is currently going through extraordinarily difficult times. Nonetheless, I am confident we will successfully master the challenges that our Group faces. Our clients and the capital markets rightly put their trust in the highly qualified and motivated staff of our Group to cope with the difficulties and to utilise the opportunities that dealing with a crisis often presents. I would like to illustrate this with a few examples from the past 12 months:

- Our new, client-focused structure has proved successful in the market and is being rewarded. This is evidenced by the excellent results we achieved in a survey of clients conducted by the well-known American market research institution Flaspöhler, which we present to you in more detail on page 96.
- Very gratifying initial figures from our subsidiary American Re show that our restructuring measures, accompanied by key changes in business policy and personnel, are leading in the right direction. American Re is a completely different company from what it was one year ago. You can read more about this on page 71. We now expect positive sustained results from our US business.

- Our core business, reinsurance, is developing very well. Even before the events of September 2001, we succeeded in implementing more appropriate price levels in the loss-producing lines of industrial insurance. If one takes the results of our reinsurance treaty renewals just concluded and those preceding them, we have been able to increase prices by a total of around 26%. In addition, we have terminated business with an annual premium of about €4bn in the last two years, because it no longer offered the requisite prices and conditions. The results of this uncompromising underwriting policy are already being clearly reflected in our figures. If one disregards the reserve strengthening at American Re and for the World Trade Center loss, treating them as special factors which alone account for 15.9% of our combined ratio, the latter figure improved from 112.7% to 106.5% in the past 12 months. We still cannot be satisfied with this combined ratio, however, even given the heavy burden from natural catastrophes in 2002.
- In the case of our primary insurance subsidiaries, premium growth is above the market average. With the acquisition of KarstadtQuelle Versicherungen, ERGO has further improved its strategic and marketing position, even if currently it is also having to deal with exceptional burdens in the area of investments. With the reorganisation of our long-term shareholdings in the financial sector and the sole focus on HBV as a cooperation partner among the banks, we have taken decisive steps in the last two years to promote the further development of ERGO'S business. The partnership has made a very good start and is already bearing fruit.

But this is not enough, either for you or for us. One thing is clear as far as I am concerned: what is required at the moment is not hectic activity, but prudence, professionalism and perseverance – qualities that have always been the hallmark of Munich Re and are essential for creating lasting value. In our strategy, profitability is given clear precedence over growth. We will gear all our business to this principle, without any taboos, even with respect to things we may have rightly regarded as particularly worthwhile for many years. The fact is that times have changed. Thus, for instance, we have agreed with Allianz to reduce our reciprocal shareholdings to around 15%. The first step for this was taken in March 2003.

What does our consistent focus on profitability mean in concrete terms? Given the disastrous trends on the capital markets and the low level of interest rates, we cannot expect high investment returns at present. Therefore, we must earn our profits above all from our underwriting business – and this is precisely what we will do. In reinsurance, we have geared our prices and conditions to achieving a combined ratio of under 100% in the current year. In primary insurance, we are continuing to concentrate on insurances of the person and personal lines business, specifically in Europe. Here we are striving to continually reduce costs in order to improve the underwriting results of our subsidiaries. I can assure you, ladies and gentlemen, that we are well on the way to meeting these objectives. Besides this, of course, we want to earn stable returns on our investments again.

In the medium term our objective is to re-strengthen our capital base from profits. How far we can realise this aim, however, mainly depends on economic developments and what happens on the capital markets. Political decisions can also have substantial repercussions and often affect the insurance industry directly. Thus, for example, there have recently been moves in Germany towards making the long-overdue structural adjustments to statutory health insurance. Our subsidiaries that specialise in insurances of the person are ready to play their part in providing solutions where private insurance models are required to supplement and support state security systems, as with the "Riester" pensions.

This is the last time I shall be writing to you in this context as Chairman of the Board of Management. As we announced on 28 April 2003, at its meeting on that date the Supervisory Board appointed Dr. Nikolaus von Bomhard as my successor with effect from 1 January 2004, thus following the unanimous proposal of the Board of Management. Dr. von Bomhard stands for both continuity and the future, fully in keeping with Munich Re's tradition.

Over 100 years ago, Victor Hugo said: "The future has many names. For the weak it is the unattainable. For the fearful it is the unknown. For the bold it is opportunity." With our more than 40,000 dedicated and loyal employees, we are approaching the future resolutely and with confidence. We will exploit the opportunities it holds for Munich Re to the benefit of you, our shareholders, and our Group. The stage for this has been set.

Yours sincerely,

A. J. Schmile.

# **Markets**

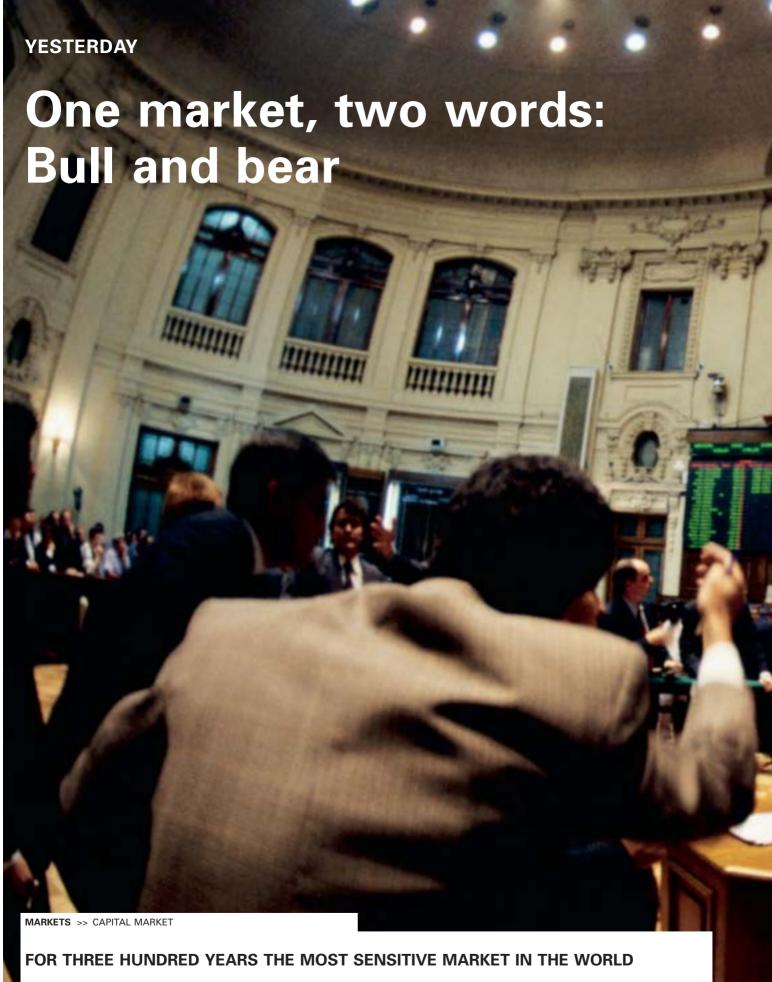
"The market is not an inv It has existed for centurie of civilisation."

MIKHAIL GORBACHEV, FORMER PRESIDENT OF THE USSR

# CYCLE MANAGEMENT IS A GROUP AFFAIR

The problem is as old as the market economy. How can market fluctuations be made controllable? All too often, the state and politics are expected to answer this question. Munich Re is taking its own measures to identify market cycles in good time and to utilise them in safeguarding value created by the Group.

# ention of capitalism. s. It is an invention



If there is one market that stands for dynamic movement, it is the stock exchange: sensitive to every piece of data but also reacting to rumours; mostly rational but sometimes hysterical, breaking out in euphoria or lapsing into depression. Munich Re is an important player in this market and although heavily affected by the crisis on the financial markets, it still remains a Group with very solid financing.



# The markets of the future are vi



MARKETS >> E-BUSINESS

# ONE AND ONE IS STILL TWO

Now that the euphoria of e-business has turned to depression, it looks as if the "new" markets are adjusting to the "old": the rules of solid business management seem to be winning through in the dotcom universe as well. Nevertheless, these new markets will remain fast-moving. The permanent acceleration in global competition will favour strong oscillations and cycles.

# rtual - and fast



# "We ensure that we obtain the earnings required for our business."

AN INTERVIEW WITH DR. CLEMENS MUTH ON CYCLE MANAGEMENT IN REINSURANCE



DR. CLEMENS MUTH
Strategic Planning Division
Head of Economic and Insurance Market Research

In a cycle, a process regularly repeats itself. Why does Munich Re need "cycle management"?

Reinsurance has always experienced rises and falls in capacity, and also in rates and results. But these cycles are changing. In the last twenty years, it has been apparent that they are converging throughout the world. We don't want to let ourselves simply be driven by these cycles and their changes.

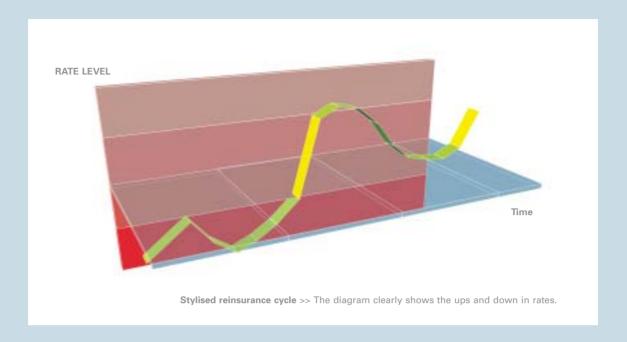
What are the reasons for the convergence?

Globalisation is also affecting reinsurance cycles: today capital flows more flexibly from one place to another, evening out differences in cycles more quickly than before. In addition, the capital markets have become more significant for the insurance industry.

MARKETS >> MARKET CYCLES

# A CONTRIBUTION TO SUSTAINABILITY

Cycle management is a crucial factor in realising our objective of creating lasting value. By consistently focusing on risk-commensurate prices, cycle management safeguards not only the quality of our business but also the risk protection for our clients.



# How does cycle management work?

It's based on the knowledge we have as a leading global reinsurer. We know the individual markets and can estimate their market cycles. We analyse global and also macroeconomic factors to form a cycle perspective and then decide on our cycle strategy. We implement this strategy individually: in client accounts, in regions and in classes of insurance.

# How does Munich Re do that in practice?

If cycle management is pursued consistently, it means you write more business in periods with higher prices – and vice versa. By taking account of the requirements of our own systems for internal management and risk modelling and then implementing our pricing founded on these, we ensure that we obtain the earnings required for our business on a sustained basis, independent of cycles.

# When is cycle management successful?

It's successful when we take optimum advantage of the market cycles and achieve our objectives – namely satisfactory results – across these cycles.

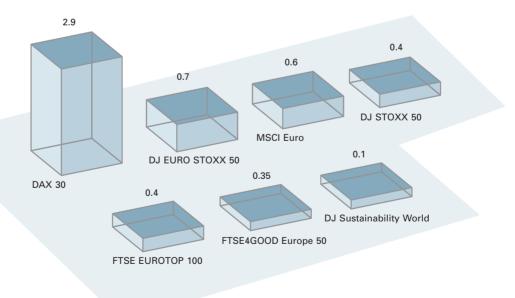
# 01

# **Munich Re shares**

Big losses Munich Re shares lost 62.6% in value in 2002.

Stable dividend We intend to pay a dividend of €1.25 for the third year in succession.

**Recognition** We were awarded a prize for our good investor relations work.



### A leader in sustainability

Munich Re shares are present not only in the major European share price indices but also in the sustainability indices DJ Sustainability World and FTSE4GOOD Europe 50, which only include stocks that are leaders in terms of economic, ecological and socially responsible activity.

# THE STOCK MARKET YEAR 2002: Downward trend worldwide

Negative records and extreme price fluctuations dominated the stock markets in 2002. Munich Re shares were also a victim. Over the course of the year they suffered one of the biggest prices losses in their history.

Numerous events and trends had an adverse effect on the stock markets in 2002 and damaged investor confidence: accounting scandals and profit warnings, corporate crises and major insolvencies, terrorist attacks and the threat of war.

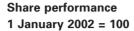
In fact, the stock markets made a promising start to the year, having staged a short-term recovery from the effects of the terrorist attack on 11 September 2001. But from spring onwards, the markets took a sharp downturn in both the US and Europe. Concerns about the development of the economy, even verging on fears of a recession, shaped trends on the stock exchanges – in Europe more than in the US. The risk of a war in Iraq intensified the negative trend, and the major European share price indices fell sharply. Financial stocks and German equities were affected to an above-average extent. Insurers, as big investors on the international equity markets, suffered particularly from the global stock market weakness.

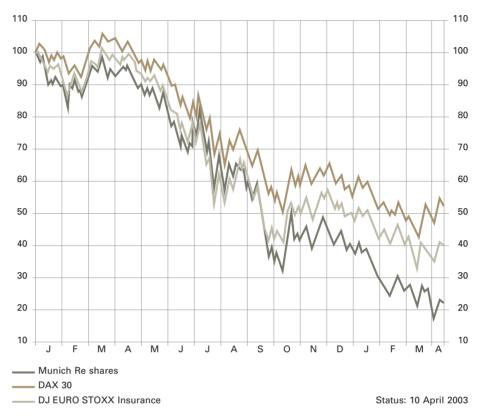
A striking indication of how the markets performed in 2002 is provided by the volatility index for the DAX, the VDAX. It was one of the few stock market barometers to show a continuing upward trend in the past year. The greater the expected fluctuations of the DAX, the higher the value of the VDAX. It reached an all-time high of 58.25 on 7 October 2002, having fluctuated between 17 and 47 in the two previous years.

For the third year in succession, the DAX 30's performance was negative, this time even setting a new record. With an annual loss in value of 43.9%, it closed the year at 2,893 points, with none of the current DAX 30 stocks managing to register a positive performance in 2002.

### Munich Re shares caught up in the vortex of the capital markets

Munich Re shares did not escape these negative influences. They lost around 62.6% of their value between 1 January and 31 December 2002, closing at €114.





The stock markets experienced their deepest trough in 2002 at the beginning of October: the year low for Munich Re shares was €98.99 on 9 October 2002 and the DAX reached its nadir of 2,598 points on the same day, its lowest level since autumn 1996. The DJ EURO STOXX 50 also recorded its low of 2,150 points on 9 October.

At that juncture there was still hope on the capital markets that the worst was now over – and in fact the DAX and DJ EURO STOXX 50 rallied by around 11% up to the end of the year, and Munich Re shares by 15%. However, this hope was short lived: in the first three months of 2003 our shares suffered severe price losses totalling almost 54%, reaching a low of €52.50 on 31 March. The DJ EURO STOXX Insurance lost 28% in the same period. The broader indices DAX 30 and DJ EURO STOXX 50 recorded a decline of 16% and 15% respectively in the first quarter of 2003.

Besides the weakness of the economy and the general market trend, the following factors adversely affected our share price: the flood losses, the strengthening of reserves at American Re and for the WTC loss, the fear of war in Iraq, and the losses in value of our portfolio of equities and shareholdings, especially those in Allianz and HypoVereinsbank.

The result situation in our active underwriting business, on the other hand, is good. We have taken a whole range of measures and consequently hope soon to resume the previous continual upward trend in our share price, albeit from a strongly reduced valuation base.

### Munich Re shares on many indices

There was intensive trading in Munich Re shares in 2002: the average turnover on all German stock exchanges rose by nearly 42% compared with the previous year. Altogether, the free share capital was turned over approximately 2.3 times, our free float being 61.95%.

The importance of Munich Re shares is also reflected by the fact that they are included in many national and international share price indices. Since 2001 they have also been present in the Dow Jones Sustainability Index and the FTSE4GOOD. These sustainability indices only accept companies that fulfil certain ecological and social criteria.

Key figures for our shares 2002 Prev. year Number of shares at 31 December 178.7 176.9 Year high € 307.00 387.00 Year low € 98.99 230.49 € 114.00 304.95 Year-end closing price % -19.97Annual performance (excluding dividend) -62.62Beta relative to DAX 1.34 0.84 Market capitalisation at 31 December 54.0 €bn 20.4 Market value/book value\* at 31 December 1.5 2.8 724 Average daily turnover 000 1.027 Price/earnings ratio at 31 December 18.8 216.3 Earnings per share € 6.08 1.41 Dividend per share € 1.25 1.25 Dividend yield at 31 December % 1.1 0.4 Overall dividend amount

Munich Re shares are no-par-value registered shares. They are traded on all the German stock exchanges and are also included in Xetra trading.

Additional information and news on our shares can be found on our website, in the daily papers and in material published by specialist providers of financial market data.

Index weighting in % Status: 10 April 2003

DAX 30	2.9
DJ EURO STOXX 50	0.7
MSCI Euro	0.6
DJ STOXX 50	0.4
FTSE EUROTOP 100	0.4
FTSE4GOOD Europe 50	0.4
DJ Sustainability World	0.1

Reuters	MUVGn	
Bloomberg	MUV2	
WKN	843 002	
ISIN	DE 000 843 002 6	

www.munichre.com/ir-d

<sup>\*</sup> Share price at the end of the year as a percentage of the shareholders' equity shown in the balance sheet, excluding minority interests.

### Further increase in the number of shareholders

Munich Re's most important shareholder is Allianz, with a stake of just under 20% (reduction from 24.77%), followed by HypoVereinsbank with 13.2%. Our free float has risen to 66.8%, chiefly owing to the shares sold by Deutsche Bank and Allianz. The number of shareholders has grown to over 135,000.





# **Unchanged dividend**

We again propose to pay our shareholders a dividend of €1.25 for the year under review. The overall amount distributed will thus total €223m. Following the change in German tax law from imputation method to half-income method, the dividend payment will no longer include a corporation-tax credit for our German shareholders, as was the case prior to 2001.

### Dividend development over five years



- \* Taking into account the capital increase in January 1999.
- \*\* Proposal for AGM on 11 June 2003.

### Aiming for sustained value in our investor relations work as well

Ongoing investor relations work is particularly important in difficult times, when analysts' and investors' demand for information is especially high. The foremost objectives of our investor relations activities are to provide these target groups with prompt and detailed information and to be accessible at all times, thus enabling the capital market to make an appropriate assessment of our current business situation and our future prospects.

In addition to regular presentations and commentaries on our quarterly and annual figures, we have shown in interviews with analysts, in conference calls and in road shows that we are guided by the principle of long-term shareholder value. We send representatives to important international conferences of the financial services industry and are systematically expanding our contacts. Our commitment has been recognised: the British agency Financial Dynamics put Munich Re top among the DAX companies for its investor relations activities. This was based on a survey involving 300 analysts. In 2002 we underlined our intention to keep up the good work by reinforcing our investor relations team.

Munich Re's operations take account of the interests of its shareholders in many ways. We have introduced a value-based management system. We take corporate governance seriously and comply with recognised standards of responsible corporate management (see page 103). As an incentive for increasing Munich Re's market value, we have launched long-term incentive plans that grant the Group's top executives stock appreciation rights, whose value is dependent on Munich Re's share price. Details of the plan can be found on page 231.

Most of our investor relations information is also published on the internet. We will be glad to send you our quarterly reports and other Munich Re publications on request. You can find our address on page 255.

www.munichre.com/ir-d

### **Annual General Meeting also online**

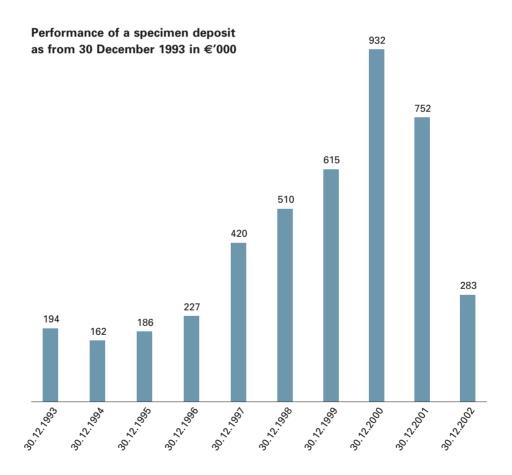
The attendance rate at our last Annual General Meeting on 17 July 2002 amounted to 53.7% of the share capital, with over 4,000 participants present at the ICM – International Congress Centre in Munich. Shareholders who were unable to attend in person had the opportunity, for the first time, to follow the entire Annual General Meeting live on the internet. They could also exercise their voting rights online through proxies nominated by Munich Re, with the option of changing their instructions right up until the end of the general debate.

# Performance of a specimen portfolio

At the end of 1993, with the share price at DM 3,795.00 (=  $\leqslant$ 1,940.35), a portfolio of 100 Munich Re registered shares with a par value of DM 100 (=  $\leqslant$ 51.13) required a total investment of  $\leqslant$ 194,035.27 (excluding transaction costs). After the two stock splits in August 1997 and January 1999, this investment today amounts to a portfolio of 2,000 no-par-value shares.

By reinvesting dividends to purchase further shares and making use of opération blanche (i.e. reinvesting the proceeds of subscription rights), a German shareholder would have been able to add a total of 480 no-par-value shares to the portfolio.

On the basis of a price of  $\in$ 114.00 per share on 30 December 2002, the value of the portfolio amounts to  $\in$ 282,720.00, equivalent to an increase of 45.7%. According to the internal rate of return method, this works out at an average annual return of 4.3% per year.



### Other capital market instruments

The exercise period for the Munich Re warrants 1998/2002, which were issued with new shares in the 1998 capital increase, expired on 3 June 2002. The result of this capital measure speaks for itself: the exercise rate for the warrants amounted to 99.86%, thus putting them on a par with their successful predecessor, the warrants 1994/98.

Our bonds exchangeable into Allianz shares were issued in May 2000 with an annual coupon payment of 1.00% on the face value. Investors are entitled to convert each of their exchangeable bonds into Allianz shares, making the investment a combination of bond and call option. The bonds' volume totals €1.15bn or around 1% of Allianz's share capital. At the end of the year they stood at 101.81%. Their term ends on 9 June 2005 with a redemption rate of approximately 108.6%.

Reuters	DE 011 153 968 =
Bloomberg	MUNRE
WKN	245 254
ISIN	DE 000 245 254 7

For institutional investors, we also placed two natural catastrophe bonds in December 2000 with a total value of US\$ 300m. Their three-year term began on 1 January 2002 and ends on 31 December 2003.

In April 2003, Munich Re issued two tranches of subordinated bonds via Munich Re Finance B.V. The main part of the issue is the euro tranche with a volume of €3bn, an amount unprecedented in the euro subordinated bonds market.

The pound sterling bond, with which Munich Re has tapped into additional investor circles, has a volume of £300m.

Reuters	DE 016 696 579 =
Bloomberg	MUNRE
WKN	843 278
ISIN	XS 016 696 579 7

Reuters	DE 016 726 052 =
Bloomberg	MUNRE
WKN	843 449
ISIN	XS 016 726 052 9

# **Employee shares introduced for Munich Reinsurance Company staff**

In autumn 2002, for the first time, all non-senior-executive staff of the parent company were given the chance to acquire employee shares at preferential conditions (see page 115).

# **Future**

# "An investment in knowle the best interest."

BENJAMIN FRANKLIN, AMERICAN POLITICIAN

# USING KNOWLEDGE TO SHAPE THE FUTURE

When Munich Re first started doing business, the risk world was of a size that today's insurers and reinsurers can only dream of. Nevertheless, the challenges faced by the insurance industry from the industrial world back then, with its social and technological revolutions, were every bit as great as the challenges of today. And that is why in those days, too, the preferred reinsurer was the one whose knowledge was more productive and beneficial for its clients. "Knowledge shapes the future" was already Munich Re's motto then. As true then as it is today!

# dge pays



# THE KNOWLEDGE EXPLOSION WAS IMMINENT

Back in 1949 the processing and utilisation of data was about to experience a breakthrough whose significance was apparent to only a few contemporaries. "I think there's a world market for about five computers." This forecast came from Thomas Watson, Chairman of IBM. Of course, history proved him wrong.





# KNOWLEDGE IS THE KEY

The amount of knowledge in molecular biology and genetic engineering doubles every two years. Nanotechnology, the next major technological revolution, will open up a scientific field comparable to that of space technology, electronics and genetic engineering. Not only will it lead to an explosion of knowledge, but its processing will take on a technological life of its own, even extending to the implantation of knowledge in people. The question is: How can the greatest possible benefit be derived from the technical availability of knowledge? As Confucius said: "The essence of knowledge is, once having it, to apply it."



# "Just storing information isn't enough."

AN INTERVIEW WITH KATJA STEINMANN ON KNOWLEDGE MANAGEMENT



KATJA STEINMANN Head of the Knowledge Management Centre of Competence

# In January 2001, Munich Re launched "knowledge management". What does that mean and where are the benefits?

The knowledge of our staff throughout the world is one of Munich Re's most valuable resources, which we want to utilise as productively as possible. Our knowledge management programme is intended to improve our relationships with clients, to expand our staff's expertise, and to intensify global cooperation within our Group. After a successful project phase, 2002 saw the establishment of a Munich Re Knowledge Management Centre of Competence.

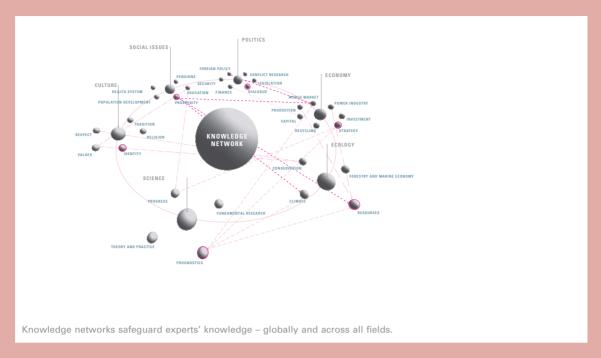
# Knowledge is continually growing. How does Munich Re deal with this?

We have a whole range of methods for recording knowledge, for making it accessible and for generating it. Just storing information in databases isn't nearly enough. There must be structures and processes in place to help us use our knowledge more extensively and close any gaps in it. That's why we have worked not only on the content but also on the relevant processes, on staff behaviour and on the infrastructure. Refining our knowledge management is an

FUTURE >> KNOWLEDGE EDGE

# **USING KNOWLEDGE SUSTAINABLY**

Knowledge management safeguards our most valuable resource and helps us to use it efficiently. This benefits our client relationships and thus serves our main objective of achieving lasting increase in value.



ongoing process, designed to keep pace with the proliferation of information. We also have to solve very practical problems such as "How can the Group retain the knowledge of experts who retire after 30 years with Munich Re?"

#### How does knowledge management work?

The central element of our knowledge management is a system of global expert networks – what we refer to as "knowledge networks" – for the insurance fields of property, casualty, marine and claims, with over 500 experts involved altogether. Additionally, at the division level, we have introduced "divisional knowledge management". This mainly takes the form of exchanging data specific to the division concerned, its markets and its clients.

#### How do our clients profit from knowledge management?

The networks contain topics that will be of relevance for our clients now and in the future, such as bioterrorism, cloning or critical illness. Last year a big client workshop on critical illness took place in Toronto, in which Munich Re staff demonstrated their expertise on this subject. Global collaboration between our experts guarantees a uniformly high quality of knowledge everywhere. And the structured processing of knowledge also promotes new products and innovation. This makes us "fit for the future", with our clients benefiting by obtaining better products and more efficient service.

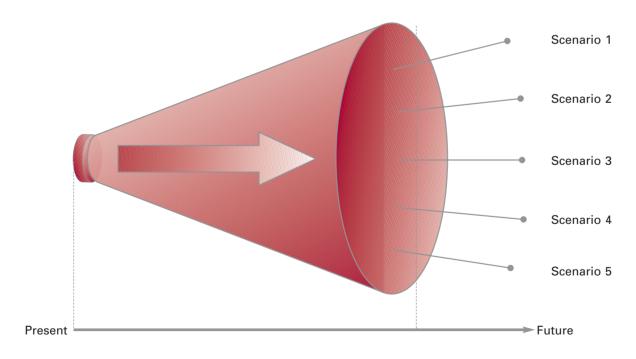
### 02

### Strategy

**Dedicated partner** We want to be the preferred partner for our shareholders, clients and staff.

Advancing together We utilise the rich opportunities for synergies in our Group.

**Secure market position** We consolidate our market position by relying on our strengths of quality and security.



#### Keeping the future in view

In the development of our corporate strategy, we take into account various future scenarios and make the necessary adjustments. The prime objective of our strategic initiatives is to stregthen our profitability.

## STRATEGY: We create value through an approach geared to sustainability

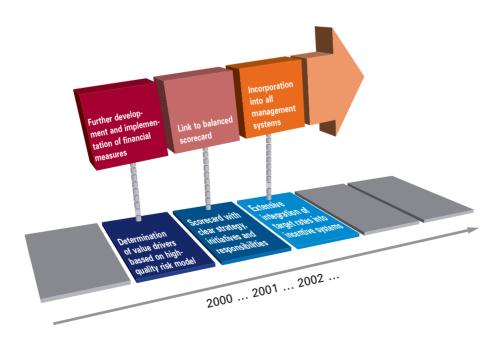
Munich Re puts long-term profitability before short-term growth. Our strengths of expertise, quality and security support us in implementing this strategy.

The Munich Re Group's objective is to be one of the world's leading risk carriers and providers of financial services, and thereby to create lasting value – as a reinsurer, a primary insurer and an asset manager.

We aspire to be the preferred partner for our shareholders, clients and staff. Above all, we strive to earn the best possible return for our shareholders. The commercial success necessary for this can only be achieved by offering our clients top quality and security. These two essentials are provided by our staff, whose dedication and expertise we recognise and value.

We have clearly defined our financial and non-financial objectives both for the Munich Re Group as a whole and for significant segments of the Group. Particularly in view of the current situation on the capital markets, we are adhering to our objective of increasing Munich Re's market value. At present, this market value does not always properly reflect the strengths of our Group that will prove effective in the future: the development of our client relationships, our knowledge, our methods of business management and other factors that will ensure our long-term success and create value.

#### Implementation of value-based management



#### Our operations are governed by the following strategic guidelines:

- 1 Long-term profitability takes precedence over short-term growth. We want to grow, but not at any price. We are not interested in writing business merely to achieve a certain place in the rankings.
- We utilise the rich opportunities for synergies within the Munich Re Group. Our primary insurance brands practise systematic cross-selling. The ERGO companies are introducing a joint claims management system and a uniform IT application landscape (see page 77). We will continue to expand our partnership with HypoVereinsbank in banking and insurance business (see page 83). Our subsidiary MEAG handles the management of our own Group investments.
- 3 We are consolidating and extending our market position and concentrating on our strengths. In both reinsurance and primary insurance, this may sometimes include withdrawing from individual markets where terms of trade are not appropriate.

In reinsurance we are aiming for organic, profitable growth in order to consolidate our leading market position worldwide. Systematic use is being made of cycle management (see page 16) to enable us to operate profitably in market downturn phases as well. We exploit the earning opportunities currently presented by the improved market conditions, consciously drawing on our special strengths such as quality, competence and security.

In primary insurance, especially insurances of the person and other personal lines business, we are aiming for strictly profit-oriented growth. Our objectives in Germany are to maintain our position as the second-largest primary insurer, and to achieve a place among the three leading providers in the field of company pensions. In the rest of Europe, we want to extend our market position selectively and consolidate parts of our portfolio.

Our asset management mainly has a supporting function for the Group. We want to achieve the best possible return on our investments, whilst limiting our risks to an appropriate degree and ensuring we have sufficient liquidity at all times. We naturally cannot detach the performance of our investments from developments on the international capital markets but we deliberately refrain from making any speculative investments. We intend to expand our business with third parties, determinedly exploiting distribution synergies with insurance and reinsurance.

We make use of two main tools to translate these strategic guidelines into successful business. Firstly, we manage our operations Group-wide using modern business tools, such as value-based management, and employ balanced scorecards to define objectives and measures, monitor results and highlight opportunities for optimisation. Secondly, we continue to systematically refine our risk management (see page 128).

#### Top marks for MEAG MUNICH ERGO AssetManagement GmbH

#### MEAG received a number of awards in 2002:

- In Standard and Poor's Fund Awards 2002, MEAG's funds achieved first place in their category in Germany.
- Also in these awards, the MEAG EuroRent fund came top among the funds focusing on European bonds, and it also received five stars from the US investment research institute Morningstar, its top rating.
- As an investment company, MEAG came third in the "small companies" category in Standard and Poor's Fund Awards. Reuters subsidiary Lipper rated it "Best Bond Group Germany 2002".

# **Climate**

# "Modern man has become nature than it ever was to

HANS JONAS, GERMAN PHILOSOPHER

#### WE CAN'T JUST LOOK AWAY AND CARRY ON AS BEFORE

Whether global climate change is man-made, and if so to what extent, is still being debated, despite significant indicators. But this state of inconclusiveness should not be used as a pretext to just carry on as before. For if what is already emerging as possible really materialises, it will be too late to have any real chance of doing anything about it.

# e a bigger threat to him."

>>

# Côte d'Azur 2000: The end of summer time



**CLIMATE** >> REINSURANCE

#### THE CLIMATE IS COSTING US DEARLY

So far in its history the global insurance industry has had to deal with 35 natural catastrophes that cost over €1bn. Only two of these – both earthquakes – were not attributable to atmospheric influences. All the other major catastrophe losses were climate-related. Our statistics show that these claims costs are spiralling upwards.





**CLIMATE** >> GLOBAL WARMING

#### LIFE GOES ON. BUT HOW?

Changes in climate patterns are a topic of overriding importance for the future. Continually growing natural catastrophe losses raise immense financial problems. Loss amounts of around US\$ 100bn per event are a realistic scenario, even for the immediate future. Climate change also threatens to have social and economic repercussions on a global scale. The insurance industry therefore needs to make the public even more aware of this highly topical issue. And politicians must at last match words with deeds.



# "Acting blindly is punished, far-sighted action is rewarded."

AN INTERVIEW WITH THOMAS LOSTER ON THE CLIMATE EXHIBITION



THOMAS LOSTER
Geo Risks Research
Head of Weather/Climate

Why is Munich Re supporting the Climate Exhibition at the Deutsche Museum both professionally and financially?

Good loss prevention starts with risk awareness. At the same time it is important to understand the risks of change. The Climate Exhibition at the Deutsche Museum makes visitors aware of the problem of climate change in a very effective way. The exhibition explains how the climate works and impresses on the viewer how sensitive it is. We feel we should share our knowledge about the climate with the public – that's one of the duties of an opinion leader and knowledge carrier like Munich Re. We're simply putting into practice what we state in our corporate guiding principles.

Dramatic reports on the "climate catastrophe" are two a penny. What's special about this exhibition?

The Deutsche Museum and Munich Re wanted to take a less sensationalist approach than the media frequently do – more subtle and objective. Incidentally, together with the Deutsche Museum, we have developed an exhibit that shows the global distribution of weather- or climate-related loss events. Every visitor, whether from the us or Australia, can find their country and zoom in on it as if they were using a magnifying glass. We convey here that the effects of climate change are perceptible in every country, that they are a global problem.

**CLIMATE** >> SOCIAL RESPONSIBILITY

#### PARTNER FOR THE DEUTSCHE MUSEUM

The Deutsche Museum is staging the exhibition "Climate. The Experiment with Planet Earth" until September 2003 in Munich at the Zentrum Neue Techonologien (ZNT). After that, the exhibition will go on tour to various cities. In Munich, it is being accompanied by a series of presentations entitled "Positions". On five separate evenings, various experts – such as scientists and Munich Re specialists – discuss interesting topics concerned with the climate.



The earth's spheres >> Illuminated globes show subsystems of the earth: lithosphere, biosphere, hydrosphere, kryosphere, solar radiation, and atmosphere.

### People generally assume that museums exhibit "old" things. But the climate is a very topical problem.

That's why you can find very new types of presentation in the exhibition, as well as more traditional exhibits. In a creatively designed "climate game", for example, visitors can slip into the role of a chief executive or a politician who makes decisions that affect the climate. The computer simulation shows how today's decisions can influence tomorrow's climate. For example, a "politician" who does not think of people's material well-being when taking environmental action is not re-elected and loses the game. Acting blindly is punished, while far-sighted action is rewarded.

### For many people, the climate is something abstract. How do you make the subject tangible?

Among other things, by giving visitors something "hands on". For example, cross-sections of huge trees with annual rings, which give a fairly clear picture of whether warm or cold years predominated in the Middle Ages. You can even see a mini tornado close-up in a glass cylinder and try out how it reacts to natural obstacles or structural resistance by putting your hand in. Learning about the climate in this way is really fun.

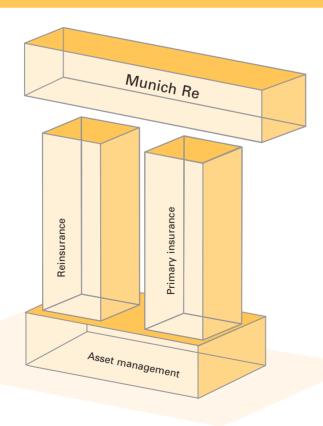
### 03

## **Group profile**

All-round financial services provider Munich Re stands for reinsurance, asset management and well-known primary insurance brands

**Clear structures** In reinsurance, seven divisions manage business with our clients.

**International locations** Our primary insurance subsidiaries operate at over 30 locations in Europe; the reinsurance group is present worldwide in 60 countries.



#### Munich Re's business

Our core fields of business are reinsurance and primary insurance. Asset management has a supporting function in our Group.

#### Fields of business

Reinsurance + primary insurance + asset management = Munich Re

In the Munich Re Group, reinsurance, primary insurance and asset management complement each other to make a strong, all-round financial services provider. The knowledge and dedication of over 40,000 staff in 60 countries vouch for the outstanding quality of our service.

#### Reinsurance: We insure insurers

Since 1880 Munich Re has embodied competence in handling risks. 5,000 insurance companies in around 150 countries rely on our expertise and financial strength. We assume a part of their risk and find individual solutions for the whole spectrum of risk management. We cover risks worldwide, from air fleets and oil platforms to satellites and natural catastrophes. There is virtually nothing that we do not reinsure.

www.munichre.com

### Primary insurance: We offer security for private clients and for small and medium-sized business

Our primary insurers are the ERGO Insurance Group, with its well-known brands VICTORIA, Hamburg-Mannheimer, DKV and D. A. S., the travel insurance group Europäische Reiseversicherung, and the Karlsruher Insurance Group. They have always concentrated on business with private clients and small and medium-sized businesses. By far their most important market is Germany.

www.ergo.de www.karlsruher.de www.reiseversicherung.de

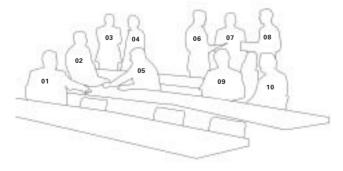
They provide more than 27 million clients with security and service in life, health, property-casualty and legal expenses insurance. Having a strong footing in primary insurance, especially personal lines business, is an important part of our strategy. Given the current demographic trends, insurances of the person in particular offer great potential for sound growth, which we are also exploiting in our partnership with HypoVereinsbank (see page 83).

#### Asset management: We are partners in investment

MEAG MUNICH ERGO AssetManagement GmbH, a joint venture established by Munich Re and ERGO in 1999, has a total of approximately €120bn under management. The bulk of this is made up of our own investments. But MEAG is increasingly offering its investment products and its service to private clients and institutional investors as well, primarily other insurance companies. We intend to increase its market share further, although its focus will remain on managing our own assets.

www.meag.com





#### 01 **Karl Wittmann** Asia, Australasia, Africa

#### 02 Dr. jur. Nikolaus von Bomhard Europe 2 and Latin America (until 30 June 2002 together with Dr. jur. Hans-Wilmar von Stockhausen)

03 **John Phelan** (from 1 April 2002) North America

# 04 Christian Kluge Europe 1 (until 30 June 2002 together with Dr. jur. Hans-Wilmar von Stockhausen) Corporate Communications



#### 05 Dr. phil. Detlef Schneidawind

Life and Health Human Resources

#### 06 Dr. jur. Hans-Jürgen Schinzler

(Chairman of the Board of Management) **Executive Offices** Press Internal Auditing

#### 07 Clement Booth

Special and Financial Risks Investor Relations Strategic Planning

### 08 **Dr. jur. Jörg Schneider** Accounting

Controlling Taxes Information Technology

09 Dr. jur. Heiner Hasford Finance General Services Organisational Design and Development

#### 10 Stefan Heyd

Corporate Underwriting/Global Clients (until 30 June 2002 together with Dr. jur. Wolf Otto Bauer)

#### The Supervisory Board

#### CHAIRMAN

Ulrich Hartmann

Chairman of the Board of Management of E.ON AG

#### **DEPUTY CHAIRMAN**

Herbert Bach

Employee of the Munich Reinsurance Company

#### DEPUTY CHAIRMAN

Dr. jur. Henning Schulte-Noelle (until 6 December 2002) Chairman of the Board of Management of Allianz AG

#### Hans-Georg Appel

Employee of the Munich Reinsurance Company

#### Klaus Peter Biebrach

Employee of the Munich Reinsurance Company

#### Dr. jur. Rolf-E. Breuer (until 6 December 2002)

Chairman of the Supervisory Board of Deutsche Bank AG

#### Peter Burgmayr

Employee of the Munich Reinsurance Company

#### Rudolf Ficker

Former Member of the Board of Management of the Munich Reinsurance Company

#### Prof. Dr. rer. nat. Henning Kagermann

Co-Chairman of the Executive Board

and Chief Executive Officer of SAP AG

#### Gertraud Köppen

Employee of the Munich Reinsurance Company

#### Prof. Dr. rer. nat. Hubert Markl (from 13 December 2002)

Professor of Biology at the University of Constance

#### Wolfgang Mayrhuber (from 13 December 2002)

Deputy Chairman of the Board

of Management of Deutsche Lufthansa AG

Prof. Karel Van Miert (from 17 July 2002) Professor at the University of Nyenrode

Hon.-Prof. Dr. techn. h. c. Dipl.-Ing. ETH Ferdinand Piëch (until 16 April 2002) Chairman of the Supervisory Board of Volkswagen AG

Dr. jur. Dr.-Ing. E. h. Heinrich v. Pierer Chairman of the Board of Management of Siemens AG

Dr. e. h. Dipl.-Ing. Bernd Pischetsrieder (from 17 April 2002) Chairman of the Board of Management of Volkswagen AG

Dr. jur. Dr. h. c. Albrecht Schmidt Chairman of the Supervisory Board of Bayerische Hypo- und Vereinsbank AG

Dr. rer. nat. Dipl.-Chem. Klaus Schumann Employee of the Munich Reinsurance Company

Dr. phil. Ron Sommer Former Chairman of the Board of Management of Deutsche Telekom AG

Wolfgang Stögbauer Employee of the Munich Reinsurance Company

Josef Süßl Employee of the Munich Reinsurance Company

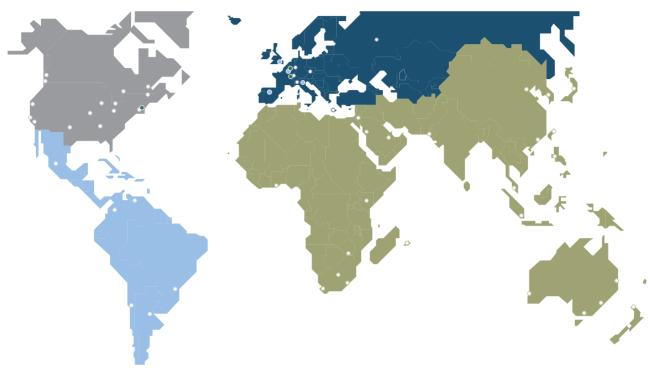
Dr. rer. pol. Alfons Titzrath (until 17 July 2002)
Former Chairman of the Supervisory Board of Dresdner Bank AG

Judy Võ Employee of the Munich Reinsurance Company

Ludwig Wegmann
Employee of the Munich Reinsurance Company

For seats held on other supervisory boards and comparable bodies see page 107 f.

#### **Reinsurance locations**



#### EUROPE 1 (E 1)

Munich, Athens, Moscow, Warsaw

#### **EUROPE 2 AND LATIN AMERICA (E2/LA)**

Brussels, London, Madrid, Milan, Paris

Bogotá, Buenos Aires, Caracas, Mexico, Santiago de Chile, São Paulo

SUBSIDIARIES/BRANCHES

Munich Ré France

Münchener Rück Italia S. p. A.

Münchener Rückversicherungs-Gesellschaft

Sucursal España y Portugal

Munich Reinsurance Company UK General Branch

#### SPECIAL AND FINANCIAL RISKS (SFR)

Geneva, Johannesburg, London, Munich, New York, Sydney

SUBSIDIARIES/BRANCHES

New Reinsurance Company

Great Lakes Reinsurance (UK) PLC

Munich American Capital Markets

Munich-American RiskPartners

Nova Group

#### CORPORATE UNDERWRITING/GLOBAL CLIENTS (CUGC)

London

SUBSIDIARIES/BRANCHES Munich Re Underwriting Ltd.

#### ASIA, AUSTRALASIA, AFRICA (AAA)

Beijing, Calcutta, Hong Kong, Kuala Lumpur, Mumbai, Seoul, Shanghai, Singapore, Taipei, Tokyo

Accra, Cape Town, Durban, Harare, Johannesburg, Nairobi, Port Louis, Tel Aviv

Auckland, Brisbane, Manila, Melbourne, Perth, Sydney

#### SUBSIDIARIES/BRANCHES

Munich Reinsurance Company of Australasia Ltd.

Munich Reinsurance Company of Africa Ltd.

Munich Reinsurance Company Singapore Branch

Munich Reinsurance Company Hong Kong Branch

Munich Reinsurance Company Korea Branch

#### NORTH AMERICA (NA)

Atlanta, Boston, Burlington, Chicago, Columbus, Dallas, Hartford, Honolulu, Kansas City, Los Angeles, Minneapolis, New York, Philadelphia, Princeton, San Francisco, Seattle, Woodland Hills

Montreal, Toronto, Vancouver

#### SUBSIDIARIES/BRANCHES

Munich Reinsurance Company of Canada American Re-Insurance Company

#### LIFE AND HEALTH (L/K)

Chicago, London, Montreal, Toronto

#### SUBSIDIARIES/BRANCHES

Munich American Reassurance Company

Munich Reinsurance Company Canada Branch (Life)

Munich Reinsurance Company UK Life Branch

#### **Primary insurance locations**



#### **ERGO INSURANCE GROUP**

Cologne, Düsseldorf, Hamburg, Munich, Nuremberg,
Amsterdam, Athens, Barcelona, Bratislava, Bristol, Brussels, Budapest,
Copenhagen, Dublin, Lausanne, Lisbon, Luxembourg, Madrid, Milan, Prague,
Riga, Rotterdam, Saragossa, Shenzen\*, Sopot, Tallinn, Thessaloniki, Verona,
Vienna, Vilnius, Warsaw

#### KARLSRUHER INSURANCE GROUP

Karlsruhe

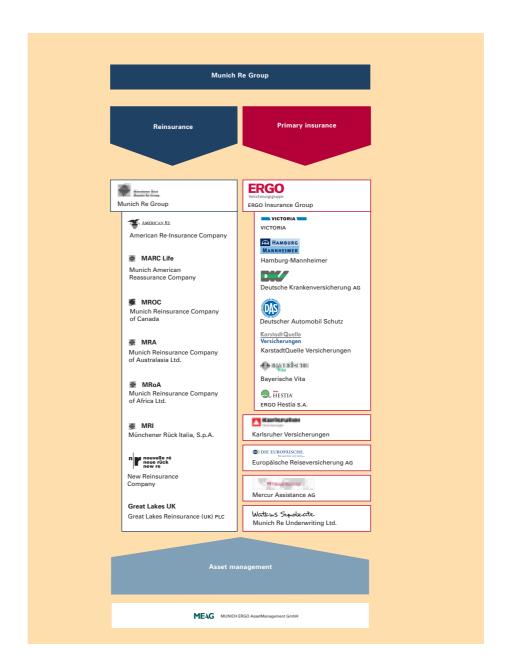
#### **EUROPÄISCHE REISEVERSICHERUNG**

Munich, Frankfurt/Main, Hamburg, Budapest, Bratislava, Copenhagen, London, Madrid, Milan, Neuilly-sur-Seine, Prague, Sopot, Sundbyberg, Vienna

#### MERCUR ASSISTANCE

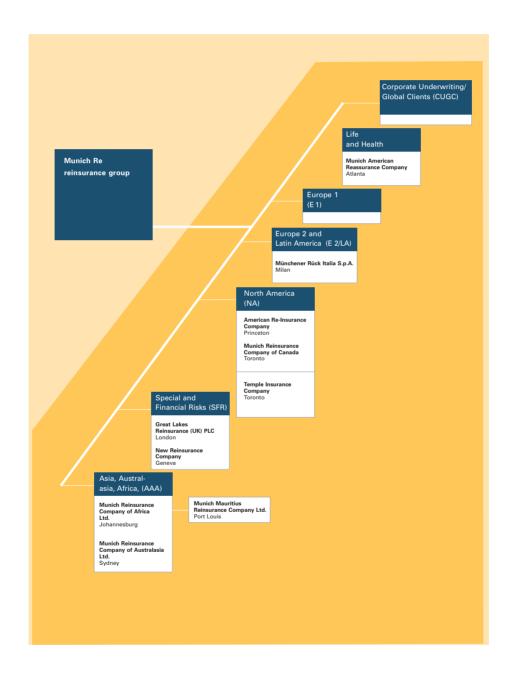
Munich

#### Structure of the Munich Re Group



#### Structure of the reinsurance group

Seven divisions are responsible for business relations with our clients throughout the world.



Organisation of our reinsurance business, which we manage from our headquarters in Munich, was restructured in 2001. The previous 15 organisational units were replaced by seven new operative divisions. Six of these service our reinsurance business in property-casualty lines and one is responsible for life www.munichre.com/group-d

and health reinsurance. The new structure is more clearly geared to the needs and organisations of our clients and thus provides a better basis for growing our business. In the operative divisions, the entire responsibility for each client account is now in one pair of hands. The regional divisions are responsible for our business locations abroad and for our subsidiaries doing business there (see page 52).

The Life and Health division underwrites our life and health reinsurance business worldwide. It reflects the structure of many of our cedants, which conduct these two classes of business separately from property-casualty insurance, often through independent companies.

In our division Europe 1, we handle property-casualty business from our clients in Germany, Switzerland, Austria, Eastern Europe, Greece and Turkey.

Our division Europe 2 and Latin America services clients from northern, western and southern Europe, as well as from Latin American.

The North America division is responsible for our subsidiary American Re-Insurance Company and the Munich Re Canada Group.

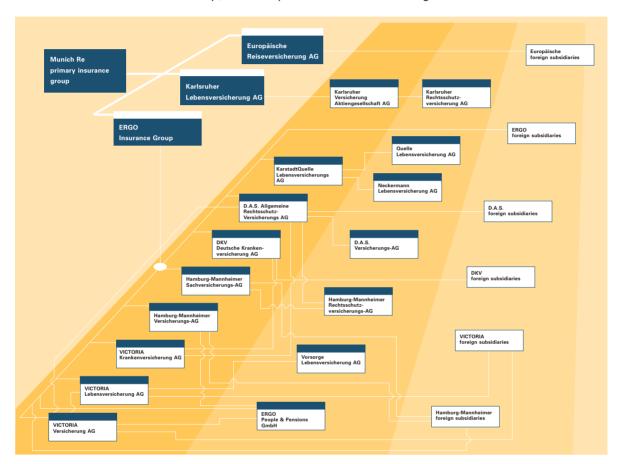
Our division Asia, Australasia, Africa writes business with clients in three continents and the Pacific Islands, an area with a wide range of very different insurance markets.

The division Corporate Underwriting/Global Clients handles accounts with major international insurance groups (hence "Global Clients") and writes business worldwide in selected special classes such as agriculture and workers' compensation reinsurance. Parallel to this, it performs the important function of corporate underwriting for the reinsurance group in non-life business. Its staff clarify fundamental issues of underwriting policy and quality assurance, integrate actuarial methods in our business processes and set standards for claims management and reserving.

Special and Financial Risks deals with the special classes of credit, aviation and space reinsurance. In addition, it develops innovative fields of business and products, such as those at the interface between the capital market and the insurance market. It also establishes new distribution channels and is responsible for our own reinsurance (retrocession).

#### Structure of the primary insurance group

Our primary insurers comprise the ERGO Insurance Group, with its well-known brands VICTORIA, Hamburg-Mannheimer, DKV and D. A. S.; the Karlsruher Insurance Group; and Europäische Reiseversicherung.



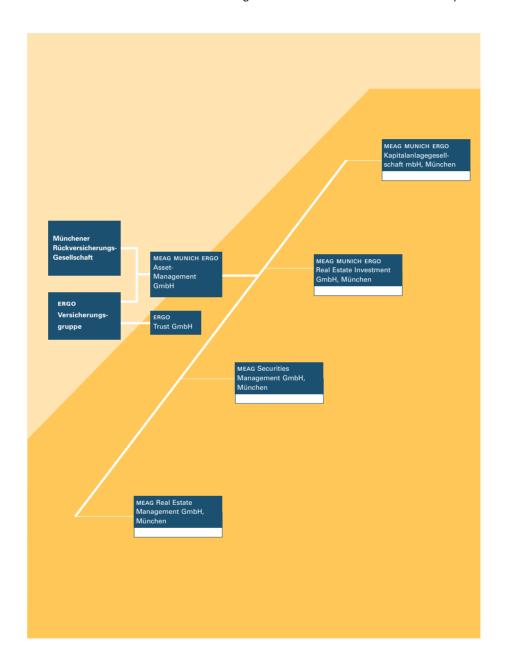
ERGO Insurance Group is the second-largest primary insurance group in the German market. It was created in 1997 by merging VICTORIA, Hamburg-Mannheimer, DKV and D.A.S. The main emphasis of ERGO's business, accounting for approximately 90% of its premium income, is on personal lines insurance, especially insurances of the person. Another important segment is insurance for small and medium-sized firms, whilst programmes for company pension insurance are also increasing in significance. In health insurance and legal expenses insurance, ERGO is the market leader in Europe through DKV and D.A.S. respectively.

The Karlsruher Insurance Group consists of five companies that operate in life insurance and in all classes of property-casualty insurance. It mainly offers personal lines insurance and products for small and medium-sized firms.

With numerous subsidiaries and affiliated companies in 11 countries, as well as a network of strategic cooperation agreements, Europäische Reiseversicherung represents an effective international alliance that takes account of the further internationalisation of the travel industry. By far the most important product is travel cancellation expenses insurance. Mercur Assistance offers assistance services worldwide in the field of healthcare and mobility.

#### **Asset management structure**

MEAG MUNICH ERGO AssetManagement GmbH – a joint venture of Munich Re and ERGO – and its subsidiaries manage the assets of the Munich Re Group.



MEAG Securities Management and MEAG Real Estate Management are responsible for direct investment in securities and the Munich Re Group's real estate portfolio. MEAG MUNICH ERGO Kapitalanlagegesellschaft manages retail and special funds, whilst MEAG MUNICH ERGO Real Estate Investment handles openend real estate funds. ERGO Trust designs, markets and manages financial services products.

#### **CORPORATE CULTURE: An example of openness**

What makes the atmosphere at Munich Re special is difficult to describe, but easier to experience – in the course of an open day, for example.

In a survey commissioned by the German magazine "Capital" on the quality of employers in Germany, 90% of the Munich Re staff questioned said they were proud and happy to work for us. Why? It surely has a great deal to with the factors we attach importance to at Munich Re: valued staff, quality in small things as well as big, the manner in which we conduct our business, openness in dealing with one another, and even the atmosphere of our buildings. But before we try to put into words what can really only be felt and experienced, let us simply look at what happened when we held our open day at our offices in Munich last October.

#### Reinsurance from the inside

Whereas on a normal working day our headquarters in Munich are populated by some 2,600 employees, on open day some 8,200 people streamed through the passageways and corridors: staff, their families and friends, pensioners, trainees, student employees and interns. They all wanted to experience reinsurance "from the inside" and did so with a mixture of curiosity and growing interest, looking behind the doors of Munich Re's Board rooms and the offices of Board members.

The star of the event, and the real occasion for it, was Munich Re's newly finished building in Gedonstrasse. Whilst its outstanding architecture is a symbol of Munich Re's innovative spirit, the building's ultramodern glass façade no less symbolically reflects Munich Re's main building opposite, rich in tradition. This "illustrates" an important point: not one element alone, but all of them together make Munich Re. Such unity in diversity was also apparent to visitors in the artistically designed passageways that link all the buildings below ground level

#### Presentations in great demand

The fact that reinsurance is a multi-facetted business could be experienced by visitors live at 18 "topic islands", where our central and operative divisions, joined by staff from ERGO and MEAG, provided information on their areas of work. A total of 40 presentations on different aspects of risk and reinsurance completed the information market. The visitors' response was overwhelming and showed clearly how much interest our "business with risk" commands: many lecture rooms were full to bursting.

The open atmosphere, the informal spirit of dialogue, the perfect organisation in the background – all these things made the open day a good example of Munich Re's distinctive corporate culture.

# Innovation

# "Our capacity for innovati

ROMAN HERZOG, FORMER GERMAN FEDERAL PRESIDENT

#### ONWARD TO NEW RISKS

Progress has always gone hand in hand with risk, and this close relationship will not change. Every innovation will always bring with it potential dangers as well as improvements and growth. Advances through innovation require a venture culture that accepts the existence of risks and their management as a necessary condition for progress.

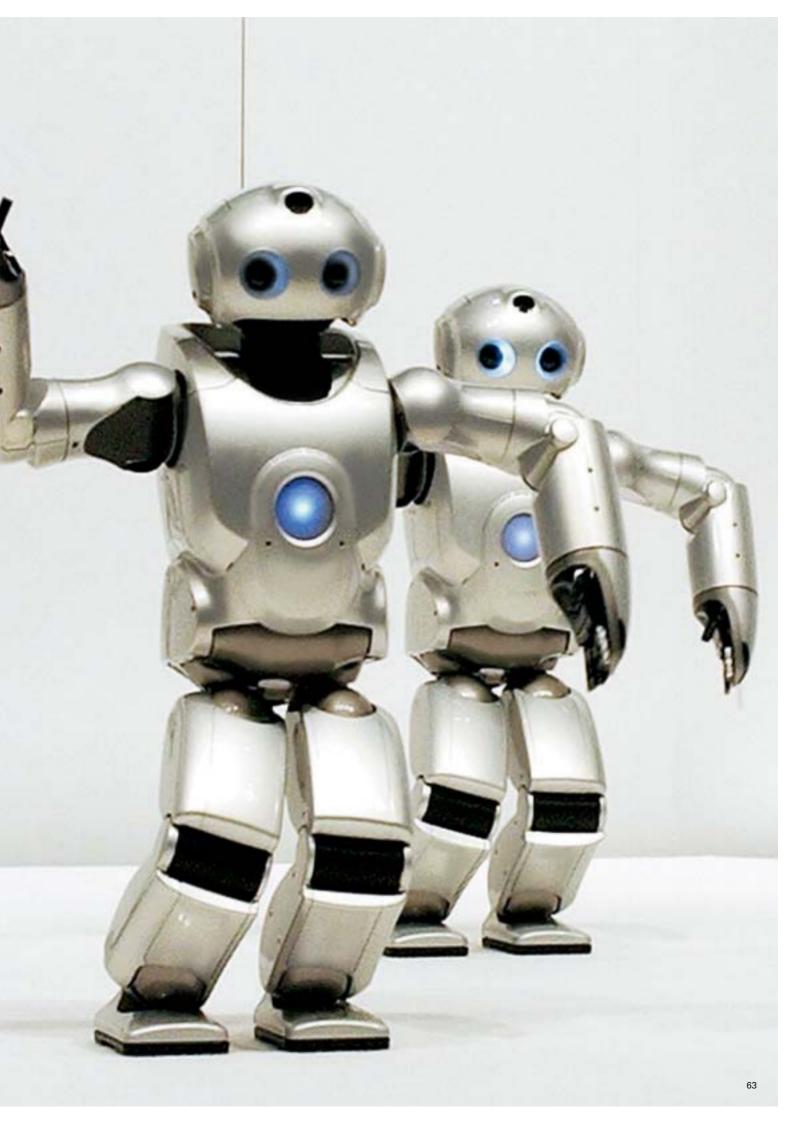
# on will decide our fate."

# Old dream: New man



#### **ALL PROGRESS IS AN OPPORTUNITY - AND A RISK**

On 19 March 2002, the prototype of the "human" robot SDR-4X was presented to the world. 58 centimetres tall, it can conduct simple conversations, distinguish between colours, recognise human facial expressions and get up again after falling down. Is this homunculus (Latin: little man) a useless discovery? Perhaps. But possibly its abilities may be developed to a far more advanced stage. The reinsurer knows that every major innovation had small beginnings – and will keep an eye on SDR-4X.

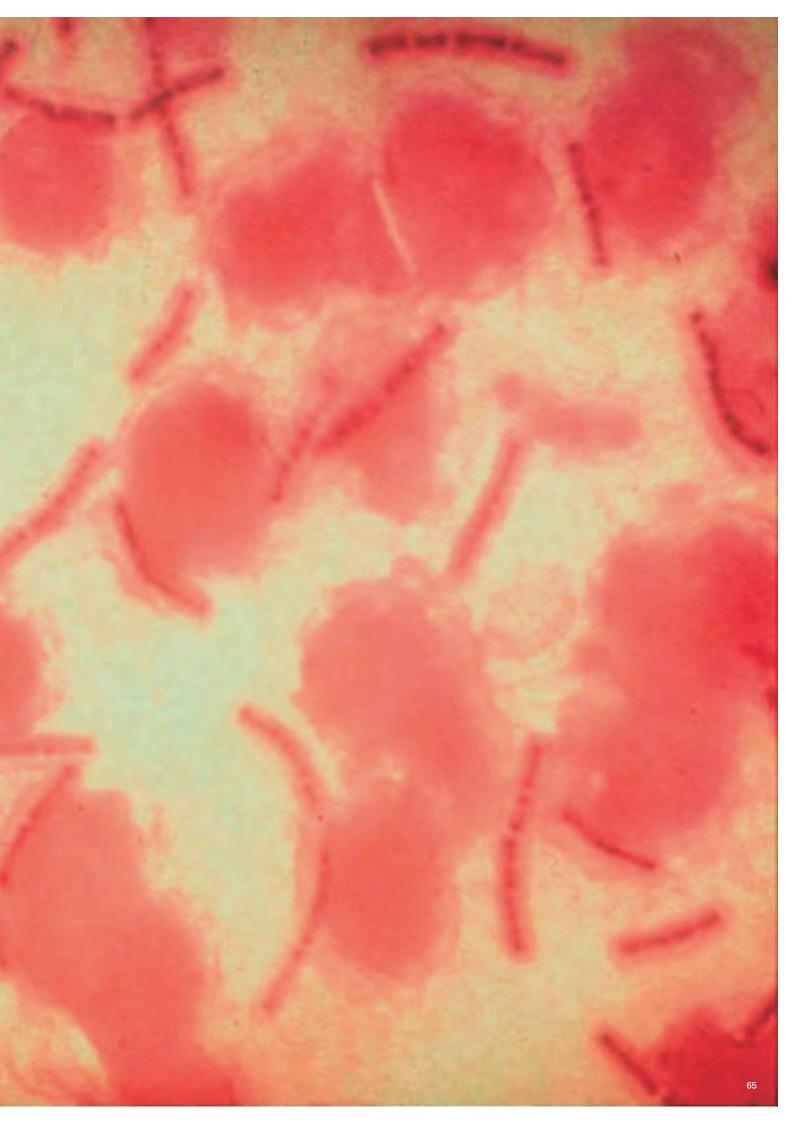


# The database of the future

INNOVATION >> GENETIC ENGINEERING

#### THE BIRTH OF INNOVATION FROM INNOVATION

More and more data is exposed to destruction and misuse. The researcher's task is to develop a way of saving data so that it is secure for an unlimited length of time. Initial research indicates that huge amounts can be stored on bacteria which are resistant to all types of current attack, including a nuclear strike. Is this the end of the risk story? By no means, just a new beginning.



## "Never having to wash your car aga

AN INTERVIEW WITH DR. GERHARD SCHMID ON NANOTECHNOLOGY



DR. GERHARD SCHMID
Corporate Underwriting/Global Clients Division
Head of Casualty Risk Consulting

#### What does nanotechnology hold in store for us?

Let me give you an example. In the future, instead of using cellophane, we'll be able to wrap presents in ceramic foil that can even withstand being hit by a hammer! Another example: we already have dirt-resistant car paints. That means never having to wash your car again!

#### How does it work?

The principle behind nanotechnology is that individual atoms are combined to make products with new properties. There are two groups of nanotechnology products: "active" and "passive". Passive products were first discovered by scientists accidentally over a hundred years ago: two or three substances were mixed, thereby creating something new – a coating, for example. Active nanotechnology products are completely new, and most of them are still in the realms of fiction. Two examples: nanorobots, so small that they aren't visible to the naked eye even as a speck of dust, could track down viruses in the human body. A nano "comb" could filter diseased blood corpuscles out of the bloodstream.

INNOVATION >> EXPERTISE

#### SUSTAINABLY FOR INNOVATION

Together with scientists and safety engineers, Munich Re has analysed and evaluated the main problems and issues of nanotechnology, and condensed the results into a product-safety and crisis-management system. As far as the state of the art and a look into the future will allow, we want to minimise the risks involved in handling products manufactured with nanotechnology. Our intention is to stimulate discussion on a social, ethical and political level and to solve the problems by working together with all the groups involved.

### in!"



Computer simulation of nanotechnology >> This is what the future could look like: a nanorobot designed to track down viruses in the human body moves through a vein like a miniscule submarine.

#### What risks do you see in nanotechnology?

Because nanotechnology works with products that are no longer visible, quality control is difficult. The number of product recalls could increase dramatically. You can mark nanoproducts according to origin and manufacturer, but it's hard to do. If there is a claim, it may not be possible to trace things back to the manufacturer concerned. And there are even bigger risks. If released into the environment, nanorobots could transform organic substances they come across into new substances which no one could control.

#### What market potential does nanotechnology open up for Munich Re?

Nanotechnology is a "cross-cutting technology". It will be used in a whole range of products, precisely because it works with the organic and the inorganic. This is reflected in the potential insurance spectrum. We see a need for cover particularly in liability insurance. Demand could increase above all in the fields of public, environmental and product liability – especially if liability standards are made more stringent for manufacturers of active nanotechnology products. The current challenge is finding a form of risk management for active nanotechnology products that don't yet exist.

### 04

### **Business issues 2002**

In this section we present topics that were of particular relevance for Munich Re's business in the past year. Although the range is broad, the topics have a number of points in common:

- They demonstrate that we take seriously our claim of acting sustainably in our business.
- They prove that, time and again, we have to carefully weigh up big opportunities against the size of the risks involved.
- In each case, we are well on the way to long-term profitability, our main strategic objective.
- And finally, they provide an insight into the wide spectrum of issues involved in Munich Re's operations.

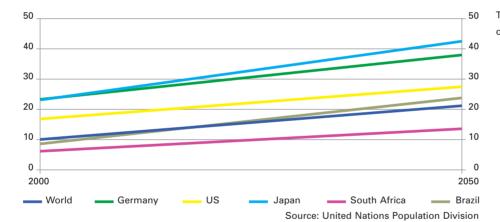
- >> American Re page 71
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#### **PENSIONS: Providing for the future**

For the life insurance industry, 2002 was a year of pension reform in many countries. In Germany, newly subsidised pension products were launched on the market. Clients reacted hesitantly, but the ERGO insurers achieved an above-average increase in market share.

#### "Inter-generation contract" in trouble

In industrialised countries and the emerging markets, people are living longer. This trend, which has been evident for some time, will confront national social security systems with substantial financing problems in the coming decades if these systems are run on a pay-as-you-go basis, i.e. if today's employees finance current pensions and the next generation pay the pensions of today's employees. For the fact is that future pensioners cannot necessarily count on the "inter-generation contract" being fulfilled any longer or, put bluntly, cannot be sure of having enough money to live on.



The percentage of the population over 60 is rising worldwide

#### The race for pension reform

All over the world, and especially in Europe, efforts are being made to reform pension systems. The objective everywhere is to supplement pay-as-you-go state pension systems with privately insured old age provision on a funded basis. Concrete improvements to old age provision are already evident in Switzerland, the UK and the Netherlands: these countries moved away from pure pay-as-you-go financing at an early stage. In France and Italy, reforms are currently being debated. Germany has made a start towards private provision with the "Riester" pension and the promotion of company pensions. In fact, the life insurance industry in Germany had been eagerly anticipating 2002, in which subsidisation for these types of product began. However, their high expectations have so far been somewhat disappointed. To begin with, the demand that all market players had hoped for did not materialise, either for private or company pensions. Nevertheless, the Munich Re Group's primary insurers had developed products at any early stage which met the new regulations for subsidisation, and were exceptionally successful with these. With "Riester" pension products, they have achieved a market share of around 18%, selling 530,000 such contracts up to 31 December 2002. Given that interest is meanwhile increasing, Munich Re's primary insurers are in an excellent position.

#### Companies make provision

A further important market segment is company pensions. Given the attractive support now provided by the state in Germany and the legally established entitlement of every employee, the significance of this segment will increase appreciably. Munich Re's primary insurers are well prepared for this. They offer companies of varying size a wide range of products: "traditional" types of company pension, such as direct commitment, direct insurance and "relief funds", as well as the new corporate pension schemes and the pension funds of ERGO.

With its consulting company People & Pensions, ERGO provides additional advisory and support services. It has already succeeded in winning as clients several major firms and trade association organisations.

#### The future has begun

Even though the pension reform in 2002 attracted a considerable amount of criticism, it provided a number of positive impulses. It paved the way for private old age provision on a funded basis and stimulated debate on this issue. Public attention has been drawn to the ageing of society and the future demographic trend. The growing awareness that private provision is essential for retirement and old age has had a generally positive effect on demand for products designed to meet this need, as confirmed by the strong growth in our life insurers' new business. In the long term, too, we expect our life insurance business to continue showing above-average rates of growth.

www.ergo.de

#### **AMERICAN RE: All set for new opportunities**

Representing 40% of the global market, the US is the largest reinsurance market in the world. Following a year of significant change, Munich Re's US subsidiary American Re is well positioned to take advantage of the improved dynamics in that market and to do so profitably.

New management and a new organisational structure, a decision to concentrate on the US market and discontinue its international operations, more uniform underwriting and risk management policies, together with a significant reduction in expenses, are the main elements in the fundamental changes that occurred at American Re in 2002.

www.amre.com



American Re: Second-largest reinsurer in the US market

#### New from head to foot

In March 2002, John P. Phelan, head of Munich Reinsurance Company of Canada since 1986 and with the Munich Re Group since 1973, was named CEO of American Re, and in April he became a member of Munich Re's Board of Management. In just under a year, he has made far-reaching changes at American Re.

Management of the company has been radically streamlined, providing the basis for swifter, proactive decision-making processes. A new three-member Executive Committee, chaired by Phelan, establishes the company's strategic priorities and actively manages the operations to support them. Foremost among these is the achievement of consistent and optimal profitability in its core businesses in the US, where American Re is one of the top reinsurers with a strong presence in multiple distribution channels.

#### Uniform structures created

The new management set-up reflects the company's new organisational structure. The company's strategic business units, and its corporate underwriting and corporate marketing units, have been brought together in a single division reporting to an Executive Committee member. The same applies to its corporate service units. The new organisational structure for the strategic business units ensures a uniform approach to risk and a consistent underwriting policy. The corporate service units, as they are now organised, also have in place uniform structures and processes: for example, enterprise-wide risk management, which is of increasing importance throughout the Munich Re Group. Together, the two divisions have developed and implemented enhanced underwriting and controlling tools, such as a contract evaluation program that models alternative structures for reinsurance transactions on a case-by-case basis.

#### Unencumbered by the burdens of the past

In addition to the organisational changes implemented during 2002, Munich Re added Us\$ 1.4bn of capital to American Re in September 2002 to maintain its financial strength. These actions followed a Us\$ 2.0bn addition to American Re's loss reserves, in-depth analyses by Munich Re having confirmed American Re's actuarial calculations. The steps taken will enable American Re to write and fully realise the earnings potential of new business in the improving Us insurance and reinsurance market.

2002 was also a year of drastic cost-saving measures for American Re. In particular, the withdrawal from international business and the closure of its international branch offices, together with the internal restructuring of US operations, led to a reduction of more than 20% of American Re's workforce.

All of these changes will have a very positive effect on the company's future profitability. The significant improvements in prices and conditions achieved in the renewal negotiations in the second half of 2002 indicate that American Re is on the right track to writing profits again in 2003.

#### **ASBESTOS: Reserves bolstered**

Asbestos was used in virtually all branches of industry in the second half of the 20th century. Contact with the material can lead to asbestosis, mesothelioma, lung cancer or other diseases as long as ten to 50 years later (the "latency period").

Liability insurers are being confronted with large claims related to asbestos. Munich Re has made continual and extensive provision for this risk. In so doing, it has had to take account of its specific portfolio, the constantly changing liability situation and the individual market structure.

Many large US firms that were involved in the manufacture and processing of asbestos products have sought creditor protection before bankruptcy courts because of lawsuits from hundreds of thousands of asbestos claimants amounting to billions of dollars. According to one study, firms in the US currently face estimated claims burdens of between US\$ 200bn and US\$ 265bn.

#### Munich Re has taken precautions

The Munich Re Group has posted net provisions of €1.36bn for asbestos-related claims. In the years prior to 1975, it accepted practically no US liability business in the portfolio it wrote from Munich, subsequently participating mainly in "layer" covers for large industrial firms whose insurance policies have largely been paid out or reserved already. After 1985 Munich Re and American Re excluded asbestos from their covers in the US market.

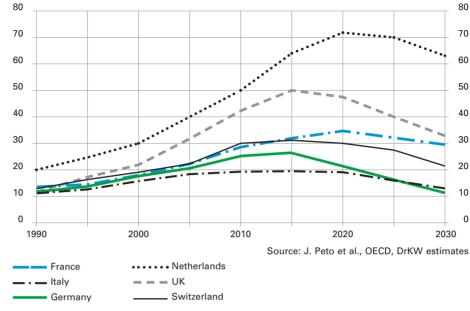
American Re has net reserves of US\$ 665m for asbestos-related claims. Of this figure, US\$ 280m comes from the reserve strengthening in 2002, which took into account the following development: to begin with, lawsuits were mainly directed against US manufacturers of asbestos, whereas now there is a growing trend towards people suing any companies that processed products containing the material. With the above-mentioned net reserves, American Re has also made adequate provision.

#### Patchwork situation in Europe

In Europe it is employers' liability – rather than product or environmental liability – which is primarily involved in asbestos cases. This liability varies greatly from country to country. In Germany, for example, employees only have a claim if their employer has caused them harm intentionally. German workers' compensation insurers have adopted a clear stance: they play an active role not only in preventing but also in compensating asbestos-related occupational diseases.

Asbestos costs lives. Worldwide people are dying as a consequence of its use.

Basis point of total population per million



In many other countries, employers are also liable in the case of negligence. The claims burdens resulting for liability insurers in these jurisdictions differ. In the UK and Ireland, employers' liability in connection with asbestos has been extensive since the 1970s. The Netherlands did not experience this trend until the late 1980s, and France until the mid-1990s. Such application of employers' liability was confirmed by the French supreme court in spring 2002, thus reversing the rule/exception relationship that had traditionally obtained in France: until this judgement, limited social-law liability had been the rule and unlimited civil-law liability the exception.

#### Claims burdens determined by a variety of factors

Munich Re has been monitoring and publishing information on the development of the legal and factual situation in individual countries for many years. Our claims burdens depend on various factors:

- on liability law, whose role in compensating asbestos-related diseases varies from country to country, even within the EU;
- on the involvement of the respective national liability insurers in these liabilities;
- on the particular structure of our reinsurance participations.

The definition of our liability reserves for each country reflects these factors accordingly.

#### CYBERRISKS: New media - new risks

Whether it is the unpredictability of computer viruses or the targeted attacks of cyberterrorism – internet risks are confronting the insurance industry with completely new issues. Our centre of competence for IT risks seeks practicable solutions.

#### The world of the network

More and people are doing their banking online, or booking holidays and buying concert tickets via the internet. The web is a new, modern sales channel, and its significance for firms is continuing to grow. No large company can exist today without computers or an extensive network infrastructure.

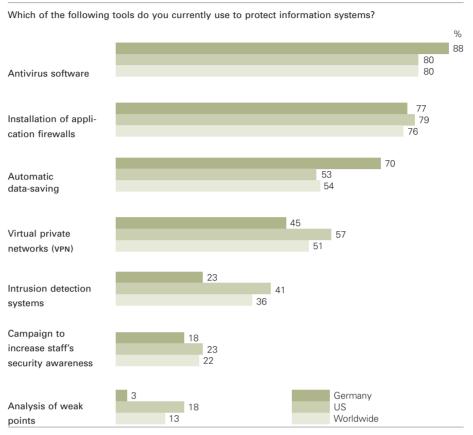
#### Dangers of the internet

Although the internet certainly offers a multitude of opportunities, it also harbours many risks. Since the end of the 1990s, there has been an exponential increase in the number of computer viruses. In the past year alone, no fewer than 40,000 viruses occurred at Munich Re, compared with under 200 in 1998. But other dangers lurk in net – the danger of cyberterrorism, for example, the threat of deliberate attacks by hackers. If the firm targeted has insufficient protection, hackers can manipulate data, spy on its activities, download confidential client files such as addresses and credit card details, and use this information to harm clients or the firm itself. In addition to the material damage inflicted, the company may often suffer a loss of image, which can be far more serious.

www.munichre.com/bs-d

#### Protection against IT risks

In the meantime many firms have recognised the dangers and are investing heavily in risk-reducing measures. Firewalls, virus scanners and encryption techniques are just three examples of the precautions that are necessary for working safely with computers and the internet. Whereas security systems used to be updated every six months, such updating now has to take place daily. But there is still no such thing as 100% security. Faced with the residual risk, firms approach the insurance industry for cover against any type of damage to their computer systems, e.g. a virus infection of their computer networks and the business interruption that may result, or the loss of purchased and self-generated programs.



Source: INFORMATIONWEEK, IT Security 2002

#### Unpredictable IT risks

IT risks constitute a whole new risk potential. The spread of computer viruses and the possible failure of external networks involves an extremely high accumulation risk. As a rule, a computer virus will not affect just one policyholder; in fact, it may hit all the policies in an insurer's or reinsurer's portfolio. The traditional, locally restricted accumulation concept for natural hazards such as windstorm or earthquake cannot be applied to IT risks, given that computer viruses can spread very quickly all around the globe. Nor is it possible to calculate the frequency or cost of such events on the basis of mathematical laws or empirical values. Owing to this lack of transparency as regards loss potential, Munich Re has not written any covers for computer viruses or other IT accumulation risks in property insurance since 2001.

#### A new field for risk research

We do not only examine which IT risks we must decline: for several years we have also been closely considering where we can expand the cover we provide. In a separate centre of competence, specialists conduct fundamental scientific research and develop coverage concepts. Various working groups, such as "IT Liability", look at topical questions involving IT risks. With their know-how and expertise, they advise and support our clients and our staff.

#### **ESPRIT AND GLORIA: The end of isolated systems**

The companies in the Munich Re Group are being provided with uniform data processing systems: the software platform ESPRIT for ERGO, and GLORIA for the reinsurance companies.

#### **ESPRIT for ERGO**

At the end of October 2002, staff at VICTORIA and D.A.S. started using large sections of a new data processing system; they will be joined in mid-2003 by the staff of Hamburg-Mannheimer. The system is called ESPRIT – ERGO System for Uniform Processes and Integrated Technology. It is scheduled to replace the subsidiaries' different DP systems and thus improve the competitiveness of the ERGO Group as a whole. ESPRIT provides the necessary technical basis for exploiting synergies in business administration – whether it be devising joint solutions or cross-selling. In this way ESPRIT supports the multi-marketing strategy of the ERGO Insurance Group.

The ESPRIT team comprises members of all the ERGO companies. They ensure that the system meets the requirements of a composite insurer and at the same time remains flexible for the special needs of the individual insurers in the ERGO Group.

#### **GLORIA** for reinsurance

The software will be changing in reinsurance as well. With the new platform GLORIA (**Glo**bal **Rein**surance **A**pplication) it will become more uniform, and isolated systems will disappear. Whether in Munich, Princeton or elsewhere, staff can look forward to working with the new system from 2005 onwards. Data resources, software and functions will be the same for all, whilst at the same time taking account of regional circumstances.

One of the aims of GLORIA is to enhance the transparency of the large volume of global data in the reinsurance group and thus to make it easier to analyse the situation at any given time with regard to risks, claims, markets, clients and products. This will provide a better foundation for global risk management, market segmentation, worldwide control of the reinsurance business and the introduction of value-based management systems.

#### FLOOD: Harbinger of climate change

Mud damage, water-soaked walls, buildings destroyed by raging torrents: floods present insurers with huge challenges.



You can find out more about how the effects of flood catastrophes can be reduced in our publication "topics – Natural Catastrophes 2002" (see p. 255 for the ordering address).

Three full bathtubs, around 670 litres, per square metre – that was the amount of rain that fell within only a day and a half in the Rhône valley at the beginning of September 2002. If none had flowed away, the water would have risen to a level of 67 centimetres, about as high as an office desktop. In August, 224 litres came down in only three hours on Mallorca, and 158 litres descended in 24 hours on Dresden. The summer of 2002 certainly did not live up to its name in central and southern Europe. Along the Danube, Elbe, Vltava and their tributaries, communities were engulfed by the rising waters. The pictures are still vivid: muddy water swirling round a living-room suite, people saved from houses collapsing in the floods, pig carcasses floating down the river. The economic losses are estimated at around €18bn, a good €3bn of which was insured – a huge financial burden for those affected and for the states concerned, but also for the insurance industry.

The August floods wreaked damage in two main ways. On the one hand, deep and powerful torrents arose in narrow river valleys. These destroyed buildings or left them only fit for demolition. On the other hand, large areas next to river channels were flooded. Here the result was mainly damage due to mud and water-soaked walls.

#### Flood risks are hard to evaluate

For insurers, flood disasters like those of summer 2002 are natural catastrophes with particularly high accumulation potential. They present special underwriting problems: insurers and reinsurers have to assess where their maximum exposure may be for certain events and what liability they then are prepared to accept. Incorrect estimates may result in an insurer's financial reserves being overstretched. When insuring objects in areas prone to flooding, evaluating the risks is especially difficult. Houses in the same district or even in the same street can be highly exposed or relatively safe, the difference being only a few metres in elevation. The zoning system for flood, backwater and heavy rain (ZÜRS) developed by the German Insurance Association is an attempt to assess risks better, with the necessary degree of detail.

Not only are the liabilities problematic but so are the prices for insurance cover. The price is based on the probable maximum loss and how often it may occur on average within a certain period. Owing to global warming, torrential rain with subsequent flooding is likely to occur more frequently than it used to. Climate change (see page 81) may lead to extreme weather conditions and thus to an increase in large losses. Insurers have to react to this loss potential with premium loadings.

#### There are no patent solutions

On top of this, there is another underwriting problem: people who think their houses are not situated in hazard zones will not take out insurance against floods (in spite of the fact, largely unknown, that around 50% of all flood losses are caused by local downpours). Flood insurance for highly exposed risks is therefore very expensive, or insurers decline such risks altogether. This situation is not satisfactory for either policyholders or insurers.

Various national solutions have been devised for this problem. In Spain, for instance, a compulsory charge is levied on all property insurance policies. This money goes to a "consorcio de compensación", one of whose tasks is settling flood claims. In France, there is also a compulsory charge. Private insurers only have to cover losses if the government has declared a flood to be a natural disaster. In return, insurers can obtain cover from the state reinsurer CCR. Switzerland uses a "natural hazards pool", to which primary insurers cede their risks. In Germany, as in many other countries, flood risks are covered by private insurance, although they are subject to the underwriting restrictions described above, and insurance density is low.

#### Risk management requires partners

The dangers of flooding can be curbed by risk management. In particular, public authorities should not permit building in areas prone to flooding. Furthermore, dykes must be checked and overhauled, polders and natural water meadows designated as flood retention areas. This costs money and restricts land use, but the benefits are immediate. Parallel to this, measures are necessary that will have a positive influence on the climate in the long term, e.g. reducing carbon dioxide emissions.

Germany is looking at ways of expanding insurance to cope with the flood problem. Like the insurance industry as a whole, Munich Re is willing to consider new approaches. Models from other markets can provide ideas, but should not be slavishly copied. What is needed are solutions carefully tailored to the individual conditions. Munich Re has long been of the opinion that the problem must be solved by a risk partnership between all those that have an influence on the hazard situation and on financial compensation.

#### **UNLIMITED COVER: Drawing the line**

Catastrophes and terrorism hazards offer proof that motor liability insurance without limits constitutes an unacceptable risk for insurers.

Recent disasters have demonstrated all too clearly the immense loss potential of motor liability insurance. In March 1999, for example, a single lorry that caught fire triggered an inferno in the Mont Blanc Tunnel, claiming the lives of 39 people and causing property damage running into billions. It took three years of repairs before the tunnel could be reopened.

#### Incalculable risks

This loss event powerfully illustrates that motor liability insurance without any limits constitutes an incalculable risk for insurers and reinsurers. It is not possible to establish a price for this insurance cover that is commensurate with the risk, as neither insurers nor reinsurers have unlimited equity capital at their disposal. If the worst comes to the worst, the promise of unlimited cover is therefore undeliverable. The loss potential in motor liability insurance being what it is today, an insurance company's existence could certainly be threatened by the financial consequences of unlimited cover.

#### Terrorism as a risk factor

The current discussion about terrorism cover raises additional doubts about unlimited cover. Under the German statutory order on compulsory motor vehicle insurance, terrorism cannot be explicitly excluded from motor cover in Germany. This means that the insurance industry could also be liable for an unlimited amount in cases where, for example, stolen vehicles are used to mount a terrorist attack.

We are working on the assumption that from 2004 onwards retrocession capacity will no longer be available for unlimited motor covers. Particularly against the background of current developments on the financial markets and the associated losses in equity capital, it will be impossible for reinsurers to bear such a risk on their own.

#### Removal sought

All this has led us to put an end to unlimited motor third-party liability coverage. In all countries where unlimited cover is not prescribed by law, Munich Re is no longer providing it as from 2003. And our long-term aim is to eliminate unlimited covers from our portfolio entirely.

#### **CLIMATE CHANGE: A challenge for our business**

A Munich Re project group has been exploring precautionary measures to counter tomorrow's risks in good time.

In February 2003, Munich Re's Board of Management gave the go-ahead for implementing the recommendations drawn up by our project team "Challenge of Climate Change". This team had looked into how climate change could affect reinsurance business and investment in the long term, and what new business opportunities might arise in connection with the international agreement on climate protection. The aim of the project was to incorporate climate projections into business decisions, in order to ensure continued success in our underwriting and investment operations.

#### Climate prognosis: More weather extremes

Climate change concerns our insurance and reinsurance business directly as a consequence of the increasing number of expected claims. We therefore produced forecasts of the total annual claims burden and considered possible changes in the insurance sector.

In the long term, the consequences of climate change may also affect the cultivation of crop plants, for example, and lead to a shift in vegetation zones. However, the risk analyses carried out in our agricultural unit have so far not indicated any effects for the areas covered by our underwriting. Furthermore, improved methods of cultivation and advances in breeding could offset any possible negative impact. The trend towards rising yields per hectare is therefore likely to continue. In any case, the insurance products in our agricultural business, as in the other lines of insurance, are designed to allow for the risk of change, i.e. we continually adapt the conditions of insurance (rates, deductibles, sums insured) to changing climatic and local conditions. But the growing number of extreme weather events harbours a significant risk potential for producers and the insurance industry. Here suitable agricultural insurance systems must be designed in which the state plays a part as regards regulation and financing.



The accompanying publication to the Climate Exhibition in the Deutsche Museum, containing many articles by experts on the climate. It can be ordered via the museum shop at www.deutschesmuseum-shop.com.

#### **New market: Emissions trading**

Once the Kyoto Protocol comes into force, emissions trading – the buying and selling of permits to emit a limited quantity of greenhouse gases – will also affect insurance to some extent. We are examining and assessing the degree to which we will have to adapt existing insurance covers, but also where the potentials for new products lie. We will take further steps in this area at an early stage, depending on how the emissions trading market develops.

There are also risks arising from climate change for the area of investments. We will keep a close eye on this issue, with ongoing risk analyses, and will respond as appropriate. One of the factors we consider in our investment decisions is the extent to which companies practise sustainable management. Building on this, our asset manager MEAG will be setting up a retail fund that invests in sustainable stocks. This is just one example of how we will be integrating the project team's recommendations into our business in 2003.

### PARTNERSHIP BETWEEN ERGO AND HYPOVEREINSBANK: A successful double-act

Notwithstanding events on the capital markets, the partnership between the ERGO Insurance Group and HypoVereinsbank has developed into a success story for both sides – with a lasting sequel. The staff in both groups are highly motivated to help sell each other's products, whilst at the same time meeting the needs of their respective clientele.

#### One-stop financial services

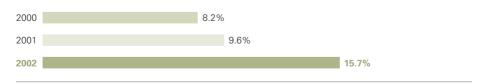
Today, staff of the HypoVereinsbank sell insurance products of the ERGO Group, and insurance agents of ERGO's sales force offer HypoVereinsbank products – a partnership of great mutual benefit. Munich Re, by increasing its stakes in HypoVereinsbank and the ERGO Insurance Group at the beginning of 2002, established the platform for this far-reaching, exclusive partnership. Central to the cooperation are the individual clients, with their needs in the area of insurance, private provision and asset management. As a result of the partnership, they are now being offered the services they want from a single source – with expert consulting and good service. ERGO subsidiary VICTORIA had already been working together with HypoVereinsbank for many years, so the sale of insurance products was a tried and tested process in some areas of the bank. It has now been extended to the whole of the sales network.

www.hypovereinsbank.de

#### Insurance and banking products - A well-matched couple

The result of the cooperation has far exceeded expectations. By the end of 2002, clients had bought more than 150,000 insurance policies via HypoVereinsbank outlets, with an annual policy premium of nearly €300m. The sales concept functions especially well in cases where insurance and banking products are closely linked, such as arrangements involving real estate loans and life insurance. Annuity insurances with single-premium payment have also been in demand over the bank counters.

#### Share of ERGO's new business written via HVB (based on annual policy premium)



Conversely, banking business that members of ERGO's sales force are introducing for the HypoVereinsbank Group is making good progress, especially instalment credit schemes and home loan products. Last year VICTORIA and D.A.S. were joined by the large sales forces of ERGO subsidiaries Hamburg-Mannheimer and DKV in selling HypoVereinsbank products. Growth is especially notable in the area of instalment credit.

#### Advancing together in Europe

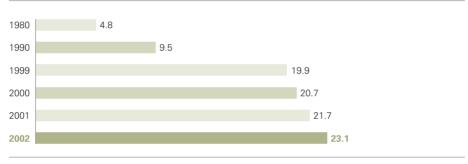
ERGO and HypoVereinsbank intend to build on these successes. In autumn 2002 HypoVereinsbank launched a new offensive for private provision products from the field of insurance and real-estate financing. A further major step was realised at the beginning of 2003, with ERGO's insurance products now integrated in HypoVereinsbank's marketing system. At the same time, the large number of agents in ERGO's highly motivated sales forces are set to drive the cooperation forward. Both partners want to develop the business potential in European markets outside Germany: the prospects for this are especially good in Central and Eastern Europe, particularly Austria and Poland.

#### **HEALTH INSURANCE: An ailing system**

State healthcare systems are suffering from demographic trends. Private health insurance can provide solutions.

The healthcare market is expanding strongly worldwide and continues to offer great potential for growth. Constant advances in medical technology and therapeutics are being accompanied by a rising demand for healthcare services. This demand results partly from the increasing importance attached to good health and partly from the progressive ageing of society (see page 69). But in Germany, our most important market, economic and socio-political parameters are hindering the development of private health insurance.

#### Premium income in private health insurance in €bn



Private health insurance is growing continuously.

The most important issues for private health insurance in the Federal Republic last year were, on the one hand, the debate on raising the earnings ceiling for compulsory state health insurance and, on the other, the law to safeguard contributions to state pension and health insurance. The short-term measures taken, such as raising the earnings ceiling for compulsory insurance to €3,825 per month for all employees, were a step in the wrong direction. As a result, numerous people are prevented from making funded provision for rising healthcare costs through private health insurance. Moreover, the increase in the earnings ceiling has a negative effect on the financing contribution of private health insurance, which at €5bn per year is disproportionately high. The whole healthcare system is weakened as a consequence. The financing of the system can only be safeguarded in the long run if realistic concepts are employed that take account of the demographic developments. This requires two steps: firstly, the concentration of statutory health insurance on its core task of providing essential medical cover to those who are socially in need of such protection; secondly, more personal provision on a funded basis using private health insurance. Increases in the earnings ceiling for compulsory public health insurance are counterproductive.

#### No future without reform

A reform of the German healthcare system is becoming more and more urgent. Medical advances are making new and often more expensive forms of therapy available. The fact that people are living longer means that more treatment is needed, since the additional years are usually accompanied by more illnesses. When it comes to financing these requirements, statutory health insurance faces the problem that fewer and fewer working people are having to pay for more and more pensioners. In private health insurance, on the other hand, insureds pay premiums whose calculation includes ageing reserves, so that they do not place a burden on future generations.

#### **TERRORISM:**

#### It has destroyed the calculation basis as well

Terrorism risks need to be completely re-evaluated. The insurance industry cannot carry them alone.

The terrorist attack of 11 September 2001 gave rise to a previously inconceivable loss. Its dimensions had not been foreseen even by risk experts, and it strongly affected the balance sheets of many international insurers. We have now posted reserves of US\$ 2.6bn for the Munich Re Group (covering all classes of business). The amount also includes reserves for possible claims that have not yet been reported to us, especially from the business interruption and liability sides.

As the assessment of claims is very complex, settlement will take considerably longer than originally assumed: it currently looks as if it will extend into 2004 at least and for aviation, for instance, may go on long beyond this.

#### Munich Re has reduced its cover for terrorism risks

The attack on the World Trade Center showed how urgent it was to fundamentally reassess the terrorism risk. The extent of the damage and the accumulation of losses from different classes of insurance, going as far as impacts on the assets side of insurers' balance sheets, require a basic reappraisal of how the insurance industry considers and controls such risks. Insurers and reinsurers have had to fundamentally revise their underwriting policy.

In order to evaluate terrorism risks, the risk situation has to be made transparent and the risk in question limited to an acceptable degree. It is then possible to calculate an appropriate price for the risk assumption.

This is why, after 11 September 2001, Munich Re adopted the approach of generally excluding terrorism losses from cover for major risks. Subject to the above-mentioned criteria, however, we offer our clients a limited re-inclusion of such losses in the cover against payment of an additional premium. In this way we have substantially reduced our exposure and made it controllable.

The renewals of treaty business in reinsurance and also of policies in primary insurance in 2002 generally brought the risk carriers substantially better terms of trade. And not only with regard to prices: we were also able to greatly reduce exposure to terrorism risks in our portfolio.

When it comes to covering such risks, the state must also play its part. The insurance industry could not cope if it alone were burdened with the risk potential of terrorist warfare, which deliberately aims to inflict the greatest possible damage. We consider it necessary and legitimate to question the previous distribution of roles in society's risk partnership for covering terrorism risks. Munich Re therefore supports the initiatives of the German Insurance Association, and of similar associations and groups in other countries, to find a solution to this problem.

#### The social risk partnership works in Europe

Right from the beginning, Munich Re advocated working together with other representatives of the insurance industry to end the lack of cover for terrorism risks by involving the state to an appropriate degree. Since September 2002 EXTREMUS AG has been able to offer terrorism cover for property and business interruption policies in Germany upwards of a sum insured of €25m (see page 252). Also in 2002, a terrorism insurance pool was set up in France. Called GAREAT, its structure is similar to that of EXTREMUS. Austria and Finland have each formed a pool for terrorism cover as well. In Spain, on the other hand, certain categories of these risks are covered by the state.



The US has made other arrangements: since November 2002 the Terrorism Risk Insurance Act of 2002 has been in force. This legislation on terrorism insurance introduced a state programme of liability and obliges insurers to provide coverage against terrorism to the extent provided for in the Act. The programme pays out if an insurer has provided coverage for terrorism and an act of terrorism is deemed to have caused the loss. Insurers' deductibles are

www.extremus.de

considerable, however. In addition, the programme only applies to international terrorism that causes losses in the US, i.e. not to acts of terrorism committed by US citizens in the US. The programme provides insurers with coverage for terrorism risks up to a total limit of US\$ 100bn free of charge, though clients have to pay. The intent of the US administration here is to ensure that insurers can carry the risk again themselves as from 2005, which is when the programme expires.

# **Partnership**

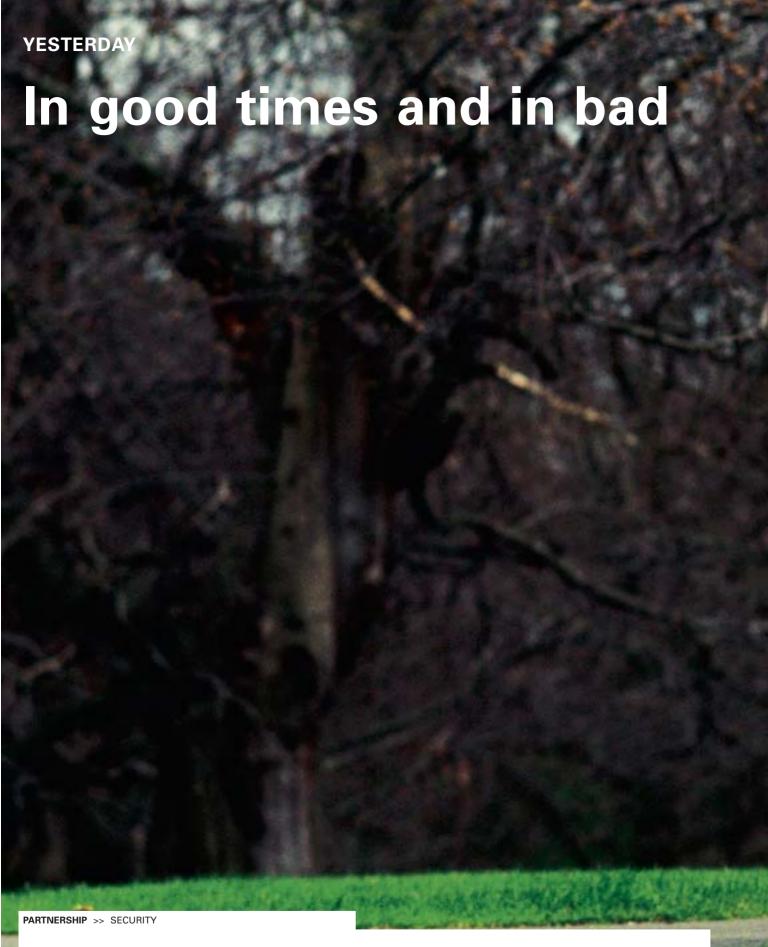
# "Getting together is a sta progress. Working togeth

HENRY FORD, AMERICAN ENTREPRENEUR

#### THE CORE OF OUR BUSINESS

Three main features characterise the Munich Re Group: firstly, financial strength and security; secondly, knowledge and everything that goes with it – competence, know-how, experience; and thirdly, emphasis on partnership, especially with clients. The concept of partnership between reinsurer and cedant is undergoing changes, on both sides. Solutions need to be found that ensure reliability and predictability in the relationship whilst strengthening flexibility and openness.

# rt. Staying together is er is success."



#### RELIABLE PARTNERSHIP IS A LASTING VALUE

If sociologists are to be believed, classic partnerships have been replaced by numerous new types of relationship. Calling a relationship a "life phase" is an indication of this trend. In our client relationships, too, we are witnessing a tangible shift towards partnerships that focus on a joint project or the joint solution of a certain problem. Our objective is to accomplish this change with our clients whilst maintaining the "old" values that have always been Munich Re's hallmark: reliability and dependability.





Opportunism is gaining ground. There is a trend for relationships, including those of a business nature, to be geared primarily to the achievement of (usually short-term) common goals. Central to these relationships is the joint project, which determines the intensity of the partnership. Precisely in this world of increasingly utilitarian relationships, "soft" values like sympathy, trust and reliability become immensely important. For Munich Re this has always been the case – and will continue to be so.



# "Top as regards intelligence, transpa

AN INTERVIEW WITH GERDA CHMIELORZ ON THE FLASPÖHLER SURVEY



GERDA CHMIELORZ
Europe 1 Division
Head of Divisional Unit for Germany

#### What did the Flaspöhler survey investigate and what were its results?

It mainly investigated how satisfied primary insurers were with their reinsurers. But it also examined what criteria insurers use to select their reinsurers and how they rate security, professional expertise, capacity, service, flexibility, speed and professionalism. We came out top with our clients as regards intelligence, transparency and technical ability. We also did very well in terms of flexibility. Generally speaking, all the clients were less satisfied with the degree of client focus in the reinsurance industry. That's a very subjective criterion, of course, but we take it very seriously.

#### What conclusions do you draw from the results?

We want to enhance our client focus, our flexibility and our creativity. We want to look even more carefully at our clients' needs and concerns, and react accordingly.

PARTNERSHIP >> CLIENT FOCUS

#### SUSTAINED GOOD RELATIONS

The Flaspöhler Research Cedant Survey Europe 2002 was the second of its kind to be carried out by the renowned American market research institute. It was based on a questionnaire sent to 200 European primary insurers, including 22 from Germany. The survey is performed every two years and gives Munich Re the opportunity to learn how clients rate its development.

## rency and technical ability."



In October 2002, together with the Bavarian Ministry for Development and the Environment, Munich Re staged an event entitled "Risk dialogue", in which representatives of all participants in the risk process got together to discuss such topics as risk communication and risk perception.

#### Have there been any significant changes in relationships with clients?

Relationships between clients and reinsurers have become more short term and more opportunistic. Nevertheless, in our case they are still generally marked by continuity and partnership: we have known most of our clients for a long time and generally work with them not only in one particular segment but in many areas.

#### What developments do you expect?

What clients want above all is more security with regard to the capacity reinsurers provide. We can meet that need. The difficult capital market for insurers and reinsurers alike means that the emphasis is on underwriting once more. If the current trend continues, we will see a situation with risk-commensurate prices and conditions prevailing in 2004, and not only in Germany.

## How does the way we deal with clients measure up to the goal of acting sustainably?

We are a reliable and trustworthy partner that still has an eye for the long-term client relationship. But we also have our own goals and objectives that we must achieve. Here we consider not just one year but longer periods. If we can't meet our result objectives in the medium term, we may arrive at a point in negotiations with cedants where we have to end a long partnership in order to ensure the profitability of our business.

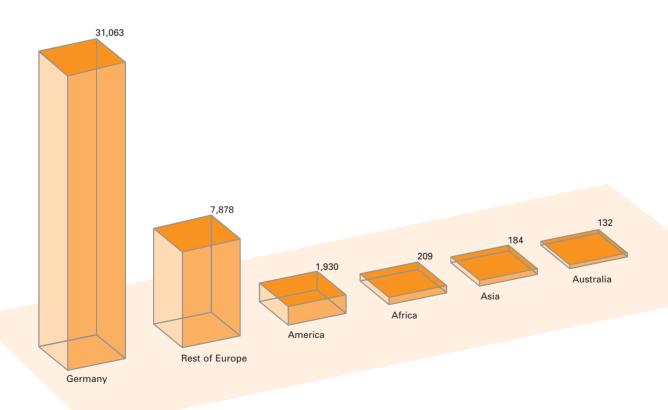
#### 05

# **Corporate** responsibility

Clearly embracing corporate governance In 2002 we implemented a range of measures to take us further along the path of transparent corporate management.

**Staff** Fairness and loyalty are the guiding forces for us in relations with our staff – whether in performance appraisal, advanced training or fringe benefits.

**Environment** Our commitment to environmental protection is rooted in responsibility for our business and for the generations to come.



#### International Munich Re

The percentage of staff in the Munich Re Group working outside Germany has steadily increased, showing the growing internationality of our workforce.

#### Report of the Supervisory Board

#### Ladies and gentlemen,

2002 was an exceptionally difficult year for Munich Re, especially because of the heavy price losses on the capital markets, which also had a substantial impact on the Munich Re Group.

Throughout the period under review, the Supervisory Board monitored the Board of Management and gave counsel where appropriate. It regularly obtained detailed information on the development of business and the situation of the Company and its main affiliates. As Chairman of the Supervisory Board, I kept in close contact with the Chairman of the Board of Management for this purpose. The Board of Management also notified all members of the Supervisory Board without delay in between the scheduled meetings about individual decisions and business transactions that were of particular significance for the Group's further development.



ULRICH HARTMANN CHAIRMAN OF THE SUPERVISORY BOARD

#### Meetings of the Supervisory Board

At the four meetings of the Supervisory Board, the Board of Management gave in-depth reports on business performance. These reports focused on Munich Re's activities in the US and in particular on the substantial expenditure to increase American Re's loss provisions. American Re was given a capital injection to consolidate and extend its position in the US reinsurance market. The Board of Management reported to us in detail about the claims burdens resulting from the terrorist attack on the World Trade Center of 11 September 2001, as well as on the losses in the value of investments following the exceptional capital market weakness and the resultant reduction in equity capital.

Another topic of our discussions was the further improvement of corporate governance within Munich Re. After a thorough discussion and on the recommendation of a working group that we had set up, the Supervisory Board changed a number of the internal rules of procedure of the Supervisory Board and Board of Management and established an Audit Committee. In addition, the content and timing of the regular and extraordinary reports of the Board of Management to the Supervisory Board were specified. Munich Re complies with virtually all the recommendations of the German Code of Corporate Governance, thus conforming with high international standards in this area as well. Supplementing the declaration of compliance published in December 2002, a detailed report on Munich Re's corporate governance is provided on pages 103 ff. of this annual report.

The Board of Management also kept us briefed about the Munich Re Group's value-based management, its fields of application and its limits. The Supervisory Board also considered on several occasions the challenges and opportunities arising for the Munich Re Group from the trends in state social security systems in industrialised countries.

The shareholding transactions announced by Munich Re and Allianz in 2001 were successfully completed in the year under review. Munich Re now holds 25.7% of the capital and 26.3% of the voting rights in HypoVereinsbank AG and 91.9% of ERGO Versicherungsgruppe AG; we obtained ongoing reports on the status of the cooperation between HypoVereinsbank and the ERGO companies.

The Board of Management outlined detailed plans for the coming business years, first and foremost strategies for developing new markets and future fields of business. Besides this, we considered concepts for new distribution channels, the harmonisation of IT platforms, staff development and personnel planning.

The Annual General Meeting on 17 July 2002 adopted a number of amendments to the Articles of Association. In preparation for this, the Supervisory Board discussed in particular the authorisation to buy back shares and to issue warrants and/or bonds with warrants, as well as granting a new authorisation to increase the Company's share capital.

#### **Committees of the Supervisory Board**

The Standing Committee met three times in 2002. Its work included matters for which the Supervisory Board's approval was required under the internal rules of procedure. The Personnel Committee also met three times in order to deal with personnel matters involving members of the Board of Management. No meeting of the Conference Committee was required.

At our meeting on 6 December 2002 we established an Audit Committee. Its remit is to deal with the accounting for the annual financial statements and the quarterly report as well as with questions of risk management, the requisite independence of the external auditor, commissioning the annual audit and auditor, determining the focal points of the audit and agreeing the auditor's fee.

#### **Annual financial statements**

KPMG Bayerische Treuhandgesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft audited the following documents and gave them an unqualified auditor's opinion: the Munich Reinsurance Company's bookkeeping, its company financial statements and the consolidated financial statements as at 31 December 2002, plus the management reports for the Company and the Group. The auditor's reports were promptly given to all the members of the Supervisory Board. The Audit Committee examined the company and consolidated financial statements, the management reports and the auditor's reports and discussed them in detail with the auditor at the Audit Committee meeting on 27 April 2003 in order to prepare for the examination of the audit by the full Supervisory Board. The results of the Audit Committee's discussion were then presented to the full Supervisory Board at its meeting on 28 April 2003.

The Supervisory Board checked the company financial statements, the consolidated financial statements, the management reports and the proposal of the Board of Management for appropriation of the balance sheet profit. This examination did not result in any adverse findings.

At the balance sheet meeting of the Supervisory Board, we approved and adopted the annual financial statements drawn up by the Board of Management. We agree to the Board of Management's proposal for the appropriation of the balance sheet profit, which provides for an unchanged dividend of €1.25 per share.

#### Corporate governance

On 6 December 2002 the Supervisory Board and the Board of Management published their first declaration of compliance with the German Government Commission's Code of Corporate Governance. This declaration makes clear that we have committed ourselves to good, responsible corporate management and control.

#### **Personalia**

With effect from 1 April 2002 we appointed Mr. John Phelan to the Board of Management. He had worked for Munich Reinsurance Company of Canada (MROC) for many years, latterly as President and Director. Since 9 March 2002 he has been President, Chief Executive Officer and Chairman of the Board of American Re Corporation (ARC).

As at 30 June 2002 Dr. Wolf Otto Bauer and Dr. Hans-Wilmar von Stockhausen ceased to be members of the Board of Management, having reached retirement age. Both gentlemen served our Company with great personal dedication for over 30 years. We thank them for their responsible and successful work on behalf of Munich Re.

At the end of 2003, Dr. Hans-Jürgen Schinzler will leave Munich Re's Board of Management. At today's meeting of the Supervisory Board we appointed Dr. Nikolaus von Bomhard to succeed him as Chairman of the Board of Management with effect from 1 January 2004.

There have also been changes on the Supervisory Board. One of the representatives of the shareholders, Dr. Ferdinand Piëch, left the Supervisory Board on 16 April 2002. As his successor with effect from 17 April 2002, the Registration Court appointed Dr. Bernd Pischetsrieder. This appointment was ratified by the Annual General Meeting on 17 July 2002.

Dr. Alfons Titzrath gave up his seat on the Supervisory Board at the end of the Annual General Meeting on 17 July 2002. The shareholders voted for Professor Karel Van Miert to succeed him.

On 6 December, at its last meeting in 2002, Dr. Rolf-E. Breuer and Dr. Henning Schulte-Noelle stepped down from the Supervisory Board. As their successors, the Registration Court appointed Professor Dr. Hubert Markl and Mr. Wolfgang Mayrhuber members of the Supervisory Board. These appointments are scheduled to be ratified by the Annual General Meeting on 11 June 2003.

May we take this opportunity to again convey to the members who have left the Supervisory Board our sincere appreciation for their many years of valuable work.

The Supervisory Board wishes to thank the members of the Board of Management and the staff of the individual Group companies for their hard work and commitment on behalf of the company. They all contributed to Munich Re successfully holding its own, even under the difficult circumstances of the business year 2002.

Munich, 28 April 2003

For the Supervisory Board

Ulrich Hartmann Chairman

## **CORPORATE GOVERNANCE:**For more confidence and transparency

"Corporate governance" stands for a form of responsible company management and control which is geared to long-term creation of value. With its global operations, Munich Re has to consider corporate governance rules in different parts of the world. Of particular importance to us are the observance of shareholders' interests, efficient practices on the Board of Management and Supervisory Board, good collaboration between these bodies, and corporate communications that are open and transparent.

The year 2002 was of special significance for the development of corporate governance in Germany. In February, the government commission appointed by the Federal Minister of Justice published the German Code of Corporate Governance. It contains essential legal rules that must be observed by listed German companies; in addition it includes – in the form of recommendations and proposals – nationally and international recognised standards of responsible management. The Code is thus a sort of "manual for good company management". Its aim is to strengthen the confidence of clients, shareholders, employees and the public and especially to create greater transparency for foreign investors.

Munich Re's Board of Management and Supervisory Board have resolved to follow the Code's recommendations and proposals with only a few exceptions. This decision was an easy one, given that Munich Re has met most of the requirements for many years. Significant parts of the Code have been present in German legislation for some time, especially in stock-company, co-determination and capital-market law; further provisions are contained in Munich Re's Articles of Association and internal rules of procedure.

Here we would like to single out a few aspects that Munich Re considers important for corporate governance.

#### Close collaboration between Board of Management and Supervisory Board

Munich Re's Board of Management has executive responsibility for running the Company and Group. In so doing, it must observe corporate interests and the appreciation of lasting corporate value. The Supervisory Board and the Board of Management consult closely about the Company's strategic development. The Board of Management informs the Supervisory Board regularly, promptly and extensively about all relevant questions of strategy and strategy implementation, about corporate planning, business performance, the risk situation and risk management. It also explains any deviations in business performance from plans and objectives. In this connection, explicit rules were laid down last year for the Board of Management's reporting to the Supervisory Board. The Board of Management must obtain the Supervisory Board's approval for important business transactions, as required by stock-company law and the Code. In addition, in 2002 we agreed an appropriate deductible for our Board members' D&o cover (directors' and officers' liability insurance).

#### The Supervisory Board and its committees

Munich Re's Supervisory Board has 20 members. Its task is to monitor and advise the Board of Management in running the Company. To this end, the Chairman of the Supervisory Board regularly discusses with the Board of Management, and in particular the Chairman of the Board of Management, the Company's business performance and risk management. In order to comply with the German Code of Corporate Governance, we last year set an age limit for members of the Supervisory Board in its rules of procedure: they should generally not be older than 70. To increase the efficiency of its work, the Supervisory Board had already established three committees several years ago; a fourth one was added last year – the Audit Committee.

The Standing Committee decides on matters requiring the Supervisory Board's approval insofar as the full Supervisory Board or another committee is not responsible. It prepares Supervisory Board meetings and decides on amendments to the Articles of Association that only affect the wording. In addition, it attends to the Supervisory Board's annual declaration of compliance with the German Code of Corporate Governance, in accordance with Section 161 of the German Stock Companies Act, and the Supervisory Board's statement in the annual report about the Company's corporate governance (see p. 101). Last year, it was also decided that this committee would annually review the efficiency of the Supervisory Board's work and submit appropriate proposals to the full Supervisory Board where necessary.

The Personnel Committee undertakes the preparatory work in connection with the appointment of members of the Board of Management and, together with the Board of Management, concerns itself with long-term succession planning. The Personnel Committee also represents the Company vis-à-vis the members of the Board of Management; it is responsible for all personnel matters involving the Board members. In this connection it decides on secondary occupations they may pursue and seats they hold on the boards of other companies.

In accordance with the German Code of Corporate Governance, the Supervisory Board established an Audit Committee in 2002. It prepares Supervisory Board resolutions on the adoption of the annual Company financial statements and approval of the Group financial statements, and discusses the quarterly reports. The committee also examines the Company's risk management. Furthermore, it initiates the decision on the appointment of the external auditor and monitors the latter's independence. It appoints the external auditor, determines the focal point of the audit and agrees on the auditor's fee.

The Conference Committee, which is prescribed by the German Co-Determination Act, makes personnel proposals to Supervisory Board if the requisite two-thirds majority is not achieved in the first vote when it comes to appointing or dismissing members of the Board of Management.

# **Annual General Meeting live and online**

Every shareholder may vote at Munich Re's Annual General Meeting, with one vote per share, provided the shares have been registered for the meeting beforehand and are entered in the Company's register of shareholders.

Munich Re sends all shareholders entered in the shareholders' register an invitation to the Annual General Meeting and a copy of the agenda. The documents required by law for the Annual General Meeting are accessible on Munich Re's website from the day the meeting is convened.

The Board of Management facilitates shareholders' participation in the Annual General Meeting by means of electronic communications. Shareholders who cannot attend personally can have their voting rights exercised by a proxy. We thus anticipated one of the requirements of the German Code of Corporate Governance by several years. Munich Re appoints the proxies, who can also be reached during the Annual General Meeting. They exercise the voting rights solely in accordance with the instructions they receive from the shareholders. The latter may also authorise and instruct the proxies via the internet. Furthermore, shareholders have the option to follow the whole Annual General Meeting live on the internet and, if they have authorised a proxy, to change their voting instructions right up until the end of the general debate.

After the Annual General Meeting, we publish the resolutions immediately on the internet in German and English.

# We promote transparency

Within the legal parameters, Munich Re supports shareholders in the exercising of their rights as far as possible. This includes informing our shareholders appropriately and promptly on our website about current developments.

www.munichre.com/ir-d

Since 2002 members of the Board of Management and Supervisory Board, and their close relatives, have had to disclose any shares they acquire or sell in Munich Re or in a listed subsidiary. This rule applies insofar as the acquisition is not part of the Board member's remuneration and the transactions exceed an equivalent value of €25,000 within a period of 30 days. We publish such information without delay on our website.

In our financial calendar (see back cover flap) and on the internet, we publish the dates of the most important regular publications and events for the next business year.

# First declaration of compliance published

On 6 December 2002 Munich Re's Board of Management and Supervisory Board published their first declaration of compliance with the recommendations of the Government Commission German Code of Corporate Governance, as per Section 161 of the German Stock Companies Act.

"Munich Reinsurance Company (Munich Re) fulfils all of the recommendations of the German Commission Code of Corporate Governance with the following exceptions:

Additional remuneration is not yet paid for the chairmanship and membership of Supervisory Board committees. At the next Annual General Meeting on 11 June 2003 the Board of Management and Supervisory Board will propose an amendment to Article 15 of Munich Re's Articles of Association regarding the remuneration for the chairmanship and membership of Supervisory Board committees. (Code item 5.4.5 para. 1 sentence 3).

The annual consolidated financial statements have hitherto been published within the periods stipulated in the German Commercial Code. In 2002, the statements for the business year 2001 were published on 27 May 2002; Munich Re thus kept well within the legal deadline. In future, Munich Re will optimise its processes even further so that the 90-day deadline recommended in the German Code of Corporate Governance can be complied with for the first time in the Group's annual report for the business year 2004. The 45-day period envisaged in the Code for publishing interim reports will be adhered to for the first time as from the second quarter 2004. (Code item 7.1.2)."

Munich Re is well aware that corporate governance is an ongoing process. We will pursue this issue, developing our corporate governance principles further and thereby taking into account international standards. The decisive thing for Munich Re is that corporate governance is not only incorporated in rules and regulations but is also lived out in practice.

# Other seats held by Board members<sup>1</sup>

Supervisory Board	Seats held on supervisory boards of other German companies	Membership of comparable bodies of German and foreign business enterprises	
Ulrich Hartmann	Deutsche Lufthansa AG Hochtief AG IKB Deutsche Industriebank AG (Chairman)	Henkel KGaA ARCELOR, Luxembourg	
	RAG AG (Chairman)	Powergen Limited, London* (Chairman)	
	E.ON Energie AG* (Chairman) Ruhrgas AG* (Chairman)		
Dr. jur. Henning Schulte-Noelle	BASF AG	Assurances Générales de France	
(until 6 December 2002)	E.ON AG Linde AG	s. A., Paris* Riunione Adriatica di Sicurtà	
	Siemens AG	S. p. A., Milan*	
	ThyssenKrupp AG		
	Allianz Dresdner Asset Management		
	GmbH* (Chairman)		
	Allianz Lebensversicherungs-AG* (Chairma	in)	
	Allianz Versicherungs-AG* (Chairman) Dresdner Bank AG* (Chairman)		
Dr. jur. Rolf-E. Breuer	Bertelsmann AG	Compagnie de Saint-Gobain s.A.,	
(until 6 December 2002)	Deutsche Börse AG (Chairman)	Paris	
	Deutsche Lufthansa AG	Landwirtschaftliche Rentenbank	
	E.ON AG Siemens AG	Kreditanstalt für Wiederaufbau	
Prof. Dr. rer. nat.	DaimlerChrysler Services AG	-	
Henning Kagermann	Deutsche Bank AG		
	SAP Systems Integration AG*		
Prof. Dr. rer. nat.	Bayerische Motoren Werke AG	Aventis s. a., Schiltigheim	
Hubert Markl		Royal Dutch Petroleum Company/	
(from 13 December 2002)		Shell, The Hague	

<sup>&</sup>lt;sup>1</sup> Status: 10 April 2003 (in the case of members who have left the Supervisory Board, the information shows the status at the date of their departure).

<sup>\*</sup> Own group company within the meaning of Section 18 of the German Stock Companies Act.

Supervisory Board	Seats held on supervisory boards of other German companies	Membership of comparable bodies of German and foreign business enterprises
Wolfgang Mayrhuber (from 13 December 2002)	Eurowings Luftverkehrs AG RWE Systems AG	неісо Corporation, Miami
	Lufthansa CityLine GmbH* (Chairman)	Ameco Corporation, Beijing*
Prof. Karel Van Miert (from 17 July 2002)	RWE AG Fraport AG	Agfa-Gevaert NV, Mortsel Anglo American plc, London De Persgroep, Asse DHV Holding BV, Amersfoort Royal Philips Electronics NV, Amsterdam Wolters Kluwer NV, Amsterdam
HonProf. Dr. techn. h. c. Dipllng. ETH Ferdinand Piëch (from 16 April 2002)	DrIng. h.c. F. Porsche AG	Porsche Holding GmbH, Salzburg Porsche Ges.m.b.H., Salzburg Scania AB, Södertälje* (Chairman) SEAT, S.A., Barcelona*
Dr. jur. DrIng. E. h. Heinrich v. Pierer	Bayer AG Hochtief AG Volkswagen AG	Siemens AG Österreich, Vienna* (Chairman)
Dr. e. h. DiplIng. Bernd Pischetsrieder (from 17 April 2002)	Dresdner Bank AG METRO AG Audi AG* (Chairman)	Tetra Laval Group, Pully Scania AB, Södertälje* (Chairman) SEAT, S. A., Barcelona* (Chairman)
Dr. jur. Dr. h.c. Albrecht Schmidt	Bayerische Börse AG (Chairman) Bayerische Hypo- und Vereinsbank AG (Chairman) Siemens AG	Bank Austria Creditanstalt, Vienna* (Chairman)
Dr. rer. pol. Alfons Titzrath	HVB Real Estate Bank AG* (Chairman)  Allianz AG	_
(until 17 July 2002)	Celanese AG Deutsche Lufthansa AG Dresdner Bank AG RWE AG	

 $<sup>\</sup>ensuremath{^{*}}$  Own group company within the meaning of Section 18 of the German Stock Companies Act.

Board of Management Seats held on supervisory boards of other German companies		Membership of comparable bodies of German and foreign business enterprises
Dr. jur. Hans-Jürgen Schinzler Chairman	Bayerische Hypo- und Vereinsbank AG ERGO Versicherungsgruppe AG (Chairman) MAN AG METRO AG	Aventis s. a., Schiltigheim
Dr. jur. Nikolaus von Bomhard	-	Münchener Rück Italia S.p.A., Milan*
Clement Booth	Allgemeine Kredit Coface	ACORD, Pearl River, New York Inreon Ltd., London Nova Risk Partners Ltd., Johannesburg
		Munich American Capital Markets Inc., Delaware* New Reinsurance Company, Geneva*
Dr. jur. Heiner Hasford	D. A. S. Deutscher Automobil Schutz Allgemeine Rechtsschutz- Versicherungs-AG	Munich London Investment Management Ltd., London
	ERGO Versicherungsgruppe AG Europäische Reiseversicherung AG (Chairman) BHS tabletop AG MAN Nutzfahrzeuge AG Nürnberger Beteiligungs-AG VICTORIA Lebensversicherung AG VICTORIA Versicherung AG WMF Württembergische Metall- warenfabrik AG	American Re Corporation, Wilmington, Delaware*

<sup>\*</sup> Own group company within the meaning of Section 18 of the German Stock Companies Act.

Board of Management	Seats held on supervisory boards of other German companies	Membership of comparable codies of German and foreign business enterprises	
Stefan Heyd	Allianz Versicherungs-AG EXTREMUS Versicherungs-AG Kraft Versicherungs-AG Münchener und Magdeburger Agrar- versicherung AG	-	
Christian Kluge	Karlsruher Versicherung AG (Chairman) Karlsruher Lebensversicherung AG Mercur Assistance AG Holding (Chairman)	_	
John Phelan (from 1 April 2002)	_	American Re Corporation, Wilmington, Delaware* (Chairman) Munich Reinsurance Company of Canada, Toronto* American Re-Insurance Company, Princeton* (Chairman)	
Dr. phil. Detlef Schneidawind  DKV Deutsche Krankenversicherung AG Hamburg-Mannheimer Sachver- sicherungs-AG Hamburg-Mannheimer Versicherungs-A Karlsruher Lebensversicherung AG (Chairman) Mecklenburgische Kranken Versicherungs-AG Mecklenburgische Leben Versicherungs-AG		Munich American Reassurance Company, Atlanta*	
Dr. jur. Jörg Schneider	Forst Ebnath AG (Chairman) MEAG MUNICH ERGO Kapital- anlagegesellschaft mbH	American Re Corporation, Wilmington, Delaware*	
Karl Wittmann	_	Jordan Ins. Co. p.l.c., Amman Saudi National Insurance Company E. C., Jeddah	

 $<sup>\</sup>ensuremath{^{*}}$  Own group company within the meaning of Section 18 of the German Stock Companies Act.

# **RATING:**

# Despite downgradings still among the leaders

For many years the leading rating agencies have given our financial strength top ratings. In 2002, Munich Re was able to defend its good position in the industry, even though we had to accept a few downgradings.

A. M. Best, which specialises in rating insurance companies, affirmed its top rating of A++ for Munich Re in December 2002 and again at the beginning of April 2003. The reasons cited by the agency were Munich Re's outstanding capital strength and competitive position, and its excellent market profile in the primary insurance market. In March 2003, Standard & Poor's reduced its rating for our company further from AA+ to AA-. The rating agency none-theless stressed Munich Re's leading position in many reinsurance markets and its first-class reputation worldwide. Moody's downgraded its rating for Munich Re to Aa3, and Fitch from AAA to AA+.

Besides our capital strength, however, the ratings also take into account the marked progress we have made in other areas, improving both our operating result and our monitoring and management tools.

The ratings for our subsidiaries on 10 April at a glance:

www.munichre.com/ir-d

	A.M. Best	S&P	Moody's
Reinsurance group			
American Re-Insurance Company	A+	A+	A2
American Alternative Insurance Company	/ A+	AA+	
Princeton Excess and Surplus Lines			
Insurance Company	A+		
Munich American Reassurance Company	A++	AA-	
Great Lakes Reinsurance (UK) PLC	A++	AA-	
Munich Reinsurance Company of Canada	A++	AA-	
Munich Reinsurance Company of Africa	A++		
Munich Reinsurance Company			
of Australasia	A++	AA-	
Münchener Rück Italia	A++	AA-	
New Reinsurance Company	A++	AA-	
Temple Insurance Company	A+		

	S&P	Moody's
Primary insurance group		
VICTORIA Lebensversicherung		
Aktiengesellschaft	AA-	Aa3
VICTORIA Versicherung Aktiengesellschaft	AA-	
Hamburg-Mannheimer Versicherungs-		
Aktien-Gesellschaft	AA-	Aa3
Hamburg-Mannheimer Sachversicherungs-AG	AA-	
DKV Deutsche Krankenversicherung		
Aktiengesellschaft	AA-	

# The notes and debentures issued by companies in our Group are rated as follows:

	A.M. Best	S&P	Moody's	Fitch
Munich Re Finance B.V., 6.75%, €3.0bn Subordinated Bonds 2003/2023	aa	А	A2	AA-
Munich Reinsurance Company, 1.0%, €1,150m Bonds Exchangeable into Allianz AG Shares 2000/2005	aa	AA-		AA+
American Re Corporation, 7.45%, US\$ 500m Senior Notes 1996/2026	a+	BBB+	A3	
ERGO International AG, 0.75%, €345m Bonds Exchangeable into Aventis AG Shares 2001/2006		A+		AA
ERGO International AG, 2.25%, €345m Bonds Exchangeable into E.ON AG Shares 2001/2006		A+		AA

# STAFF: Munich Re's growth potential

Employees are a company's intellectual capital. In keeping with its tradition, Munich Re therefore offered its staff new impulses and incentives in 2002.

In contrast to many other companies in the insurance and financial sector, Munich Re created further new jobs last year. As at 31 December 2002, a total of 41,396 staff worked for companies in the Munich Re Group, over 3,000 more than one year previously.

Our primary insurers employed 34,924 staff in 2002, or 9.6% more than in the previous year. 31,789 of these worked for ERGO.



Relations with our staff are characterised by mutual fairness and loyalty. We offer opportunities for personal development and career-building in our international organisation, as well as high-quality fringe benefits. These, in turn, are not a "feather bed" for our staff, but a solid basis for their exceptional dedication: we expect entrepreneurial thinking and a high degree of commitment at all levels.

# Seeking and finding one other

For many highly qualified academics with international experience, we are the top address for applications each year. At the moment we are looking particularly for mathematicians, a professional sector where – through our targeted promotional work – we have also succeed in making ourselves one of the most attractive employers. In addition, our efforts are constantly devoted to finding highly qualified underwriters with professional experience.

2002 saw the expansion of our staff recruiting and marketing activities on the internet, increasing the information for our applicants and improving online communication.

www.munichre.com/jc-d

www.ergo.de/karriere/index

At ERGO, a single database now handles job vacancies for all its group companies. This enables applicants to find a suitable job offer more quickly.

# High level of employee satisfaction at Munich Re

Last year the Munich Reinsurance Company participated for the first time in the Europe-wide study "Great Place to Work", which evaluates the attractiveness of employers. It was performed by the firm psychonomics AG in collaboration with the German magazine "Capital". We can be proud of the results, which made us the highest-placed financial services provider in Germany and put us first among the participating DAX companies. According to the study, 97% of the staff questioned at Munich Re said that their company was a very good employer, and 90% were proud to be able to tell others that they worked for Munich Re. The response to the study endorses the objectives of our human resources policy.

### Performance appraisal system refined

Last year Munich Re refined its performance appraisal system A. I. M. Dialogue (= Agreement of objectives, Individual development plan, Munich Re performance appraisal). As its name suggests, the system requires staff and managers to discuss objectives, development options and collaboration in an open and motivating atmosphere, thus advancing equally the interests of employees and the company. A. I. M. Dialogue is based on the Munich Re's guiding principles and also takes into account the principles of value-based management.

# Advanced training in the Munich Re Group

Along with many other German companies, Munich Re is one of the founding members of the European School of Management and Technology (ESMT), which has institutes in Berlin and Munich. The ESMT is geared to the needs of European trade and industry and attaches particular importance to Central European traditions and intercultural skills. We expect the ESMT to equip selected staff with the further qualifications they need to meet our requirements.

The ERGO Management Academy (EMA) expanded its range of courses for Board members, managers and senior executives in 2000, making adjustments to take account of the keener competition and rising cost pressure. Training courses can now be called up by the management centrally from one source. For long-term succession planning at upper and middle management level, there are so-called "potential groups". A summer academy offers ERGO senior executives modern forms of learning and innovative curricula.

# **Share programmes for staff**

In 2002, all staff of Munich Re and ERGO had the chance to acquire Munich Re shares at preferential conditions. The employee share programme is designed to help promote personal saving and at the same time to enhance the feeling of partnership in enterprise among staff and identification with the company they work for. It is thus an important component of our fringe benefits.

Despite the difficult situation on the stock market last year, which also took its toll in terms of Munich Re's share price, the response to the employee share programme surpassed our expectations. We are delighted by the confidence shown by our staff in Munich Re's future development which this participation reflects.

# Thank you

We wish to cordially thank all the staff of the Munich Re Group for their commitment and loyalty in 2002. It is their hard work, skill and dedication that ensures the quality of our services.

# SOCIAL COMMITMENT: Support for cancer prevention, the climate, art and culture

As a major international enterprise, the Munich Re Group carries a responsibility towards society. This is linked to the obligation and the desire to serve the communities in which the individual units of our Group operate.

We mainly support initiatives that are not usually in the spotlight of public interest and are frequently conducted on a voluntary basis. The wide spectrum of our fields of business, the topics we deal with and the countries in which we operate are mirrored by the broad range of social projects in which we are involved. We have selected a few examples to illustrate Munich Re's social commitment in 2002

# Backing for health education and healthcare

Given that people and their well-being are a central issue for us, health education and healthcare feature prominently in the causes we support. Our American subsidiary American Re supports the charity "Komen Race for the Cure", set up in 1982 and dedicated to the prevention, research and treatment of breast cancer. Over the course of the year, the organisation stages relay races in over 100 cities in the Us as well as in Germany and Italy to raise funds and to draw attention to the disease. American Re also sponsors the breast cancer campaign "Spirit of Life", organised by the charitable institution City of Hope, which, just outside Los Angeles, runs one of the world's leading research and treatment centres for cancer, AIDS, diabetes and other serious illnesses.

Our primary insurance subsidiary DKV has found a fitting partner in the German Hygiene Museum (DHM) in Dresden. DKV supports the DHM in exhibitions and special events, and awards a media prize each year together with the museum. The highpoint of the partnership in 2002, DKV's 75th anniversary year, was the touring exhibition "bodytravel", which after opening in Dresden, has been on show in nine German cities.

# Competence against catastrophes

Without question, one of the most important topics in our reinsurance business is natural catastrophes. In connection with this, Munich Re helped prepare and sponsored the International Conference on Disaster Management & Insurance in India in 2002. Internationally renowned experts from various scientific disciplines discussed what preventive measures could be taken against the effects of earthquakes, especially in major cities. Parallel to this, an Indian Earthquake Safety Initiative was established. Munich Re's involvement here complements its participation in numerous national and international institutions concerned with topics relevant to Munich Re's business. These include the United Nations, the Intergovernmental Panel on Climate Change, the German Society for Earthquake Engineering and the Wind Engineering Society.

www.komen.org/race

www.bodytravel.de

# **Networks that support**

Apart from our social commitment in fields that are closely linked to Munich Re's business, we are also active as sponsors in the area of social services. We were delighted at the special recognition accorded last year to one of the foundations we support, the "Nicolaidis Stiftung gGmbH – Hilfe für verwitwete Mütter und Väter": Germany's Family Minister Renate Schmidt awarded it the government "start social" prize. The foundation's main objective is to help young widowed mothers and fathers in coping with their loss and to systematically develop a nationwide network.

www.nicolaidis-stiftung.de

Munich Re also makes donations of money and goods to the "Pfennigparade". This is a foundation dedicated to the physical and mental rehabilitation of the disabled which finances numerous medical, therapeutic, social and schooling facilities. In particular, Munich Re supports "Pfennigparade" in projects that bring together disabled and non-disabled children: in 2002 these included school theatre projects and a children's library night.

www.pfennigparade.de

### Projects for the next generation

After many years of active commitment to the area of environmental protection, our subsidiary Europäische Reiseversicherung is now devoting itself more to social sponsoring. With the motto "Children of the World", it supports two projects for street children in Colombia and South Africa. Both projects offer leisure programmes, opportunities for training in various trades, education and anti-pollution campaigns. Through such involvement Europäische Reiseversicherung hopes to alleviate problems of social deprivation at tourist destinations.



www.mathematik.de

Some of our activities are aimed at promoting professional training. Thus, for example, we sponsor the internet portal of the German Mathematicians Association. As the employer of over 700 mathematicians, we feel we have an obligation to promote dialogue on mathematical topics. After all, the quantitative analysis of existing risks, and the assessment of new ones, are based to a very significant extent on mathematical methods and models.

The Hamburg-Mannheimer foundation "Jugend und Zukunft" backs youth welfare projects designed to give young people perspectives for the future. Training programmes help and accompany socially deprived youngsters in preparing for working life.

# **Promoting art and culture**



Munich Re is the main sponsor of the Gustav Mahler Jugendorchester's Easter tour to Japan in 2003.

Let us end this review of our social commitment with the subject of cultural sponsorship. Last year we especially supported the "Gustav Mahler Jugend-orchester". This youth orchestra, founded on the initiative of Claudio Abbado, offers highly talented young musicians the chance to gain experience with great international conductors and soloists on world tours. It is today regarded as the world's leading youth orchestra and is a frequent guest at major concert events and festivals.

Ever since the days of our company founder, Carl Thieme, sponsoring contemporary art has been an important part of Munich Re's cultural commitment. In Munich, for instance, we support a number of museums, including the new Pinakothek der Moderne, opened in 2002. The latter is one of the world's largest museums of art, architecture, graphics and design of the 20th and 21st centuries.

# THE ENVIRONMENT: Sustainability as a business principle

Environmental protection and sustainability are core issues for Munich Re. Besides modern environmental management, communication of present and future environmental risks is assigned a key role.

Environmental protection and sustainable development are of direct concern to Munich Re in its business. Both have to do with a consistent approach to thinking about the future and protecting against risk. Munich Re is therefore deeply committed in these areas, a fact acknowledged by our clients and the capital market. Having made our operations transparent, we have been included in the best-known sustainability share indices – the Dow Jones Sustainability Global and the FTSE4GOOD. Besides this, Munich Re shares are also featured in the portfolios of many large and small sustainability funds.

We attach great importance to communicating our views on sustainability, the environment and especially the climate. Unlike a manufacturing firm, say, we as financial service providers put relatively little direct strain on the environment. We support environmental protection by using our knowledge edge to draw attention to problems, to warn of dangers, and above all to advise our clients, the primary insurers.

# Setting a good example in operational ecology

Many of our business projects incorporate concepts of sustainable development. We are constantly working towards improving our operational and product ecology in both (re)insurance and asset management processes, using our environmental management tools based on EMAS (European Eco-Management and Audit Scheme). ERGO subsidiary VICTORIA was certified in accordance with this European environmental standard as far back as 1998, and Munich Re followed suit in December 2000. Detailed information on the environment and sustainability can be found in our publication "Perspectives". This forms the basis on which Munich Re shares are classified as sustainable stocks and includes our environmental statement in line with EMAS.

Our understanding of corporate ethics in a market economy entails sharing information gathered in our business operations which is of relevance to everybody. In the following, we would like to mention a few projects from last year as examples:



Our environmental magazine "Perspectives" reports on Munich Re's contribution to environmental protection and sustainable development (see p. 255 for the ordering address).

# Geo Risks Research - Travelling the world for climate protection

In 2002, members of our Geo Risks Research Centre of Competence gave presentations in 2002 at climate conferences, congresses and workshops, 86 externally and 27 internally. Topics included "Nature hits back – Natural catastrophes and climate change, trends and options", "Loss potentials from natural catastrophes and global loss trends", "Economic risks of global climate change from the viewpoint of an international reinsurer" and "Climate change: Warming to disaster?" In addition, Geo Risks Research published numerous papers and other material on natural catastrophes.

# **Kyoto Protocol - Munich Re as midwife**

The climate protection protocol formulated in 1997 in Kyoto, Japan, envisages that by 2012 the largest industrial countries will reduce their emissions of greenhouse gases by at least 5.2%, based on their 1990 levels. The ratification of this protocol by governments in 2002 was the subject of heated debates. Munich Re was much in demand as a discussion partner, not least because of its incomparable reservoir of knowledge on natural disasters, especially large weather-related catastrophes. Germany's Minister of the Environment, Jürgen Trittin, paid tribute to Munich Re's contribution in an interview: "Munich Re helped ensure that the Kyoto agreement on climate protection was ultimately ratified."

# Important intermediate step - The World Summit in Johannesburg

Munich Re also played an active part in the World Summit on Sustainable Development in Johannesburg in September. The summit had the motto "People, Planet, Prosperity" and addressed the specific problems of developing countries. In addition to several thousand government delegates, around 22,000 representatives from state and non-governmental organisations, associations, the press and companies participated. It is one of Munich Re's core tasks to identify and assess risks at an early stage so as to take appropriate countermeasures. This world summit presented the opportunity to negotiate binding international agreements for the next summits in order to tackle the great issues of the future, such as man-made climate change.



# Climate Exhibition - The Experiment with Planet Earth

Munich Re is also supporting – as exclusive partner – a special exhibition running from December 2002 to September 2003 at the internationally renowned Deutsche Museum in Munich: "Climate. The Experiment with Planet Earth". The exhibition heightens awareness for the topic of climate change, with its substantial risks for people and property, and underscores our opinion leadership on its consequences, a future issue of strategic importance for us.

The exhibition is the result of a partnership between the Deutsche Museum and Munich Re. We are supporting the event not only financially but also professionally with the special expertise, statistics and information we have accumulated over many decades around the globe (see page 44). One of the beneficial results is that we have been able to intensify contact with important scientific and research institutions

#### Our primary insurers promote environmental protection as well

The ERGO Group gears its operations to the fundamental principle of "Prevention is better than cure" in order to avoid or reduce losses and negative impacts on the environment. VICTORIA has been heavily committed to environmental protection for some 15 years now. It has introduced a broad-based environmental management system, which was audited for the first time in 1998 by external environmental experts, in line with the strict requirements of the EMAS Regulation, making VICTORIA the first European insurance company to be audited in this way. Since January 2001 it has also complied with the globally applicable standard ISO 14001. And in 2002 it received further recognition: as VICTORIA had implemented the EMAS Regulation in exemplary fashion, it became the only German company to receive the 1st EMAS Award from the Environment and Development Department of the European Commission.

The British subsidiary of the ERGO company D.A.S. is preparing for certification in accordance with the environmental management standard ISO 140001 and is one of the first insurers in the UK to introduce an environmental management system of this kind.

Europäische Reiseversicherung supports environmental and social projects at tourist destinations. Its aim is to help conservation and promote sustainable tourism. Since 2001 it has participated in the City of Munich's Eco Profit project. In December 2002 it received an award for this commitment in the resourcessaving category. In fact, with Eco Profit, Europäische Reiseversicherung helps protect not only the environment but also its balance sheet, which benefits from the resultant cost savings.

www.victoria.de

# Risk

# "Risk is the bow wave of s

**CARL AMERY, GERMAN AUTHOR** 

# **EARLY-WARNING SYSTEM REINSURANCE**

One of the duties of a reinsurer is to foresee risks in order to protect its clients. Hence the first step of professional risk management is the most important: to identify risks at an early stage. This is true even if some major losses may appear to emerge out of nothing – like the floods in summer 2002. Here, too, there had been scenarios which had described the consequences of climate change.

# uccess."

More on the subject of risk

>>

ASBESTOS p. 73 CYBERRISKS p. 75 UNLIMITED COVER p. 80 RISK REPORT p. 162



Chernobyl gave the term "industrial risk society" a particular resonance in the 1980s, which has lasted to this day. The disaster was not covered by insurance, owing to the hermetic separation of economic systems in the Soviet Union. After Chernobyl the spotlight focused on the situation of nuclear power plants in general – leading to substantial improvements in safety standards. An insurance solution in the Soviet Union successor states is still not in place, however ...



# **TOMORROW**

# Risks are the engine of the future.



RISK >> MICROTECHNOLOGY

# THE NEW RISKS ARE BECOMING SMALLER AND SMALLER

Genetic engineering involves controlling miniscule, highly complex molecular structures. Nanotechnology works with even smaller units. Both technologies open up vistas of fascinating new applications, but they also harbour huge risk potentials. Tomorrow's risk management faces major challenges.



# "Not only react, but actively manage"

AN INTERVIEW WITH DR. JÖRG SCHNEIDER ON RISK MANAGEMENT



DR. JÖRG SCHNEIDER
Member of the Board of Management,
responsible for Accounting, Controlling, Taxes and IT

# What goal is Munich Re pursuing with its risk management system?

Every member of staff responsible for business is interested in knowing the risks in his or her area in order to take appropriate action, depending on the situation. Our risk management system supports staff with suitable tools and makes sure these are implemented everywhere in the Group. In addition, we analyse our system and our risk situation at the level of the subgroups and the Group as a whole, taking into account all the main risks of our operative and central divisions. This enables us not only to react but also to actively manage our risks. In addition, by so doing, we meet the legal requirements of the German Law on Corporate Control and Transparency (KonTraG).

Last year you said that Munich Re's risk systems had passed the test in connection with the events of 11 September. Does that also apply to the slump on the capital markets in 2002?

Purely in financial terms, the stock market crash of 2002 was an even sterner test for the Munich Re Group. The tools for safeguarding our investments against losses were not always sufficient to cope with the duration of the price falls and especially with their dimensions.

RISK >> RISK CULTURE

# LEARNING FROM MISTAKES

One of the aims of our risk management is to ensure a positive risk culture in our Group – to a create an environment where people feel they can openly admit mistakes without fear of recrimination and above all learn from mistakes in order to do things better.



Keeping a constant eye on risks >> Our risk management process works on a "circular" basis: we have defined cycles in which we identify, analyse, control and monitor risks. At the end of each cycle we adjust the tools and responsibilities where necessary.

# What was so exceptional about this development?

At no time in the last 60 years have share prices fallen in three consecutive years. After a prolonged weak phase, the market suddenly nosedived in autumn 2002. In only seven weeks up to 9 October the EURO STOXX 50 fell by 25%. Financial stocks actually lost a third of their value in this period.

# Will current events have consequences for Munich Re's risk management?

Yes, of course. Our system is basically designed for the long term, but that doesn't mean it's not flexible. We adjust our tools to developments in our business environment on an ongoing basis. In the asset management sector, it has long been our practice to simulate the consequences of major price falls, and our risk management was well equipped for such eventualities according to the state of knowledge at the time. The extreme developments were not predicted by anyone or even thought possible. As with 11 September, everyone has had to learn from the recent stock market crash; we have adapted our scenarios to take account of the increased volatility.

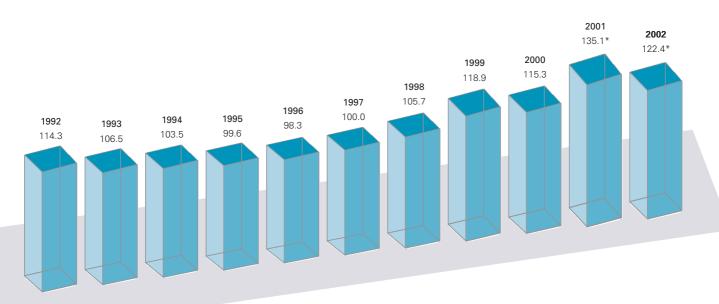
# 06

# **Financial report**

**Return to reason** Market players are giving priority to their underwriting results again.

Strong growth Our Group premium income rose by 10.8% to €40bn.

Positive result Affected by a whole range of special factors, our profit for 2002 totalled €1,081m.



\* Thereof for WTC and reserve strengthening at American Re - 2001: 22.4% / 2002: 15.9%.

# Combined ratio - A barometer of business performance

The combined ratio is sum of the loss ratio (ratio of claims expenses to earned premiums) and the expenses ratio (ratio of operating expenses to earned premiums). The better the underwriting business performs, the lower the combined ratio usually is.

# Management report

The business year 2002 presented the Munich Re Group with particularly demanding challenges. The general economic situation deteriorated noticeably worldwide in the course of the year, and the price slumps on the stock exchanges destroyed a vast amount of capital. Active underwriting business, on the other hand, went well, and in reinsurance we moved significantly closer to risk-commensurate prices and conditions.

# **Business parameters 2002**

### Overall economic development

At just under 3%, global economic growth in 2002 again remained clearly below the average of the last thirty years.

After a relatively strong start, the world economy rapidly slowed down in the further course of the year. Growing uncertainty and a general reluctance to invest dominated the picture to an ever-greater extent in the leading industrialised countries. The continued threat of terrorism and a renewed increase in geopolitical risks, including the emerging threat of military confrontation in the Gulf region, contributed to the uncertainty worldwide. Unemployment rose in all the leading industrialised countries, whilst investors quickly lost confidence as a result of spectacular insolvencies. All this led almost inevitably to a massive collapse in prices on the stock markets, which in turn had a negative impact on the real economy.

The US, which nominally accounts for almost one third of world economic output, again proved to be the main engine of global economic activity in 2002. Strong growth in the first quarter of 2002 led to a real annual rate of 2.4%. However, the monetary and fiscal measures introduced since 2001 to boost the economy have so far been insufficient to ensure lasting growth in the US, and thus also in the global economy.

The situation in Europe did not help to stimulate the global economy either. Euroland lagged well behind the US, with growth of 0.8%.

In Germany, the annual average growth of 0.2% in real terms was again weak. Deferred structural reforms and an unpredictable economic policy, which increasingly led to uncertainties, left their mark. The indices of producer and consumer confidence took a downward turn, signalling a recession. Insolvency figures shot up and, at the end of the year, unemployment stood at 4.2 million, the highest December figure since 1997.

Ireland, Greece and Spain continued to enjoy relatively strong growth, whereas Italy, the Netherlands and Germany remained at the bottom end of the scale in Euroland. Economic growth in France was slightly above the average for Euroland as a whole. In the UK, strong private consumer demand was the mainstay of the relatively robust real growth of 1.6%. In Switzerland, on the other hand, economic output stagnated.

GDP in Japan grew by 0.3% in real terms. The deflationary trends that have existed since the mid-1990s continued unchanged. In 2002, the price level according to the consumer price index fell back to that of 1995.

Thanks to very robust domestic demand, Australia's real growth of 3.8% was significantly higher than that of the global economy. Canada's economy also recorded strong growth of 3.4%.

The economic situation in emerging markets was generally impacted by the global trend during 2002, though regionally there were big differences. Basically, all the emerging markets suffered from the slowdown in the world economy.

The strongest growth was seen in Asia: China achieved a real growth rate of around 8% in 2002, thus maintaining its unbroken upward trend. In Korea, Thailand and Taiwan, annual growth rates were up on those for 2001 – in some cases quite substantially.

Russia and the transition states of Central and Eastern Europe continued to experience stable growth, even though they increasingly suffered from the weak economic situation in Euroland. The EU Summit in Copenhagen sent out a positive signal, however, resolving to expand the EU by ten new members in 2004. Turkey saw a return to positive growth figures following the previous year's crisis.

By contrast, the situation in Latin America worsened. In Argentina, the crisis persisted, with economic output declining by a double-digit percentage. Political tensions in Venezuela are rendering the country increasingly unstable. In Brazil, the economic situation was shaped until October by the inminent presidential elections.

Because of the growing geopolitical risks, the price of oil rose in September, despite the sluggish economic trend, and then again in December, to over US\$ 30 per barrel. Not until March did the market calm down again. Although raw materials generally became more expensive, inflation rates in the industrialised countries continued to be relatively low. In Euroland, however, the increase in prices still exceeded the European Central Bank's target value of 2%.

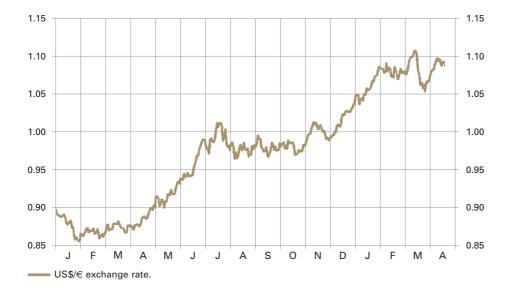
Not least against the background of low overall economic growth, the central banks in the US and Euroland therefore cut interest rates by a further 50 basis points in the second half of the year in order to give their economies an additional boost.

### **Developments on the capital markets**

After an initial recovery, carried by the hope that the world economy would quickly improve, the stock markets experienced a massive downturn in the spring. At first, with the accounting scandals, the factors responsible for this slump seemed to be specifically American. Gradually though, the classic explanation patterns emerged: uncertainties about the upswing in economy and therefore about companies' earnings prospects. The ongoing threat of terrorism and the risk of war in Iraq also led to an increasing loss of confidence among investors. In the second and third quarters, share prices consequently fell to such an extent that they quickly found themselves beneath the level of the September 2001 lows. In the course of the year, the s&p 500 declined by 23.4% and the EURO STOXX 50 by 37.3%. This made 2002 one of the blackest years in history for the stock markets. Exhibiting especially great volatility, they recorded their third annual decline in a row.

On the bond markets, a flight to quality was observable: long-term yields fell back to a level only reached in recent years as a consequence of the Asian crisis; the spreads for corporate bonds increased noticeably in the second and third quarters, but then stabilised.

The currency markets clearly reflected the worldwide economic trend. The dollar weakened visibly during the course of the year, not least because attention concentrated more on the risks in the US economy, such as the deficit in the current account balance and the indebtedness of private households. However, there is reason to believe that so far this weakening of the dollar is merely a correction after the overvaluation of recent years. The value of the euro was slightly up against the yen.



### **Development of the insurance industry**

In 2002, the macroeconomic situation left its mark on the insurance industry to an almost unprecedented extent. In particular, the extreme trend on the capital markets had a substantial impact on the entire financial sector. Falling interest rates and the collapse of prices on the stock markets badly hit insurance companies as investors. This contributed to the tendency among all the market players to at last concentrate more on a commercially sound, profit-oriented approach in their core business.

In most markets, results in life insurance were affected by the weakness of the capital markets. In Germany and elsewhere, many life offices had to reduce their policyholders' bonuses. The development of the capital markets led to new business opportunities in life reinsurance, as reductions in equity capital led primary insurers to cede more business to reinsurers.

In health insurance, the global trend towards further liberalisation of healthcare continued, even if no significant steps were actually taken in the larger markets in 2002 (see page 85). Prices and conditions in health reinsurance improved during the year under review.

In property-casualty insurance, premium income grew more strongly than GDP in nearly all markets in 2002 – not least as a result of rate increases: insurers and reinsurers alike managed to achieve substantial improvements in prices and conditions.

As far as reinsurance was concerned, the following factors led to a distinct reduction in capacity during the period under review: the massive burden on the insurance industry from major losses like that of 11 September 2001, the substantial destruction of capital in the worldwide bear market, the closing down of even well-known and old-established insurers and reinsurers, and a wave of reserve strengthening. By contrast, the effects of newly-established capacity – for example in Bermuda – have so far been barely noticeable.

It is also evident that the demand for effective risk protection has increased again in society as a whole. The events of the last two years have made it clear to everyone how important the insurance industry is, and also enhanced clients' readiness to pay an appropriate amount for first-class security.

Nevertheless, rates in some markets and for some sectors have yet to reach a level commensurate with the growing risks, and this is particularly true of several areas in liability insurance. Munich Re will therefore press for further improvements here.

Finally, a brief look at the development of a number of major markets:

In the US, after years of price wars, 2002 saw the emergence of a pricing environment in which rates were more commensurate with risks. Prices and conditions improved significantly, as numerous market indicators confirm. In life reinsurance, the American market is continuing to consolidate. Bigger and better-capitalised reinsurers are achieving larger and larger market shares of new business. Competition for traditional business remains keen.

Premium growth in the European insurance markets mostly exceeded overall economic growth. Altogether, European insurance companies suffered markedly from the bear market on the stock exchanges and declining interest rates, especially the life insurance industry.

In Germany, despite the unfavourable macroeconomic situation, property-casualty insurance recorded nominal premium growth of 2.8%. Premium income was up by 4.3% in life insurance and by 6.4% in private health insurance.

The market parameters for private and company pensions in Germany were dominated by pension reform (see page 69). Insurers quickly translated the statutory requirements of the so-called "Riester" pension into eligible products, but the number of policies actually concluded remained largely below expectations.

German life insurers are also being affected by the continuing weakness of the capital markets, and this could lead to problems for some companies. The life insurance sector has itself come up with a solution to deal with critical individual cases: the rescue company Protektor, in which all German life insurers are involved, has been set up for the unlikely event that a company is threatened by insolvency, thus ensuring that all insureds remain protected even in the current difficult environment.

In the property-casualty classes of business, improved prices and conditions characterised the reinsurance market in 2002 both in Germany and in most other European countries. Competition, which had previously been overheated in several sectors, eased. This was partly due to the withdrawal of a number of large and medium-sized market players. Reduced capacities have further enhanced the trend towards more risk-adequate prices and conditions.

The demand for capacity to cover risks from natural catastrophes continues to be high in Japan. In Australia, prices and conditions in reinsurance largely reached risk-commensurate levels.

Growth in the different insurance markets – measured by the rate of increase in premium volume – was again stronger in emerging markets than in established markets. This was due to the greater dynamism of the economies and the rising level of insurance penetration there.

The Chinese insurance market recorded very strong expansion again in 2002. Whereas in 1991 China still lay in 25th place in the global league of insurance markets, thanks to its dynamic development it had already moved up to 13th place by 2001.

Substantial growth in premium was also to be seen in some of the other emerging insurance markets in Asia. Central and Eastern European insurance markets continued to catch up overall in 2002, both in life and in non-life business.

# **Business performance 2002**

# Overview

Following the successful renewal of reinsurance treaties at 1 January 2002, our 123rd business year got off to a promising start, with very strong growth and an outstanding first quarter result, due in no small part to the profits from the long-agreed sale of shares in Allianz Group companies. The second quarter was overshadowed by the major strengthening of reserves for our Us business. The third quarter was significantly affected by the flood disasters in Central Europe and Asia. On top of this came the unparalleled crash on the stock markets worldwide. As investors, we were badly affected by this bear market, which persisted in the fourth quarter. But the situation on the investment front also underlined the need for a further improvement in insurance prices and conditions, and in the renewals as at 1 January 2003 we pressed hard for such improvements, which were largely achieved.

### Growth

Group premium income rose by 10.8% (16.1%) in the past year to €40.0bn (36.1bn), thereby exceeding our high expectations. We grew in all areas, mainly organically, and managed to distinctly improve the profitability of our business, especially in reinsurance.

# Group premium income

in €bn	2002	2001	2000	1999	1998
Reinsurance	25.4	22.2	18.3	15.4	14.1
Primary insurance	16.6	15.7	14.4	13.5	12.7
Consolidation	-2.0	-1.8	-1.6	-1.5	-1.3
Total	40.0	36.1	31.1	27.4	25.5

We earned 59% (57%) of our Group premium from reinsurance, whose premium volume has grown by around 80% since 1998.

For the reporting on individual fields of business, the following principle applies: figures that derive from business within a segment are eliminated, whereas figures that derive from business with companies from other segments (e.g. intra-Group reinsurance cessions from primary insurers to reinsurers) are included in the data.

### Result

Following large share price losses on all the important stock markets, our result objectives had to be considerably revised downwards over the course of the year. The bottom line was a profit of €1,081m.

#### Group result

in €m	2002	2001	2000	1999	1998
Result before amortisation of goodwill	809	-415	2,615	1,821	2,281
Operating result before tax	438	-645	2,470	1,701	2,171
Profit for the year	1,081	250	1,750	1,133	1,200

The Group result for 2002 was heavily influenced by the following factors:

- The shareholding transactions with Allianz AG, for which the stage had been set in the previous years, were completed successfully in the first half-year, resulting in a profit of €4.7bn.
- In the second quarter, we strengthened the loss reserves of our US subsidiary American Re by US\$ 2bn, in order to draw a line under the series of long-tail losses from our US business (see page 71).
- We also increased our reserves by Us\$ 500m for losses from the 11 September 2001 attack on the World Trade Center (WTC).
- We had to take account of the weak state of the capital markets with writedowns of €5.7bn on our security portfolios.
- Losses on the disposal of investments rose to €3.9bn (2.5bn), mainly due to the sale of shares.

The large and very large losses we recorded in reinsurance came to €1,886m (4,749m), including the strengthening of our reserves for the WTC loss. Of this, natural catastrophes – especially the severe floods in Germany, the Czech Republic, Austria and Italy in August 2002 (see page 78) – accounted for €588m (213m).

### **Balance sheet structure**

in €m	31.12.2002	31.12.2001
ASSETS		
Intangible assets	5,777	5,522
Investments	156,278	161,994
Ceded share of underwriting provisions	10,230	11,994
Other assets	24,156	22,544
Total assets	196,441	202,054
EQUITY AND LIABILITIES		
Shareholders' equity	13,948	19,357
Minority interests	532	990
Underwriting provisions (gross)	153,196	150,636
Other liabilities	28,765	31,071
Total equity and liabilities	196,441	202,054

# Equity capital and financing

The large stock price falls in the year under review led to losses in the value of shares accounted for at market value in our consolidated financial statements. This played a significant part in the reduction to €13.9bn (19.4bn) in shareholders' equity shown in our balance sheet at 31 December 2002. For the same reason we also lost a large portion of our valuation reserves, which had totalled €16.4bn at the end of 2001. The notes to the financial statements provide detailed information on the development of shareholders' equity in the balance sheet on page 211. They also include the valuation reserves for investments not accounted for at market value (see page 201 f.).

# Group shareholders' equity

in €m	31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.1998
Group shareholders' equity	13.9	19.4	23.6	18.5	16.2
Valution reserves not recognised in the balance sheet, including those apportionable to minority interests and policyholders					
(before tax)	1.1	16.4	21.9	19.2	19.0

We continually monitor the capitalisation of our Group and the insurance companies belonging to it, with due regard to the requirements of insurance supervisory authorities and the criteria of the leading rating agencies. An increasingly important role is played by our internal risk model (see explanations in the risk report on page 164), which we use to determine the capital requirements of individual business units, taking into account fluctuations in results and risk exposures. Despite the losses in shareholders' equity, our capitalisation was still adequate at the end of the business year.

In order to provide a sound basis for further organic growth, we issued two subordinated bonds in April 2003: a euro bond with a volume of €3bn and a spread of 245 basis points above euro mid-swap, and a pound sterling bond with a transaction volume of around €450m and a spread of 295 basis points above gilt.

As at 31 December 2002, there were bonds from previous years with a face value of €2,205m (2,474m) in circulation; of these €1,720m (1,640m) was apportionable to exchangeable bonds, which we use as an instrument for implementing planned sales.

# Liquidity

In the year under review, the liquidity of Munich Re and its subsidiaries was always assured. Our cash flow from operating activities amounted to  $\in$ 3.3bn (8.7bn) in net terms. Settlement of WTC claims by primary insurers is progressing more slowly than expected, which means that our payments are not having to be made as early as planned.

How we safeguard our liquidity and hedge against foreign currency risks is described in the risk report (see pages 168, 170).

# **Rating**

Despite the reduction in its shareholders' equity and valuation reserves, the Munich Re Group is still one of the financially strongest insurance groups in the world, and is also seen by the leading rating agencies and our clients as such. Even though some agencies have downgraded Munich Re's rating, this has not had any adverse effect on our business to date. The current ratings of the Munich Re Group and its subsidiaries may be found on page 111 f. of this report and also on our website.

www.munichre.com/ir-d

# Reinsurance

The Munich Re Group companies operate in all classes of reinsurance and offer a full range of products – from traditional reinsurance to alternative risk financing and risk transfer structures (see page 47).

Responsibility for the Group's global reinsurance business at the parent company, the Munich Reinsurance Company, is divided between seven divisions: Life and Health; Europe 1; Europe 2 and Latin America; Asia, Australasia, Africa; North America; Corporate Underwriting/Global Clients; Special and Financial Risks (see page 55).

The addresses of the most important units can be found on page 255 of this report and also on our website.

www.munichre.com/group-d

# Marketing, employees

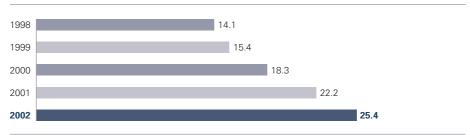
As reinsurers, we write our business predominantly in direct collaboration with our clients, the primary insurers, but also through brokers. Business offered to us by industrial clients through their captives or by risk retention groups (alternative market business) is accepted via Munich-American RiskPartners (MARP).

On 31 December 2002 the reinsurance group had 5,836 (5,872) staff, 49.7% of whom were employed outside Germany (see page 234).

### Overview

Our main objective was to improve the quality of our portfolio as a whole, which we succeeded in doing. Thanks to higher prices for existing business and high-quality new business, we were able to increase our premium income in the year under review by 14.6% (21.1%) to €25.4bn (22.2bn)

### Gross premiums in €bn



The factors outlined on page 137 played a crucial part in shaping the profit for the year of  $\in$ 3,149m (-52m).

#### Growth

Of the reinsurance treaties up for renewal at 1 January 2002, we terminated almost one fifth – measured in terms of premium volume – because appropriate improvements in prices and conditions were not possible. At the same time, we not only achieved appreciably better terms of trade for the renewed business, but also acquired attractive new business. Our clients' significantly heightened awareness of the necessity and value of reinsurance with top security continued to benefit us in the renewal of treaties at 1 April and 1 July 2002.

All divisions therefore managed to increase their premium income significantly in the year under review.

#### Gross premiums by segment

Total	25,445	22,196	18,325
Property-casualty	18,884	16,296	13,624
Life and health	6,561	5,900	4,701
in €m	2002	2001	2000

The life and health classes of business accounted for 25.8% (26.6%) of our premium in reinsurance.

Growth in life and health reinsurance is being fuelled by demographic trends and the difficult situation of state social security systems. This benefited not only primary insurers but also Munich Re's reinsurers. A large portion of our growth was due to new business, but we also increased our shares in existing reinsurance treaties.

## Gross premiums in life and health reinsurance

in €m	2002	2001	2000
Life	5,277	4,769	3,865
Health	1,284	1,131	836
Total	6,561	5,900	4,701

Although we continue to be the leading reinsurer for life and health business in Germany, we are recording significantly higher growth abroad.

Our position is particularly strong in the Canadian insurance market, where Munich Reinsurance Company Canada Branch Life is the main life reinsurer; in the year under review it extended its position further. In the US, our subsidiary Munich American Reassurance Company (MARC), one of the biggest life reinsurers in the market, recorded a high rate of organic growth. The Munich Re United Kingdom Life Branch was able to consolidate its position as the second-largest life reinsurer in the UK, where business continued to grow at above-average rates.

In Germany, one of the main issues for us in the year under review was the introduction of state-subsidised private pensions (for more on this, see page 69 of this report).

There should be similar potential for growth in health insurance in the medium to long term. Rising benefits and a continuing cost explosion mean that state social security systems are in great difficulties, and not only in the German market, which is of particular importance to us; these systems urgently need privately financed supplementary cover, similar to life insurance. We are very well prepared for this development in both insurance and reinsurance. Our assessment of the situation is given on page 85.

The growth in our property-casualty reinsurance reflects the appreciable increases in premiums for existing covers; in many markets, however, we also managed to acquire attractive new business, despite keen competition. Thus the reduction in volume resulting from the termination of unattractive business was more than compensated for overall.

#### Gross premiums in property-casualty reinsurance

in €m	2002	2001	2000
Europe 1	2,161	2,151	2,152
Europe 2 and Latin America	2,952	2,883	2,085
Asia, Australasia, Africa	1,619	1,487	1,351
North America	4,968	4,373	3,618
Corporate Underwriting/Global Clients	4,699	3,615	2,845
Special and Financial Risks	2,485	1,787	1,573
Total	18,884	16,296	13,624

## Result

In the last renewal rounds, we have achieved significantly better prices and conditions, but above all appropriate restrictions in the scope of cover, and we have terminated a substantial volume of business that was performing badly. In 2002, this translated into distinctly improved results for the current underwriting year.

Our combined ratio nevertheless only fell to 122.4% (135.1%). This ratio, and with it the income statement for the business year, were significantly impacted by the strengthening of the loss reserves for our US business.

#### Combined ratio non-life

in %	2002	2001	2000
Total	122.4	135.1	115.3
Thereof:			
<ul> <li>Increase in reserves for WTC</li> </ul>	3.2	15.4	-
- Strengthening of American Re's reserves	12.7	7.0	_
- Natural catastrophes	3.3	1.5	2.0
Combined ratio	103.2	111.2	113.3
(excluding WTC, American Re and natural catastrophes)	103.2	111.2	113.3

Until the middle of the year, our claims burden from large and very large losses had been considerably lower than the long-term average. Then, in July and August, there was a succession of bad weather events in Central Europe and Asia, with heavy rainfall and in some cases extensive flooding. We have so far paid out around €500m for the resultant flood losses. In the second half of the year, Windstorm Jeanett caused damage over wide areas of Europe and Hurricane Isidore did likewise in Mexico, altogether costing us around €100m. Besides this, we were affected by two satellite losses totalling around €60.9m which were reported to us in the fourth quarter.

Excluding the reserve strengthening for American Re and the WTC losses, the combined ratio came to 106.5%. This represents a considerable improvement of 6.2 percentage points compared with the figure for 2001 calculated in a comparable way, and is also appreciably better than the average for the last few years, although the impact of natural catastrophe losses, with 3.3 percentage points, was considerable.

Broken down by division, the combined ratio developed as follows:

#### Combined ratio by division

2002	2001	2000
104.5	113.9	101.9
117.7	106.7	92.1
96.4	115.3	125.6
86.8	112.5	99.1
168.1	156.8	122.1
120.8	160.4	122.6
116.5	140.9	134.1
	104.5 117.7 96.4 86.8 168.1 120.8	104.5     113.9       117.7     106.7       96.4     115.3       86.8     112.5       168.1     156.8       120.8     160.4

<sup>\*</sup> Figures for health reinsurance only.

When interpreting the combined ratio, the particular circumstances of a class of business, e.g. the composition of the actual portfolio, must be taken into account. The following factors (among others) are important:

- The more the claims burden fluctuates over time, the greater the risk is and so the higher the rates needed to cover the risk must be. Greater fluctuations in the claims burden also require lower loss ratios in good years and lower average loss ratios, in order to guarantee the reinsurer a reasonable consideration for assuming the risk. This is particularly true in the case of exposure to natural catastrophes, which may occur rarely, but are often very severe when they do.
- Another important distinguishing feature relates to the time-lag between premium being received and claims being paid. The greater these periods are, the longer the premiums received can be invested in securities or other assets. High combined ratios in classes of business in which claims settlement takes a long time (e.g. liability) therefore also generally entail higher returns from investments with which the loss reserves are covered. These returns are not reflected in the combined ratio.

In all divisions, we made considerable progress with regard to improving prices and conditions, which also had a positive effect on the combined ratios, but in some areas this was overshadowed by special cost burdens.

Because of the flood losses mentioned above, Europe 1 had a combined ratio of 117.7% (106.7%). Europe 2 and Latin America, as well as Asia, Australia and Africa, were largely spared natural catastrophes and therefore achieved the most marked improvements. North America's very high combined ratio resulted from the strengthening of reserves at American Re. The increase in our reserves for the WTC losses mainly affected our business with insurers operating globally; this explains the high combined ratio of Corporate Underwriting/Global Clients. The business written by Special and Financial Risks was characterised by very good results in aviation and space insurance, and also in alternative market business; the only negative results recorded were in credit reinsurance – due to the poor state of the economy – and at our Swiss subsidiary, New Re.

Special and Financial Risks' combined ratio has also been impacted by the reinsurance group's retrocessions, which are shown there in full. The combined ratios of the individual classes of insurance are given on page 237.

The predominant features of the reinsurers' investment result were, on the one hand, the high profits from shareholding transactions with Allianz in the first and second quarters of the year under review and, on the other hand, the heavy losses on disposals of investments and writedowns on shares in the third and fourth quarters. These are dealt with in more detail on page 157 f.

Overall, the results achieved by our reinsurers have developed as follows:

#### Reinsurance underwriting result

in €m	2002	2001	2000	1999	1998
Result before amortisation					
of goodwill	2,591	-687	1,525	1,208	1,526
Operating result before tax	2,462	-824	1,393	1,093	1,421
Group profit for the year	3,149	-52	1,321	1,093	1,049

#### Important events in the year under review

In order to further increase our competitiveness, we last year again made organisational and structural changes, established new subsidiaries and further improved our products. A few of the important occurrences during the year are outlined below.

#### Extensive changes at New Re, Geneva

For the third time in a row, our Swiss subsidiary showed a significant net loss for the year. Besides having to make high writedowns on equity portfolios, it was necessary to strengthen loss reserves for earlier underwriting years. Having already restructured New Re's portfolio, we went on to make extensive staffing and structural changes at the company.

#### Realignment of American Re

Given the good prospects in the US market in particular, we increased American Re's capitalisation by US\$ 1.4bn at the end of September. Following the previous large increases in its loss reserves and also far-reaching organisational and personnel measures, American Re is much better positioned than it was a year ago. It now concentrates entirely on the important US market, where it is one of the leading operators. You can find out more on page 71.

#### Formation of Munich American Capital Markets (MACM)

The transfer of insurance risks to the capital market and, conversely, of financial market risks to the insurance market has resulted in the two markets moving closer together. On 1 July 2002, Munich Re strengthened its presence in this business environment by setting up MACM, which is intended to exploit the strengths of both markets and provide our clients with specific solutions for complex and capital-intensive risk scenarios.

#### Streamlining our Group structure

We regularly examine our extensive network of branches and offices from the cost/benefit standpoint. In the year under review, we closed our office in Istanbul and scaled down those in Moscow and Warsaw, because we can write the business more cost-effectively from Munich. As American Re is now focusing entirely on its home market, we have further streamlined the structure of the business units in our international organisation, especially in Central and South America. On the other hand, we have expanded our presence in China and India. With all these measures, the prospect of positive contribution margins in the long term is the crucial factor.

In future, ERGO will concentrate entirely on primary insurance, which is why VICTORIA Re stopped writing inward reinsurance business at the end of 2002. VICTORIA Re's premium income from non-Group companies latterly amounted to €235.9m.

#### New concept for terrorism covers

The attack on the World Trade Center on 11 September 2001 illustrated very dramatically how important it is to limit liability for terrorism risks, which defy all attempts to calculate them by actuarial means. The absence of any limits can threaten an insurer's or reinsurer's very existence. We have developed a clear concept of how terrorism risks should be dealt with in reinsurance, and have consistently implemented this in renewal negotiations since 1 January 2002. Consequently, we did not suffer any significant claims burden from the terrorist attacks on Bali (October 2002) or in Mombasa (November 2002).

You can find out more about our concept for terrorism covers on page 87.

#### Research and development

In our Centre of Competence for Biosciences, doctors, agricultural scientists, biochemists and human geneticists analyse developments in genetic engineering and their impact on our business and our clients. For example, our specialists seek answers to the questions of how rising life expectancy affects health insurers' costs or how costs can be saved in healthcare by means of consistent prevention measures. We use statistics and risk scenarios to help health insurers, pension insurers, life insurers, liability insurers and agricultural insurers develop new products and coverage concepts.

Our Geo Risks Research Centre of Competence records natural hazards worldwide, in particular the striking increase in catastrophe losses. It analyses their causes, assesses the results with respect to our underwriting policy, and offers our clients a comprehensive service regarding these topics.

We maintain close contact with scientific institutions around the world and with domestic and foreign media, in order to contribute our point of view to public debate. Our experts are highly sought-after. A special event in this context is the Climate Exhibition at the internationally renowned Deutsche Museum in Munich, for which Munich Re is the exclusive partner. You can read more about this on page 44.

# **Primary insurance**

Our primary insurance operations include first and foremost the ERGO Insurance Group, as well as the Karlsruher Insurance Group and Europäische Reiseversicherung (see page 57). By far their most important market is Germany, where they earn around 81% (80%) of their premium income. Their foreign premium income derives mainly from Italy, the Netherlands, Spain/Portugal, Belgium, Poland and Austria.

#### Overview

In the year under review, the Munich Re Group's primary insurance segment, particularly ERGO, once again maintained its high pace of growth. However, as in reinsurance, the result was adversely affected by high writedowns on investments, losses on disposals and falling interest rates, leading to a net loss for the year of €959m (+561m). The Group's life insurers have in the meantime – like their domestic and foreign competitors – reduced policyholders' bonuses for 2003, thereby taking an important step towards adjusting these payments to reflect lower market interest rates. Despite this unavoidable measure, the products sold by our life insurers are still the most popular form of provision for old age among insurance clients, with an attractive return.

#### Growth

In 2002 we increased our premium income from primary insurance by 5.6% (9.0%) to €16.6bn (15.7bn); it thus contributed 41% (43%) to Group premium as a whole. The good growth in new business impressively underscored our primary insurers' marketing strength, which is built on well-established products, attractive brands and a range of effective distribution channels.



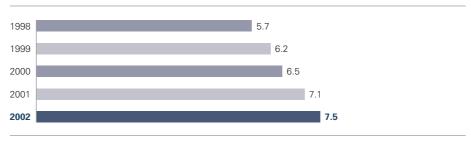


Our primary insurers earned 70.8% (70.8%) of their gross premiums from life and health insurance, where we achieved a 5.7% (7.9%) increase in premium income in the year under review.

This dynamic trend was primarily attributable to life insurance, where premium income was up by 5.6% (9.9%) to €7.5bn (7.1bn). The strong growth in new business particularly reflects our life insurers' good market position with respect to private and company pensions in Germany. The ERGO companies and the Karlsruher Insurance Group offer a wide range of products covering the whole range of old-age provision (see page 69).

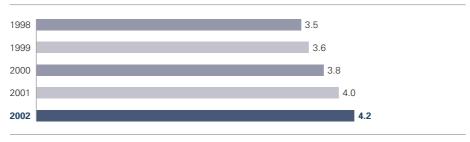
For 2003 our primary insurers have reduced their policyholder' bonuses from 5.4%–6.6% to 4.5%–5.0%.

#### Gross premiums in life insurance in €bn



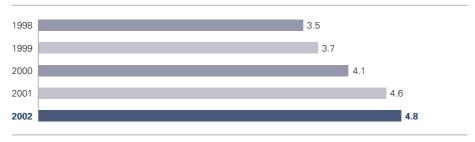
Premium income in health insurance grew by 5.7% (4.6%) to €4.2bn (4.0bn). The fear among many employees in Germany that a drastic increase in the earnings ceiling for compulsory state health insurance could make it more difficult to switch from statutory to private health insurance made a significant contribution to the good growth in new business.

Gross premiums in health insurance in €bn



In property-casualty insurance, premium income reached €4.8bn (4.6bn), or 5.4% (11.7%) more than in the previous year. We managed to achieve growth not only in personal lines business but also in commercial property insurance, which, thanks to price increases, contributed to the positive premium trend.

Gross premiums in property-casualty insurance in €bn



#### Result

The floods in Germany and Central Europe, and also severe windstorm damage, gave rise to claims costs for our primary insurers in the mid double-digit million euro range. Despite these and other burdens from natural hazard events, the combined ratio fell to 99.1% (101.4%).

Although operative insurance business performed well all in all, it was overshadowed by the high expenditure for losses on disposals of investments and writedowns on equity portfolios necessitated by the extremely negative trend on the capital markets.

Overall, the results recorded by our primary insurers have developed as follows:

#### Primary insurance underwriting result

in €m	2002	2001	2000	1999	1998
Result before amortisation of goodwill	-669	555	1,342	948	836
Operating result before tax	-910	463	1,335	943	831
Profit for the year	-959	561	624	347	208

## Reporting by subgroup

In reporting on our primary insurance operations, we follow the structure of our subgroups, in each case referring to our subsidiaries' individual or consolidated financial statements for the year.

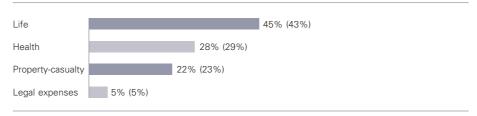
# **ERGO Insurance Group**

#### Marketing, employees

www.ergo.de

ERGO's marketing is based on a multi-channel strategy, with its own strong sales forces, direct mailing and brokers. Its partnership with HypoVereinsbank also plays an important part − ERGO's sales forces offer their clients products of the HVB Group, and companies of the HVB Group offer ERGO company insurance products nationwide. This cooperation, which generated sales of nearly 152,000 insurance policies and annual policy premium of €292m in 2002, contributed to ERGO's pleasing growth (see page 83).

#### Gross premiums by class of business



At the end of 2002 the ERGO Insurance Group employed 25,815 (22,156) desk staff and 5,974 (6,402) salaried field staff. The increase in desk staff reflects the continuing amount of good new business written by ERGO, but also the acquisition of KarstadtQuelle Versicherungen.

#### Growth

ERGO's premium income rose by 7.6% (9.9%) in 2002. All classes of business, but especially life insurance, contributed to this growth, which exceeded the market average.

#### Gross premiums in primary insurance

in €m	2002	2001	2000	1999	1998
Life	6,443	6,029	5,385	5,114	4,695
Health	4,238	4,010	3,833	3,593	3,484
Property-casualty	3,352	3,160	2,756	2,560	2,504
Legal expenses	742	723	695	662	650
Total	14,775	13,922	12,669	11,929	11,333

In life insurance, ERGO achieved notable sales of personal and company pensions, increasing its premium income by 6.9% (12.0%). Despite the generally slow take-up of "Riester" pension products over the past year, which had to do with the complexity of these policies and the public debate about the possible need for a "reform of the reform", ERGO life insurers sold 530,000 such policies in all, giving them a market share of around 18% of products certified as complying with the pension reform requirements.

In health insurance, ERGO last year acquired 80,500 new clients in Germany for its core business: comprehensive insurance for medical costs. Gross premiums were up by 5.7% (4.6%).

In property-casualty and legal expenses insurance, ERGO recorded growth of 5.7% (12.7%), partly driven by commercial and industrial property insurance, where remedial measures have been making themselves positively felt since 2001. The 2.7% (3.9%) growth in legal expenses insurance came mainly from foreign business.

#### Result

Operative insurance business performed positively overall. Despite the flood losses in Germany and Central Europe and also other natural hazard losses, the combined ratio in property-casualty business fell to 97.6% (98.2%).

ERGO, as a large institutional investor, was also affected by the exceptionally adverse situation on the capital markets, which led to a very poor result from investments of -€515m (+5,088m). On balance, the overall result for the year after tax was -€1,125m (+655m).

#### Important events during the year under review

In 2002, the ERGO Insurance Group launched two new corporate pension schemes: VICTORIA Pensionskasse AG and Hamburg-Mannheimer Pensionskasse AG, thereby further strengthening its position in the company pensions sector. To take account of the different clients involved, the pension schemes have been set up with different methods of marketing. Both take advantage of the ERGO network, however, and are supported by the same technical platform, thus providing cost benefits for providers and clients alike.

KarstadtQuelle Finanz Service (KQFS), the joint venture established by ERGO and KarstadtQuelle in the first half of 2002, is doing well. In the second half of the year, financial service centres were opened at branches of Karstadt Warenhaus AG in several major German cities. One area of KQFS's activities is ancillary or "add-on" business, i.e. additional insurance benefits offered when goods and products are being purchased.

# **Karlsruher Insurance Group**

#### Marketing, employees

www.karlsruher.de

The distribution structure of the Karlsruher Insurance Group is based on a main sales organisation present throughout Germany, collaboration with brokers, and a distribution network of partners. Life insurance is also sold through the branches of cooperative banks, mainly in southern Germany. Sales via brokers are growing in importance.

At the end of 2002 the Karlsruher Group employed a total of 4,034 (4,152) people. 1,790 (1,777) of these were desk staff and 2,244 (2,375) field staff.

#### Growth

As a whole, the development of the Karlsruher Group was satisfactory in the past year, despite the negative influences on its business. At €1.35bn, the total gross premiums written remained at the same level as in the previous year.

Owing to a decrease in single-premium business of 15.5% (+ 3.8%) Karlsruher Lebensversicherung AG showed a decline in gross premium of 1.5% to €1.04bn (1.05bn). By contrast, new business with regular premiums developed much better than the market average of 4.8% in 2002, rising by 12.3% (23.5%).

At Karlsruher Versicherung AG, gross premium grew more slowly than in the previous years, increasing by 3.6% (18%) to €250.8m (242.1m), although this growth rate was still above the market average of around 1%. On account of the exceptionally high claims burden from losses involving windstorm, hailstorm and other natural hazard events in 2002, the company's combined ratio increased to 113.5% (104.6%).

## Result

The Karlsruher Insurance Group's overall result for the year improved from —€18m to €17m. The previous year's result had been affected by adjustments in the calculation bases for actuarial items.

# Europäische Reiseversicherung

#### Marketing, employees

Europäische Reiseversicherung is the market leader in its class of business in Germany, its most important market, where it works with over 17,000 partners in the tourist industry – these include major groups as well as individual travel agents.

www.reiseversicherung.de

Now operating with a uniform logo and market presence, the Europäische Group is represented in all the main European countries through its international network of subsidiaries and participating interests, thus taking account of the further internationalisation of the travel industry. In its marketing, it is continuing to work on expanding innovative distribution channels such as the internet.

In 2002, a total of 704 (653) staff were employed in the Europäische Group.

#### Growth

The overall situation in the travel industry failed to recover from the previous year's downturn, with the trend in bookings remaining muted throughout 2002. Partly because of the FIFA World Cup in Japan and Korea, the tourist season developed into a "late booker" year. Altogether, the Europäische Group's gross premiums fell by around 0.6%.

In Germany, Europäische shared the fate of many tour operators, with reductions of 10% to 20% in the number of sales. The claims situation with regard to cancellations by customers has improved again. Net claims expenses for the Europäische Group decreased markedly by €18.3m. This reduction of over 10% was achieved mainly in Germany.

## Result

The Europäische Group also felt the pressure and turbulences of the capital markets. Despite an investment result that was about  $\in$ 8.0m lower than in the previous year, the Group succeeded in reducing its operating loss by around 72% to  $-\in$ 4.5m.

# **Asset management**

In this section, we report both on the performance of our Group's own investments, which derive almost entirely from our core business fields of reinsurance and insurance, and on the third-party business that is being built up.

#### Marketing, employees

Retail and special funds for private investors and institutional investors are offered by MEAG direct. Its important partners are Munich Re and the ERGO Insurance Group, with its network of 24,000 agents.

At the end of the year under review, MEAG and its subsidiaries employed 617 (550) people.

#### **Investment principles**

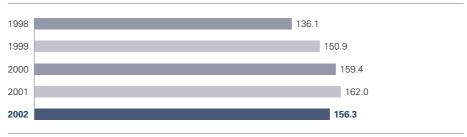
In the investment sector, we consistently follow a number of principles: we only make investments from which we can expect an appropriate return, at the same time giving due regard to a high degree of security. We try to reduce currency risks through our asset-liability management, by matching our expected liabilities with assets in the same or similar currencies. How we counter the various investment risks is described in depth in the risk report on page 168.

We have reported in detail about the poor performance of the capital markets in the year under review in the section "Business parameters 2002". The unparalleled slump on the stock markets had a very negative impact on our result, our investment portfolio and our shareholders' equity.

#### Performance and structure of investments

At 31 December 2002, the Munich Re Group's investments amounted to €156.3bn (162.0bn), down 3.5% on the previous year. This was largely due to the heavy losses in the value of equity portfolios and, to a lesser extent, to exchange losses on foreign currencies in relation to our balance sheet currency, the euro.

## Investments in €bn



www.meag.com

The table below shows the composition of the portfolio by investment type:

	2002		Prev. year		Change
Investment mix	€m	%	€m	%	in %
Real estate	9,848	6.3	9,044	5.6	8.9
Investments in affiliated and associated enterprises	9,601	6.1	12,558	7.8	-23.5
Mortgage loans and other loans	12,644	8.1	11,182	6.9	13.1
Shares and investment fund certificates	18,770	12.0	33,516	20.7	-44.0
Other securities	88,709	56.8	79,127	48.8	12.1
Deposits retained on assumed reinsurance business, and other investments	16,003	10.2	15,901	9.8	0.6
	155,575	99.5	161,328	99.6	-3.6
Investments for unit-linked life insurance	703	0.5	666	0.4	5.6
Total	156,278	100.0	161,994	100.0	-3.5

The reduction in the percentage of shares and investment fund certificates, which are shown in the balance sheet at their fair value, is attributable both to losses in value and to the fact that we have deliberately reduced the proportion of shares in our portfolio as a whole.

## Real estate

The real estate portfolios continued to be rejuvenated and diversified in 2002. Our strategy is based on taking advantage of different market cycles, increasing marketability and achieving a favourable relationship between returns on real estate and interest on outside capital.

In the year under review, additions to real estate amounted to €1,223m (1,016m).

We once again invested in top-class foreign real estate in the past year. In December 2002, the ERGO Insurance Group acquired the One Capital Square complex, one of the five "class A" properties centrally located in Singapore's main business district of Raffles Place. The total area of 37,800 m² has been let on a long-term basis to well-known international financial service providers.

Disposals amounted to €299m (245m). The properties sold were primarily residential and mixed residential/commercial and mainly involved small-volume items in Germany that had reached the end of their life cycle.

The sales activities are based on the long-term strategy of streamlining portfolios in Germany and reallocating investment to fungible, international markets with strong growth, in order to optimise portfolio performance.

#### **Participating interests**

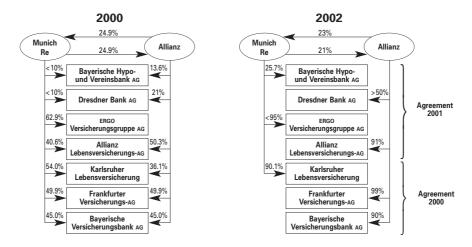
At the beginning of May 2000, Munich Re and Allianz AG had announced their intention to reduce their reciprocal stakes of 25% to around 20% each. This reduction was to take place in several steps, with due consideration for the capital markets. In a first step in the year 2000, the shareholdings were lowered to just under 25%.

It was also agreed in May 2000 that Allianz would acquire Munich Re's 45% stake in Bayerische Versicherungsbank AG and its 49.9% stake in Frankfurter Versicherungs-AG. This was completed in the second quarter of 2002. In return, during the business year 2000 Munich Re acquired Allianz's 39% interest in Mercur Assistance AG Holding, and in mid-2002 Allianz's 36.1% stake in Karlsruher Lebensversicherung AG.

At the beginning of April 2001, Munich Re and Allianz announced a further restructuring of their shareholdings in jointly held subsidiaries and participating interests. In this connection, in the first quarter of 2002 Allianz acquired from the Munich Re Group all its shares in Dresdner Bank and its 40.6% interest in Allianz Lebensversicherungs-AG. Besides this, Munich Re made available from its own holdings shares of 4% in Allianz for the offer to Dresdner Bank shareholders. This reduced Munich Re's stake in Allianz to around 21% of the voting rights.

At the beginning of 2002 the Munich Re Group acquired from Allianz and Dresdner Bank all of their shares in the HVB Group (13.55% and 2.5% respectively), taking our stake in that group's capital up to 25.7%. Furthermore, in the first quarter we successfully completed the increase in our holding in ERGO Versicherungsgruppe AG from 62.9 % to 91.9%.

The transactions are summarised in the following diagram:



Munich Re plans to reduce its shareholding in Allianz to around 15%, probably before the end of 2003. For its part, Allianz will reduce its stake in Munich Re in the course of the year by around 16% to 18%, and then also to around 15% by the end of 2004.

The difference between the market value of our investments and their balance sheet value changed as follows:

	Valuation reserves	Fair value	Carrying	Valuation reserves	Fair value	Carrying
All figures in €m Unrecognised valuation reserves	31.12.2002	31.12.2002	31.12.2002	Prev. year	Prev. year	Prev. year
Real estate	1,620	11,468	9,848	2,080	11,124	9,044
Associated enterprises	-593	8,758	9,351	14,293	26,548	12,255
Other securities	46	898	852	31	1,011	980
Total	1,073	21,124	20,051	16,404	38,683	22,279

The negative valuation reserves for the investments in associated enterprises are essentially a reflection of the appreciable fall in Allianz's and HypoVereinsbank's share prices.

#### Result

In the year under review, the investment result amounted to €5.6bn (10.4bn), representing a reduction of 46.2% compared with 2001.

#### Investment result

All figures in €m	2002	2001	2000	1999	1998
Regular income	8,045	9,654	8,652	8,520	7,401
Write-ups/writedowns	-5,980	-324	-82	-95	-106
Gains/losses on disposal	5,015	1,765	4,072	1,427	1,476
Other income/expenses	-1,475	-675	-476	-327	-304
Total	5,605	10,420	12,166	9,525	8,467

Owing to the very poor performance of the stock markets, we made write-downs of  $\in$ 6.3bn in the business year 2002,  $\in$ 5.7bn on our equity portfolios alone. Overall, these writedowns placed a burden of  $\in$ 2.5bn on the Group result.

The realised capital gains for 2002 include €4.7bn from the disposal of shares in Allianz AG, Allianz Leben, Frankfurter Versicherung and Bayerische Versicherungsbank.

The item "other income/expenses" contains —€795m from the valuation of Bayerische Hypo- und Vereinsbank AG at equity.

Losses on the disposal of investments derived predominantly from the sale of equities; our equity ratio decreased to 12.0% (20.7%) in the year under review.

The investment result for 2002 by type of investment was as follows:

Results of the different types	2002	Prev. year	Change-
of investment	€m	€m	in %
Real estate	701	551	27.2
Investments in affiliated enterprises	190	-19	-
Investments in associated enterprises	5,153	1,809	184.9
Mortgage loans and other loans	724	542	33.6
Other securities	-1,274	7,366	_
Other investments	611	746	-18.1
Expenses for the management of investments			
Other expenses	500	575	-13.0
Total	5,605	10,420	-46.2

#### MEAG MUNICH ERGO AssetManagement GmbH

At 31 December 2002, MEAG had assets of €118.7bn under management for the Munich Re Group. Like the other players in the market, our asset management company suffered from the extremely difficult conditions on the capital markets. Despite this, it succeeded in increasing business with third parties to €2.6bn (2.4bn), around €1.8bn of which came from retail funds and just under €800m from special funds for institutional investors.

In the next three years, third-party business is planned to almost double as a result of organic growth. However, MEAG's main task will still be to manage Munich Re Group investments.

MEAG received a number of awards in the year under review for its outstanding performance in the management of retail funds. You can read more about this on page 37.

# **Prospects for 2003**

The current macroeconomic environment and the situation on the capital markets are still not favourable for the further development of the insurance industry as a whole. Despite this, unlike many other branches of the economy, reinsurance is currently experiencing something of a boom. In primary insurance, the demographic trend, combined with the empty coffers of the state social security system, will boost new business for private insurers.

#### Economy as a whole

As far as the overall economic trend in 2003 is concerned, most professional market observers expect the world economy to stabilise, although all forecasts are overshadowed by the war in Iraq. Early economic indicators are currently showing a mixed picture. Negative factors are the threat of terrorism and the growing macroeconomic imbalances in the Us. In addition, the central banks have hardly any more scope for further reducing interest rates in order to stoke the economy. In view of this environment, which is described in the section "Business parameters 2002" (see page 131), there has been growing concern since last year and especially since the beginning of 2003 about increasingly deflationary trends like those observable for some time now in Japan. This will remain a risk scenario for future development.

The US continues to be the motor of the world economy in 2003. According to current forecasts, economic growth there is again expected to be greater than in Europe this year. However, it is not yet fully clear from the indicators whether the sharp drop in share prices for the third year in a row will have a further adverse effect on US consumer confidence and demand, and thus an even stronger impact on the real economy.

In Euroland, growth is likely to remain restrained in 2003. We do not expect Germany to be able to improve on its position at the bottom of the growth scale. The political parameters, rising tax burden and high unemployment are adversely affecting net income, thus curbing consumption and the readiness to invest.

In the UK, on the other hand, growth will probably again exceed that of Euroland in 2003. Similarly, Australia and Canada are expected to maintain their relatively better growth rates. In Japan, there is the prospect of stagnation and continuing deflation.

We expect the world economic trend to influence developments in the emerging markets, with those in Asia again growing more strongly than the others. Political risks in Latin America remain high. In Central and Eastern Europe, the overall economic trend is likely to be linked to economic development in the EU, especially in the accession countries, where the internal political measures for joining the EU are being taken in 2003.

#### Capital markets

The capital markets remain very volatile and interest rates low, as do share prices, at least when measured against price levels in mid-2002. We envisage a continuation of this volatile trend for the time being.

It must be assumed that in the foreseeable future the capital markets will not match the yields of the late 1990s, which were influenced by special factors.

#### Insurance industry

If the overall economy and the capital markets develop as currently expected, insurers and reinsurers will have to reckon with distinctly lower investment income in the next few years.

Notwithstanding this new situation and the very high macroeconomic risks in the short term, we are assuming that positive structural forces in the insurance industry will prevail in the medium term.

Life and health reinsurance is continuing to grow strongly. In the long term, demographic trends and the difficult situation in state social security systems will have a positive effect on this business. If the capital markets remain weak, the consolidation trends apparent in important life insurance markets could intensify. It remains to be seen how the necessary reduction in policyholders' bonuses – in Germany, for example – will affect demand for covers like endowment insurance. Despite the fact that the yield from insurance products is still high, and attractive compared with alternative savings investments, new business could suffer temporarily as a result of this unavoidable measure.

The raising of the earnings ceiling for statutory health insurance is currently overshadowing developments in private health insurance in Germany, our most important market. Nevertheless, we consider that this step will not improve the difficult situation of statutory health insurance in the long term (see page 85). In the short term, we expect the raised ceiling to lead to a reduction in new business. Health insurance is growing all the same, and not only because of the premium increases that have become necessary to offset rises in claims and benefits. In the medium term, recognition that social insurance systems urgently need to be supplemented by private financing on a funded basis in health insurance, too, will win through.

Particularly in view of the unfavourable capital market situation, the trend towards adequate prices in property-casualty reinsurance has to continue. Underwriting losses can no longer be offset by investment income. For property-casualty insurance, we therefore expect premium volume to grow more strongly than the economy as a whole.

#### **Development of the Munich Re Group**

Unfortunately, there is a growing tendency among some investors to sue companies in connection with statements they publish on future development. This practice inevitably leads to companies being reticent about the information they give and disclosing only what is required by law.

For this reason we, too, wish to emphasise the following: predictions about the future development of our Group are based primarily on planning figures, forecasts and expectations. They do not contain descriptions of already established facts. Consequently, the following assessment of the Munich Re Group's development merely reflects our assumptions and expectations. We do not accept any responsibility or liability for cases in which they are not realised either in part or in full.

Information on the main events after the balance sheet date is provided under Note 42 to the consolidated financial statements on page 234 f.

#### Growth

We are assuming that for the next few years the prevailing conditions will result in steady growth in reinsurance business, albeit on the moderate side in the single-digit percentage range. The fact that this growth rate is lower than the figures of the last few years reflects our restrictive, strictly profit-oriented underwriting policy. Growth is also being curbed by a stronger euro.

In primary insurance, we again plan to grow by more than the market average in 2003, and are confident of achieving this goal in all classes of business (life and health, property-casualty).

All in all, without taking into account the effects of changes in exchange rates, Group premium income for the current business year is likely to total around €42bn (40bn), which would be 5% more than in 2002.

#### Result

As prices and conditions in reinsurance have been substantially improved, we expect a combined ratio of around 100% in the current business year. In primary insurance, through systematic claims management and effective cost reductions, we want to further improve the combined ratio, which at 99% is already very low compared with the market in general.

The crucial factor for the result, however, will be what claims burdens affect us from natural catastrophes and other major losses, as well as how the capital markets develop. We assume that our investment returns will show a decline due to the lower interest rates, even if stock prices recover from their current low level. Further losses on disposals and writedowns on our equity portfolios must be expected.

Under these circumstances, we do not have a sufficient basis for publishing a forecast for the Group result at this stage.

# Risk report

The events of 2002 again severely tested our Group and its risk management system. Like many others, we were substantially affected by the dramatic slumps on the capital markets.

As part of our risk management we regularly examine what claims burdens we are able and willing to carry, and adjust our acceptance policy and our retrocessions accordingly. We also use defined scenarios as an early-warning device for considering events whose occurrence appears less probable and take account of this in our liquidity planning.

# Functions and organisation of risk monitoring and control

In our risk management activities, we continually analyse our risk situation. Our experts evaluate the most important risks for us with a view to their occurrence probability and possible financial repercussions. In addition, we carry out stress tests and scenario analyses and take appropriate measures for excluding or limiting unacceptable risks.

The Munich Re Group's risk management is uniformly structured for reinsurance, primary insurance and asset management, and applies Group-wide. This permeating structure is flexible and can be adjusted to current situations where required. Key features of our risk management system are centralised organisation and decentralised implementation. There is strict separation of risk management and risk controlling, and the related responsibilities are clearly defined.

The central risk controlling unit defines standards, develops and maintains the systems and coordinates risk management activities. It is also responsible for regularly informing management about the current risk situation and for proposing measures relating to risk policy.

Competence and responsibility for managing risks lies largely with the decentralised risk managers of the Munich Re Group, who are able to take the appropriate steps to deal promptly with any situations arising. These risk managers are responsible for the risk situation in their respective units and it is their job to check and continually monitor whether the risk policy measures taken are sufficient to effectively reduce the risk potential.

The role of internal auditing at the individual Group companies is to examine independently the risk management system and its further development. It also checks whether the controls and monitoring measures that have been implemented are appropriate and are being complied with.

Our risk management system is also checked by the external auditor as part of the annual audit.

# Types of risk

Given that risks can arise in all operational areas, functions and processes for a whole range of different reasons, assessing the risk situation requires consideration of each individual risk and the implications for the Munich Re Group as a whole.

We classify our risks according to German Accounting Standard DRS 5-20 as follows:

- Underwriting risks
- Risks from defaults on receivables from underwriting business
- Investment risks
- Operational risks

Underwriting risks result from the fact that significant cash flows for underwriting business may deviate from expected figures. We distinguish here between

- the premium/claims risk in property-casualty business: premiums fixed in advance have to finance claims and benefits whose scope is uncertain at the time the premiums are calculated (risk of random fluctuations and risk of change);
- the premium/benefits risk in life and health insurance: a premium that may be fixed for many years at a constant level has to finance benefits which can be affected by intervening trends as regards when they become due and also in terms of scope (risk of change);
- the interest-guarantee risk in lines of insurance with guaranteed interest payments; and
- the reserving risk in the assessment of the underwriting provisions required.

#### Risks from defaults on receivables from underwriting business

These may occur

- in primary insurance in relation to reinsurers, policyholders and insurance agents:
- in reinsurance in relation to retrocessionaires, cedants and brokers.

#### Investment risks comprise

- market price risks: changes in interest rates, share prices or exchange rates may result in losses in the value of invested capital;
- credit risks: the creditworthiness of issuers or counterparties may deteriorate, to our disadvantage;
- liquidity risks: delays in cash inflows and outflows can jeopardise the fulfilment of our own payment obligations.

## Operational risks manifest themselves

- as operating risks attributable to human or technical failure or to external factors;
- as legal risks arising from contractual agreements or the general legal environment.

# Monitoring and controlling of risks

All risks from our business are modelled using our internal risk model, i.e. they are quantified and thus made calculable using methods based on probability theory. In this way, we can strive for an optimum diversification of our portfolio, aiming for the best possible utilisation of the risk capital employed. At the same time a balance portfolio can be built up even for large risks and our high degree of security maintained.

### **Underwriting risks**

Traditionally we are strongly represented in Europe in our primary insurance business, especially in Germany, whilst in reinsurance we attach great importance to diversifying our business relations internationally. This enables us to extend the geographical spread of the risks we assume and to achieve a better balance in our portfolio.

In our view, closely gearing our operations to the principles of value-based management is an essential element of responsible risk prevention. In insurance and reinsurance we want to make capital available only at conditions that promise an appropriate return. After several years in which rates were far too low, terms of trade in the reinsurance market returned at least partially to risk-commensurate levels. In the year under review we were able to achieve a large portion of the substantial improvements in prices and conditions that were necessary.

Our life and health business has continued to grow at our primary insurance and reinsurance companies. We seek to provide a balance to the more volatile classes of property-casualty business, whose results correlate only to a small extent with those of life and health insurance. Even though in the year under review the life and health insurers' results were very poor owing to losses on disposals of investments and the need for writedowns, we are adhering to our strategy of stabilising results over the long term through a balance of risks between life and non-life business.

In life (re)insurance the biometric risk, the lapse risk and the interest guarantee risk are especially relevant.

#### Biometric risk

The calculation of underwriting provisions in primary insurance is based on "biometric" calculation tables, i.e. on assumptions with regard to mortality and disablement. These assumptions are checked by the supervisory authorities in accordance with specific national regulations.

In reinsurance, companies generally have a free choice of biometric calculation bases. We calculate on the basis of "best estimates"; these are derived from portfolio data and take into account appropriate assumptions regarding future development. In this process, we particularly consider the calculation bases that have been deemed sufficient by supervisory authorities.

With careful monitoring of claims, we regularly check the calculation bases for their appropriateness and adjust them in the event of deviations.

#### Lapse risk

Lapse risks can be restricted in both insurance and reinsurance by means of suitable product and contract design. We estimate the residual lapse risk, like the biometric risks, by means of product-specific portfolio analyses and take this into account in the pricing.

#### Interest guarantee risk

In primary insurance, the guaranteed actuarial interest rate applicable at the time a policy is effected is used in calculating the actuarial reserve for that policy.

In many cases we exclude the interest guarantee risk in the reinsurance sector by means of suitable treaty design, e.g. through depositing investments with the ceding company and agreeing a guaranteed return. As a matter of principle, prudent assumptions regarding the expected interest rate are used in fixing the actuarial interest rate in the calculation of premiums and reserves. In particular, the minimum legal requirements prescribed by local supervisory law are observed. As legally stipulated in a number of countries, the influence of the interest rate risk is additionally limited through asset-liability matching.

The specific risks in health (re)insurance are the mortality risk, the lapse risk, the benefits risk and the interest guarantee risk; this differentiation exists mainly in the German market with its ageing reserves, and these risks are examined by the supervisory authorities. Outside Germany and in markets without ageing reserves only the benefits risk is relevant in underwriting terms.

## Underwriting guidelines and limits

We have clearly regulated responsibility and accountability for the whole process of concluding insurance and reinsurance contracts. Binding guidelines and limits for acceptance and underwriting both in insurance and reinsurance document who may accept what risks and up to what amounts; compliance is routinely checked by means of internal reviews. We react with appropriate measures to changes in the global and local markets, implementing these without delay in corresponding underwriting guidelines where necessary. Liability limits are essential for underwriting profitable business, since unlimited covers are ultimately not calculable either in insurance or reinsurance. We support efforts to get unlimited covers abolished where these are still market practice or even compulsory (see page 80).

Combined ratios	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993
Including natural catastrophes	122.4**	135.1*	115.3	118.9	105.7	100.0	98.3	99.6	103.5	106.5
Excluding natural catastrophes	119.1**	133.6*	113.3	108.2	101.7	99.1	98.2	98.7	101.3	104.9

<sup>\*</sup> Thereof WTC and reserve strengthening at American-Re: 22.4%.

<sup>\*\*</sup> Thereof WTC and reserve strengthening at American-Re: 15.9%.

#### **Accumulation budgets**

Providing cover for large and very large catastrophe losses is part of the core business of reinsurance. Particularly in property lines, we assume very large liabilities for earthquake and windstorm losses, and to lesser extent for hailstorm and flood risks. These losses often affect many of our clients at the same time. Owing to this accumulation character, a single loss event can have a substantial impact on the result situation of individual units or even the whole Group. It is therefore essential that the natural hazard liabilities underwritten are controlled and limited on a Group-wide basis. This is why we introduced accumulation budgets, by means of which the Board of Management stipulates annually the maximum liability to be assumed by the Munich Re Group and individual Group units for such events per loss accumulation zone. The loss scenarios underlying the accumulation budgets are regularly checked by means of scientific comparisons and analyses.

#### Retrocession

All companies in the Munich Re Group have appropriate intra-Group and external reinsurance cover, or retrocession cover in the case of the reinsurers. Of particular significance for our reinsurance business is accumulation excess-of-loss cover. To protect ourselves against claims burdens from major natural catastrophe events, we buy various covers on the international retrocession markets, each with very good security. Additional protection is provided by our two natural catastrophe bonds, which we placed in December 2000 with a term of three years (see page 25).

#### **Provisions**

Provisions for uncertain liabilities are established using actuarial methods. Our division Corporate Underwriting/Global Clients regularly checks the claims provisions of the other divisions in Munich and our reinsurance subsidiaries to make sure they are sufficient. Where necessary, we make appropriate adjustments.

In the year under review, American Re increased its loss provisions by US\$ 2.0bn. The need for this emerged from an extensive investigation on the claims side. With this reserve strengthening, we consider that – based on the latest knowledge of our experts and our best estimates of the foreseeable and potential development of the market and claims – sufficient provision has been made for the increased burden from reported claims and for possible future obligations.

#### Risks from defaults on receivables from underwriting business

5.1% of our receivables on underwriting business at the balance sheet date were outstanding for more than 90 days. The average default rate of the last three years amounts to 2.3%. As far as our own retrocessions and reinsurance are concerned, we reduce the risks of defaults on receivables by selecting our retrocessionaires and reinsurers on the basis of particularly strict criteria.

As at 31 December 2002, nearly 70% of the accounts receivable on business were from companies that have been awarded at least AA by Standard & Poor's or a comparable rating by one of the other internationally recognised rating agencies (Moody's or A. M. Best).

#### Investment risks

In the investment sector, we consistently follow a number of principles: we only make investments from which we can expect an appropriate return, and we endeavour to ensure that they offer a high degree of security, as reflected in high-quality ratings of the issuers and counterparties. Also important for us is sufficient liquidity at all times to cover our obligations from underwriting business and a targeted diversification in terms of region and type of investment. Nevertheless, last year's dramatic collapse in share prices, of a dimension that no one could have foreseen, meant that the financial stocks in which we traditionally invest particularly strongly were affected to a disproportionate extent. Our stake in Allianz AG amounted to 21.2% at 31 December 2002 (see page 156). This corresponds to a market value of €4.7bn. It thus continues to represent easily our largest individual investment item and even after the large losses in value in 2002 could still be considered a substantial concentration risk.

## Mandates and investment guidelines

The companies entrusted with asset management, in particular MEAG, are given mandates by the insurance and reinsurance companies in the Munich Re Group, based on precise criteria specified by us. Investment committees monitor adherence to these mandates and report directly to top management.

In the asset management units of the Munich Re Group, we pursue a policy of clear functional separation between portfolio management, trading and risk controlling at all hierarchical levels, in line with the requirements of banking supervision.

#### Market price risks

Our fixed-interest securities make up 66.7% of our investments available for sale and held to maturity. We perform regular duration analyses to counter the risks posed by changes in interest rates for the coverage of our obligations from insurance and reinsurance, and where necessary we hedge interest-sensitive portfolios.

We only run currency risks to a small extent, as we observe a policy of currency matching. This means that for all important currency liabilities in our underwriting business we establish appropriate matching items in our assets.

Possible market price risks in our investments are measured using the valueat-risk approach, which is also employed in our strategic investment planning to model the optimum investment portfolio according to our risk preference.

Using stress tests, we also simulate unexpected market fluctuations and devise strategies for countering them in practice. These analyses showed that thanks to our solid capitalisation we were in a position at all times to compensate for the effects of these scenarios.

A change in share prices of  $\pm 10\%$  ( $\pm 20\%$ ) and a corresponding shift in the interest rate curve of  $\pm 100$  ( $\pm 200$ ) basis points (BP) produce the following theoretical changes in market value at the balance sheet date:

Change in share prices	Change in market value of investments sensitive to share prices				
Increase of 20%	+€5.471bn				
Increase of 10%	+€2.730bn				
Fall of 10%	–€2.727bn				
Fall of 20%	-€5.439bn				
Market values at 31.12.2002	€28.257bn				

Change in interest rates	Change in market value of investments sensitive to interest rates
Increase of 200 BP	-€8.668bn
Increase of 100 BP	-€4.168bn
Fall of 100 BP	+€4.440bn
Fall of 200 BP	+€9.725bn
Market values at 31.12.2002	€100.670bn

Change in exchange rates	Change in market value of investments sensitive to exchange rates
Increase of 10%	+€3.278bn
Fall of 10%	<b>–€</b> 3.257bn
Market values at 31.12.2002	€33.372bn

We use derivative financial instruments for three principal reasons: hedging parts of the portfolio, optimising earnings, and implementing planned purchases and sales. Our Group companies act as end-users of derivatives; there is little trading in these instruments with a view to profit-making. Particular care is paid to limiting risks, choosing top-quality business partners and strictly monitoring adherence to instructions. The volumes are shown on pages 205 ff.

#### Credit risks

Of central importance in the management of credit risks for fixed-interest securities is the credit assessment. The main factor here is the quality of the issuer, as primarily reflected – for investments of the Munich Re Group – in the gradings of international rating agencies: 93.8% of our investments in fixed-interest securities at 31 December 2002 have a rating of A or better, and 85.4% have a rating of AA or better (according to Standard & Poor's rating classification). The majority of fixed-interest securities in our portfolio have been issued by governments or banks with excellent ratings, e.g. German government bonds, US Treasuries, and mortgage-backed bonds. Also significant for assessing credit risks in the portfolio as a whole are investment volume, collateralisation and the default probability assigned to the individual issuers.

These criteria are taken into account in our Group-wide system for limiting credit risks, which considers the issuer's individual rating, its capitalisation as a basis for covering the liability, the collaterisation, and our internally defined willingness to incur risk. For our counterparties, we actively monitor and control the credit risks that result from investments. Thus, in terms of the total volume of our investments, Munich Re was only slightly affected by the debtor failures following the accounting scandals in the US.

Credit derivatives are used to a very restricted extent in our investment portfolio. They are only employed for hedging risks. The notional principal amounts of open items had a volume of €24m, with a fair value of €6m.

The question of credit risks is currently being debated intensively in connection with the revision of regulatory requirements for banks (Basel II). We have set up a Basel II centre of competence in order to identify at an early stage the repercussions for the management of credit risks and the resultant business opportunities for Munich Re.

Within its credit business, the Munich Re Group reinsures to a small extent AAA-rated tranches of credit portfolios transferred via credit derivatives. All individual risks within these portfolios are investment-grade quality.

#### Liquidity risks

The liquidity risks of companies in the Munich Re Group are managed by the individual insurers and reinsurers themselves. Detailed liquidity planning ensures that Munich Re and its Group companies are able to make the necessary payments at all times. This planning concept, which has been in place for many years, has proved its worth after large natural catastrophes, and also in connection with the World Trade Center loss.

#### **Operational risks**

Operational risks are hazards posed by technical or human failure, by natural impairments of a company's operations or by other adverse developments in its external environment which may lead to unexpected losses. These include criminal acts, inadequate controls, organisational deficiencies or events resulting in claims for damages from third parties. Such risks, which may be connected with any activity at the company, its staff, or the use of technical systems, can only be minimised through a wide range of specific risk management measures. Beyond this, it is our declared aim to sensitise employees to possible risks and thereby to establish an appropriate risk culture. This includes the chance and the willingness to learn from mistakes and to recognise and grasp opportunities for change and improvement. We organise seminars and information events geared to promoting this attitude. An open approach to risks is a central element of efficient risk management.

## Security in the IT sector

The global business and Group-wide risk management of the Munich Re Group increasingly require a networking of its business units and systems worldwide. The consequence of this is a growing dependency on electronic communications technology, whose complexity is continually increasing. Dependency on these systems and the value of the processed information is also growing. This means that the organisational and technical measures needed to protect the confidentiality, availability and integrity of these data and systems are acquiring ever-greater importance.

In our asset management business as well as in our insurance and reinsurance operations, these risks are identified and limited by decentralised security organisations that remain in close contact with one another. On the reinsurance side, an internationally operating unit - supported by a centre of competence - draws up security regulations for the reinsurance subsidiaries and also monitors compliance with these rules. We place emphasis not only on the protection of our own data; of equal importance to us is the security of the information entrusted to us by our clients. A permanent exchange of information between the security officers of the Munich Re Group subsidiaries has been instituted by the formation of DISK (Munich Re data protection and information security group) and is already producing the first positive results. Thanks to the precautions we had taken, we were barely affected by the global and sometimes spectacular attacks from computer viruses and other such phenomena to which large firms where exposed in the 2002. Virus infections were unable to inflict any significant damage on our global networks. We attach great importance to permanently improving these precautions (see page 75).

Our security regulations embrace not only the technical design of hardware and software systems but also functional security structures and organisational measures. This includes training our staff in the proper handling of systems and data. Since last year we have had a Security Awareness Programme, aimed at making staff aware of potential risks in the IT sector and thus reducing them. Besides this, Munich Re staff have to comply with the directives on information security and data protection.

The dependence of our global business on central IT systems also requires that operation of the most important systems can be quickly restored in the event of failure or outage of computer centres. In the course of 2002, a concept was developed for this on the basis of which the necessary organisational and technical preconditions were created and concrete measures implemented. The basic effectiveness of this concept, which will be regularly updated in future, was demonstrated by an emergency test in December 2002.

#### Risks in the human resources sector

The companies in the Munich Re Group have binding standards of corporate integrity governing conduct within the companies themselves, their business transactions and other relationships with external parties. These standards, tailored to the special features of each company, serve not least to prevent conflicts of interest for staff in order to ensure that we use only fair and legal means of competition. The clear separation of management and control functions limits the risk of criminal acts. Risks arising from insufficiently qualified personnel and "head monopolies" are countered by suitable staff development measures and management instruments, as well as succession planning.

Staff who have to deal with confidential data and insider information undertake to comply with the relevant regulations and to handle the information responsibly. At the parent company and all the main subsidiaries a compliance officer ensures that insider information is handled in conformity with the law. Information of this kind is generally classified and marked as such.

In order to ensure the necessary safety at work for our staff, specially appointed experts support the implementation of appropriate occupational safety and accident prevention measures. Safety officers ensure the proper installation and usage of mandatory safety devices and systems. In addition, we have developed a safety and security plan that comes into effect in emergencies.

#### **Project risks**

Within the Munich Re Group, in both primary insurance and reinsurance, we are currently conducting major projects aimed at standardising different IT systems. Uniform processes and common data resources are intended to improve service for our clients and facilitate the preparation of flexible and global analyses. As they integrate various claims, contract, evaluation and accounting systems, they are very complex and have repercussions for our core processes. In addition to the relevant commitment of resources, a particularly important factor is keeping to deadlines when integrating individual parts into an overall project. Right at the conception stage of these projects, we therefore took appropriate measures and drew up corresponding project plans in order to minimise the project risks.

## Legal risks

Risks arising from changes in the legal environment may affect the whole Munich Re Group. We counter these mainly by monitoring current developments and actively participating in various bodies and associations to contribute our views both as a company and as a representative of our branch of industry.

In the Holocaust issue, negotiations between the International Commission on Holocaust Era Insurance Claims, the Federal German foundation "Remembrance, Responsibility and Future" and the German Insurance Association were concluded on 16 October 2002 after a duration of nearly two years. The aim is to compensate unpaid or confiscated and otherwise not compensated insurance policies of Holocaust victims. Besides this, the agreement governs the use of resources from the foundation fund for humanitarian purposes. The related class action brought against VICTORIA in the Us in October 2001 has meanwhile been dismissed. American Re, together with other insurers and the Reinsurance Association of America, are disputing the legality of the Californian Holocaust Victim Insurance Relief Act, which makes it compulsory to submit policies and policy lists from the years 1920 to 1945. The case is currently pending before the Supreme Court, and a decision is expected around the middle of 2003.

# **Outlook**

Markets, products, structures and operations are subject to processes of change at ever-shorter intervals. This means that the risk situation is continually altering, one of the potential hazards being that opportunities may not be recognised or exploited in time.

Of particular significance in this respect are strategic risks, which result chiefly from management decisions on the further development of the Group and its business units. In order to help ensure the effectiveness of our activities, we have detailed our corporate objectives in so-called balanced scorecards. In the context of value-based management, this step enables us to implement better the concrete initiatives required by strategic decisions. In addition, balanced scorecards help us to monitor individual measures and to take countermeasures at an early stage in the event of any deviations from the intended objectives.

The terrorist attack of 11 September 2001 further sharpened risk perception and revived the debate on how to cover loss or damage caused by terrorism. We make an appropriate amount of capacity available to risk carriers for the coverage of terrorism risks. For example, we have taken a stake of 17.5% in the share capital of the German terrorism pool EXTREMUS and have provided it with cover of €300m. In general, terrorist attacks can give rise to loss accumulations that are extremely difficult to control. In order to protect our portfolio, we restrict our liabilities through contractually agreed loss limits, occurrence limits or annual aggregate limits. Our risk is therefore transparent and limited per occurrence and year. In this way, we counter the problem that the frequency of attacks is impossible to predict (cf. the remarks on underwriting guidelines and limits on page 165).

For risks such as those posed by new technologies like genetic engineering and nanotechnology (see page 66) or by innovations in the pharmaceutical industry, our centres of competence monitor current developments arising from the technologies themselves and their application in medicine, agriculture and industry. They examine and evaluate this data with regard to its repercussions for the insurance industry and thus for our own business. Our aim in each case is to extend the borders of insurability prudently, applying appropriate limitations, and thus contribute to responsible progress in the areas in question.

We will continue to refine and improve our risk management in future to ensure efficient identification, analysis, assessment and control of risks. Particular consideration will be given to the dynamic development of our business environment and the need to react to this flexibly.

# Summary of the risk position

In the past year our shareholders' equity decreased substantially as a result of the large cost burdens from reinsurance business and the huge losses in the value of shares. The cash flows in the business year nevertheless resulted in an overall cash increase of €884m. The solvency of the companies in the Munich Re Group was never in danger at any time.

Altogether, we see the Munich Re Group's situation with regard to risks as controlled and viable.



# Consolidated financial statements Consolidated balance sheet as at 31 December 2002

ASSETS	Notes	€m	€m	€m	Prev. year	Change	
					€m	€m	%
A. Intangible assets							
I. Goodwill	(1)		4,441		4,419	22	0.5
II. Other intangible assets	(2)		1,336		1,103	233	21.1
				5,777	5,522	255	4.6
B. Investments							
I. Real estate	(3)		9,848		9,044	804	8.9
II. Investments in affiated enterprises and associated enterprises	(4)		9,601		12,558	-2,957	-23.5
III. Loans	(5)		12,644		11,182	1,462	13.1
IV. Other securities							
1. Held to maturity	(6)	852			980	-128	-13.1
2. Available for sale	(7)	106,175			111,251	-5,076	-4.6
3. Held for trading	(8)	452			412	40	9.7
			107,479		112,643	-5,164	-4.6
V. Other investments							
1. Deposits retained on assumed reinsurance	(11)	12,911			12,800	111	0.9
2. Miscellaneous	(9)	3,092			3,101		-0.3
			16,003		15,901	102	0.6
				155,575	161,328	-5,753	-3.6
C. Investments for the benefit of life insurance policyholders who bear the investment risk				703	666	37	5.6
D. Ceded share of underwriting provisions	(17–20)			10,230	11,994	-1,764	-14.7
E. Receivables	(10, 11)			8,871	9,713	-842	-8.7
F. Cash with banks, cheques and cash in hand				2,735	1,866	869	46.6
G. Deferred acquisition costs	(12)			7,451	7,286	165	2.3
H. Deferred tax assets	(13)			4,067	2,320	1,747	75.3
I. Other assets	(14)			1,032	1,359	-327	-24.1
Total assets				196,441	202,054	-5,613	-2.8

EQUITY AND LIABILITIES	Notes	€m	€m	Prev. year		Change
				€m	€m	%
A. Shareholders' equity	(15)					
I. Issued capital and capital reserve		3,447		3,167	280	8.8
II. Revenue reserves		10,008		11,522	-1,514	-13.1
III. Other reserves		-588		4,418	-5,006	-
IV. Consolidated profit		1,081		250	831	332.4
			13,948	19,357	-5,409	-27.9
B. Minority interests	(16)		532	990	-458	-46.3
C. Gross underwriting provisions						
I. Unearned premiums	(17)	6,158		5,812	346	6.0
II. Provision for future policy benefits	(18)	96,088		89,016	7,072	7.9
III. Provision for outstanding claims	(19)	42,792		39,511	3,281	8.3
IV. Other underwriting provisions	(20)	7,460		15,642	-8,182	-52.3
			152,498	149,981	2,517	1.7
D. Gross underwriting provisions for life insurance policies where the investment risk is borne by the policyholders			698	655	43	6.6
E. Other accrued liabilities	(21)		3,197	2,730	467	17.1
F. Liabilities						
I. Notes and debentures	(22)	2,205		2,474	-269	-10.9
II. Other liabilities	(11, 23)	18,467		22,187	-3,720	-16.8
			20,672	24,661	-3,989	-16.2
G. Deferred tax liabilities	(13)		4,738	3,541	1,197	33.8
H. Other deferred items	(24)		158	139	19	13.7
Total equity and liabilities			196,441	202,054	-5,613	-2.8

## Consolidated income statement for the business year 2002

ITEMS	Notes	€m	Prev. year	Change		
			€m	€m	%	
1. Gross premiums written	(25)	40,014	36,123	3,891	10.8	
2. Net earned premiums	(25)	36,306	31,680	4,626	14.6	
3. Investment result	(26)	5,605	10,420	-4,815	-46.2	
4. Other income	(27)	1,343	892	451	50.6	
Total income (2–4)		43,254	42,992	262	0.6	
5. Net expenses for claims and benefits	(28)	31,129	34,162	-3,033	-8.9	
6. Net operating expenses	(29)	8,933	7,758	1,175	15.1	
7. Other expenses	(30)	2,383	1,487	896	60.3	
Total expenses (5–7)		42,445	43,407	-962	-2.2	
8. Result before amortisation of goodwill		809	-415	1,224	-	
9. Amortisation of goodwill	(1)	371	230	141	61.3	
10. Operating result before tax		438	-645	1,083	-	
11. Tax	(31)	-574	-1,040	466	44.8	
12. Minority interests	(16)	-69	145	-214	-	
13. Profit for the year		1,081	250	831	332.4	
	Notes	€	Prev. year €	€	%	
Earnings per share	(41)	6.08	1.41	4.67	331.2	
Earnings per share, diluted	(41)		1.41	-	-	

### Consolidated cash flow statement for the business year 2002

	€m	Prev. year €m
Profit for the year, including minority interests in earnings	1,012	395
Net change in underwriting provisions	4,670	11,733
Change in deferred acquisition costs	-172	-917
Change in deposits retained and accounts receivable and payable	-650	697
Change in other receivables and liabilities	-2,822	509
Gains and losses on the disposal of investments	-5,015	-1,765
Change in securities held for trading	-51	-161
Change in other balance sheet items	590	-1,205
Other income/expenses without impact on cash flow	5,698	-600
I. Cash flows from operating activities	3,260	8,686
Change from the acquisition and sale of consolidated enterprises	-531	-196
Change from the acquisition, sale and maturities of other investments	-1,329	-9,998
Change from the acquisition and sale of investments for unit-linked life insurance	-45	-109
Other	-702	-450
II. Cash flows from investing activities	-2,607	-10,753
Inflows from increases in capital	280	2
Dividend payments	-230	-259
Change from other financing activities	181	1,924
III. Cash flows from financing activities	231	1,667
Cash flows for the business year (I + II + III)	884	-400
Effect of exchange rate changes on cash	-15	-7
Cash at the beginning of the business year	1,866	2,273
Cash at the end of the business year	2,735	1,866
Additional information		
Tax on earnings (net)	205	91

Our reporting on the Group cash flow is based on IAS 7 and the principles of German Accounting Standard No. 2 (DRS 2) issued by the German Standards Board (DSR) for the presentation of cash flow statements. This has been supplemented by the requirements of DRS 2-20, which applies specifically to insurance companies.

In accordance with the recommendations of the DSR for insurance companies, we have applied the indirect presentation method.

The "cash fund" within the meaning of the German Accounting Standard is limited to cash and cash equivalents shown under balance sheet item F "cash with banks, cheques and cash in hand".

ASSETS			ı	Reinsurance
	Life	and health	Prope	rty-casualty
	31.12.2002 €m	Prev. year €m	31.12.2002 €m	Prev. year €m
A. Intangible assets	235	233	1,710	2,098
B. Investments				
I. Real estate	968	989	1,428	1,260
II. Investments in affiliated enterprises and associated enterprises	4,643	6,583	6,216	7,181
III. Loans	70	77	70	61
IV. Other securities				
1. Held to maturity	-	-	-	-
2. Available for sale	10,980	12,384	24,007	23,786
3. Held for trading	27	48	119	166
	11,007	12,432	24,126	23,952
V. Other investments	8,220	8,199	11,811	10,227
	24,908	28,280	43,651	42,681
C. Investments for the benefit of life insurance policyholders who bear the investment risk	-	-	_	_
D. Ceded share of underwriting provisions	2,020	2,308	5,655	7,070
E. Other segment assets	4,421	3,977	8,907	7,987
Total segment assets	31,584	34,798	59,923	59,836

The Munich Re Group's segment reporting is based on IAS 14 and the principles of German Accounting Standard No. 3 (DRS 3) issued by the German Standards Board (DSR). This has been supplemented by the requirements of DRS 3-20, which applies specifically to insurance companies.

In accordance with the recommendations of the DSR, we have made the primary segmentation between the fields of reinsurance, primary insurance (each broken down into life and health and property-casualty) and asset management.

The individual fields of business are shown after consolidation of internal transactions within the individual field but before consolidation across segments.

Goodwill has been allocated to the segment of the respective subsidiary.

Total		nsolidation	Co	anagement	Asset m	y insurance	Primar		
						rty-casualty	Prope	and health	Life
Prev. year €m	31.12.2002 €m								
5,522	5,777	-1	-2	25	25	1,095	1,314	2,072	2,495
9,044	9,848	32	27			724	748	6,039	6,677
12,558	9,601	-6,757	-9,209	97	78	2,869	3,267	2,585	4,606
11,182	12,644	-1,947	-1,980	481	415	494	557	12,016	13,512
980	852	_	_	_	_	45	38	935	814
111,251	106,175	-	-	15	107	6,242	5,736	68,824	65,345
412	452		-	13	1	62	112	123	193
112,643	107,479	_	_	28	108	6,349	5,886	69,882	66,352
15,901	16,003	-4,850	-6,338	336	222	392	478	1,597	1,610
161,328	155,575	-13,522	-17,500	942	823	10,828	10,936	92,119	92,757
666	703							666	703
11,994	10,230	-6,327	-7,011			1,550	1,637	7,393	7,929
22,544	24,156	-1,698	-1,592	156	208	2,670	2,817	9,452	9,395
202,054	196,441	-21,548	-26,105	1,123	1,056	16,143	16,704	111,702	113,279

EQUITY AND LIABILITIES			ı	Reinsurance
	Life	and health	Prope	rty-casualty
	31.12.2002 €m	Prev. year €m	31.12.2002 €m	Prev. year €m
A. Gross underwriting provisions				
I. Unearned premiums	180	125	5,076	4,793
II. Provision for future policy benefits	18,641	17,300	632	738
III. Provision for outstanding claims	2,803	2,765	35,281	32,695
IV. Other underwriting provisions	161	48	165	1,671
	21,785	20,238	41,154	39,897
B. Gross underwriting provisions for life insurance policies where the investment risk is borne by the policyholders	_	_		_
C. Other accrued liabilities	410	316	1,063	795
D. Other segment liabilities	3,196	4,364	9,779	12,180
Total segment liabilities	25,391	24,918	51,996	52,872

Total		nsolidation	Co	anagement	Asset m	y insurance	Primai		
						rty-casualty	Prope	and health	Life
Prev. year €m	31.12.2002 €m								
5,812	6,158		-242			975	1,062	82	82
89,016	96,088	-4,877	-5,664	-	-	65	90	75,790	82,389
39,511	42,792	-1,273	-1,065	_	_	4,096	4,393	1,228	1,380
15,642	7,460	467	-701	_	_	125	104	13,331	7,731
149,981	152,498	-5,846	-7,672	_		5,261	5,649	90,431	91,582
655	698	8	8	_	_	-	_	647	690
2,730	3,197	-18	-14	48	55	1,004	1,003	585	680
28,341	25,568	-8,426	-9,817	798	736	4,280	5,250	15,145	16,424
181,707	181,961	-14,282	-17,495	846	791	10,545	11,902	106,808	109,376
20,347	14,480	s' equity*	Shareholders						
202,054	196,441	and liabilities	Total equity						

<sup>\*</sup> Group shareholders' equity and minority interests.

NCOME STATEMENT			- 1	Reinsurance
	Life	and health	Prope	rty-casualty
	2002 €m	Prev. year €m	2002 €m	Prev. year €m
Gross premiums written     Thereof:	6,561	5,900	18,884	16,296
<ul> <li>From insurance transactions with other segments</li> </ul>	1,020	855	987	919
- From insurance transactions with external third parties	5,541	5,045	17,897	15,377
2. Net earned premiums	6,117	5,376	16,254	13,172
3. Investment result Thereof:	2,177	2,394	5,259	3,074
<ul> <li>Income from associated enterprises</li> </ul>	1,060	738	3,773	813
4. Other income	162	135	461	339
Total income (2–4)	8,456	7,905	21,974	16,585
5. Net expenses for claims and benefits	4,933	5,033	15,822	14,009
6. Net operating expenses	1,608	1,340	4,315	4,020
7. Other expenses	254	192	907	583
Total expenses (5–7)	6,795	6,565	21,044	18,612
8. Result before amortisation of goodwill	1,661	1,340	930	-2,027
9. Amortisation of goodwill	2	3	127	134
10. Operating result before tax	1,659	1,337	803	-2,161
11. Tax	-65	185	-623	-962
12. Minority interests in earnings		1	1	4
13. Profit for the year	1,724	1,151	1,425	-1,203

Within the framework of a corporate- and trade-tax consolidation agreement, the ERGO Insurance Group has concluded profit-transfer agreements with nearly all of its German insurance companies and the ERGO Trust GmbH. In our segment reporting, expenditure incurred as a result of profit transfer is deemed appropriation of net income. The segments are thus adjusted to eliminate these expenses, the elimination being carried out in the consolidation column.

Total		onsolidation	Co	anagement	Asset m	y insurance	Primar		
						rty-casualty	Prope	and health	Life
Prev. year €m	2002 €m	Prev. year €m	2002 €m	Prev. year €m	2002 €m	Prev. year €m	2002 €m	Prev. year €m	2002 €m
36,123	40,014	-1,788	-2 <b>,024</b>	-	_	4,593	4,841	11,122	11,752
- 36,123	- 40,014	-1,788 -	-2,024 -	-	-	- 4,593	3 4,838	14 11,108	14 11,738
31,680	36,306		-13		_	3,238	3,416	9,910	10,532
10,420	5,605	-596	-1,441	50	53	612	143	4,886	-586
1,809	5,153	-	-	25	29	61	-8	172	299
892	1,343	-948	-1,008	187	247	552	818	627	663
42,992	43,254	-1,560	-2,462	237	300	4,402	4,377	15,423	10,609
34,162	31,129	40	-15	-	_	2,102	2,157	12,978	8,232
7,758	8,933	29	_	_	_	1,182	1,282	1,187	1,728
1,487	2,383	-1,292	-1,251	183	217	839	1,115	982	1,141
43,407	42,445	-1,223	-1,266	183	217	4,123	4,554	15,147	11,101
-415	809	-337	-1,196	54	83	279	-177	276	-492
230	371	-	_	1	1	47	135	45	106
-645	438	-337	-1,196	53	82	232	-312	231	-598
-1,040	-574	_	-1	11	27	-21	34	-253	54
145	-69	-41	-37	5	6	101	-5	75	-34
250	1,081	-296	-1,158	37	49	152	-341	409	-618

INVESTMENTS		Reinsurers	Prim	ary insurers	Asset n	nanagement		Total
	31.12.2002 €m	Prev. year €m						
Europe	33,203	39,486	97,412	97,169	351	405	130,966	137,060
North America	20,679	19,378	1,302	2,199	50	64	22,031	21,641
Asia and Australasia	1,818	1,589	343	435	22	3	2,183	2,027
Africa, Near and Middle East	553	487	64	78			617	565
Wildule East		407						
Latin America	403	621	70	72	8	8	481	701
Total	56,656	61,561	99,191	99,953	431	480	156,278	161,994

Secondary segmentation is based on the geographical origin of our investments and gross premiums written.

GROSS PREMIUMS WRITTEN*		Reinsurers	Prim	ary insurers		Total
	2002 €m	Prev. year €m	2002 €m	Prev. year €m	2002 €m	Prev. year €m
Europe						
Germany	3,806	3,767	13,438	12,573	17,244	16,340
France	400	379	35	38	435	417
UK	4,525	3,571	226	192	4,751	3,763
Italy	748	653	580	764	1,328	1,417
Netherlands	391	383	497	436	888	819
Others	2,226	1,903	1,560	1,473	3,786	3,376
	12,096	10,656	16,336	15,476	28,432	26,132
North America						
US	7,311	5,865	99	146	7,410	6,011
Canada	1,152	950	3	2	1,155	952
	8,463	6,815	102	148	8,565	6,963
Asia and Australasia						
Japan	357	395	4	2	361	397
Australia	460	394	3	2	463	396
Taiwan	215	176	_	1	215	177
Others	600	486	55	23	655	509
	1,632	1,451	62	28	1,694	1,479
Africa, Near and Middle East						
South Africa	172	160	49	35	221	195
Israel	204	363	_		204	363
Others	258	235	14	7	272	242
	634	758	63	42	697	800
Latin America						
Mexico	225	299	5	1	230	300
Colombia	66	60	_	1	66	61
Others	322	383	8	5	330	388
	613	742	13	7	626	749
Total	23,438	20,422	16,576	15,701	40,014	36,123

<sup>\*</sup> After elimination of intra-Group reinsurance across segments.

Presentation of the figures in the management report differs from this (cf. note on page 136).

#### Notes to the consolidated financial statements

#### Application of International Accounting Standards (IAS)

Munich Re's consolidated financial statements have been prepared in accordance with the standards of the International Accounting Standards Board (IASB) as "exempting" consolidated financial statements in line with Section 292 a of the German Commercial Code. The financial statements comply with the EU directives to which we are subject.

IAS currently do not contain any standards governing the accounting and valuation of transactions specific to the insurance industry; the relevant items are therefore accounted for and valued in accordance with US GAAP (Generally Accepted Accounting Principles for the United States).

The consolidated financial statements have been prepared in accordance with International Accounting Standards adopted up to and including 31 December 2002 whose application was obligatory for the business year, as well as with the interpretations of IAS by the International Financial Reporting Interpretations Committee (IFRIC). In addition, we have observed the standards adopted by the DRSC (German Accounting Standards Committee) up to our balance sheet date.

## Declaration of compliance with the German Code of Corporate Governance in accordance with Section 161 of the German Stock Companies Act

On 6 December 2002 the Board of Management and the Supervisory Board published their first declaration of compliance with the recommendations of the Government Commission German Code of Corporate Governance, as per Section 161 of the German Stock Companies Act. They have made this declaration permanently available to shareholders via the internet.

#### Main differences between IAS and German Commercial Code

Exemption from consolidated accounting pursuant to commercial law, in accordance with Section 292 a of the German Commercial Code, requires a description of the main differences between IAS and German Commercial Code accounting, valuation and consolidation methods.

Shareholders' equity is substantially higher under IAS than under German Commercial Code accounting because large portions of the investment portfolio are valued at market; results fluctuate more strongly than under German Commercial Code accounting, because there are no claims equalisation provisions to provide a "smoothing" effect. The most important differences between IAS and the German Commercial Code as regards the Munich Re Group are as follows:

 Under IAS, goodwill is amortised over a maximum period of 20 years with impact on earnings; in German Commercial Code accounting, there is the option to offset goodwill against the revenue reserves without impacting

- A large portion of the investments are valued at market under IAS; under the German Commercial Code they are valued at the lower of cost or market.
- The group of associated enterprises valued at equity is considerably larger in IAS financial statements, because it is no longer relevant whether a significant influence is actually exercised or not. The consolidated profit includes a corresponding portion of the net profit of the enterprises concerned rather than just the dividend distributions.
- As is internationally customary, the ceded share of underwriting provisions is shown on the assets side of the balance sheet.
- The provisions for future policy benefits are higher because, unlike in German Commercial Code accounting, there is no zillmerisation, but capitalisation of the acquisition costs.
- The provision for premium refunds is markedly higher than under the German Commercial Code because it also includes the deferred entitlements of policyholders in life and health insurance from the accumulated result differences between IAS and German Commercial Code and their share of unrealised gains and losses in the investments available for sale.
- The provision for outstanding claims is lower under IAS, because the actuarial calculations on the basis of partial portfolios generally result in a smaller requirement than the individual valuation of all claims based on the prudence concept, which the German Commercial Code prescribes.
- Claims equalisation provisions as under the German Commercial Code do not constitute liabilities to third parties and are thus not admissible under IAS; they therefore have to be reversed.
- Provisions for terrorism risks do not constitute liabilities to third parties under IAS either and are therefore not admissible. They are also reversed
- Premiums tend to be lower under IAS. In the case of products which are mainly of an investment character (e.g. financing treaties, unit-linked life insurance) only that portion of the premium used to cover the risk insured and associated costs is treated as premium income. In IAS financial statements there are no "premiums from the provision for policyholders' dividends".
- Writedowns on investments are lower than under German Commercial Code accounting, because they may only be recognised if the diminution in value is likely to be permanent.

#### Previous year's figures

We have calculated the previous year's figures on the same basis as the figures for the business year 2002.

#### Consolidation

#### Consolidated group

In accordance with IAS 27, the consolidated financial statements include the Munich Reinsurance Company (the parent company) and all the enterprises in which Munich Re owns, directly or indirectly, the majority of the voting shares or over which it has the factual ability to exercise control (subsidiaries). The only exceptions are subsidiaries which are determined as being not material for assessing the Group's financial position; insurance and reinsurance companies are consolidated regardless of their size. An overview of the group of consolidated companies and other important shareholdings is provided on pages 240 ff.

Consolidated subsidiaries*	Germany	Other countries	Total
31.12.2001	71	155	226
Additions	27	16	43
Reductions	15	6	21
31.12.2002	83	165	248

<sup>\*</sup> Excluding special funds.

In the business year, the Munich Re Group acquired a further 4.37% of the ERGO Insurance Group at a price of €898m and a further 36.08% of Karlsruher Lebensversicherung at a price of €149m. As at 1 May 2002 ERGO Versicherungsgruppe AG acquired 100% of the holding company of KarstadtQuelle Versicherungen, QVH Beteiligungs GmbH, Fürth, at a price of €153m. As part of its joint venture with Karstadt AG, ERGO Versicherungsgruppe AG then transferred 45% of the shares in QVH Beteiligungs GmbH and in KarstadtQuelle Lebensversicherung AG to KarlstadtQuelle Financial Services GmbH, Düsseldorf. In addition, ERGO Insurance Group acquired shares in insurance companies in Eastern Europe for a total price of €102m and increased its stake in already consolidated companies for a total price of €76m. Apart from this, there were no significant changes in the group of consolidated companies.

The effects of the additionally acquired shares in Karlsruher Lebensversicherung AG and ERGO AG on the consolidated financial statements may be seen from the following overview:

All figures in €m Effects on the consolidated financial statem					statements 2002	
	Date of first consolidation	Profit for the year	Goodwill <sup>1</sup>	Amortisation of goodwill	Fair value of acquired life insurance portfolios <sup>1</sup>	Amortised fair value of acquired life insurance portfolios
ERGO AG	1.1./1.10.2002	-48	429	37	84	4
Karlsruher Lebensversicherung AG	1.7.2002	-8	40	1	39	0.2

<sup>&</sup>lt;sup>1</sup> At the date of first consolidation.

The changes among our non-consolidated subsidiaries in the business year were as follows:

31.12.2002	160	87	247
Reductions		10	32
Additions	57	19	76
31.12.2001	125	78	203
Non-consolidated subsidiaries	Germany	Other countries	Total

The aggregate shareholders' equity of the non-consolidated subsidiaries amounted to less than 1.0% (0.7%) of the Group's shareholders' equity at 31 December 2002, and their aggregate annual result to 0.5% (0.1%) of the consolidated profit for the year. The enterprises involved are mainly service and management companies.

#### Consolidation principles

The balance sheet date of the consolidated companies is generally 31 December. Some of the special funds have other balance sheet dates. These funds are consolidated on the basis of interim accounts as at 31 December.

We generally consolidate subsidiaries as soon as the Group holds the majority of the voting shares or has the factual ability to exercise control. In order to determine the equity capital at the time of acquisition, we include the assets and liabilities of the subsidiary according to uniform Group accounting and valuation methods. The equity capital apportionable to the Group is netted against the acquisition costs of the shares (purchase accounting). Any residual amount is capitalised as goodwill and amortised on a straight-line basis.

The profits earned by the subsidiaries after their first consolidation are included in the Group's revenue reserves unless they are apportionable to minority interests.

Minority interests are shown separately in the balance sheet and the income statement. They represent the amounts apportionable to other shareholders outside the Group from the shareholders' equity and profits for the year of the subsidiaries concerned.

Amounts relating to intra-Group transactions (receivables and liabilities, expenses and income between consolidated companies) are eliminated unless they are determined as being not material.

#### Associated enterprises

In accordance with IAS 28, associated enterprises are all enterprises which are not subsidiaries and in which Group companies hold between 20% and 50% of the voting rights – regardless of whether a significant influence is actually exercised on the financial and operating decisions of the enterprise.

31.12.2001 Additions	32 10	10	70 20
Reductions 31.12.2002		9 -	23 <b>67</b>

Other associated enterprises	Germany	Other countries	Total
31.12.2001	26		50
Additions	16	5	21
Reductions	11	14	25
31.12.2002	31	15	46

Further details of selected associated enterprises are shown on pages 229 ff.

#### **Accounting and valuation**

The annual financial statements of the consolidated subsidiaries are subject to uniform accounting and valuation principles. Valuations used in the financial statements of non-significant associated companies are maintained.

The application of the accounting, valuation and disclosure methods follows the principle that a method once chosen should be applied consistently. Effects of any changes in accounting and valuation methods are generally recognised in the income statement.

#### **Assets**

#### A Intangible assets

Goodwill resulting from the first-time consolidation of subsidiaries is amortised on a straight-line basis over its useful life – up to 20 years (IAS 22).

Other intangible assets mainly comprise purchased and internally generated software, and purchased insurance portfolios. The valuation basis is the original cost less straight-line depreciation. The useful life assumed for software is three to five years and for insurance portfolios up to 15 years.

In addition, other intangible assets include the fair values of acquired life insurance portfolios (PVFP: present value of future profits). These are amortised in accordance with the realisation of the profits underlying the PVFP calculation.

#### **B** Investments

Real estate is carried at cost. Maintenance expenses and repairs are recognised as an expense. Subsequent expenditure that increases the value of real estate is capitalised if it extends the useful life. The capitalised costs of buildings are amortised over 100 years at most, in accordance with their useful lives. If the recoverable amount of land and buildings falls below its carrying amount and the diminution in value is likely to be permanent, the carrying amount is reduced to the recoverable amount. Any impairment loss is recognised as an investment expense in the income statement, and any increases in value as investment income.

Investments in affiliated enterprises that we do not consolidate because they are not material are carried at their fair values. If the shares are listed on a stock exchange, we use the share prices at the balance sheet date; for other shares, the fair value is the net asset value based on the German Association of Financial Analysts (DVFA) method or – in the case of new acquisitions – the acquisition cost.

Investments in associated enterprises are valued by the equity method at the Group's proportionate share of their net assets; as a rule, the most recent individual or consolidated financial statements of the associated enterprise are used for this. The earnings of an associated enterprise apportionable to the Group are included in the investment result. Investments in associated enterprises that are determined as being not material for assessing the Group's financial position are valued at acquisition cost.

Loans are stated at amortised cost. Writedowns for impairments are made in cases where the repayment of a loan can no longer be expected.

Fixed-interest securities held to maturity are – like loans – stated at amortised cost. The main investments shown here are registered bonds and promissory notes.

Securities available for sale are stated at market value. Unrealised gains or losses are not included in the income statement; rather, after deduction of deferred taxes and the amounts apportionable to policyholders by the life and health insurers on realisation, they are reflected in shareholders' equity. This item also includes registered bonds and promissory notes.

Securities held for trading comprise all fixed-interest and non-fixed-interest securities that we have acquired for trading purposes to earn short-term profits from price changes and differences; in addition, they include all derivative financial instruments that we have not acquired for hedging purposes. Securities held for trading are stated at the market value at the balance sheet date; all unrealised gains or losses from this valuation are included in the investment result.

With all securities that are not investments held for trading, permanent losses in value – unlike temporary diminutions – are recognised as an expense in the income statement. Writedowns for permanent losses in value are made on the basis of the market price at the balance sheet date.

Deposits retained on assumed reinsurance are claims which the reinsurers have on their clients for cash deposits that have been retained under the terms of reinsurance agreements; they are accounted for at face value.

Other investments are also stated at face value.

## Investments for the benefit of life insurance policyholders who bear the investment risk

These are mainly investments for policyholders under unit-linked life insurances. They are accounted for at market value; unrealised gains and losses are matched by corresponding changes in the underwriting provisions (equity and liabilities item D).

#### **D** Ceded share of underwriting provisions

The share of underwriting provisions for business ceded by us is determined from the gross underwriting provisions in accordance with the terms of the reinsurance agreements; cf. the notes to the corresponding liabilities items.

#### **E** Receivables

Receivables on primary insurance business, accounts receivable on reinsurance and other receivables are stated at face value; adjustments of value are made where necessary.

#### Cash with banks, cheques and cash in hand

Cash and cheques are shown at their face value.

#### **G** Deferred acquisition costs

Deferred acquisition costs comprise commissions and other variable costs directly connected with acquisition or renewal of insurance policies.

In life reinsurance, the deferred acquisition costs are capitalised and amortised over the term of the policies either proportionally to the premium income (FAS 60) or proportionally to the expected profits (FAS 97). In other reinsurance and in property-casualty insurance, the deferred acquisition costs are amortised on a straight-line basis over the average term of the policies, from one to five years.

In life insurance, the deferred acquisition costs are also capitalised and amortised over the terms of the policies; the amount of amortisation depends on the gross margins of the respective products calculated for the relevant year of the policy term.

The acquisition costs in health insurance are amortised proportionally to the premium income over the total average policy term. The amortisation amount is determined on the basis of the assumptions used for calculating the provision for future policy benefits.

#### **■** Deferred tax assets

Under IAS 12, deferred tax assets must be accounted for in cases where asset items have to be valued lower, or liabilities items higher, in the consolidated balance sheet than in the tax balance sheet of the Group company concerned and these differences are temporary. We take into account the tax rates of the countries concerned and the company's respective tax situation; in some cases, for purposes of simplification, we use uniform tax rates for individual circumstances or subsidiaries.

Where unrealised losses on securities available for sale are reflected in share-holders' equity (see above), the resulting deferred tax assets are recorded but excluded from earnings.

At each balance sheet date we review the carrying amount of the deferred tax assets. If it is no longer probable that the deferred tax asset will be realised in the future, the carrying amount is reduced.

#### Other assets

Other assets are stated at cost less any writedowns that are required.

### **Equity and liabilities**

#### A Shareholders' equity

The item issued capital and capital reserve contains the amounts that the shareholders of the parent company have paid in on shares. Under revenue reserves, we show the profits which consolidated companies have earned and retained since becoming a member of the Munich Re Group, and income and expenses resulting from consolidation measures. Unrealised gains and losses resulting from the market valuation of investments are included in the other reserves.

In accordance with SIC 16, own shares held by Munich Re at the balance sheet date have been deducted directly from shareholders' equity.

#### **B** Minority interests

This item contains the shares of third parties in the shareholders' equity of subsidiaries that are not wholly owned directly or indirectly by the parent company.

#### **Gross underwriting provisions**

The underwriting provisions are shown gross in our balance sheet, i.e. without deduction of the share apportionable to business ceded by us; cf. the explanatory remarks on the relevant assets item. The ceded share is calculated and accounted for on the basis of the individual reinsurance agreements.

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 provision for future policy benefits covers the anticipated future benefits payable to policyholders in life, health and personal accident insurance and also the ageing reserves in health insurance.

Provisions for future policy benefits are generally calculated using actuarial methods from the present value of the future benefits payable to policyholders and from the present value of the premiums still to be paid by the policyholders; the calculation is based in particular on assumptions relating to mortality, morbidity and interest rate development.

If policyholders participate in aggregate divisible surplus in the same proportion as their policies are considered to have contributed to this surplus ("contribution principle"), the provision for future policy benefits is calculated with reference to the contractually agreed calculation bases (FAS 120); as these are prudent assumptions, surpluses regularly accrue, which are for the most part distributed to policyholders. The acquisition costs are capitalised and amortised over the terms of the policies (on the basis of the estimated surpluses).

If policyholders participate in surplus, but not by way of the contribution principle, or they are promised fixed benefits without participation in surplus, then safety loadings are included in the calculation of the provision for future policy benefits that are based on the circumstances at the conclusion of the policy (FAS 60). Here, too, the acquisition costs are capitalised and amortised over the terms of the policies (on the basis of the premium income).

In the case of life insurance policies where policyholders bear the investment risk themselves (e.g. unit-linked life insurance), the provision for future policy benefits reflects the market values of the relevant investments (FAS 97); this provision is shown separately (item D).

If policyholders can vary their premium payments within certain contractually specified limits (universal life), the amount included in the provision for future policy benefits corresponds to the premiums paid plus the interest credited thereon (FAS 97).

The provision for outstanding claims covers payment obligations arising from insurance and reinsurance contracts where the size of the claim or the date of the payment is still uncertain. Such provisions are posted for claims that have been reported, for claims incurred but not yet reported, and for internal and external claims adjustment expenses. Provisions for outstanding claims are based on estimates; the actual payments may be higher or lower.

This applies particularly in reinsurance, where a considerable time may elapse between the occurrence of an insured loss, its reporting by the primary insurer and payment of the reinsurer's share. 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 parameters) and partly using actuarial methods. The future payment obligations are generally not discounted; exceptions are some actuarially calculated provisions for annuities in motor, personal accident and liability insurance.

Other underwriting provisions include the provisions for premium refunds.

Provisions for premium refunds are made for obligations involving bonuses and rebates in life and health insurance that are not yet payable at the balance sheet date; the amount posted is based on supervisory or contractual regulations. The item "other underwriting provisions" also includes amounts apportionable to policyholders from the accumulated valuation differences between IAS and German Commercial Code (provision for deferred premium refunds).

Provisions for anticipated losses are posted if the future premiums and proportional investment income in a portfolio will probably not be sufficient to cover the expected claims and costs.

## Gross underwriting provisions for life insurance policies where the investment risk is borne by the policyholders

Please see the remarks on assets item C and on the provisions for future policy benefits.

#### **E** Other accrued liabilities

These primarily include provisions for post-employment benefits. The companies in the Munich Re Group generally give commitments to their staff in the form of defined contribution plans or defined benefit plans. The type and amount of the pension obligations are determined by the conditions of the respective pension plan. In general, they are based on the length of service and salary of the staff member.

Under defined contribution plans the company pays fixed contributions to an insurer or a pension fund. This fully covers the company's obligations.

Under defined benefit plans the staff member is promised a particular level of retirement benefit either by the company or by a pension fund. The company's contributions needed to finance this are not fixed in advance.

Pension obligations are valued in accordance with IAS 19 (Employee Benefits) using the projected unit credit method and based on actuarial studies. The valuation includes not only the pension entitlements and current pensions known on the balance sheet date but also their expected future development. The interest rate at which the pension obligations are discounted is based on the yields for long-term high-quality bonds (e.g. government bonds).

The consolidated companies used the following actuarial assumptions (weighted average values) for calculating their pension obligations:

All figures in%	31.12.2002	Prev. year
Discount rate	6.1	6.2
Expected rate of return on fund assets	6.3	9.9
Future increases in entitlement/salary	3.9	4.1
Future pension increases	2.1	2.3

Actuarial gains or losses from pension obligations and plan assets result from the deviation of actual risk experience from estimated risk experience. They are recognised by means of the corridor method laid down in IAS 19. According to this, actuarial gains or losses are recognised in the income statement if they exceed 10% of the present value of the vested benefits at the beginning of the business year.

Provisions for taxes are posted – without discounting – in accordance with the probable tax payments for the year under review or previous years.

Other provisions are posted in the amount of the probable requirement; such amounts are not discounted.

#### Liabilities

The liabilities shown under this item – notes and debentures, accounts payable, deposits retained on ceded business and other liabilities – are stated at the settlement value.

#### **G** Deferred tax liabilities

Under IAS 12, deferred tax liabilities must be accounted for if asset items have to be valued higher, or liabilities items lower, in the consolidated balance sheet than in the tax balance sheet of the reporting company and if this difference is temporary; cf. the remarks on the corresponding assets item.

### Foreign currency translation

Munich Re's reporting currency is the euro. The balance sheets of foreign subsidiaries that do not report in euros are translated using the year-end exchange rates, and their income statements using the annual average exchange rates; any translation differences arising in the process are reflected in shareholders' equity and excluded from earnings.

Group companies that write a significant portion of their business in foreign currency generally safeguard themselves against exchange losses by attempting to match assets and liabilities in the same currency. Where exchange gains or losses occur nevertheless in the translation of the balance sheet currencies of the consolidated companies, they are accounted for under "other income" and "other expenses" respectively.

The following table shows the exchange rates of the most important currencies for our business (exchange rate for €1 in each case):

	Ba	Balance sheet		e statement
	31.12.2002	Prev. year	2002	Prev. year
Australian dollar	1.86360	1.73040	1.73884	1.73170
Canadian dollar	1.65790	1.40800	1.48469	1.38644
Pound sterling	0.65180	0.60880	0.62891	0.62171
Rand	9.00440	10.55960	9.9001	7.69710
Swiss franc	1.45100	1.48030	1.46683	1.51050
US dollar	1.04940	0.88180	0.94583	0.89545
Yen	124.5320	115.6920	118.1280	108.7110

#### Notes to the consolidated balance sheet - Assets

#### (1) Goodwill

All figures in €m	2002	2001
Gross amount capitalised at 31.12. previous year	5,129	3,105
Accumulated amortisation at 31.12. previous year	710	480
Carrying amount at 31.12. previous year	4,419	2,625
Translation differences	-313	157
Carrying amount at 1.1. business year	4,106	2,782
Additions	706	1,880
Disposals		13
Amortisation	371	230
Carrying amount at 31.12. business year	4,441	4,419
Accumulated amortisation at 31.12. business year	1,143	710
Gross amount capitalised at 31.12. business year	5,584	5,129

The goodwill results mainly from the acquisition of American Re in November 1996 and from the acquisition of the additional shares in the ERGO Insurance Group in 2001 and 2002.

#### (2) Other intangible assets

All figures in €m	Software	Purchased insurance portfolios	Other	2002	2001
Gross amount capitalised at 31.12. previous year	422	917	170	1,509	1,144
Accumulated depreciation at 31.12. previous year	242	73	91	406	301
Carrying amount at 31.12. previous year	180	844	79	1,103	843
Translation differences		-21	-1	-23	17
Carrying amount at 1.1. business year	179	823	78	1,080	860
Change in the consolidated group	12	32	_	44	1
Additions	196	131	106	433	504
Disposals	9		4	13	22
Depreciation					
- Amortisation	65	73	71	209	125
- Writedowns for impairments	1	_	-	1	_
Write-ups	_	_	2	2	_
Other movements		_	_	_	-115
Carrying amount at 31.12. business year	312	913	111	1,336	1,103
Accumulated depreciation at 31.12. business year	298	146	160	604	406
Gross amount capitalised at 31.12. business year	610	1,059	271	1,940	1,509

The figures shown under purchased insurance portfolios mainly comprise the year-end actuarial value of the life insurance portfolios consolidated as a result of the acquisition of Bayerische Vita and CNA Financial Corporation's life reinsurance business, totalling around €303m, and €299m from the acquisition of further shares in the ERGO Insurance Group. The addition of €131m derives mainly from the acquisition of additional shares in the Karlsruher Insurance Group and the ERGO Insurance Group.

The remaining other intangible assets include rights equivalent to real property amounting to  $\in$ 4m (5m).

Depreciation of software is apportioned in the income statement between the investment result, expenses for claims and benefits, and operating expenses. Amortisation of purchased insurance portfolios is shown under "other expenses".

#### (3) Real estate

All figures in €m	2002	2001
Gross amount capitalised at 31.12. previous year	10,405	9,583
Accumulated depreciation at 31.12. previous year	1,361	1,178
Carrying amount at 31.12. previous year	9,044	8,405
Translation differences	-39	17
Carrying amount at 1.1. business year	9,005	8,422
Change in consolidated group	91	40
Additions	1,223	1,016
Disposals	299	245
Write-ups	5	5
Depreciation – Amortisation	114	87
- Writedowns for impairments	63	107
Carrying amount at 31.12. business year	9,848	9,044
Accumulated depreciation at 31.12. business year	1,523	1,361
Gross amount capitalised at 31.12. business year	11,371	10,405

Land and buildings used by Group companies for their own activities are valued at €1,877m (1,955m).

The additions in the business year include €204m from the application of the purchase accounting method to the additional shares acquired in the Karlsruher Insurance Group and the ERGO Insurance Group.

Real estate pledged as security and other restrictions on title amount to €505m (214m). The expenses for investments under construction total €184m (36m) at the balance sheet date. Commitments to acquire real estate amount to €288m (367m).

The fair value of real estate at the balance sheet date totals €11,468m (11,124m). The fair value is generally the capitalised earnings value; new buildings and freshly purchased real estate are valued at cost.

#### (4) Investment in affiliated enterprises and associated enterprises

All figures in €m	31.12.2002	Prev. year
Affiliated enterprises	250	303
Associated enterprises	9,351	12,255
Total	9,601	12,558

The fair value of investments in associated enterprises, which are mostly valued at equity, amounts to  $\leq$ 8,753m (26,548m) at the balance sheet date.

An overview of our most important shareholdings can be found on pages 240 ff.

#### (5) Loans

	Carryi	ing amounts	
All figures in €m	31.12.2002	Prev. year	
Mortgage loans	6,663	6,643	
Loans and advance payments on insurance policies	703	637	
Other loans	5,278	3,902	
Total	12,644	11,182	

In the business year the market values of the loans generally corresponded to the carrying amounts. The "other loans" include loans to affiliated enterprises totalling  $\in$ 34m (44m) and loans to associated enterprises totalling  $\in$ 531m (675m).

Contractual period to maturity	Carryi	ng amounts
All figures in €m	31.12.2002	Prev. year
Up to one year	1,341	706
Over one year and up to five years	4,273	2,951
Over five years and up to ten years	6,259	4,583
Over ten years	771	2,942
Total	12,644	11,182

#### (6) Other securities, held to maturity

Issuers	Carryi	Market values		
All figures in €m	31.12.2002	Prev. year	31.12.2002	Prev. year
Government bonds				
- Germany		162	7	168
- Rest of EU	14	15	14	15
- Others	-	2	_	2
Corporate bonds	736	693	782	718
Others	95	108	95	108
Total	852	980	898	1,011

Contractual period to maturity	Carryi	ng amounts	M	arket values
All figures in €m	31.12.2002	Prev. year	31.12.2002	Prev. year
Up to one year	110	94	111	127
Over one year and up to five years	463	554	495	550
Over five years and up to ten years	259	291	271	293
More than ten years	20	41	21	41
Total	852	980	898	1,011

#### Rating on market-value basis

All figures in €m	31.12.2002	Prev. year
AAA	56	22
AA	102	154
A	286	408
BBB and lower	87	_
No rating	367	427
Total	898	1,011

The rating categories are based on the gradings of the leading international rating agencies.

#### (7) Other securities, available for sale

	Carryi	ng amounts	Unrealised gains/losses		Amortised cost	
All figures in €m	31.12.2002	Prev. year	31.12.2002	Prev. year	31.12.2002	Prev. year
Fixed-interest securities						
<ul> <li>Government bonds</li> </ul>						
<ul><li>Germany</li></ul>	7,358	5,174	269	41	7,089	5,133
- Rest of EU	10,667	9,367	380	69	10,287	9,298
- US	4,189	2,255	103	42	4,086	2,213
- Others	4,119	3,313	205	92	3,914	3,221
- Corporate bonds	34,805	33 564	1,647	649	33,158	32,915
- Others	25,538	23,761	1,159	529	24,379	23,232
	86,676	77,434	3,763	1,422	82,913	76,012
Non-fixed-interest securities						
- Shares	16,788	31,045	-2,671	2,095	19,459	28,950
- Investment funds						
<ul> <li>Equity funds</li> </ul>	856	1,288	-135	81	991	1,207
- Bond funds	726	710	-131	14	857	696
- Real estate funds	357	317	11	-8	346	325
- Others	772	457	209	9	563	448
	19,499	33,817	-2,717	2,191	22,216	31,626
Total	106,175	111,251	1,046	3,613	105,129	107,638

The corporate bonds mainly comprise mortgage bonds with a high credit rating.

Valuation at market value results in valuation reserves of €1,046m (3,613m) in comparison with amortised costs. After deduction of provisions for deferred premium refunds, deferred taxes, minority interests and consolidation effects, we have allocated unrealised gains and losses of €168m (1,756m) to shareholders' equity.

#### Disposal proceeds in the business year were as follows:

All figures in €m	2002	Prev. year
Fixed-interest securities	45,770	33,073
Non-fixed-interest securities  - Listed	20,344	14,303
- Non-listed	4,147	905
Total	70,261	48,281

#### Realised gains and losses

All figures in €m	2002	Prev. year
Gains on disposal	2,956	4,258
- Fixed-interest securities	690	796
- Non-fixed-interest securities	2,266	3,462
Losses on disposal	3,116	2,301
- Fixed-interest securities	410	228
- Non-fixed-interest securities	2,706	2,073
Total	-160	1,957

Contractual period to maturity of fixed-interest securities	Carryi	ng amounts	Amortised co				
All figures in €m	31.12.2002 Prev. year		All figures in €m 31.12.2002		31.12.2002	Prev. year	
Up to one year	7,734	5,457	7,689	5,404			
Over one year and up to five years	41,031	35,737	40,057	35,223			
Over five years and up to ten years	26,396	25,558	24,482	24,891			
Over ten years	11,515	10,682	10,699	10,494			
Total	86,676	77,434	82,927	76,012			

#### Rating of fixed-interest securities on market-value basis

All figures in €m	31.12.2002	Prev. year
AAA	54,279	45,478
AA	20,362	17,792
A	7,023	6,736
BBB	3,183	2,523
Lower	254	255
No rating	1,575	4,650
Total	86,676	77,434

#### (8) Other securities, held for trading

The securities held for trading include fixed-interest securities totalling €296m (155m) and non-fixed-interest securities and derivatives totalling €156m (257m).

#### **Derivative financial instruments**

Derivative financial instruments (derivatives) are financial instruments whose market value is derived from one or more underlying assets.

A distinction is made between "over-the-counter" (OTC) products and standardised transactions concluded on the stock exchange.

Derivatives are used at the individual Group companies within the framework of individual supervisory regulations and additional company directives. They are used to optimise investment earnings, with the main focus being on hedging investment portfolios against unfavourable market developments.

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, in the Munich Re Group, only top-quality counterparties are selected for such transactions.

Altogether, the volume of the transactions concluded in the period under review and of the open positions at the balance sheet date was negligible in relation to the balance sheet total. The fair value of open positions at 31 December 2002 totalled €506m (675m), i.e. less than 1% (1%) of the balance sheet total. The fair value of items used for hedging purposes amounted to €218m and the fair value of trading items to €288m.

The fair values shown in the following table are either listed prices or values at the balance sheet date determined using mathematical models.

		Open positions						
			Period to m	aturity				
	Up to 3	3–6	6–12	1–5	Over	Total		
All figures in €m	months	months	months	years	5 years			
OTC products			Fair valu	ies				
Cross-currency transactions								
- Forwards	6		1			7		
- Swaps			30	-2		26		
Interest-rate transactions  - Forward transactions	10	222	_	_	_	232		
- Swaps	_	_	_	12	12	24		
Credit transactions – Swaps	_	_	_	1	6	7		
Equity/index transactions								
- Options						-2		
- Other	3			8	62	73		
	17	222	31	17	80	367		
Exchange traded								
Cross-currency transactions								
- Futures	57	_	_	_	_	57		
Equity/index transactions								
- Futures	-54	_	_	_	_	-54		
- Options	56	_		_	_	56		
- Other	66	4	10	_	_	80		
	125	4	10			139		
Total	142	226	41	17	80	506		

The corresponding notional principal amounts, which show the scope of the underlying assets, had a volume of €4,465m. The following table shows the notional principal amounts, broken down by product type and period to maturity:

			Open posi	tions		
			Period to m	aturity		
All figures in €m	Up to 3 months	3–6 months	6–12 months	1–5 years	Over 5 years	Total
OTC products			Nominal v	alues		
Cross-currency transactions  - Forwards	229	_	14	_	_	243
- Swaps		_	191	15	_	221
Interest-rate transactions  - Forward transactions	10	215			_	225
- Swaps	68	_	1	284	499	852
Credit transactions  - Swaps			_	3	21	24
Equity/index transactions  Options		_	2	264	3	269
- Other	44	_		193	1,347	1,584
	366	215	208	759	1,870	3,418
Exchange traded						
Cross-currency transactions						
- Futures	6	_		_	_	6
Equity/index transactions						
- Futures	69	_		_	_	69
- Options	890	-	_	-	_	890
- Other	68	4	10	-	_	82
	1,033	4	10	_	_	1,047
Total	1,399	219	218	759	1,870	4,465

The products used for hedging can be divided into cash flow hedges and fair value hedges.

Cash flow hedges are used to reduce the risk of fluctuations in future payments, e.g. those expected from planned transactions. The use of cash flow hedges within the Group is mainly concentrated on the management of interest-rate and currency risks. The fair value of these derivatives at the balance sheet date amounted to €192m.

The following table gives the periods to maturity of cash flow hedges at the balance sheet date:

All figures in €m	Up to 3 months	3–6 months	6–12 months	1–5 years	Over 5 years	Total
Notional principal amounts	195	4	11	459	1,688	2,357

Fair value hedges are used to reduce the market-price risk of current investments. Such fair value hedges are employed for the selected and efficient hedging of parts of the portfolio against interest-rate risks. The fair value of the derivatives used here amounted to €27m at the balance sheet date.

#### (9) Miscellaneous other investments

This item includes deposits with banks totalling €2,734m (2,685m).

#### (10) Receivables

All figures in €m	31.12.2002	Prev. year
Amounts receivable on primary insurance business	954	939
- From policyholders	580	574
- From intermediaries	374	365
Accounts receivable on reinsurance business	4,083	4,923
Interest and rent	2,126	2,130
Other receivables	1,708	1,721
Total	8,871	9,713

Receivables with a remaining term of up to one year total €8,745m (9,571m); those with a remaining term of over one year total €126m (142m).

## (11) Receivables and liabilities in respect of affiliated enterprises and participating interests

	Affiliated	Affiliated enterprises		Participating interests	
All figures in €m	31.12.2002	Prev. year	31.12.2002	Prev. year	
Deposits retained on assumed reinsurance		_	905	5,883	
Accounts receivable	_	_	5	307	
Other receivables	51	31	29	28	
Deposits retained on ceded business			270	1,044	
Accounts payable	_	5	157	223	
Other liabilities	42	57	358	191	

#### (12) Deferred acquisition costs

We have used interest rates of between 3% and 8% for calculating the deferred acquisition costs, as in the previous year.

The following table shows the development of the deferred acquisition costs in the business year:

	Reinsurance		Primary insurance		Total	Prev. year
All figures in €m*	Life and health	Property- casualty	Life and health	Property- casualty		
Carrying amount at 31.12. previous year	1,603	888	4,442	353	7,286	6,361
Translation differences	-135	-83	1	_	-217	52
Carrying amount at 1.1. business year	1,468	805	4,443	353	7,069	6,413
Newly deferred acquisition costs	440	523	366	109	1,438	3,568
Amortised acquisition costs	201	194	606	55	1,056	2,695
Carrying amount at 31.12. business year	1,707	1,134	4,203	407	7,451	7,286

<sup>\*</sup> After elimination of intra-Group transactions across segments.

Amortisation of the acquisition costs in the life and health segment in primary insurance includes profit-neutral eliminations of €405m necessitated by valuation according to the purchase accounting method in connection with the increase of the shareholdings in the Karlsruher Insurance Group and ERGO AG.

#### (13) Deferred tax

This involves the following items:

	31.12.2002			Prev. year	
All figures in €m	Assets	Liabilities	Assets	Liabilities	
Losses carried forward	1,629	_	656	_	
Investments	471	1,270	278	1,225	
Underwriting provisions	1,489	565	826	535	
Pension provisions	113	2	127	2	
Others	365	2,901	433	1,779	
Total	4,067	4,738	2,320	3,541	

#### (14) Other assets

These mainly comprise property, plant and equipment and inventories totalling €376m (342m) and deferred items of €170m (93m).

# Notes to the consolidated balance sheet – Equity and liabilities

#### (15) Shareholders' equity

On 3 June 2002 the exercise period for the 1998/2002 warrants ended. The exercising of warrants in the business year up to the expiry date resulted in the issue of 1,717,294 new registered shares at an exercise price of  $\in$ 163.61 each. This increased the share capital to  $\in$ 457,388,254.72, and the company raised a total of  $\in$ 280,972,310.14 from the issue of the new shares.

By resolution of the Annual General Meeting on 18 July 2001, Munich Re was authorised to buy back shares amounting to a maximum of 10% of the share capital up to 18 January 2003. This authorisation was cancelled by the Annual General Meeting on 17 July 2002 and replaced by a new one, authorising the Board of Management to buy back shares amounting to a maximum of 10% of the share capital up to 17 January 2004.

On 31 December 2002 a total of 366,371 Munich Re shares with a calculated nominal value of €861,109.76 were held by Group companies. This represents 0.19% of the share capital.

The 1,559 shares remaining at the end of the business year from the Munich Reinsurance Company's employee share programme were valued at an average price of €116.51 per share. The average acquisition costs of one subsidiary for 120,000 shares to safeguard the stock appreciation rights granted to the Board of Management and top Munich Re executives since 2000 amounted to €255.94 per share.

The 2,744 shares remaining at the end of the business year from the ERGO Insurance Group's employee share programme were acquired for an average price of  $\[ \in \]$  220.15 per share. In addition, as part of its long-term incentive plan launched at 1 July 2002, the ERGO Insurance Group purchased 33,000 shares at an average price of  $\[ \in \]$  193.00 each and a further 12,476 shares at  $\[ \in \]$  220.15 each.

The transaction value of all Munich Re shares in the possession of Group companies at the end of the business year totalled €93,380,472.17.

The share capital as at 31 December 2002 is divided into 178,667,287 registered shares, each fully paid up and entitled to one vote.

The Annual General Meeting on 17 July 2002 cancelled the authorisation for a contingent increase in the share capital of €15,360,000 to safeguard conversion or subscription rights resulting from convertible bonds or bonds with warrants and replaced this with a new contingent capital of €30m.

#### The contingent capital is as follows:

All figures in €m	31.12.2002
To safeguard subscription rights from exercise of warrants	
(Contingent Capital Increase 1998)	15.4
To safeguard conversion rights or subscription rights from convertible bonds or bonds	
with warrants (Contingent Capital Increase 2002)	30.0
Total	45.4

On 17 July 2002 the Annual General Meeting cancelled the existing authorisations for increasing the share capital under "Authorised Capital Increases I, II and III", replaced these with a new authorisation "Authorised Capital Increase 2002" amounting to €220m, and renamed "Authorised Capital Increase IV" "Authorised Capital Increase 2001".

#### The capital authorised for capital increases is thus as follows:

All figures in €m	31.12.2002
Authorised Capital Increase 2002 (until 17 July 2007)	220.0
Authorised Capital Increase 2001 (until 18 July 2006)	3.8
Total	223.8

#### Changes in shareholders' equity

All figures in €m	Issued capital	Capital reserve	Revenue reserves	Other reserves	Consoli- dated profit	Total sharehold- ers' equity
Status at 31.12.2000	453	2,712	9,174	9,513	1,750	23,602
Translation differences			331	-8	-15	308
Capital increases		2	_		_	2
Allocation to revenue reserves		_	1,514	_	-1,514	_
Change in the consolidated group		_	171	_	_	171
Change resulting from valuation at equity		_	425	-1,879	_	-1,454
Unrealised gains and losses on other investments		_	_	-3,208	_	-3,208
Profit for the year		_	_		250	250
Acquisition of own shares		_	-53	_	_	-53
Dividends		_	_	_	-221	-221
Other changes		_	-40	_	_	-40
Status at 31.12.2001	453	2,714	11,522	4,418	250	19,357
Translation differences		_	-975	-6	51	-930
Capital increases	4	276	_	_	_	280
Allocation to revenue reserves		_	80	_	-80	_
Change in the consolidated group		_	-95	-9	_	-104
Change resulting from valuation at equity		_	-539	-3,103	_	-3,642
Unrealised gains and losses on other investments		_	_	-1,888	_	-1,888
Profit for the year		_	_	_	1,081	1,081
Acquisition of own shares		_	-93	_	_	-93
Dividends		_	_		-221	-221
Other changes		-	108	_	_	108
Status at 31.12.2002	457	2,990	10,008	-588	1,081	13,948

The "other reserves" include - $\in$ 793m (+2,310m) unrealised gains and losses resulting from valuation at equity, and  $\in$ 205m (2,108m) unrealised gains and losses on other investments.

The unrealised gains and losses on other investments included in the "other reserves" changed as follows:

All figures in €m	2002	Prev. year
Unconsolidated affiliated enterprises	40	361
Securities available for sale		
- Fixed-interest	3,763	1,422
- Non-fixed-interest	-2,717	2,191
Less:		
<ul> <li>Provision for deferred premium refunds</li> </ul>	449	1,564
- Deferred taxes	442	231
- Minority interests	18	96
- Consolidation effects	-28	-25
Total	205	2,108

#### (16) Minority interests

These are mainly minority interests in the ERGO Insurance Group.

All figures in €m	31.12.2002	Prev. year
Unrealised gains and losses	7	71
Consolidated profit		145
Other equity components	594	774
Total	532	990

The changes derive mainly from the increase in our shareholdings in the ERGO and Karlsruher Insurance Groups and from the development in the shareholders' equity of these two groups.

#### (17) Unearned premiums

All figures in €m	31.12.2002	Prev. year
Gross	6,158	5,812
Ceded share	381	1,120
Net	5,777	4,692

The following table shows the distribution of net unearned premiums between the different Group segments:

All figures in €m*	31.12.2002	Prev. year
Reinsurers	4,680	3,671
- Life and health	138	82
- Property-casualty	4,542	3,589
Primary insurers	1,097	1,021
- Life and health	60	90
- Property-casualty	1,037	931
Total	5,777	4,692

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### (18) Provision for future policy benefits

All figures in €m	31.12.2002	Prev. year
Gross	96,088	89,016
Ceded share	3,769	4,405
Net	92,319	84,611

The distribution of the net provision for future policy benefits between the different Group segments is as follows:

All figures in €m*	31.12.2002	Prev. year
Reinsurers	11,873	11,079
<ul> <li>Life and health</li> </ul>	11,257	10,350
- Property-casualty	616	729
Primary insurers	80,446	73,532
- Life and health	80,355	73,468
- Property-casualty	91	64
Total	92,319	84,611

<sup>\*</sup> After elimination of intra-Group transactions across segments.

In calculating the provision for future policy benefits, interest rates of between 3% and 8% have been used, as in the previous year.

#### (19) Provision for outstanding claims

All figures in €m	31.12.2002	Prev. year
Gross	42,792	39,511
Ceded	5,962	6,381
Net	36,830	33,130

The following table shows the distribution of the net provision for outstanding claims between the different segments of the Group:

All figures in €m*	31.12.2002	Prev. year
Reinsurers	31,463	27,954
- Life and health	2,460	2,545
- Property-casualty	29,003	25,409
Primary insurers	5,367	5,176
- Life and health	1,361	1,229
- Property-casualty	4,006	3,947
Total	36,830	33,130

<sup>\*</sup>After elimination of intra-Group transactions across segments.

The table on the following page shows the provisions for outstanding claims in property-casualty business for the primary insurers and reinsurers for the last ten years. This covers around 98% of the total claims provisions of the Group. What the table considers is not the run-off of the provisions for individual accident years, but the run-off of the provision posted at each balance sheet date, which contains the provisions for the respective current accident year and for all previous accident years. The figures for the years 1997 and earlier were determined on the basis of the relevant national accounting regulations; the figures for the years 1998 to the present have been based on International Accounting Standards.

The table illustrates how the estimate of the respective balance sheet provision has changed in the course of time – owing partly to payments made and partly to the re-estimate of the outstanding payments. The net run-off result reflects the difference between the current and original estimate. It is often materially affected by changes in exchange rates. The fluctuations in the value of important foreign currencies for us (mainly the US dollar and the pound sterling) against the euro led to significant changes in the provisions. On the other hand, there have been corresponding changes in the value of investments as a consequence of our consistent currency matching policy. In particular, the strengthening of reserves in our US business at American Re has had a negative impact on the results.

Net claims provisions and their run-off in €m	31.12. 1992	31.12. 1993	31.12. 1994	31.12. 1995	31.12. 1996	31.12. 1997	31.12. 1998	31.12. 1999	31.12. 2000	31.12. 2001	31.12. 2002
Net provisions for outstanding claims	13,307	15,142	15,661	17,235	17,979	19,561	19,380	22,706	23,995	29,419	32,656
Aggregate payments for the year concerned and previous years											
One year later	3,309	3,542	3,,419	3,826	4,680	4,226	5,332	7,204	7,230	8,468	
Two years later	4,987	5,206	5,466	6,633	6,755	7,076	9,108	11,435	12,056		
Three years later	6,058	6,583	7,540	7,978	8,608	9,583	11,514	14,734			
Four years later	7,080	8,267	8,477	9,334	10,197	11,075	13,545				
Five years later	8,537	8,958	9,524	10,657	11,478	12,463					
Six years later	9,092	9,758	10,640	11,538	12,564						
Seven years later	9,766	10,726	11,402	12,446							
Eight years later	10,638	11,381	12,208								
Nine years later	11,231	12,114									
Ten years later	11,888										
Net provision for the year concerned and previous years, plus payments already made from the original provision	13,307	15,142	15,661	17,235	17,979	19,561	19,380	22,706	23,995	29,419	32,656
<u> </u>											32,000
One year later	13,796	14,404	15,044	16,864	18,485	17,709	20,212	24,256	26,365	31,600	
Two years later	13,658	14,236	15,303	17,299	17,316	18,111	20,759	25,266	28,181		
Three years later	13,663	14,827	15,877	16,056	17,604	18,153	21,036	26,939			
Four years later	14,364	15,495	15,085	16,466	17,521	18,275	22,288				
Five years later	15,061	14,779	15,490	16,234	17,627	19,171					
Six years later	14,417	15,134	15,400	16,330	18,284						
Seven years later	14,841	15,147	15,574	16,798							
Eight years later	14,866	15,348	15,901								
Nine years later	15,091	15,651									
Ten years later	15,375										
Net run-off result of claims provisions	-2,068	-509	-240	437	-305	390	-2,908	-4,233	-4,186	-2,181	
Thereof: Currency translation differences	-123	678	15	-1,362	-1,534	25	-1,346	-1,054	63	1,222	
Net run-off result excluding currency translation differences	-1,945	-1,187	-255	1,799	1,229	365	-1,562	-3,179	-4,249	-3,403	_

#### Provisions for asbestos and environmental claims

In the mid-eighties industrial insurers writing business worldwide found themselves being confronted with losses from policies taken out decades before. In particular, these included US asbestos-related claims under product liability policies.

On top of this, there were costs for claims under old general liability policies which provided cover against environmental liability claims under US law.

We have made timely provision for our share of these losses, continually adjusting our reserves in line with the latest knowledge of the loss potential. Thus, against the background of the spreading wave of asbestos-related claims in the Us, we strengthened American Re's reserves by around Us\$ 280m, or €300m, in the second quarter of 2002.

Altogether, at the present time we believe our provisions for these claims complexes to be adequate.

Nevertheless, further loss burdens – particularly from asbestos-related claims – cannot be ruled out. The number of claimants and companies being claimed against is continuing to grow. In view of the unpredictable nature of court decisions in the main markets affected, it will remain difficult to make reliable estimates of future development.

More information on the subject of asbestos is provided on page 73.

Provisions for asbestos and environmental claims:\*

	2002		2001	I	2000	
in €m	Gross	Net	Gross	Net	Gross	Net
Asbestos	1,661	1,287	1,239	1,040	1,379	1,094
Environmental	826	725	746	714	850	766

<sup>\*</sup> The previous years' figures have been adjusted to take account of currency translation differences.

#### (20) Other underwriting provisions

All figures in €m	31.12.2002 Gross	31.12.2002 Ceded	31.12.2002 Net	Prev. year Gross	Prev. year Ceded	Prev. year Net
Provision for premium refunds	7,088	69	7,019	13,818	72	13,746
Miscellaneous	372	49	323	1,824	16	1,808
Total	7,460	118	7,342	15,642	88	15,554

The net provision for premium refunds is distributed between the segments of the Group as follows:

All figures in €m	31.12.2002	Prev. year
Primary insurers  Life and health	6,974	13,699
- Property-casualty	45	47
Total	7,019	13,746

#### The provision for premium refunds showed the following development:

All figures in €m	2002	Prev. year
a) Amounts allocated on the basis of national regulations (gross)		
Status at 1.1. business year	5,241	5,979
Allocations/withdrawals	-1,443	-738
Status at 31.12. business year	3,798	5,241
b) Deferred premium refunds (gross)		
Status at 1.1. business year	8,577	14,108
Change in consolidated group	-37	_
Change resulting from unrealised gains and losses on investments	-2,727	-5,150
Change resulting from revaluations	-2,523	-381
Status at 31.12. business year	3,290	8,577
Total (gross)	7,088	13,818
Ceded share	69	72
Total (net)	7,019	13,746

A total of  $\in$ 880m (980m) was credited directly to life insurance policyholders in the business year.

The following table shows the distribution of the net other provisions between the segments of the Group:

All figures in €m*	31.12.2002	Prev. year
Reinsurers	220	1,716
- Life and health	92	71
- Property-casualty	128	1,645
Primary insurers	103	92
- Life and health	49	14
- Property-casualty	54	78
Total	323	1,808

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### (21) Other accrued liabilities

All figures in €m	31.12.2002	Prev. year
Provisions for post-employment benefits	1,138	1,059
Tax provisions	885	674
Other provisions	1,174	997
Total	3,197	2,730

#### **Provisions for post-employment benefits**

The companies in the Munich Re Group generally give pension commitments to their employees in the form of defined contribution plans or defined benefit plans. The type and amount of the pension obligations are determined by the conditions of the respective pension plan.

#### **Defined contribution plans**

Expenses for defined contribution plans in the year under review totalled €30m (28m).

#### **Defined benefit plans**

The financing status of the defined benefit plans is as follows:

All figures in €m	31.12.2002	Prev. year
Present value of unfunded obligations	1,015	937
- Present value of funded obligations	388	322
Fair value of plan assets	-156	-167
Actuarial gains/losses not recognised	-106	-33
Past service cost not yet recognised	-3	
Net balance sheet liability	1,138	1,059

The provision for defined benefit plans changed as follows in the business year:

All figures in €m	2002	Prev. year
Status at 1 January	1,059	1,005
Translation differences	-22	6
Changes in consolidated group	51	
Expenses (see below)	130	116
Payments		-68
Other		
Status at 31 December	1,138	1,059

The expenses booked in the year under review are made up as follows:

All figures in €m	2002	Prev. year
Current service cost	53	53
Interest cost	78	74
Expected return on plan assets	-13	-15
Net actuarial gains/losses recognised in year	3	-1
Past service cost		7
Other	-2	-2
Total	130	116

The expenses are shown in the income statement mainly under "operating expenses" and "expenses for claims and benefits".

#### Tax provisions

Tax provisions comprise the provisions for income tax and other taxes of the individual companies, based on their respective national taxation. Deferred tax obligations are shown under deferred tax liabilities.

#### Other provisions

All figures in €m	Prev. year	Allocations	With- drawals	Reversal	Other changes	31.12.2002
Earned commission	115	160	104	12	7	166
Outstanding invoices	132	91	35	33	-	155
Early-retirement benefits/semi-retirement	70	64	16	13	-	105
Holiday and overtime pay	62	65	57	9	1	62
Bonuses	37	32	36	-	3	36
Anniversary benefits	26	6	4	-	-	28
Miscellaneous	555	574	259	222	-26	622
Total	997	992	511	289	-15	1,174

The miscellaneous other provisions comprise a large number of different items, including derivatives/trading ( $\in$ 43m), competitions for sales staff ( $\in$ 18m) and other remuneration for desk and field staff totalling  $\in$ 14m.

#### (22) Notes and debentures

All figures in €m	31.12.2002	Prev. year
American Re Capital, Delaware 8.5%, US\$ 237.5m, QUIPS 1995/2025		269
American Re Corporation, Princeton		
7.45%, US\$ 500m, Senior Notes 1996/2026	475	565
ERGO International AG, Düsseldorf 2.25%, €345m, Bonds Exchangeable into E.ON AG Shares 2001/2006 0.75%, €345m, Bonds Exchangeable into Aventis AG Shares 2001/2006	609	581
Munich Reinsurance Company, Munich 1.0%, €1.150m, Bonds Exchangeable into Allianz AG Shares 2000/2005	1,111	1,059
Hestia Investment Organiczona, Sopot 7.3%, PLN 42.1m, Zero Coupon Bonds 2002/2003	10	_
Total	2,205	2,474

The QUIPS were redeemed in February 2002.

Hestia Investment Organiczona, a subsidiary of the ERGO Versicherungs-gruppe AG, Düsseldorf, issued zero coupon bonds with a total volume of PLN 42.1m on 20 December 2002. With a yield to maturity of 7.3%, these bonds may be exchanged into shares of the BRE Bank (478,038 shares). Bonds that are not exchanged will be redeemed on 18 November 2003 at 100% of the face value.

The bonds' ratings are given on page 112.

#### (23) Other liabilities

All figures in €m	31.12.2002	Prev. year
Deposits retained on ceded business	4,296	5,685
Accounts payable on primary insurance business	6,012	5,321
Accounts payable on reinsurance business	3,339	3,361
Amounts owed to banks	2,783	2,360
Miscellaneous liabilities	2,037	5,460
Total	18,467	22,187

€158m (143m) of the other liabilities is apportionable to tax liabilities, €40m (27m) to liabilities for social security, and €29m (84m) to liabilities for interest and rent.

The remaining terms of liabilities shown under this item are as follows:

All figures in €m	31.12.2002	Prev. year	
Up to one year	14,911	18,936	
Over one year and up to five years	2,045	1,995	
Over five years and up to ten years	584	315	
Over ten years	927	941	
Total	18,467	22,187	

#### (24) Other deferred items

This comprises miscellaneous deferred amounts.

#### Notes to the consolidated income statement

#### (25) Premiums

			1	Reinsurance			ry insurance	Tota		
_	Life	and health	Prope	Property-casualty Life and health Property-casualty		Property-casualty		erty-casualty		
All figures in €m*	2002	Prev. year	2002	Prev. year	2002	Prev. year	2002	Prev. year	2002	Prev. year
Gross premiums written	5,541	5,045	17,897	15,377	11,738	11,108	4,838	4,593	40,014	36,123
Ceded premiums	419	496	1,233	2,933	229	448	386	389	2,267	4,266
Net premiums written	5,122	4,549	16,664	12,444	11,509	10,660	4,452	4,204	37,747	31,857
Change in unearned premiums  - Gross amount	-10	-45	-682	-887	_	114	-76	-52	-768	-870
- Ceded share	-20	12	-650	711	28	-16	-70 -31	<del>-52</del> -	-673	693
- Net amount	-30	-33	-1,332	-176	28	98	-107	-66	-1,441	-177
Net earned premiums	5,092	4,516	15,332	12,268	11,537	10,758	4,345	4,138	36,306	31,680

<sup>\*</sup> After elimination of intra-Group transactions across segments.

In the case of life insurance products where the policyholders bear the investment risk (e.g. unit-linked life insurance), only those parts of the premiums used to cover the risks insured and associated costs are treated as premiums.

#### (26) Investment result

	2002	Prev. year
Real estate	701	551
Investments in affiliated enterprises	190	-19
Investments in associated enterprises	5,153	1,809
Mortgage loans and other loans	724	542
Other securities held to maturity	37	51
Other securities available for sale		
- Fixed-interest	4,522	5,048
<ul> <li>Non-fixed-interest</li> </ul>	-5,799	2,056
Other securities held for trading		
- Fixed-interest	71	72
- Non-fixed-interest	-105	139
Other investments	611	746
Expenses for the management of investments, other expenses	500	575
Total	5,605	10,420

The increase under investments in associated enterprises derives largely from the gain of  $\in$ 4.7bn realised on the sale of shares in companies of the Allianz Group.

			Rei	nsurance			Primary i	nsurance		Asset		Total
	Life a	nd health	Property-casualty		Life and health		Property-casualty		man	agement		
All figures in €m*	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year
Regular income	792	1,744	2,199	2,463	4,684	4,900	350	513	20	34	8,045	9,654
Income from write-ups	73	85	179	117	95	31	7	15	_		354	248
Gains on the disposal of investments	1,934	791	4,557	980	2,261	2,327	144	201	18	4	8,914	4,303
Other income			_		10	6	2	_	6	_	18	6
	2,799	2,620	6,935	3,560	7,050	7,264	503	729	44	38	17,331	14,211
Writedowns on investments	520	63	1,342	190	4,039	233	433	85	_	1	6,334	572
Losses on the disposal of investments	262	248	663	337	2,750	1,773	224	177	_	3	3,899	2,538
Management expenses, interest charges and other												
expenses	149	64	379	122	901	449	53	29	11	17	1,493	681
	931	375	2,384	649	7,690	2,455	710	291	11	21	11,726	3,791
Total	1,868	2,245	4,551	2,911	-640	4,809	-207	438	33	17	5,605	10,420

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### (27) Other income

In addition to foreign currency exchange gains of  $\leqslant$ 453m (172m), the other income mainly includes income from services rendered of  $\leqslant$ 358m (200m), interest and similar income of  $\leqslant$ 131m (189m), and income from the reversal/reduction of miscellaneous provisions and adjustments of values for receivables.

#### (28) Net expenses for claims and benefits

			Re	insurance			insurance	Total		
	Life a	nd health	Property	/-casualty	Life a	nd health	Propert	y-casualty		
All figures in €m*	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year
Gross Claims expenses										
- Claims and benefits paid	3,670	2,988	11,776	10,066	9,395	8,738	2,924	2,758	27,765	24,550
Change in provision for outstanding claims	377	667	4,938	6,260	143	123	284	385	5,742	7,435
Change in other underwriting provisions										
- Provision for future policy benefits	241	938	39	42	3,260	4,083	25	26	3,565	5,089
- Other		59	27	177	-34	19	-6	8	-14	263
Expenses for premiums refunds		5	2	7	-3,201	1,109	25	20	-3,174	1,141
Total expenses for claims and benefits	4,287	4,657	16,782	16,552	9,563	14,072	3,252	3,197	33,884	38,478
Ceded share Claims expenses  - Claims and benefits paid	322	315	1,557	1,186	119	76	275	363	2,273	1,940
Change in provisions for	322		1,557	1,100	113		2/3		2,213	1,340
outstanding claims	120	12	56	2,009	-87	-22	126	99	215	2,098
Change in other underwriting provisions										
- Provision for future policy benefits	26	102	5	1	226	78	-2		255	180
- Other			2	4	-3		19	-22	18	-20
Expenses for premium refunds	6	-4	2	1	-16	120	2	1	-6	118
Total expenses for claims and benefits	474	425	1,622	3,201	239	250	420	440	2,755	4,316
Net Claims expenses - Claims and benefits paid	3,348	2,673	10,219	8,880	9,276	8,662	2,649	2,395	25,492	22,610
Change in provisions for	3,340	2,073	10,213	0,000	3,270		2,043	2,000	23,432	22,010
outstanding claims	257	655	4,882	4,251	230	145	158	286	5,527	5,337
Change in other underwriting provisions										
- Provision for future policy benefits	215	836	34	41	3,034	4,005	27	27	3,310	4,909
- Other	-1	59	25	173	-31	21	-25	30	-32	283
Expenses for premium refunds	-6	9		6	-3,185	989	23	19	-3,168	1,023
Total expenses for claims and benefits	3,813	4,232	15,160	13,351	9,324	13,822	2,832	2,757	31,129	34,162

<sup>\*</sup> After elimination of intra-Group transactions across segments.

The calculation method used for the provision for future policy benefits was changed in 2002 in order to reflect economic circumstances more accurately. The one-off effect of this on the result amounts to  $\in$ 93m.

#### (29) Net operating expenses

			Re	insurance			Primary	insurance		Total
	Life a	nd health	Property	y-casualty	Life a	nd health	Propert	y-casualty		
All figures in €m*	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year	2002	Pr. year
Acquisition costs  - Amounts paid	1,673	1,453	3,995	3,634	1,579	1,565	977	890	8,224	7,542
<ul> <li>Change in deferred acquisition costs (gross)</li> </ul>	-267	-297	-151	45	-74	-665	-46	5	-538	-912
	1,406	1,156	3,844	3,679	1,505	900	931	895	7,686	6,630
Management expenses	213	199	679	679	507	480	689	662	2,088	2,020
Amortisation of PVFP	4	4	_		47	31	_		51	35
Gross operating expenses	1,623	1,359	4,523	4,358	2,059	1,411	1,620	1,557	9,825	8,685
Ceded share	191	95	499	611	157	144	45	77	892	927
Net operating expenses	1,432	1,264	4,024	3,747	1,902	1,267	1,575	1,480	8,933	7,758

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### (30) Other expenses

In addition to foreign currency exchange losses of  $\in$ 669m (139m), the other expenses mainly include expenses for services rendered of  $\in$ 380m (292m), interest and similar expenses of  $\in$ 485m (459m), and writedowns of  $\in$ 124m (335m).

#### (31) Tax

This item shows the corporation tax and municipal trade earnings tax paid by the German companies (including solidarity surcharge), the comparable taxes on earnings paid by the foreign companies in the Group, and other tax. In accordance with IAS 12, the determination of the tax on earnings includes the calculation of deferred taxes.

The "other tax" amounts to €31m (30m).

Tax on earnings is made up as follows:

All figures in €m	2002	Prev. year
Current tax	499	262
Germany	437	55
Other countries	62	207
Deferred tax	-1,104	-1,332
Germany	-330	-841
Other countries	-774	-491
Tax on earnings	-605	-1,070

#### The current and deferred tax mainly result from the following:

All figures in €m	2002	Prev. year
Current tax for business year	475	180
Current tax for other periods	16	82
Deferred tax resulting from the occurrence or reversal of temporary differences	126	-590
Deferred tax resulting from the occurrence or reversal of loss carry-forwards	-1,210	-489
Effects of changes in tax rates on deferred tax	-5	-284
Other	-7	31
Tax on earnings	-605	-1,070

The current tax is derived from the tax results of the business year, to which the local tax rates of the respective subsidiaries are applied. Deferred tax is also calculated using the respective local tax rates; changes in tax rates that have already been adopted by the government at the balance sheet date are generally taken into account. The corporation tax rate of 26.5% applicable only for the year 2003 as a consequence of the German Flood Victims Solidarity Act has not been considered for reasons of proportionally.

Individual Group units generated tax losses in the current period and the previous period. On the basis of future tax result planning, a utilisation of the tax loss carry-forwards before their expiry is to be reckoned with, so that deferred tax assets have to be posted for these.

The following table shows the reconciliation between the expected tax on earnings and the tax on earnings actually shown. The expected tax expenses are calculated by multiplying the operating result before tax on earnings (but after "other tax") by the Group tax rate. The Group tax rate is the expected average tax rate of the Group. For German Group companies, expected components of the Group tax rate are 26.4% corporation tax including solidarity surcharge, and a mixed trade-tax rate of 8.6% (13.6%).

All figures in €m	2002	Prev. year
Result before tax on earnings (after "other tax")	438	-675
Group tax rate in %	35.0	35.0
Derived tax on earnings	153	-236
Tax effect of tax rate differences between Group companies	42	-52
tax-free income	-4,373	-744
non-deductible expenses	3,004	271
changes in tax rates		-284
municipal trade earnings tax	443	-25
corporation tax reduction/increase from dividends	-38	-37
miscellaneous	169	37
Tax on earnings shown	-605	-1,070

The effective tax burden is the ratio between the tax on earnings shown and the result before earnings tax (but after "other tax"). In the previous year there was tax relief of 159%. In the current business year the ratio shows tax relief of 138%.

The tax-free income is made up of tax-free gains on the sales of shareholdings in joint-stock companies, tax-free dividend income and other tax-free income. The non-deductible expenses mainly include writedowns on non-fixed-interest securities available for sale. In addition, they contain non-deductible amortisation of goodwill and other non-deductible expenses.

The item "changes in tax rates" contains income from the reversal of deferred taxes as a result of the necessary revaluation of various deferred tax items in connection with changes in tax regulations.

The item "municipal trade earnings tax" includes the differences between the trade-tax rate applied by the respective Group companies and the Group mixed trade-tax rate.

#### Other information

#### (32) Parent company

The parent company of the Munich Re Group is Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (Munich Reinsurance Company Joint-Stock Company in Munich). It is entered in the commercial register with the address Königinstrasse 107, 80802 München. In addition to its function as a reinsurer, the company also fulfils the function of holding company for the Group.

#### (33) Key figures of important consolidated companies

The key figures of the most important reinsurers in the Munich Re Group are based in some cases on their respective financial statements prepared according to local regulations; those of the primary insurers are based on their IAS financial statements.

#### Reinsurance

Division: Asia, Australasia, Africa

#### Munich Reinsurance Company of Australasia (MRA)

\$ m \$ m \$ m	917 140 777	678 94 584
\$ m		
·	777	584
\$ m		
Ŧ ···	229	174
\$ m	85	58
\$ m	144	116
%	72.8	87.4
%	27.7	29.4
%	100.5	116.8
 \$ m	21.9	5.0
 \$ m	874	751
		% 100.5 \$ m 21.9

#### Munich Reinsurance Company of Africa (Group)\*

		2002	Prev. year
Gross premiums written	Rm	2,458	1,708
– Life and health	Rm	439	368
- Property-casualty	Rm	2,019	1,340
Net earned premiums	Rm	1,381	685
– Life and health	Rm	549	252
- Property-casualty	Rm	832	433
Loss ratio non-life	%	71.3	74.3
Expense ratio non-life	%	28.6	29.4
Combined ratio non-life	%	99.9	103.7
Profit for the year	Rm	-5.8	109.4
Investments	Rm	2,968	2,951

<sup>\*</sup> Financial statements in accordance with IAS.

#### **Division: Europe 2 and Latin America**

#### Münchener Rück Italia\*

		2002	Prev. year
Gross premiums written	€m	626	588
– Life and health	€m	161	171
- Property-casualty	€m	465	417
Net earned premiums	€m	340	312
– Life and health	€m	109	107
- Property-casualty	€m	231	205
Loss ratio non-life	%	77.9	82.8
Expense ratio non-life	%	30.6	30.9
Combined ratio	%	108.5	113.7
Profit for the year	€m	51.0	18.2
Investments	€m	1,354	1,252

<sup>\*</sup> Financial statements in accordance with IAS.

#### **Division: North America**

#### American Re\*

US\$ m US\$ m US\$ m	5,030 446	4,355
	446	
US\$ m		510
	4,584	3,825
US\$ m	1,119	3,326
US\$ m	46	498
US\$ m	1,073	2,828
%	261.4	113.6
%	18.2	33.7
%	279.6	147.3
US\$ m	-1,080.9	-858.5
US\$ m	12,843	10,155
	% US\$ m	% 18.2 % 279.6 US\$ m -1,080.9

<sup>\*</sup> Financial statements in accordance with IAS.

#### **Munich Reinsurance Company of Canada**

	2002	Prev. year
Can\$ m	322	328
Can\$ m	322	328
Can\$ m	103	89
Can\$ m	103	89
%	89.3	87.7
%	30.4	29.9
%	119.7	117.6
Can\$ m	0.6	3.8
Can\$ m	423	404
	Can\$ m	Can\$ m         322           Can\$ m         103           Can\$ m         103           %         89.3           %         30.4           %         119.7           Can\$ m         0.6

#### **Division: Special and Financial Risks**

#### **New Reinsurance Company**

		2002	Prev. year
Gross premiums written	Sfr m	1,328	1,238
– Life and health	Sfr m	301	209
- Property-casualty	Sfr m	1,027	1,029
Net earned premiums	Sfr m	924	835
– Life and health	Sfr m	172	112
- Property-casualty	Sfr m	752	723
Loss ratio non-life	%	99.2	78.8
Expense ratio non-life	%	24.0	27.4
Combined ratio non-life	%	123.2	106.2
Result for the year	Sfr m	-189.8	-52.2
Investments	Sfr m	2,799	2,628

#### **Primary insurance**

#### **ERGO Insurance Group**

		2002	Prev. year
Gross premiums written		14,775	13,922
Net earned premiums	€m	12,954	11,976
Profit for the year	€m	1,124.8	654.9
Investments	€m	87,012	89,271

#### Karlsruher

		2002	Prev. year
Gross premiums written	€m	1,346	1,350
Nets earned premium	€m	1,082	1,278
Profit for the year	€m	16.6	-18.0
Investments	€m	12,368	12,153

#### Europäische Reiseversicherung

	2002	Prev. year
Gross premiums written €m	307	309
Net earned premiums €m	260	272
Profit for the year €n	-4.5	-16.1
Investments €n	148	159

#### (34) Related enterprises

There are significant business ties with the following two related enterprises:

Allianz, one of the world's largest insurance and financial service groups, has diverse and extensive relations with Munich Re.

Munich Re holds around 19.3% of the share capital of Allianz and – on account of Allianz's own shares – around 21.2% of the voting rights. Conversely, the Allianz Group held around 23.5% of the voting capital of Munich Re at 31 December 2002 (of this, around 3.5% of the voting rights were deposited with a trust). The shareholdings held by Allianz and Munich Re in Frankfurter Versicherungs-AG, Bayerische Versicherungsbank AG, Allianz Lebensversicherungs-AG and Karlsruher Lebensversicherung AG were reorganised in the course of the business year, as announced in the previous year (see page 156). Further information on the announced reduction of Munich Re's and Allianz's reciprocal shareholdings in business year 2003 can be found under Note 42.

Hitherto members of the Boards of Management of Munich Re and Allianz have held seats on the Supervisory Boards of the above-mentioned companies and, in individual instances, on the Boards of other companies in each other's Groups. In compliance with the underlying principles of the German Code of Corporate Governance and as a consequence of the reorganisation mentioned above, these seats will largely be given up.

As at 11 December, Dr. Hans-Jürgen Schinzler, Chairman of Munich Re's Board of Management, ceased to be a member of the Supervisory Board of Allianz Lebenversicherungs-AG. With effect from 6 December, Dr. Henning Schulte-Noelle, Chairman of the Board of Management of Allianz AG, left Munich Re's Supervisory Board, of which he was Deputy Chairman. In mid-2002 Stefan Heyd, member of Munich Re's Board of Management, had given up his Supervisory Board memberships at Frankfurter Versicherungs-AG and Bayerische Versicherungsbank AG.

HypoVereinsbank AG, one of the largest German private banks, is an associated enterprise of Munich Re. On 15 January 2002, Munich Re acquired the stakes in HypoVereinsbank held by the Allianz Group and Dresdner Bank Group, thus increasing the Munich Re Group's holding to 25.7% of the capital, or around 26.3% of the voting rights. For its part, the HypoVereinsbank Group holds around 13.2% of the Munich Reinsurance Company's voting capital.

Dr. Lothar Meyer, Chairman of ERGO's Board of Management, has been a member of HypoVereinsbank AG's Supervisory Board since 23 May 2002. On 3 March 2003 the appointment to HypoVereinsbank AG's Supervisory Board of Dr. Hans-Jürgen Schinzler, Chairman of Munich Re's Board of Management, was registered by the Munich Registration Court. The official election will take place at HypoVereinsbank AG's AGM on 14 May 2003. A member of HypoVereinsbank AG's Board of Management, Dr. Albrecht Schmidt (now a member of HypoVereinsbank AG's Supervisory Board with effect from 1 January 2003) was a member of Munich Re's Supervisory Board in the business year 2002. Members of Munich Re and HypoVereinsbank hold seats on the boards of further companies in each other's Groups in a few instances.

#### **Allianz AG**

Relations between Munich Re and Allianz are given documented form in a general agreement. This agreement deals in particular with the question of reciprocal shareholdings and with general arrangements regarding reinsurance relations. The arrangements also outlined regarding shareholdings in jointly held insurance companies are now largely no longer applicable, owing to the restructurings in 2002. The earliest possible date of termination of the general agreement is 31 December 2005. The arrangements for termination were supplemented by an agreement in December 2002 under which the termination provision of the general agreement is suspended until 31 December 2003 and the agreed period of notice reduced from three years to two. This means that the general agreement will be automatically extended for a further period of ten years if it is not terminated prior to 31 December 2003.

The Munich Re Group assumes and cedes reinsurance and retrocessions from and to the Allianz Group under a large number of reinsurance and retrocession agreements. The following table shows Munich Re's premiums assumed from and ceded to Allianz as at 31 December:

All figures in €m	2002	Prev. year
Gross premiums assumed	2,438	2,630
Gross premiums ceded	640	870

In the year under review, Allianz's cessions to Munich Re amounted to 9.6% (11.8%) of our gross premiums in reinsurance or 6.1% (7.3%) of our overall consolidated premiums. Munich Re's cessions to Allianz amounted to 27.4% (31.9%) of our ceded premiums.

The reinsurance agreements between Munich Re and Allianz are concluded at market conditions.

Besides this, there are further contractual relations between Munich Re and Allianz in connection with the normal running of our business, such as the conclusion of insurance policies for own risks (e.g. buildings insurance policies).

#### HypoVereinsbank AG

Relations between Munich Re and HypoVereinsbank are also given documented form in a general agreement. This agreement deals in particular with general cooperation activities. On the basis of individual cooperation agreements, companies of the Munich Re Group sell selected HypoVereinsbank products. Similarly, staff of various of companies of the HypoVereinsbank Group market insurance products of VICTORIA, in which the other ERGO companies participate via reinsurance or coinsurance. The cooperation agreements between companies of the Munich Re Group and the companies of the HypoVereinsbank Group are concluded at market conditions.

There are further contractual relations between companies of the Munich Re Group and HypoVereinsbank in connection with the normal running of business, such as the conclusion of insurance policies for own risks (e.g. buildings insurance policies).

#### (35) Personnel expenses

The following personnel expenses are included in the operating expenses, in the expenses for claims and benefits and in the investment result:

All figures in €m	2002	Prev. year
Wages and salaries	2,161	1,871
Social security contributions and employee assistance	393	375
Expenses for employees' pensions	189	161
Total	2,743	2,407

#### (36) Long-term incentive plans

As at 1 July in the years 1999, 2000, 2001 and 2002, Munich Re launched long-term incentive plans. These plans, each with a term of seven years, provide for the members of the Board of Management and senior management in Munich and for the top executives in Munich Re's international organisation to be granted a defined number of stock appreciation rights.

Each stock appreciation right entitles the holder to draw in cash the difference between the Munich Re share price at the time when the right is exercised and that applying at the start of the plan.

The stock appreciation rights may only be exercised after a two-year vesting period and then only if the share price is at least 20% higher than at the start of the plan. In addition, Munich Re shares must have outperformed the DAX 30 (Plan 1999) or the EURO STOXX 50 (Plan 2000, Plan 2001 and Plan 2002) twice at the end of a three-month period during the term of the plan. The gross amount that may be obtained from the exercising of the stock appreciation rights is limited to an increase of 150% of the initial share price.

In the year under review a total of 132,736 (115,420) stock appreciation rights were granted, 39,631 (42,664) of these to members of the Board of Management. The expenses incurred for the stock appreciation rights have been determined on the basis of the change in Munich Re's share price.

In 2002 the provision set up in the previous years – reduced by €17.4m in 2001 – was completely reversed. The reversal of the provision resulted partly from the fact that stock appreciation rights from the Long-Term Incentive Plan 1999 had been exercised and partly from the fall in Munich Re's share price.

#### Munich Re's Incentive Plans 1999-2002

	Incentive Plan 1999	Incentive Plan 2000	Incentive Plan 2001	Incentive Plan 2002
Plan commencement	1.7.1999	1.7.2000	1.7.2001	1.7.2002
Initial share price	€182.60	€319.34	€320.47	€260.37
Number of rights on 31.12.1999	110,840	_	_	_
Additions	9,045	74,636	_	_
Number of rights on 31.12.2000	119,885	74,636	_	_
Additions	_	5,946	109,474	_
Exercised	34,240	_	_	_
Number of rights on 31.12.2001	85,645	80,582	109,474	_
Additions	_	_	270	132,466
Exercised	6,977	_	_	_
Expired	_	321	443	_
Number of rights on 31.12.2002	78,668	80,261	109,301	132,466
Exercisable at year-end	78,668	80,261		_

As at 1 July 2002, ERGO and some of its subsidiaries likewise launched a long-term incentive plan. This plan, also with a term of seven years, provides for the members of the Board of Management and top executives in the ERGO Group to be granted a defined number of stock appreciation rights in respect of Munich Re shares. The design of the plan is identical to that of Munich Re's Plans 2000–2002.

In the year under review a total of 45,476 stock appreciation rights were granted, 37,732 of these to members of the Board of Management. To cover future obligations arising from these rights, the companies of the ERGO Group participating in the long-term incentive plan purchased Munich Re shares.

#### ERGO Insurance Group's Incentive Plan 2002

Plan commencement		1.7.2002
Initial share price	€	260.37
Additions	€	200.45
(Exercised)		-
(Expired)		-
Number of rights on 31.12.2002	€	45,476
Exercisable at year-end		-

#### (37) Employee share-ownership programmes

In the business year 2002 Munich Re launched an employee share-ownership programme to supersede the DEGEF – Münchener-Rück: Mitarbeiterfonds 100 (now MEAG MM-Fonds 100), which had been in existence since 1980. For this purpose, a total of 10,000 shares were purchased at an average share price of €185.35. Under the programme, Munich Re non-senior-executive staff were offered up to seven shares on a salary-dependent basis at a price of €88.38 per share. A total of 1,748 staff availed themselves of this offer and acquired 8,441 shares. The remaining shares were not sold.

In the business year 2002 the companies of the ERGO Insurance Group acquired 32,524 Munich Re shares at an average price of €220.15 within the framework of their employee share-ownership programme. As part of this programme, staff of the ERGO Insurance Group in Germany were offered the chance to subscribe for up to five of the shares at a price of €87.30 each. In addition, senior executives of the ERGO Insurance Group could choose to received their performance-related remuneration in these shares at a price of €193 each. Altogether, a total of 29,780 employee shares were transferred to staff. The remainder were not sold .

#### (38) Compensation and loans for Board members

The emoluments of the Board of Management of the Munich Reinsurance Company for fulfilment of its duties in respect of the parent company and the subsidiaries totalled  $\in$ 11.5m (11.1m). Of this,  $\in$ 6.2m (4.3m) is apportionable to fixed components,  $\in$ 5.1m (3.2m) to variable components, and  $\in$ 0.2m (3.6m) to the exercise of stock appreciation rights under the Long-Term Incentive Plan 1999. Payments to retired members of the Board of Management or their surviving dependants amounted to  $\in$ 3.5m (3.3m).

Taking into account the proposal for the appropriation of the profit, the emoluments of Supervisory Board totalled €1.2m (1.1m). This sum includes €0.6m (0.6m) dependent on the dividend paid to shareholders.

A total of €38m (32m) was set aside for pension commitments towards retired members of the Board of Management or their surviving dependants.

The Board members did not receive any advances or loans in the year under review.

## (39) Share trading and shares held by members of the Board of Management and the Supervisory Board

No acquisition or sales transactions notifiable under Section 15 a of the German Securities Trading Act had occurred up to the end of the business year 2002. The total number of Munich Re shares held by all members of the Board of Management and Supervisory Board amount to less than 1% of the shares issued by the Company.

#### (40) Number of staff

The number of staff employed by the Group at year-end totalled 31,063 (27,894) in Germany and 10,333 (10,423) in other countries.

	31.12.2002	Prev. year
Reinsurance companies	5,836	5,872
Primary insurance companies	34,924	31,878
Asset management	636	567
Total	41,396	38,317

The increase at the primary insurance companies stems largely from the acquisition of new companies within the ERGO Insurance Group.

#### (41) Contingent liabilities, other financial commitments

Commitments under rental, work and service contracts amounted to  $\leq$ 280m. Of the leasing obligations from rental leasing arrangements totalling  $\leq$ 615m,  $\leq$ 118m was due not later than one year,  $\leq$ 288m due later than one year and not later than five years, and  $\leq$ 209m due later than five years. Investment obligations totalled  $\leq$ 463m. These figures represent undiscounted nominal amounts.

Beyond this, there were other financial commitments of €196m, including an already concluded real estate purchase agreement. There were contingent liabilities of €211m from a leasing transaction with real estate.

As members of pools and through stakes in Protektor Lebensversicherungs-AG, several Group companies are committed – to the extent of their proportional shares – to assuming the payment obligations of other members if the latter are not able to meet these obligations.

There are no other financial commitments of significance for the assessment of the Group's financial position. No contingent liabilities have been entered into for the benefit of Board members.

#### (42) Events after the balance sheet date

Munich Re will participate by way of "opération blanche" in Allianz AG's capital increase announced on 20 March 2003, which means that we will not invest any new funds. As a consequence, our stake in Allianz will remain at the same level in value terms during the subscription period; our percentage share in Allianz will decrease at most to 15%. Conversely, Allianz intends to reduce its stake in Munich Re to 15%. For this purpose it will redeem its MILES bonds issued in 2000 by exchanging them for Munich Re shares.

At the end of March 2003 we decided to issue subordination bonds to provide a solid foundation for the Munich Re Group's further growth and to utilise the opportunities in a hard reinsurance market with adequate prices and conditions. Further details can be found on page 139.

No other events have occurred since the balance sheet date which would have a material effect on the financial position of the Group as presented in the financial statements.

#### (43) Earnings per share

The earnings per share figure is calculated by dividing the consolidated net income for the year by the weighted average number of shares.

New shares created by the exercise of warrants are included pro rata temporis from the respective date of delivery. Shares acquired through share buy-backs are eliminated from the calculation pro rata temporis.

The exercise period for the warrants 1998/2002 expired on 3 June 2002. Thus at the reporting date there were no more potential shares in circulation that would have a diluting effect.

		2002	Prev. year
Profit for the year	€m	1,081	250
Result before amortisation of goodwill	€m	809	-415
Number of shares at 1.1. business year		176,783,401	176,944,072
Increase in shares owing to exercise of warrants		1,717,294	5,921
Own shares		169,779	166,592
Weighted average number of shares		177,693,136	176,838,299
Earnings per share	€	6.08	1.41
Earnings per share before amortisation of goodwill	€	4.55	-2.35

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Munich, 10 April 2003

The Board of Management

#### **Auditor's report**

The following is a translation of the auditor's opinion in respect of the original German consolidated financial statements and Group management report:

We have audited the consolidated financial statements, consisting of the balance sheet, the income statement and the statements of changes in shareholders' equity and cash flows as well as the notes to the financial statements, prepared by the Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich, for the business year from 1 January 2002 to 31 December 2002. The preparation and the content of the consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) are the responsibility of the Company's Board of Management. Our responsibility is to express an opinion on the financial statements based on our audit.

We conducted our audit of the consolidated annual financial statements in accordance with German auditing regulations and generally accepted standards for the audit of financial statements promulgated by the German Institute of Certified Accountants (IDW) as well as in accordance with the International Standards on Auditing (ISA). Those standards require that we plan and perform the audit such that it can be assessed with reasonable assurance whether the consolidated financial statements are free of material misstatements. Knowledge of the business activities and the economic and legal environment of the Group and evaluations of possible misstatements are taken into account in the determination of audit procedures. The evidence supporting the amounts and disclosures in the consolidated financial statements is examined on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the net assets, financial position, results of operations and cash flows of the Group for the business year in accordance with IAS.

Our audit, which also extends to the group management report for the business year from 1 January 2002 to 31 December 2002, has not led to any reservations. In our opinion, altogether the group management report provides a suitable understanding of the Group's position and suitably presents the risks of future development. In addition, we confirm that the consolidated financial statements and group management report for the business year from 1 January 2002 to 31 December 2002 satisfy the conditions required for the Company's exemption from its duty to prepare consolidated financial statements and group management report in accordance with German accounting law.

Munich, 14 April 2003

KPMG Bayerische Treuhandgesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

Herbert Loy Peter Ott
Wirtschaftsprüfer Wirtschaftsprüfer
(Certified public accountant) (Certified public accountant)

### **Classes of business**

Reinsurance	2002	2001	2000	1999	1998
Gross premiums written in €m					
Life	5,277	4,769	3,865	3,164	2,656
Health	1,284	1,131	836	578	355
Liability	3,514	2,402	1,934	1,650	1,526
Personal accident	1,302	1,213	1,043	1,140	1,000
Motor	3,337	3,448	3,335	2,570	2,484
Marine, aviation, space	1,896	1,398	1,158	846	815
Fire	5,294	4,481	3,363	2,890	2,788
Engineering	1,443	1,449	929	786	878
Other classes of business	2,098	1,905	1,862	1,744	1,644
Loss ratio in %					
Health	77.5	82.5	70.8	80.0	93.3
Liability	144.4	114.4	89.2	105.7	83.7
Personal accident	128.6	80.6	68.1	75.2	76.6
Motor	84.6	85.9	90.7	83.5	78.9
Marine, aviation, space	72.7	134.3	92.7	81.9	80.7
Fire	80.9	136.1	95.2	101.8	77.2
Engineering	75.8	103.3	74.5	72.0	67.1
Other classes of business	98.2	70.2	70.8	78.9	59.9
Expense ratio in %					
Health	26.9	31.4	31.1	24.9	26.4
Liability	26.8	33.1	31.8	30.7	31.7
Personal accident	29.6	32.1	30.8	29.9	33.8
Motor	23.2	25.2	24.5	24.4	26.8
Marine, aviation, space	22.3	30.0	27.4	27.4	24.3
Fire	26.4	29.4	31.4	34.0	28.8
Engineering	29.4	34.9	39.8	38.5	33.5
Other classes of business	32.4	36.2	33.7	35.1	33.8
Combined ratio in %					
Health	104.4	113.9	101.9	104.9	119.7
Liability	171.2	147.5	121.0	136.4	115.4
Personal accident	158.2	112.7	98.9	105.1	110.4
Motor	107.8	111.1	115.2	107.9	105.7
Marine, aviation, space	95.0	164.3	120.1	109.3	105.0
Fire	107.3	165.5	126.6	135.8	106.0
Engineering	105.2	138.2	114.3	110.5	100.6
Other classes of business	130.6	106.4	104.5	114.0	93.7
Primary insurance	2002	2001	2000	1999	1998
Gross premiums written in €m					
Life	7,514	7,112	6,471	6,217	5,664
Health	4,238	4,010	3,834	3,593	3,484
Property-casualty	4,841	4,593	4,110	3,690	3,523
Combined ratio in %					
Property-casualty	99.1	101.4	97.2	96.4	96.5

### **Key figures**

#### Group premium income

in €bn	2002	2001	2000	1999	1998
Reinsurance	25.4	22.2	18.3	15.4	14.1
Primary insurance	16.6	15.7	14.4	13.5	12.7
Consolidation	-2.0	-1.8	-1.6	-1.5	-1.3
Total	40.0	36.1	31.1	27.4	25.5

#### Premium growth

in %	2002	2001	2000	1999
Reinsurance	14.6	21.1	19.2	8.6
Primary insurance	5.6	9.0	6.8	6.5
Total	10.8	16.1	13.5	7.5

## Shares of reinsurance and primary insurance in Group premium income broken down by life and health and property-casualty business\*

in %	2002	2001	2000	1999	1998
Reinsurance	58.6	56.5	53.7	50.8	50.3
- Life and health	13.9	13.9	12.5	11.0	9.3
- Property-casualty	44.7	42.6	41.2	39.8	41.0
Primary insurance	41.4	43.5	46.3	49.2	49.7
- Life and health	29.4	30.8	33.1	35.8	35.9
- Property-casualty	12.0	12.7	13.2	13.4	13.8

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### Share of non-German business

in %	2002	2001	2000	1999	1998
Reinsurance	79.0	77.0	71.8	67.3	64.4
Primary insurance	19.1	19.9	13.0	10.1	9.8

#### Reinsurance: Large and very large losses (gross)

in €m	2002	2001	2000	1999
Large and very large losses	1,886	4,749	1,150	1,807
Thereof: Losses from natural catastrophes	588	213	427	1,161

#### Investments\*

in €bn	31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.1998
Investments	156.3	162.0	159.4	150.9	136.1
- Reinsurance	56.7	61.5	58.9	54.4	49.0
- Primary insurance	99.2	100.0	100.2	96.4	87.1
- Asset management	0.4	0.5	0.3	0.1	_

<sup>\*</sup> After elimination of intra-Group transactions across segments.

#### Group shareholders' equity

in €bn	31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.1998
Group shareholders' equity	13.9	19.4	23.6	18.5	16.2
Valuation reserves not recognised in balance sheet, including those apportionable to minority interests and policyholders	1.1	16.4	21.9	19.2	19.0
interests and policyholders	1.1	10.4	21.9	19.2	19.0

#### Net underwriting provisions\*

in €bn	31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.1998
Reinsurance	48.2	44.4	38.3	35.6	29.7
Primary insurance	94.8	94.2	93.2	87.9	81.1
Total	143.0	138.6	131.5	123.5	110.8

<sup>\*</sup> After elimination of intra-Group transactions across segments.

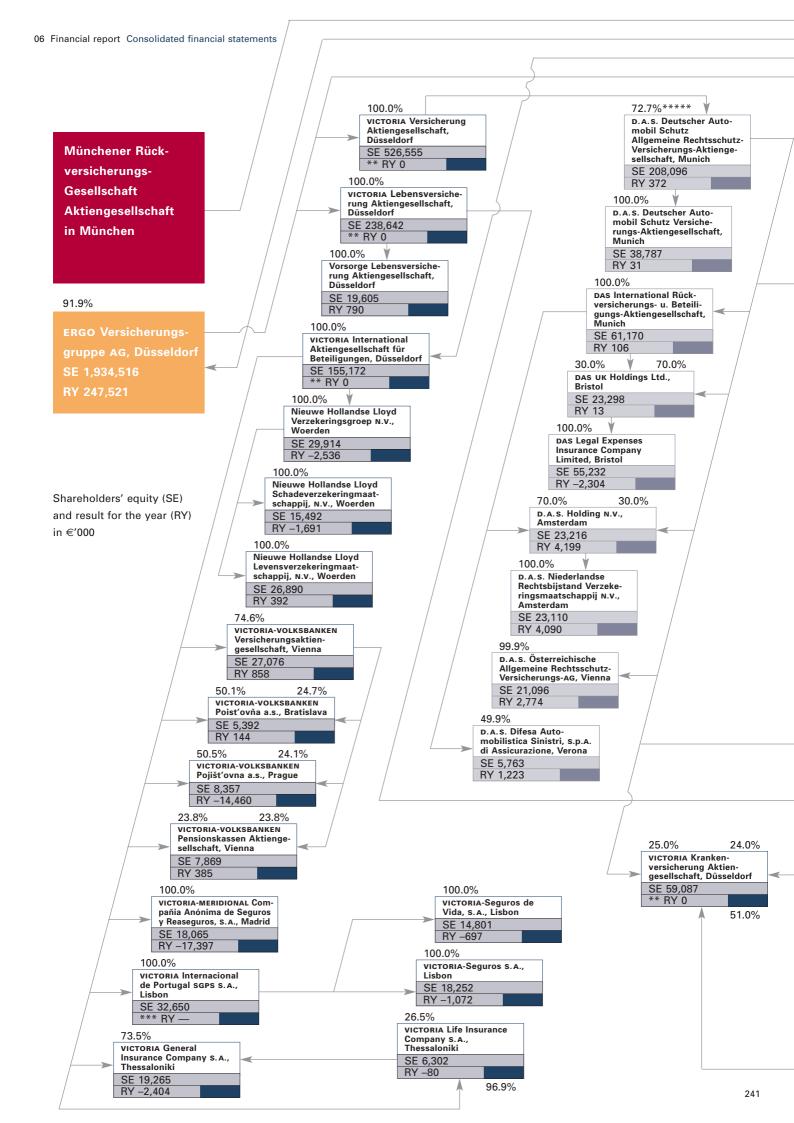
#### Reserve ratios for property-casualty\*

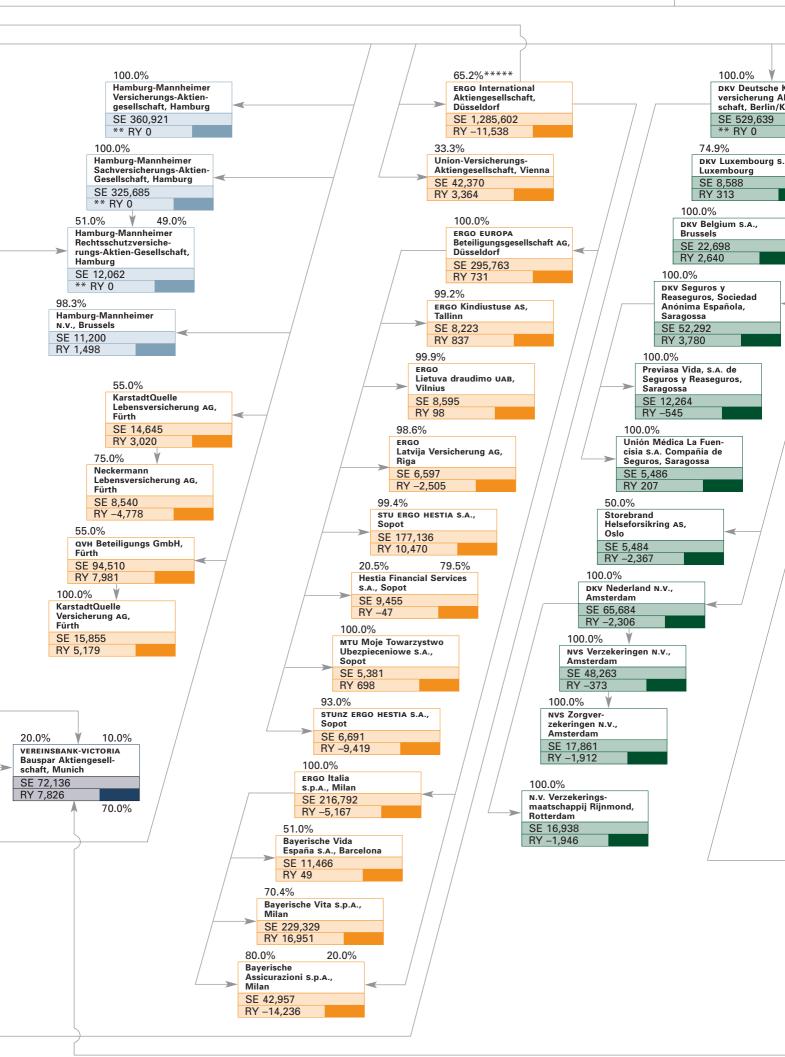
in %	31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.1998
Reinsurance	201.1	245.6	225.6	250.9	222.6
Primary insurance	116.3	113.9	113.1	102.8	102.3

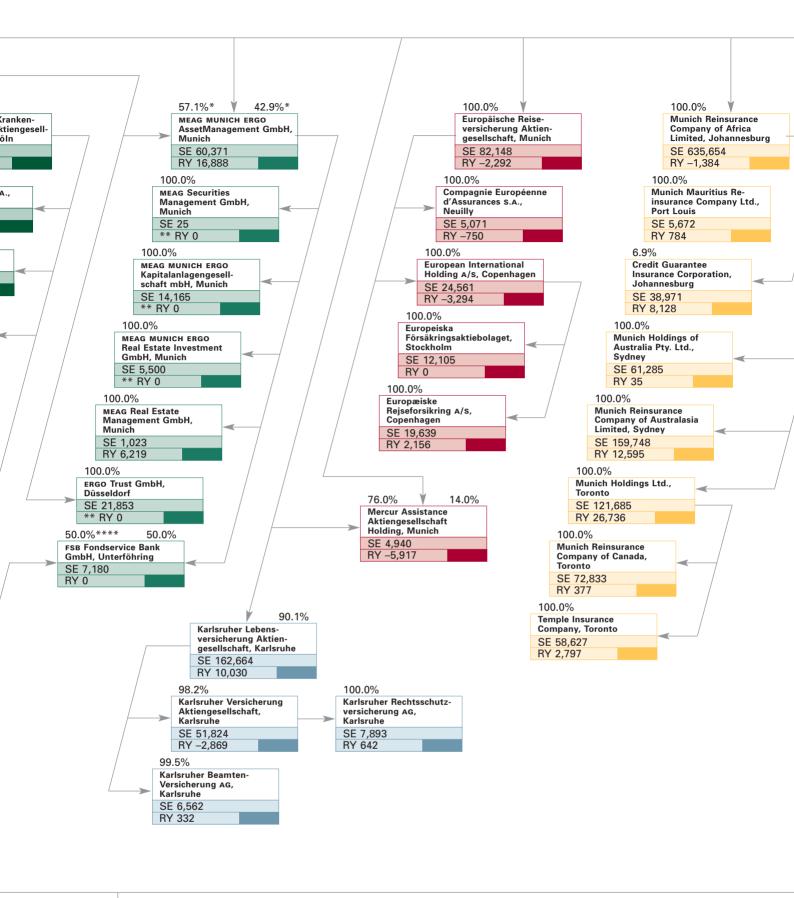
<sup>\*</sup> Before elimination of intra-Group transactions across segments.

Ratio of total net underwriting provisions to net premiums written.

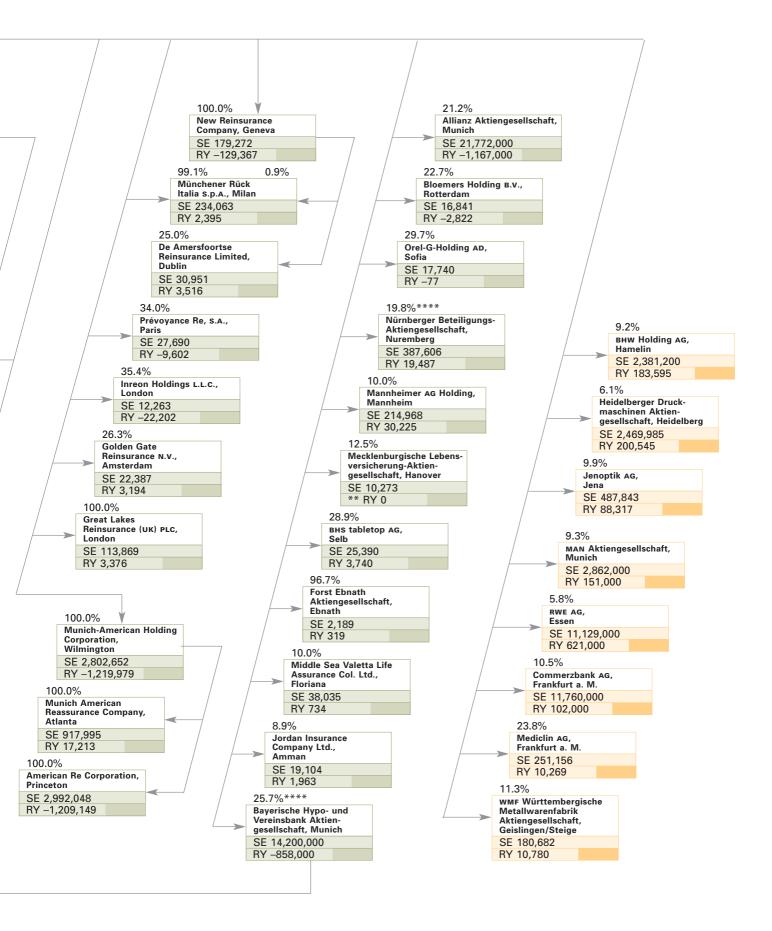
# Overview of associated enterprises and participating interests







- \* Proportion of voting rights.
- \*\* Profit-transfer agreement.
- \*\*\* RY "—" means there is no financial statement yet available, as this is a new company.
- \*\*\*\* Some shares held indirectly.
- \*\*\*\* Further shares held by:
  ERGO International: 8.7% DKV, 8.7% HMV, 8.7% VICL, 4.4% VICKRA, 2.2% VICVAG, 2.2% HMS
  D.A.S Deutscher Automobil Schutz Allgemeine Rechtsschutz-Versicherungs-AG: 25.5% VICRÜ, 1.8% HMS



Some shares held indirectly.

These are calculated proportionally in each case.



# Security

# "In a globalised society this is only one common secur

JOHANNES RAU, GERMAN FEDERAL PRESIDENT

#### THE SHADOW OF TERRORISM

There are enough risks as it is to keep us busy. We do not need terrorism as well. The alarming increase in terrorist attacks is causing not only immense material damage but also long-term psychological effects. A certain paralysis and defensive attitude are apparent, among consumers just as much as in the financial markets. This damage to the economic climate is substantial, but not insurable.

# ere ity."

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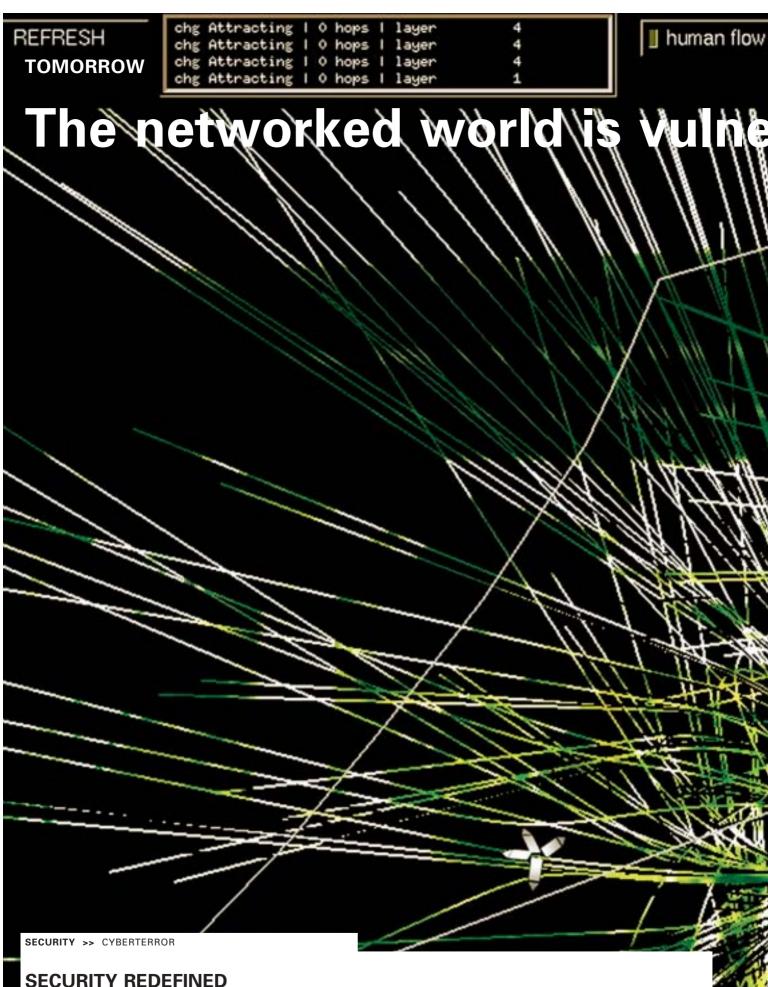
## Ground Zero. Confidence is still



#### THE LESSONS OF 11 SEPTEMBER 2001

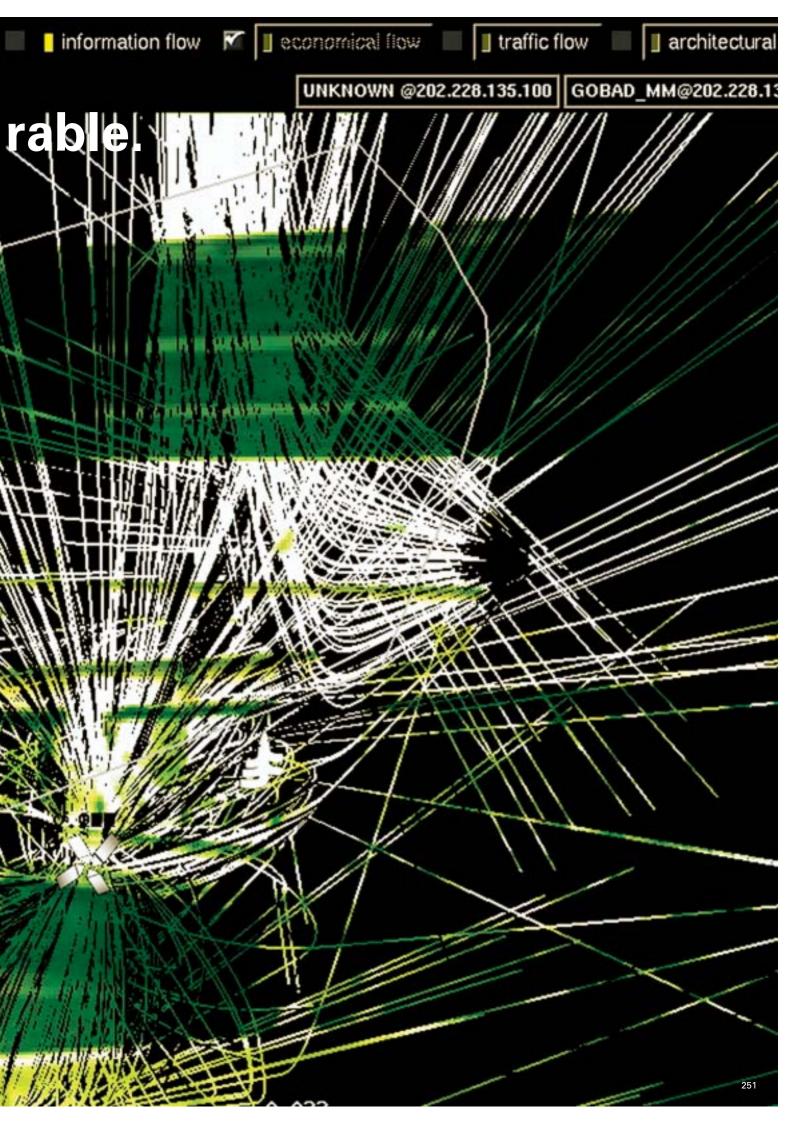
11 September 2001 was a disaster: 3,576 killed and countless people injured; wounds to Americans' sense of security; consequences for the financial markets and many branches of the economy; political ramifications, whose effects are still uncertain. 11 September 2001 was not a bottomless disaster in terms of the material damage. Large reinsurers like Munich Re showed what they are there for. And the civilised world proved that it is stronger than terrorists might have assumed.





# **SECURITY REDEFINED**

The world's vulnerability was exposed on 11 September 2001 in an almost atavistic way. No less vulnerable, however, are electronic structures such as the internet and information systems. It is crucial that our security awareness keeps up with developments in technology. As with other crime, where the police need to be as well armed as the criminals, our security must keep pace with the perfidious intelligence of cyberterrorist attacks.



# "Insurance shortage ended."

#### AN INTERVIEW WITH NICHOLAS ROENNEBERG ON EXTREMUS AG



NICHOLAS ROENNEBERG

Corporate Underwriting/Global Clients Division

Head of Claims Management and Consulting

# What is the most important lesson for the insurance industry from the terrorist attack of 11 September 2001?

The unique thing about the attack of 11 September was the dimension not only of the suffering but also of the losses. Insurers that don't take adequate precautions against risk accumulations may find their very existence endangered by such events, which are definitely comparable with mega-losses from natural catastrophes or asbestos-related claims. 11 September was a bitter lesson for the insurance industry, which wasn't prepared for losses of this magnitude. The earlier attack on the World Trade Center in the nineties was a warning, but the collapse of both towers – unthinkable! In contrast to losses from natural catastrophes, what we had to deal with in the WTC loss was an unprecedented accumulation within a very small area. Such loss scenarios conjure up a completely new risk situation and thus place new demands on accumulation control and the transparency of exposures.

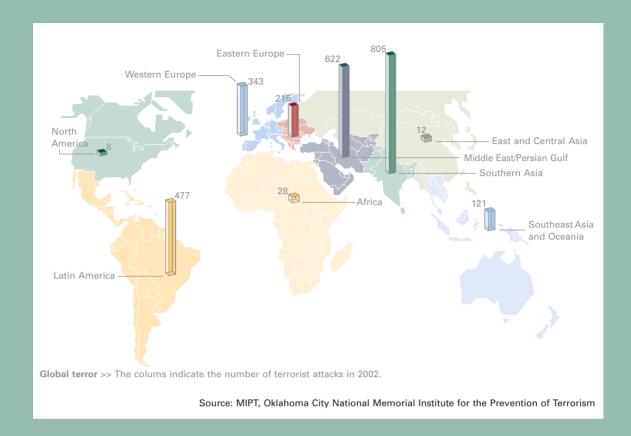
# How does EXTREMUS AG, the company recently set up in Germany to insure terrorism risks, work?

EXTREMUS AG is a specialist insurer for terrorism risks. It is the only insurer in Germany for terrorism risks upwards of €25m and is

SECURITY >> JOINT SOLUTIONS

# TERRORISM RISKS CAN BE INSURED AGAIN

Munich Re helped initiate and develop a joint solution in Germany. As terrorism risks had to be excluded from insurance cover after 11 September 2001, a gap opened up in insurance. In Germany, this is now filled by EXTREMUS, which thus performs a fundamental economic and social function that no single insurer or reinsurer could fulfil by itself.



largely owned by German insurers and reinsurers. EXTREMUS, in turn, is reinsured with German primary insurers and reinsurers, and partly with the international reinsurance market. We believe it provides sufficient capacity: €3bn comes from the insurance industry and €10bn from the German government. Insurance cover can be bought from EXTREMUS up to a limit of €1.5bn. At the end of the day, EXTREMUS only works because it is government-backed.

# How is Munich Re involved in EXTREMUS?

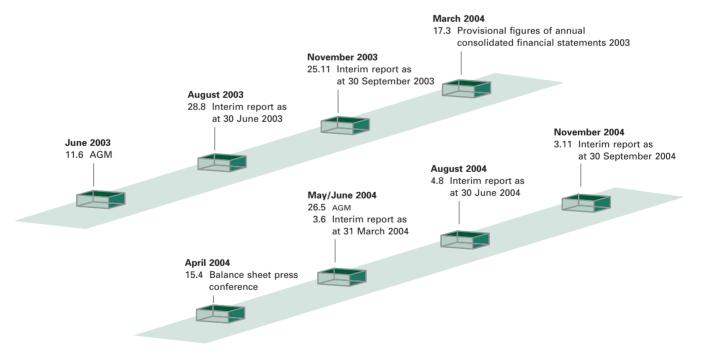
We were great advocates of setting up EXTREMUS in order to end what could be called an insurance shortage. We took part in the first preparatory talks with the German government and the German Insurance Association and closely partnered those involved in the subsequent steps. Munich Re is represented on the EXTREMUS Supervisory Board, on the Advisory Board and in its working groups, and we have supported it with capital and capacity.

# 07

# **General information**

**Addresses** We have compiled a list of important addresses for our Group. You can find more on our website at www.munichre.com.

**Glossary** We attach importance to using language that is easily understandable. However, we could not do without certain technical terms in our report. These are explained in the glossary.



You can find the full financial calendar on the back cover flap.

# Important addresses

Munich Reinsurance Company Königinstrasse 107 80791 München Germany

#### Reinsurance

#### UK

Great Lakes Reinsurance (UK) PLC Upper Ground Floor 1, Minster Court

Mincing Lane, London EC3R 7YH

Tel.: +44 20 7929 28 93 Fax: +44 20 7623 52 20

E-mail: correspondence@greatlakes.co.uk

#### Italy

Münchener Rück Italia s.p.A. Corso Venezia, 48 20121 Milano

Tel.: +39 02 764 161 Fax: +39 02 76 41 69 00 http://www.munichre.it

#### **Switzerland**

New Reinsurance Company Rue de l'Athénée 6–8 P.O. Box 35 04

CH-1211 Genève 3 Tel.: +41 22 31 98 500 Fax: +41 22 31 05 332 E-mail: geneva@newre.com

http://www.newre.com

# Canada

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Munich Ro Centro

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Fax: +1 416 366 4330
E-mail: toronto@mroc.com

#### US

American Re-Insurance Company 555 College Road East Princeton, NJ 08543-5241

Tel.: +1 609 243 4200 Fax: +1 609 243 4257 http://www.amre.com

#### US

Munich American Reassurance Company 56 Perimeter Center East, N.E., Suite 500

Atlanta, GA 30346-2290 Tel.: +1 770 350 3200 Fax: +1 770 350 3300 http://www.marclife.com

#### Australia

Munich Reinsurance Company of Australasia Limited (MRA) Munich Re House 143 Macquarie Street Sydney NSW 2000 P.O. Box H35 Australia Square

Sydney NSW 1215 Tel.: +6 12 92 72 80 00

Fax: +6 12 92 51 25 16 E-mail: mra@munichre.com

#### South Africa

Munich Reinsurance Company of Africa Limited (MROA) Munich Re Centre 47 Empire Road, Parktown Johannesburg 2193, P.O. Box 6636

Johannesburg 2000 Tel.: +27 11 242-20 00 Fax: +27 11 242-22 00

E-mail: mroa@munichre.com

You can find further addresses on our website at www.munichre.com.

# Primary insurance

# **ERGO Versicherungsgruppe AG**

Victoriaplatz 2 40198 Düsseldorf Tel.: 021 1/49 37-0 Fax: 021 1/49 37-15 00 http://www.ergo.de

#### **VICTORIA Versicherung AG**

#### **VICTORIA Lebensversicherung AG**

Victoriaplatz 1 und 2 40198 Düsseldorf

Tel.: (00 49) 2 11/4 77-30 03 E-mail: info@victoria.de http://www.victoria.de

#### Hamburg-Mannheimer Versicherungs-AG

#### Hamburg-Mannheimer Sachversicherungs-AG

Überseering 45 22297 Hamburg Tel.: 0 40/63 76-0 Fax: 0 40/63 76-33 02

E-mail: pr@hamburg-mannheimer.de http://www.hamburg-mannheimer.de

#### DKV

Deutsche Krankenversicherung AG Aachener Strasse 300 50933 Köln

Address for letters: 50594 Köln

Tel.: 02 21/5 78-0 Fax: 02 21/5 78-36 94 E-mail: presse@dkv.com http://www.dkv.com

#### D.A.S.

Deutscher Automobil Schutz Allgemeine Rechtsschutzversicherungs-AG

#### D.A.S.

Deutscher Automobil Schutz Versicherungs-AG Thomas-Dehler-Str. 2

81737 München Tel.: 0 89/62 75-01 Fax: 0 89/62 75-16 50 E-mail: info@das.de http://www.das.de

Further addresses may be obtained from the 2002 annual report of ERGO Versicherungsgruppe AG.

# Europäische Reiseversicherung AG

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# **MEAG MUNICH ERGO**

AssetManagement GmbH Oskar-von-Miller-Ring 18 80333 München

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#### Accumulation

The situation where a significant number of risks insured or reinsured with the same company may be affected simultaneously by a loss event.

#### **Affiliated enterprises**

In the consolidated financial statements of the Munich Reinsurance Company (parent company) all companies are deemed affiliated enterprises in which the Munich Reinsurance Company holds the majority of the voting rights either directly or indirectly (subsidiary companies).

#### Alternative risk financing

Utilising the capacity of the capital markets to cover insurance risks. An example is the securitisation of natural catastrophes risks that can no longer be borne in full by the insurance and reinsurance industry.

#### **Annual financial statements**

Record showing the results of an insurer's or reinsurer's trading and other operations during the year and its financial position at the end of that period. The annual financial statements contain a balance sheet and an income statement, supplemented by detailed breakdowns and notes.

# **Asset-liability management**

Management of a business in a way that coordinates decisions on assets and liabilities. Specifically, the ongoing process of formulating, implementing, monitoring, and revising strategies related to assets and liabilities in an attempt to achieve financial objectives for a given set of risk tolerances and constraints.

# **Asset management**

Management of an investment portfolio on the basis of risk and return considerations. It covers both the preparation and implementation of investment decisions regarding assets and the management of → special funds.

#### **Assistance**

Range of services going beyond the traditional scope of insurance and cost reimbursement. The idea of assistance services is to help claimants quickly and unbureaucratically in the event of a loss occurrence, taking care of the necessary arrangements to remedy the situation.

# **Associated enterprises**

Enterprises on whose financial and operating decisions a significant (but not a controlling) influence can be exercised, regardless of whether this influence is actually exercised or not. A significant influence is presumed if the proportion of voting rights lies between 20% and 50%.

#### At amortised cost

Under this accounting principle the difference between the acquisition cost and redemption value (of an investment) is added to or subtracted from the original cost figure over the period until maturity and credited or charged to income over the same period. Writedowns are made for impairment or uncollectability.

#### **Balanced scorecard**

Instrument for strategy implementation which systematically links strategic objectives (financial and non-financial) with initiatives and action plans. Short-term milestones help in checking the achievement of the objectives.

#### **Biometrics**

Use of statistical methods to capture and process data in the fields of biology, medicine, agriculture, etc.

#### Cash flow statement

Statement showing the origin and utilisation of cash during the business year. It shows the change in liquid funds separately according to

- cash flows from operating activities,
- cash flows from investing activities,
- cash flows from financing activities.

#### Cedant

Client of a reinsurance company.

# Cession

The reinsuring of risks by a primary insurer with a reinsurer.

#### **Combined ratio**

The sum of the loss ratio and the expense ratio. The better the results of the underwriting business, the lower this ratio will be; ratios over 100% indicate loss-making business.

C-E

# Compliance guidelines

Rules for handling insider information. Generally speaking, insider information may not be used for own investment transactions, for those of the company or for recommendations to others. Therefore, as part of the compliance procedure, business transactions are checked to make sure they are not based on insider information.

#### Consolidation

Combining the items from the individual financial statements of the companies belonging to the Group into one consolidated financial statement, in which items involving intra-Group transactions are eliminated.

# **Contingent liabilities**

Possible obligations whose existence will be confirmed by the occurrence or non-occurrence of an uncertain future event and which are therefore not shown as liabilities in the balance sheet. They must, however, be included in the notes to the financial statements (example: guarantee obligations).

# Corporate governance

Corporate governance refers to the legal and factual framework for managing and monitoring companies. Corporate governance rules serve to provide transparency and thus strengthen confidence in responsible management and control geared to the creation of value.

# Counterparty risk

Quantifies the risks that arise if the other party in a transaction does not fulfil its contractual obligations.

## **Cross-selling**

The process of providing existing clients with advice that encourages them to consider and to buy other (allied) products that they do not yet have.

#### **Deferred acquisition costs**

Costs incurred for the acquisition or the renewal of insurance policies (e.g. commission, cost of processing applications) which are capitalised and amortised over the term of the contracts.

# **Deferred tax assets/liabilities**

Deferred taxes derive from temporary differences between accounting on the basis of International Accounting Standards (consolidated financial statements) and national tax law. If asset items are valued lower, or liabilities higher, than in the tax balance sheet of the Group company concerned, the resulting future tax relief must be recognised as a deferred tax asset. If the accounting differences between the consolidated financial statements will lead to future tax burdens, these must be recognised as deferred tax liabilities.

# Deposits retained on assumed reinsurance and ceded business

Deposits retained on assumed reinsurance are claims which reinsurers have on their cedants for cash deposits that have been retained by the cedants as a security to cover future reinsurance claims. The cedants show the retained funds as deposits withheld on ceded business.

# **Derivatives**

Financial instruments whose increase or fall in value is based on and determined by the change in the amount of an underlying value (a particular interest rate, security price, exchange rate, price index, etc.). The main derivatives are futures, forwards, swaps and options.

#### Directors' and officers' liability insurance

Insurance of liabilities arising from the performance of professional or official company duties.

#### **Duration analysis**

Duration refers to the average term of an interestsensitive investment (or portfolio) and is a measure of the risk of its sensitivity to changes in interest rates.

# Earnings per share

A ratio calculated by dividing the consolidated profit by the average number of shares issued. For calculating diluted earnings per share, the number of shares is adjusted by the effects of exercised or still to be exercised subscription rights.

#### **E-business**

Abbreviation for electronic business. Umbrella term for business conducted via electronic media such as the internet.

# E-I

#### **Equity method**

Investments in associated enterprises have to be valued in the consolidated financial statements using the equity method. The "at equity" value corresponds to the Group's proportionate share of the shareholders' equity of the enterprise concerned.

#### **Expense ratio**

Ratio, in per cent, of operating expenses to earned premiums.

#### **Exposure**

The degree to which a risk or portfolio of risks is subject to the possibility of loss; basis for calculating premiums in (re)insurance.

#### **Facultative reinsurance**

The reinsurer assumes a share of selected individual risks. The primary insurer can offer an individual risk in reinsurance, which the reinsurer for its part can either accept or decline.

# Fair value

The amount for which an asset could be exchanged between knowledgeable, willing parties in an arm'slength transaction. Where there is an active market, the fair value of an asset is its current market value.

## **Fast close**

The sum of organisational and technical improvements in business processes that serve to accelerate publication of a company's quarterly and annual financial statements.

## Financial Accounting Standards (FAS)

Us accounting regulations that give detailed rulings on individual accounting questions and which must be complied with by listed companies that prepare accounts in accordance with US GAAP.

# Forward rate agreement (FRA)

Interest-rate forward contract traded over the counter, in which a current interest rate that appears favourable is secured for a date in the future. The parties to the contract will settle the contract on the basis of the difference between the market interest rate applicable on the due date and the agreed interest rate.

#### **Futures**

Standardised contracts to trade a financial instrument on a money market, capital market, precious-metals market or currency market at a specific price and on a specific future date. Frequently, rather than actually delivering the underlying financial instrument on that date, the difference between closing market value and the exercise price is settled in cash.

#### Goodwill

Any excess of the purchase price of a subsidiary over the acquirer's interest in the fair value of the net assets as at the acquisition date. Goodwill is amortised over its useful life.

#### Gross/net

The terms gross and net mean before and after deduction of the portion attributable to business ceded in reinsurance. Instead of "net", the term "for own account" is sometimes used.

#### **Hedging**

Protecting against undesirable developments in prices by means of special financial contracts, especially derivative financial instruments. Depending on the risk to be hedged, a distinction is made between two basic types: "fair value hedges" safeguard assets or liabilities against the risk of changes in value; "cash flow hedges" reduce the risk of fluctuations in future cash flows.

# International Accounting Standards (IAS)

Standards formulated by the IASB with the intention of achieving internationally comparable preparation and presentation of financial statements.

# International Accounting Standards Board (IASB)

An international body of 14 accounting experts responsible for issuing International Accounting Standards. The IASB's objective is to achieve uniformity in the accounting principles that are used by businesses and other organisations for financial reporting around the world

# Investments for the benefit of life insurance policyholders who bear the investment risk

This mainly involves investments for policyholders under unit-linked life insurances. It also includes investments under index-linked life insurance policies whose performance depends on share or currency indices.

**L-0** 

# Layer

Term used in excess-of-loss reinsurance to denote a stratum of cover. Its point of attachment and extent is defined in terms of the sum insured. Example: €5,000 in excess of €1,000 refers to the layer €1,000 to €6,000.

#### Liability

Insurance of industrial, commercial, employers', product, professional or private liability towards third parties.

## Loss ratio

Ratio, in per cent, of claims expenses to earned premiums.

#### Market value

The amount obtainable for an asset in an active market.

# Minority interests in shareholders' equity and earnings

That part of the shareholders' equity and earnings of our subsidiaries that is apportionable to shareholders outside the Group.

# Net

→ Gross/net

#### Net asset value

Measurement of the fair value of companies. The starting point is the proportional equity capital of the company to be valued, plus the valuation reserves, any special reserves, claims equalisation provisions and similar provisions. The net asset value after tax includes the deferred tax liabilities resulting from the adjustment of the equity capital.

#### Net expenses for claims and benefits

These include the expenses for claims (claims payments and the change in the provision for outstanding claims), expenses for premium refunds and the change in the remaining underwriting provisions (provision for future policy benefits and other), in each case after deduction of the ceded share.

## Non-proportional reinsurance

Here the reinsurer assumes payment of the primary insurer's losses above a defined amount. The calculation of the reinsurance premium is based on claims experience with the type of business concerned.

#### **Obligatory reinsurance**

Reinsurance that is binding for both parties. The primary insurer is obliged to cede all risks covered by a reinsurance agreement to the reinsurer and the reinsurer is obliged to accept these risks.

# Operating expenses

Commission, personnel costs and general expenses for the acquisition and ongoing administration of insurance contracts, less any commission reimbursed by reinsurers, including profit commission.

# Operating result before tax

Pre-tax operating profit/loss on the enterprise's ordinary activities. Any extraordinary income and expenses are not included in this result.

#### **Options**

Derivative financial instruments where the holder is entitled – but not obliged – to buy (a call option) or sell (a put option) the underlying asset at a predetermined price within a certain period. The writer of the option is obliged to transfer or buy the asset and receives a premium for granting the option to the purchaser

# **OTC** derivatives

Derivative financial instruments which are not standardised and are traded not on an exchange but directly between two counterparties via over-the-counter (OTC) transactions.

# Other securities available for sale

Securities that will neither be held to maturity nor are assignable to the "held for trading" category. These securities are accounted for at market value. Changes in value are reflected in shareholders' equity without impact on earnings.

# Other securities held for trading

Securities held for trading comprise temporarily held investments purchased with the intention of obtaining the highest possible return from short-term fluctuations in the market price. They are accounted for at their market value at the balance sheet date. Changes in market value are recognised in the income statement.

# Other securities held to maturity

Fixed-interest securities which the company has the intention and ability to hold to maturity. They are valued at amortised cost.

#### P-R

#### **Portfolio**

All the risks assumed by an insurer or reinsurer.

#### **Premiums**

Premiums written means all premium income that has become payable in the business year. The portion of this premium income that constitutes payment for insurance cover in the business year is referred to as earned premiums.

#### **Primary insurers**

Insurance companies that assume risks in return for an insurance premium and have a direct contractual relationship with the holder of the insurance policy (private individual, firm or organisation).

#### **Proportional reinsurance**

In proportional reinsurance, the sum insured written by the primary insurer is divided proportionally between the primary insurer and the reinsurer, and the reinsurer is allocated a corresponding share of the premiums and claims.

# Provision for future policy benefits

Underwriting provision calculated using actuarial methods to cover future benefits to which policyholders are entitled, especially in life, health and personal accident insurance.

#### Provision for outstanding claims

Provision for claims that have already been incurred at the balance sheet date but have either not yet been reported or not yet been fully settled.

#### Provision for premium refunds

Provisions for premium refunds are made for obligations involving bonuses and rebates – especially in life and health insurance – which are not yet payable at the balance sheet date; the amount posted is based on supervisory or contractual regulations. They also include the unrealised gains and losses from the accounting of certain investments at market value to the extent that policyholders would participate in these gains and losses on realisation (provision for deferred premium refunds).

## **PVFP** (present value of future profits)

When insurance companies or individual insurance portfolios are acquired, the present value of the expected earnings from the business acquired is capitalised as "PVFP". This intangible asset arises in particular when life or health insurance companies are acquired.

# Rating

Standardised assessment of the credit standing of debt instruments and companies by specialised independent rating agencies.

#### Reinsurance capacity

Amount of cover that a reinsurance company or the market as a whole can make available.

#### Reinsurers

Insurance companies that assume the insurance risks of other insurance companies without themselves having any direct contractual relationship with the policyholder.

#### Renewals

Although obligatory reinsurance agreements contain agreed periods of notice, they are generally concluded for an unlimited duration. These treaties between insurers and reinsurers may therefore run for long periods. In such cases, the treaty conditions are usually adjusted in renewal negotiations each year, and the treaties renewed.

#### Retention

That part of the risk assumed which the (re)insurer does not (retro)cede.

#### Retrocession

Reinsurance of reinsurance business assumed from other insurance companies (a reinsurance of reinsurance). Retrocession enables the reinsurer to lay off part of its risk to other insurance companies.

#### Retrocessionaire

Reinsurer that provides retrocession cover for other reinsurers (reinsurer of reinsurers).

#### **Risk**

The possibility of negative budget variance inherent in any economic activity. In insurance, it is also understood to mean the possibility of a loss being caused by an insured peril. In addition, insured objects or persons are frequently referred to as risks.

#### R-U

#### Risk capital

Risk capital is the amount of capital hypothetically allocated to insurance or reinsurance operations to ensure that the probability of default in respect of the portion of the business exposed to risk is kept to a minimum. The capital required for this purpose is calculated using mathematical risk and financing models.

#### Risk of change

Fluctuation of actual from statistically anticipated experience as a result of technical, social, legal political changes.

#### Scenario analysis

Used to investigate how certain key figures (book values) change in the event that predefined market developments occur. Scenario analyses usually take the form of deterministic if-then analyses.

#### Security

Ability (and willingness) of a reinsurer to meet its financial obligations from reinsurance agreements in full and at all times. Security depends on such factors as earnings capacity, quality of investments, capitalisation and liquidity.

## Segment reporting

Presentation of the items in the annual financial statements according to classes of business and regions.

# Shareholder value

Management concept which puts the value of a company and the increasing of this value for the share-holders at the centre of its business strategy.

#### **Special funds**

Investment funds with a maximum of ten unit-holders that are not natural persons. As the fund owners pursue specific objectives with their investments, investment policy is geared to individual requirements.

#### Stress test

A special form of scenario analysis. The aim is to make a quantitative statement on the loss potential of portfolios in the event of extreme market fluctuations.

#### Sustainable development

A type of development that satisfies the needs of the present without jeopardising the needs of future generations.

#### **Swap**

Agreement between two counterparties to exchange payment flows over a specified period in order to profit from relative cost benefits that one party enjoys on a particular financial market. In the case of an interest rate swap, payment obligations in the same currency but with different interest rate conditions (e.g. fixed/variable) are exchanged. In the case of currency swaps, the payment obligations exchanged are in different currencies.

#### Underwriter

Member of a (re)insurance company acting on behalf of his or her employer to negotiate, accept or reject the terms of a (re)insurance contract.

#### **Underwriting provisions**

Uncertain liabilities directly connected with insurance business. These provisions are made to ensure that obligations under insurance contracts can always be met.

# **Underwriting result**

Balance of income and expenses apportionable to the (re)insurance business and shown in the technical income statement.

# **Unearned premiums**

The portion of premium income in the business year that is attributable to periods after the balance sheet date is accounted for as unearned premiums in the underwriting provisions.

#### Unit-linked life insurance

A type of life insurance with a savings component, where the benefits payable depend on the performance of the assets invested in a fund. The investment risk is borne by the policyholder.

# US Generally Accepted Accounting Principles (US GAAP)

The principles of US accounting that are stipulated as compulsory for listed companies in the US.

# Value at risk

Method of quantifying risk which measures the potential future losses that may not be exceeded within a specified period and with a specified probability.

# Value-based management

The concept of value-based management is geared to increasing the value of a company on a long-term basis. Value is only created long term if a company regularly earns a profit that exceeds the costs of the equity capital invested.

# **Voting right**

Every shareholder generally has a legal right to vote at the Annual General Meeting. The number of votes that a shareholder has depends on the number of shares with voting rights held. Shareholders can arrange for their voting rights to be exercised by a proxy, i.e. a third party such as a bank, shareholders' association or company representative.



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Besides this English translation of the official German original (also available from the company), a translation of our annual report is obtainable in Spanish. You will also find our annual reports and interim reports, along with further information about Munich Re, on the internet at http://www.munichre.com.

# Service for investors and analysts

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# Multi-year overview\*

		31.12.2002	31.12.2001	31.12.2000	31.12.1999	31.12.199
Balance sheet						
Investments	€m	156,278	161,994	159,408	150,927	136,14
Shareholders' equity	€m	13,948	19,357	23,602	18,454	16,16
Net underwriting provisions	€m	142,966	138,642	131,526	123,473	110,83
Balance sheet total	€m	196,441	202,054	193,567	179,880	159,16
Shares						
Dividend per share	€	1.25	1.25	1.25	0.95	0.92*
Amount distributed	€m	223	221	221	168	8
Share price	€	114.0	305.00	380.00	251.80	206.31
Munich Re's market						
capitalisation	€bn	20.4	54.0	67.2	44.5	36
Other						
Combined ratio non-life	0/	400.4	405.4	445.0	440.0	405
reinsurance	<u>%</u>	122.4	135.1	115.3	118.9	105
Number of staff		41,396	38,317	36,481	33,245	32,28
in €m Gross premiums written		40,014	<b>2001</b> 36,123	31,113	<u>1999</u> 27,413	25,49
Gross pramiums written		40.014	36 123	21 112	27 /113	25.40
Net earned premiums		36,306	31,680	28,129	24,945	23,54
Investment result		5,605	10,420	12,166	9,525	8,46
Other income		1,343	892	501	747	30
Total income		43,254	42,992	40,796	35,217	32,3
Net expenses for claims and benefits		31,129	34,162	29,770	25,241	22,73
Net operating expenses		8,933	7,758	7,340	6,500	6,10
Other expenses		2,383	1,487	1,071	1,655	1,19
Total expenses		42,445	43,407	38,181	33,396	30,03
Result before amortisation	of					
goodwill		809		2,615	1,821	2,28
Amortisation of goodwill		371	230	145	120	1
Operating result before tax		438		2,470	1,701	2,17
Tax				399	383	79
	<u> </u>		145	321	185	18
Minority interests in earnings		1,081	250	1,750	1,133	1,20
Minority interests in earnings Profit for the year						
Profit for the year						
, , , , , , , , , , , , , , , , , , , ,		2002	2001	2000	1999	199
Profit for the year		2002	2001	<b>2000</b> 9.89	1999	7.11*

<sup>\*</sup> The first consolidated financial statements in accordance with IAS were prepared for the business

<sup>\*\*</sup> Taking into account the stock split in January 1999.

# **Quarterly figures**

		31.12.2002	30.9.2002	30.6.2002	31.3.2002
Balance sheet					
Investments	€m	156,278	159,759	163,124	164,035
Shareholders' equity	€m	13,948	16,645	20,152	22,834
Net underwriting provisions	€m	142,966	143,285	143,738	141,073
Balance sheet total	€m	196,441	202,902	204,804	207,017
Shares					
Share price	€	114.0	103.20	239.50	285.00
Munich Re's market capitalisation	€bn	20.4	18.4	42.8	50.4
Other					
Combined ratio non-life reinsurance	%	122.4	127.3	133.1	101.7
Number of staff		41,396	39,848	39,872	38,549

in €m	Total	Q4 2002	Q3 2002	Q2 2002	Q1 2002
Gross premiums written	40,014	10,403	9,163	9,707	10,741
2. Net earned premiums	36,306	9,847	8,633	9,070	8,756
3. Investment result	5,605	-1,802	-1,567	2,047	6,927
4. Other income	1,343	317	156	652	218
Total income (2–4)	43,254	8,362	7,222	11,769	15,901
Net expenses for claims and benefits	31,129	6,686	5,826	10,192	8,425
6. Net operating expenses	8,933	2,517	2,146	2,120	2,150
7. Other expenses	2,383	796	454	688	445
Total expenses (5–7)	42,445	9,999	8,426	13,000	11,020
Result before amortisation of goodwill	809	-1,637	-1,204	-1,231	4,881
9. Amortisation of goodwill	371	126	81	90	74
10. Operating result before tax	438	-1,763	-1,285	-1,321	4,807
11. Tax	-574	415	-374	-930	315
12. Minority interests in earnings	-69	-20	-52	-8	11
13. Profit for the year	1,081	-2,158	-859	-383	4,481
in €	Total	Q4 2002	Q3 2002	Q2 2002	Q1 2002
Earnings per share	6.08	-12.10	-4.82	-2.16	25.35
Earnings per share, diluted	_	_	_	_	25.24

Important dates			
Interim report as at 31 March 2003	2 June 2003	Annual report for the business	45.4.11.0004
Annual General Meeting	11 June 2003	year 2003	15 April 2004
Dividend payment	12 June 2003	Balance sheet press conference	15 April 2004
, ,		Analysts' Conference	16 April 2004
Interim report as at 30 June 2003	28 August 2003	Annual General Meeting	26 May 2004
Half-year press conference	28 August 2003		27 114 2004
Interim report as at		Dividend payment	27 May 2004
30 September 2003	25 November 2003	Interim report as at 31 March 2004	3 June 2004
Provisional figures for consolidated		Interim report as at 30 June 2004	4 August 2004
financial statements 2003	17 March 2004	Half-year press conference	4 August 2004
Balance sheet meeting of		, i	, and the second
Supervisory Board	14 April 2004	Interim report as at	
		30 September 2004	3 November 2004

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