

# Risk Management 2nd CRO Assembly 2006 Conference Report



Münchener Rück  
Munich Re Group





## Editorial

# Managing risks more efficiently

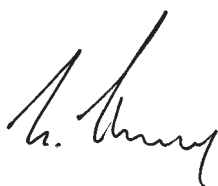
No other function of the insurance industry has changed as quickly in recent years as risk management. Insurers have to manage the risks they accept more efficiently in order to generate sustained added value. Insurers and other financial institutions have established the position of a Chief Risk Officer (CRO) to advance the topic.

In risk management, the exchange of knowledge and experience among experts is critical for success. The Geneva Association has therefore created a number of important industry networks to further promote the exchange within the industry and with academic institutions. In 2005, The Geneva Association launched the CRO Assembly, a prestigious and high-profile two-day conference among CROs of the insurance industry. This year's event was hosted by Munich Re at its Munich headquarters.

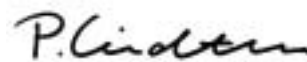
The present publication provides a short summary of the topics discussed during the event. The external view of key stakeholders provided for a lively debate on the opportunities professional risk management could offer not only company management but also profit stability. Given that the CRO always has to ask unpleasant questions, the CRO has to have the full support of the CEO if risk management is to be able to generate added value.

Emerging risks are a central issue in risk management, particularly since the insurance industry's exposure here is most difficult to assess. For this reason, the members of the CRO Forum have launched the Emerging Risks Initiative, which Munich Re will chair in 2007. At four workshops key emerging risks as well as a series of innovative methods to identify and analyse such risks were discussed, as were options for dealing with them.

Over the coming year, The Geneva Association will continue to debate the topics and issues raised at this conference. In the meantime, we hope you enjoy reading this publication.



**Dr. Nikolaus von Bomhard**  
Chairman of the Board of Management  
of the Munich Re Group



**Patrick Liedtke**  
Secretary General of  
The Geneva Association



## Contents

### Page 04 **Global trends**

**International development**

**Australia**

**Europe**

**United States**

### Page 06 **Stakeholders**

**Rating agency view**

**Analyst view**

**Supervisory authority view**

**Policymaker view**

### Page 08 **Workshops**

**Wisdom of crowds or why are we not better off finding an expert to make all the hard decisions?**

**Megatrend personal injury**

**Tackling macroeconomic trends and tail risks**

**Natural disasters and climate change**

**Increasing longevity – Increasing overweight**

## Speakers

**Charlie Shamieh** Chief Risk Officer, Munich Re

**Tony Coleman** Chief Risk Officer and Group Actuary, Insurance Australia Group

**Raj Singh** Chief Risk Officer, Allianz Group

**Robert E. Lewis** Senior Vice President and Chief Risk Officer, American International Group, Inc.

**Mark Puccia** Managing Director, Standard and Poor's

**William Hawkins** Senior Vice President, Keefe, Bruyette and Woods Ltd.

**Gerhard Stahl** Head of Risk Modelling Group, German Federal Financial Supervisory Authority

**Evelyne Massé** Policy Officer, European Commission

*Speaker:* **Manuela Zweimüller** Head of Risk Identification and Control Department, Munich Re

*Speaker:* **Christian Lahnstein** Head of Risk, Liability and Insurance Department, Munich Re  
*Moderation:* **Richard H. Murray** Head of Strategy and Emerging Claims Management, Swiss Re

*Speaker:* **Clemens Muth** Chief Economist, Munich Re  
*Moderation:* **Thomas C. Wilson** Chief Risk Officer, ING Group

*Speaker:* **Peter Höppe** Head of Geo Risks Research Department, Munich Re  
*Moderation:* **Andreas Grünbichler** Chief Risk Officer, Zurich Financial Services

*Speaker:* **Achim Regenauer** Chief Medical Director, Munich Re  
*Moderation:* **Joachim Oechslein** Deputy Chief Risk Officer, AXA Group

## Global trends

**“Within Munich Re the top motivator for the CRO movement is the need of our investors.”**

Charlie Shamieh

### International development

Charlie Shamieh, Munich Re

We have observed in recent years a tremendous movement in risk-management development. Even though external factors are forcing insurers to implement and optimise risk management, “the industry itself should be in the driver’s seat. We should be the key provider of ideas and information shaping the business model,” Munich Re’s CRO Charlie Shamieh pointed out.

He went on to say that “there are large regional differences in the state of development as well as in the operationalisation of integrated risk management”. Munich Re’s CRO indicated that the top three motivators for the CRO movement are good business practice (78%), the requirements of rating agencies (55%) and of investors (54%). These are the results of Enterprise Risk Management (ERM) surveys on the state of risk and capital management that Tillinghast published in September 2006. The preparation for Solvency II in Europe has led to an increase in the extent to which risk management is being embedded in organisations. In Japan and Europe, more than half the survey respondents indicated that the CRO has primary responsibility for risk management efforts compared to a third of the North American respondents. According to Munich Re’s CRO, “the most frequently cited financial measures on which the impact of risk is assessed are statutory or regulatory capital and surplus (56%) and the economic/embedded value”.

### Australia

Tony Coleman, IAG

The Australian market was obliged to attend to comprehensive insurer risk management quite early compared to many other markets. The main reason for this was due to the financial collapse of HIH, the second-largest Australian insurer, in March 2001. “Since the end of the last century, the Australian insurance market has been faced with significant changes,” as Tony Coleman, Insurance Australia Group’s CRO pointed out. Largely as a result of the HIH collapse, the Australian regulator (APRA) and parliament established new prudential and risk-management standards for insurers as from June 2002, and new insurance accounting standards – fully aligned with International Accounting Standards – became effective in January 2005. Tony Coleman intimated that risk management needs to be an integral part of an insurer’s overall business strategy in Australia today, with governance, transparency of capital measures and performance reporting in Australia and New Zealand reaching high standards in comparison with acknowledged world best practice.

The greatest challenge in this is in the quantification itself. Portfolios have higher or lower inherent risks, but unless the level of risk is properly quantified they cannot be consistently or reliably measured, reported or compared. Without that the management and governance of the insurer cannot be as effective.

**“Risk management is an integral part of an insurer’s overall business strategy in Australia today. It should be a partnership with the business units.”**

Tony Coleman

**“Risk management is a management function, not solely a control and compliance function.”**

Robert E. Lewis

**Europe**

Raj Singh, Allianz

Risk management needs an integrated view – across all risk types and all segments. Allianz CRO Raj Singh, who presented the European view of the role of CROs, stated that the identification of emerging risks also presents business opportunities. “But when we looked for best practices in the insurance industry, there were not many,” he said. In Raj Singh’s view, one important aim is to reach common definitions, agreement on industry best practice and the education of key stakeholders.

The industry needs a lot of resources to get all of the necessary work done. With reference to the new regulatory framework Solvency II, the emerging risk issues and the required pre-emptive action, Mr. Singh doubted that there are still enough sufficiently trained and experienced insurance risk experts, at least in Europe.

**“CROs also have the function to ensure the reputation of a company.”**

Raj Singh

**United States**

Robert E. Lewis, AIG

Robert Lewis from AIG discussed risk-management issues from a US CRO perspective. His key message was that the markets reward companies generating return on strategic (i.e., revenue-producing) risks and discount those with perceived or real exposure to non-strategic risks. The goals are thus clear: Companies need to maximise capital deployed for strategic risks and minimise capital required to cover non-strategic risks.

Most important in this context is to make sure that the firms have a sustainable qualitative approach to enterprise risk management because this is the precondition for a sound quantitative approach.

Robert Lewis believes that in addition to internal drivers also external drivers affect the risk-management process of the insurance industry in the United States, as in other parts of the world. He assumed that the external requirements are the most challenging from a resource perspective.

**Mutual understanding**

There was a mutual understanding among all the speakers that ERM is a management function and needs the support of a company’s board of management. The representatives also highlighted that the industry still needs to work on its risk culture. While the insurance industry has been working hard at a qualitative approach to risk management, the most challenging issue in the future will be to enhance development of quantitative modelling.

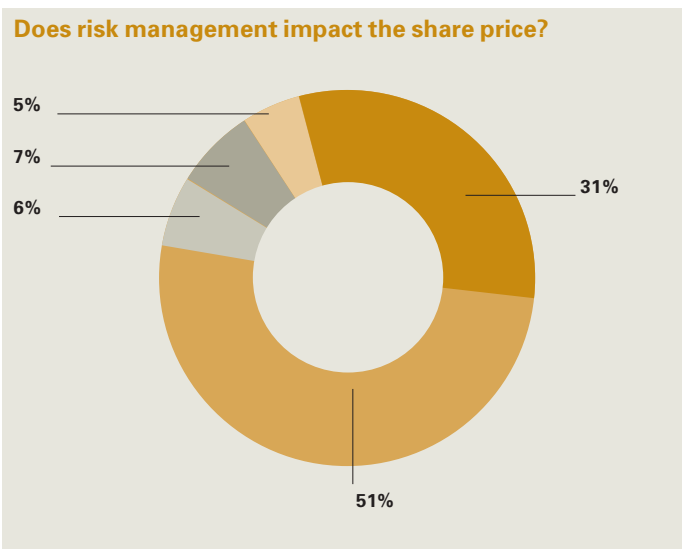
In this context, he highlighted the lack of convergence among accounting and regulatory regimes and the increasing interest in enterprise risk management and economic capital modelling by the rating agencies. It is also noticeable that in the USA companies may take investors’ requirements more into account than in other regions.

Major investors believe that it is worth paying a premium for good risk management. That is the result of a survey published by Ernst & Young in March 2006.

**Q: Do you agree or disagree with the view that it is worth paying a premium for companies that can demonstrate a successful approach to risk management?**

- Strongly agree (31%)
- Agree somewhat (51%)
- Disagree somewhat (6%)
- Strongly disagree (7%)
- Not specified (5%)

Source: Ernst & Young



## Stakeholders

**“We cannot tell the insurance industry how to implement their risk-management process; we are interested in the results.”**

Mark Puccia

**“Successful risk management means that the diversification credit is not neutralised by operational risk.”**

William Hawkins

### Rating agency view

Mark Puccia, Standard & Poor's

According to Mark Puccia, Managing Director at S&P, risk management is at the heart of what Standard & Poor's does. “We assess insurers' risks and how risks are managed. The criteria for S&P ratings are very much focused on strategic risk management as well as on financial market indicators (e.g. credit risk, interest-rate risk, equity risk). S&P defines four classes of risk evaluation: excellent, strong, adequate, weak. By October 2006, the rating agency accomplished an evaluation among 207 insurers. At first sight, the findings looked very skewed: only about 15% of the companies had an excellent (3%) or strong (12%) risk management, while 80% were evaluated as adequate. After having examined the data more closely, Mark Puccia expects a shift from adequate to strong within the next two years for quite a number of insurers. Many companies have the potential to be upgraded because about half of them are only one to two years away from fulfilling the criteria for a strong ERM.

Mark Puccia considers that companies with excellent or even strong ERM will have lower volatility of earnings, lower incidence of losses and will maximise their risk/return relationship relative to peers with weak or adequate ERM. That is why Standard & Poor's focuses so much on strategic risk management. To get the best results in this area, S&P believes that an insurer should have a robust, consistent and comprehensive view of all of their various risk positions. According to Mark Puccia, internal models will have advantages over the standard approach, for example when new products or investments are becoming major activities.

### Analyst view

William Hawkins, Keefe, Bruyette & Woods (KBW)

Since 1986 the stocks of European insurance companies have underperformed compared to other financial sectors such as banks. According to William Hawkins, a “sell-side analyst” at KBW, the insurance industry has been faced with a large number of or even too many learning experiences like the September 11 event, the bear market, casualty claims inflation, or other man-made or natural catastrophes (where losses peaked just recently).

Investors are interested in whether risk management generates value added and how this value added can be measured. Furthermore, William Hawkins believes that until recently most risk-management frameworks were still new and untested.

In addition, investors need more information than that which is publicly available. Financial analysts are the most frequent and interested end user of financial reports, but as William Hawkins provocatively asked: “...would you as an insurance company commit yourself to a business (or venture) if you only had publicly available information?” More dialogue and greater transparency would definitely help. Another critical aspect is that external results are still not comparable, neither in terms of the regional accounting framework (e.g. IFRS or local GAAP) nor of internal and external points of view. Risk-capital disclosure must be consistent with other publicly disclosed data if we want it to be used in a valuable way.

**“A risk-management audit in one day is like doing Europe in three days – some like it, some do not.”**

Gerhard Stahl

By now European insurance stocks are still valued at a discount. Investors still do not see enough sustainable or impressive results. However, they need and expect meaningful, reconcilable and substantial results. William Hawkins judged the prospects of European reinsurance companies in particular as positive.

**Supervisory authority view**  
**Gerhard Stahl, German Federal Financial Supervisory Authority (BaFin)**

“Why should you love your regulator?” This was the question Gerhard Stahl, Head of the Risk Modelling Group at BaFin, asked the audience at the start of his presentation at the CRO Assembly. He takes the view that regulators can contribute to optimising the risk-management process. While an audit of a rating agency takes between several hours and two days, a BaFin audit will take approximately ten weeks for large groups and involve ten people, depending on the size of a company.

According to Gerhard Stahl, audits are an interactive process between institutions and regulators. “Our auditors are consultants and provide special knowledge, particularly with respect to quantitative analysis of internal models. Furthermore, while investors are not interested in processes, regulators are primarily interested in processes and how you can audit them.”

The benefits for insurers of system-based auditing are as follows:

- A positive, permanently developing instrument which takes into consideration the future strengths of the control system
- Providing preventive steps rather than listing errors for management
- Need for the auditor to understand the systems and the client’s needs
- Auditors as experts in control rather than management inspectors, acting as a key management aid
- Efficient use of auditing resources, looking for the origin of problems and not for subsequent errors

**Policymaker view**  
**Evelyne Massé, European Commission**

“The Quantitative Impact Studies (QIS) run by CEIOPS will be the key input in assessing the quantitative impact of the proposal”, said Evelyne Massé, policy officer at the European Commission. The QIS aims to assess the workability of different frameworks, identify design and calibration issues, and estimate the possible impact of different technical options. While two QIS studies have been completed, a third will be launched in April 2007. Evelyne Massé appealed to the insurers to participate in QIS 3 because the results are an important input to support the process and in the long run make sure that Solvency II fulfils the needs of the European insurance industry.

Rating agencies and supervisory authorities subject risk management in companies to microscopic analysis so that they can judge the quality of the risk management. Whereas an audit by the German Federal Financial Supervisory Authority (BaFin) can take up to ten weeks depending on the size of the company, Standard & Poor’s claim about two days.

<b>Common features and differences</b>	
Basically comparable: Audit topics	
<b>BaFin (internal models)</b>	<b>S&amp;P (ERM)</b>
Structure and process of organisation; change of organisation	Risk management culture
Aggregation and reporting processes (bottom-up)	Risk capital models, emerging risks management
Strategy and control of risk (top-down)	Risk control processes, strategic risk management
Basically different: Audit depth (previsit vs. audit) and supervisory tools	

## Workshops

### Wisdom of crowds or why are we not better off finding an expert to make all the hard decisions?

Manuela Zweimüller, Munich Re

“Act before you have to, and don’t stop thinking about tomorrow” were the key messages from Manuela Zweimüller, Head of Risk Identification and Control at Munich Re introducing the following four workshops on key emerging risks. New technologies, globalisation and facilitated communication via the internet, as well as a stricter regulatory environment and the increasing importance of shareholder value together lead to increasing the complexity of risks. This dramatically impacts and changes the current risk landscape. Simple Big-Bang-type events in the past slowly change their face and become more demanding in terms of the nature of risk and time horizon.

One of the most important issues for future risk management relates to cross-line, cross-segment and cross-balance-sheet correlations, the prime example being the September 11 event.

Munich Re assesses correlations between loss structures and financial markets very closely, e.g. for NatCat and pharmaceutical risks.

Manuela Zweimüller believes that scenario planning is the key to success. It allows us to explore and prepare for alternative future scenarios. Even more importantly, as Zweimüller pointed out, “We should not rely on the wisdom of one or two experts or leaders when we have to make difficult decisions. Because together all of us know more than any one of us.” It has become increasingly recognised in behavioural economics that the statistical average of a group’s individuals is frequently more accurate than those of individuals themselves. Indispensable group characteristics and thus prerequisites for using such a decision-making tool are as follows: the group has to be big enough, heterogeneous, unbiased, independent in decision-making and decentralised. Information markets which function like stock markets may become a useful tool for assessing probabilities.

“Scenario planning is a systematic tool for managing the unknown.”

Manuela Zweimüller

### Munich Re takes the lead at the CRO Forum’s Emerging Risks Initiative in 2007

Emerging risks are by far the biggest challenge for the insurance industry. Therefore, in 2005 the CRO Forum established the so-called Emerging Risks Initiative (ERI). Partner organisations represented in the Emerging Risks Initiative are Allianz, AXA, Chubb, IAG, Munich Re, RSA, Swiss Re and Zurich Financial Services.

The goal of this independent network is to:

- raise awareness and promote stakeholder dialogue;
- develop best practice solutions;
- standardise disclosure and share knowledge of key emerging risks.

The results of the Emerging Risks Initiative will be made available to the insurance industry worldwide, for example by issuing so-called CRO-briefings.

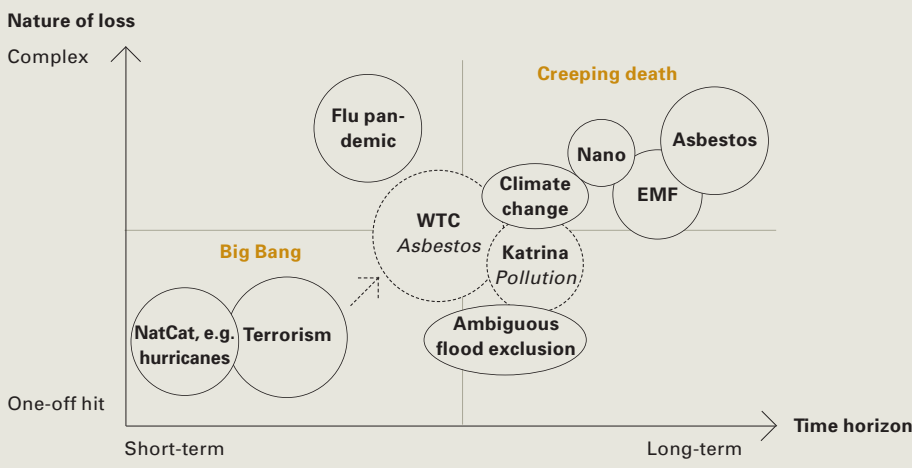
[www.croforum.org](http://www.croforum.org)

#### Related Munich Re publication:

Topics 2/2005

Emerging Risks, Pharmaceutical Risks

### Increasing complexity of risks changes the risk landscape



Nowadays, even Big-Bang types of risk can easily develop into complex loss structures. The big danger, however, is that most emerging risks tend to creep up almost imperceptibly and are often underrated for too long, a prime example being climate change.

Source: Munich Re

**“We are used to analysing developments in tort law and developments in insurance of the person separately but we need an integrated approach.”**

Christian Lahnstein

**Megatrend personal injury**

**Speaker: Christian Lahnstein, Munich Re/Moderation: Richard H. Murray, Swiss Re**

Compensation of personal injury is increasingly becoming a central issue facing insurers worldwide. According to Christian Lahnstein, Head of Risk, Liability and Insurance at Munich Re, there are several developments which confirm this megatrend. Firstly, tort law extension is ongoing: only in the USA and Australia does tort reform mean limitation of tort law, or at least the attempt to limit it. Secondly, “the end of the welfare state”: the less compensation is granted under social security, the more victims rely on tort law, and there are unlimited fields for public-private partnerships. Thirdly, medical inflation is climbing faster than general inflation: in the USA it grew twice as fast between 1975 and 2005. In industrialised countries, diseases that are difficult to prove or disprove, like burnout, back/neck pain, and depression, represent an additional problem.

On top of this, access to information has improved. The internet facilitates the organisation of victim associations and accelerates certain trends in claims behaviour.

Worldwide loss developments affect private insurance in different ways because of the diversity of market structures – historical jungles which will not be harmonised even within the EU. In this context, Christian Lahnstein’s presentation exemplified the rise and fall of asbestos-induced cancer in the four countries UK, US, France and Germany.

Summarising the results of the workshop, moderator Richard Murray said: “It is obvious from examining the systems in various countries that there are significant differences.”

Thus, CROs need to study the dynamics of liability trends in the USA as well as in Europe and developing countries because the latter are continuously refining their tort systems that also incorporate elements of US practices.

**Key messages**

- European and developing countries have specific, home-made dynamics. At the same time, they are exposed to the US tort system, e.g. through product and securities distribution.
- The megatrend of personal injury is a challenge for the insurance industry in both industrialised and developing countries. Reasonable estimates can only be achieved after thoroughly investigating specific market conditions.
- The global insurance industry should support the “liability regimes” initiative of The Geneva Association in association with Munich Re, Swiss Re, SCOR, Zurich Financial Services and RSA.

**Related Munich Re publication:**  
Annual Liability Conference 2005  
How to better react to developments in liability and insurance

**Asbestos consumption in 1,000 metric tons**

- Worldwide
- USA
- Europe

Source: US Geological Survey

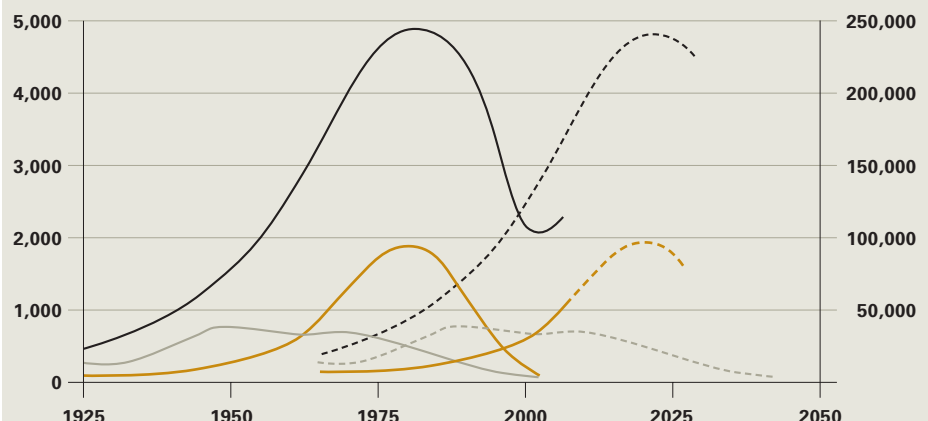
**Manifestation of asbestos-induced cancer**

- - - Worldwide
- - - USA
- - - Europe

Source: ILO (International Labour Office)

The correlation between asbestos consumption and asbestos-induced illnesses has been confirmed, the time lag between exposure and the onset of disease being 30 years on average. The fact that the consumption curve has risen again over the past few years gives even more grounds for concern.

**Rise and fall of asbestos consumption and asbestos-induced cancer**



**“Insurers need to take a closer look behind the general trend of lower consumer price inflation.”**

Clemens Muth

**Tackling macroeconomic trends and tail risks**

**Speaker: Clemens Muth, Munich Re**  
**Moderation: Thomas C. Wilson, ING Group**

“The number of so-called wild cards at the tail has increased significantly,” said Munich Re chief economist Clemens Muth at the workshop on macroeconomic risks. On the eve of 2007, he highlighted the most crucial tail risks, which include low-occurrence probabilities as well as those with high or even hardly known loss potential. The list is long: geopolitical risks (terrorist attacks Iraq, Iran, or Northern Korean issues), a possible US recession triggered for example by a slump in housing prices, the US twin deficit, unusually low credit spreads, the development of energy prices, a global pandemic and the structural change in the credit market and more.

Last year’s global financial markets saw a tremendous change in the structure of credit markets towards more efficiency, with extremely high growth rates in credit derivatives. While this trend is generally positive, today it is also less transparent who is the ultimate holder of the credit risk in

the market and what will be the behaviour of those institutions in an economic downturn. “We are in uncharted territory, liquidity risk is the issue,” Clemens Muth concluded, referring also to the current level of volatility in the market.

While participants concurred that the general trend of increased disintermediation in capital markets was positive in terms of a more efficient use of capital, they also agreed about the inherent risk of these developments.

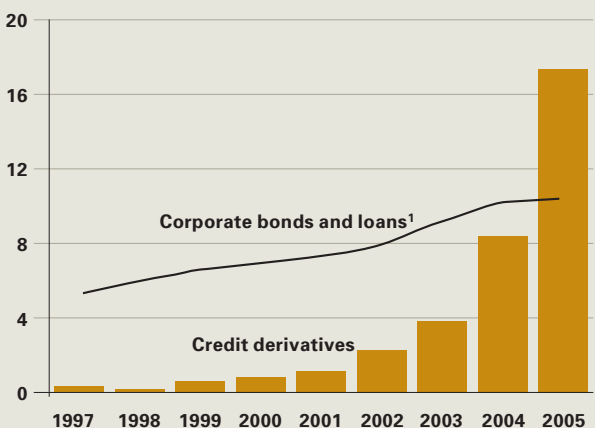
The discussion focused on whether liquidity risks are adequately addressed by financial markets participants and especially insurance companies. Tom Wilson, CRO of ING Insurance and currently Head of the CRO Forum, asked the group if the liquidity risk could be separated from the general issue of market risk and if this wasn’t part of a broader debate about the industry’s appetite towards market risk. The majority of workshop participants thought that insurers are not the best owner of market risks. The reason behind this was the concern as to whether insurers are able to adequately price these risks relative to banks, which structure and sell the risk, as do other financial market participants.

**Key messages**

- Tail risks are gaining importance in the world economy.
- Liquidity risks are often underestimated in the current market environment.
- Risk management needs to find solutions to model these tail risks.

Clemens Muth, Munich Re’s chief economist, also cited structural disinflation as one example of the type of macroeconomic trend risks that could be observed globally since the late 1970s. The spread of the new paradigm of anti-Keynesian inflation targeting and monetarism in global monetary policy, increased trade and new market entrants (especially from Asia), deregulation and lower transportation costs (most associated with the term “globalisation”) are among those factors which contributed to the global reduction in inflation rates. But insurers need to take a closer look behind the general trend of lower consumer price inflation. A case study conducted in the French market shows that there is a significant discrepancy between common consumer price indices and claims inflation. Insurers are therefore faced with the fact that claims inflation is not included adequately in pricing and reserving especially in casualty lines if the CPI is used as a proxy. Participants confirmed this view with examples from other countries, and the group concluded that there is a latent risk of underestimating long-term trend risks.

**Global credit derivatives outstanding (in US\$ trillion)**



**The volume of credit derivatives has risen sharply since the start of the century.**

Source: International Monetary Fund  
<sup>1</sup>Data for 2005 are only available up to the third quarter.

**Natural disasters and climate change**

**Speaker: Peter H"oppe, Munich Re**  
**Moderation: Andreas Gr"unbichler, Zurich Financial Services**

The year 2005 made history in terms of intensities, frequencies as well as damage and losses caused by weather extremes. "Since 1950 great weather disasters have increased significantly", Peter H"oppe, Head of Munich Re's Geo Risks Research Department pointed out. Climate change is not a new phenomenon, but almost all of the leading insurance and reinsurance companies classify this issue as an emerging risk with high importance. Man-made climate change will strongly impact economies and the insurance industry.

According to Peter H"oppe, the main drivers of increasing losses are: the rise in global population, better standards of living, the increasing concentration of people and values in urban areas, settlement in and industrialisation of extremely exposed regions, the susceptibility of modern societies and technologies to natural hazards and changes in weather patterns. Of course, also increasing insurance densities cause higher insured losses.

Workshop participants questioned whether natural catastrophes will be insurable in the future. At least for certain lines of business, e.g. property insurance, and in particularly exposed areas there will be challenges. In some parts of the world, for example in flood-prone areas or in high-frequency storm areas, the insurance industry cannot carry the full burden forever. Cession limits, liability limits, deductibles, improved accumulation control and other measures will be introduced by the industry. Besides this, in extremely exposed areas partnerships involving policyholders, insurers and governments will be needed. The communication of hard facts and economic and insured losses is important in order also to trigger political action.

Peter H"oppe underlined the importance of raising awareness, an area where insurers are very active nowadays – Munich Re has been warning of these trends since the early 1990s.

**Related Munich Re publication:**  
 Topics Geo  
 Natural catastrophes 2006  
 Analyses, assessments, positions  
 will be published in February 2007

**Key messages**

- Natural catastrophes, especially weather-related events, are increasing dramatically in number and magnitude. Loss potentials have reached new dimensions.
- Climate change is happening already. It can no longer be stopped, just attenuated.
- There is more and more scientific evidence for causal links between global warming and increasing frequencies and intensities of natural catastrophes.
- Risk models have to be adapted to the changing hazard situation.
- The insurance industry is very powerful in supporting climate protection. Munich Re has been for many years and will in future be one of the key players.

**"Man-made climate change will strongly impact economies and the insurance industry."**

Peter H"oppe

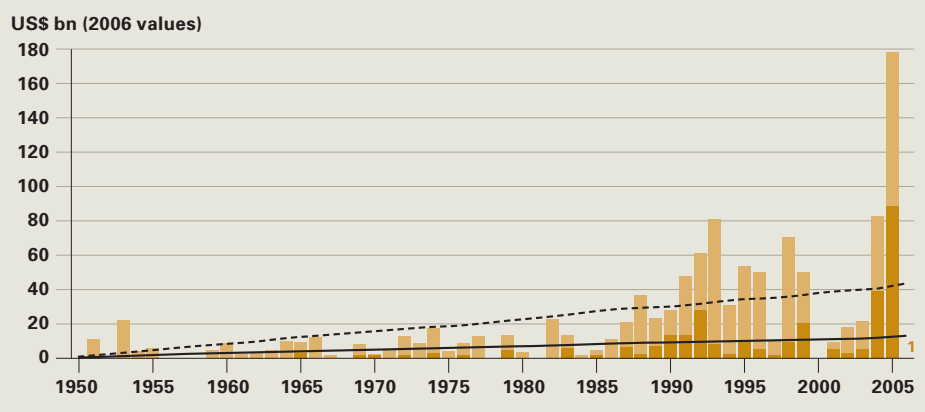


Since the early 1990s the economic and insured losses from great natural catastrophes has increased significantly. 2005 was the costliest natural catastrophe year of all time for the insurance industry, with losses of more than US\$ 85bn.

Source: © NatCatSERVICE, Geo Risks Research, Munich Re

**Great weather disasters 1950–2006**

Economic and insured losses



**“Research into mortality trends is an important task, but a simple actuarial extrapolation will not be comprehensive enough.”**

Achim Regenauer

**Increasing longevity – Increasing obesity**

**Speaker: Achim Regenauer  
Munich Re/Moderator: Joachim Oechslin, AXA Group**

The USA and Europe have been faced with two major trends: on the one hand, more and more people are becoming obese. On the other hand, life expectancy has increased significantly. Both developments are highly relevant to the insurance industry. According to Achim Regenauer, Munich Re’s Chief Medical Director, research into mortality trends is an important task, but a simple actuarial extrapolation will not be precise enough unless major medical achievements are also taken into account. In the workshop, Achim Regenauer questioned whether obesity will cause a slowdown in the longevity trend in the western world. There is no simple answer. Workshop participants produced several arguments listed below.

Workshop participants also worried about the negative consequences, for example, for products liability and workplace discrimination in addition to life and health insurance. Joachim Oechslin, AXA Group’s deputy CRO summarised the results as follows: “The increasing longevity trend will continue – at least in the short and medium term – as a result of rising awareness, better education and already surfacing social pressure. However, the trend is by no means linear; therefore, the insurance industry needs to monitor the development closely.”

Since obesity is a risk factor for cardiovascular disease and cancer and a hallmark of secondary diseases such as metabolic syndrome and diabetes mellitus, detrimental effects on life expectancy in the medium term cannot be excluded.

**Current trend will continue, at least in the short run:**

- Medical progress will evolve further.
- Awareness of obesity will increase due to better education at school, public authority initiatives, food labelling, altogether resulting in preventive actions or lifestyle changes.
- Taxes on soft drinks could also change consumer behaviour.
- The appearance of obesity-related diseases are subject to a time lag.

**Current trend may slow down in the long term:**

- Following the USA, Europe and other countries will face an increasing obesity trend.
- Drug development takes a long time and current treatment options usually do not have a lasting effect, combined with behavioural changes that are not sustained over time.
- Obesity is a risk factor which over time leads to serious secondary diseases such as diabetes, exposing younger people longer to accompanying detrimental effects.

**Key messages**

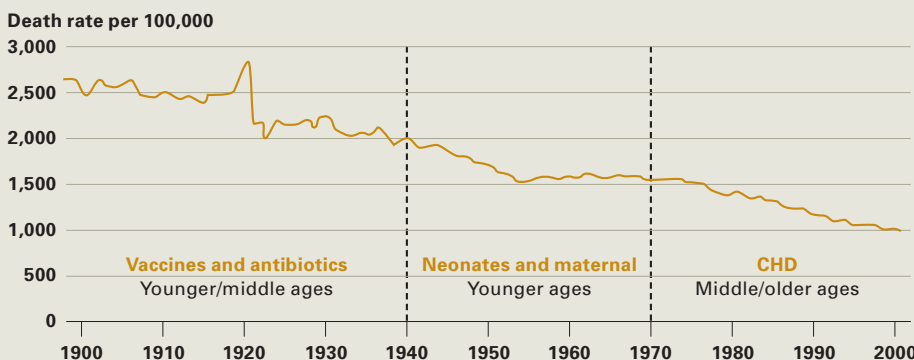
- There is an exploding obesity epidemic in the USA.
- This epidemic is now also emerging in Europe, as well as in many regions of the world.
- The succeeding generation will most likely exceed the current population’s level of obesity.
- Lifestyle factors and behaviour are the major culprits – A change can only be achieved with financial incentives.
- There are some signs of a deterioration in mortality rates in the USA.

Regenauer presented a first analysis of mortality figures in the USA, showing that there was a decreasing mortality improvement for the male age group 45–60 years and even a mortality deterioration for women in the same age interval between 1992 and 2002. It remains to be seen how these first signs will develop further, but he expressed certain concerns about the fact that children in western countries are already developing obesity.

Unlike the current adult generation, they are exposed to at least two more decades of harmful effects of obesity to health and life.

**Mortality in the 20th century**

Age-standardised death rates, US male



— All causes

Age-standardised death rates have fallen steadily in the 20th century. The key factors determining the decline were largely medical advances – shown here as major achievements such as vaccines and antibiotics, improved hygiene and neonatal and postnatal care, as well as improved diagnostics and methods of treating coronary heart diseases.

Source: CDC, USA

© 2007

Münchener Rückversicherungs-Gesellschaft  
Königinstrasse 107  
80802 München  
Germany  
Tel.: +49 (89) 38 91-0  
Fax: +49 (89) 39 90 56  
<http://www.munichre.com>

**Responsible for content**

Integrated Risk Management  
Charlie Shamieh  
Tel.: +49 (89) 38 91-88 88  
Fax: +49 (89) 38 91-7 88 88  
Manuela Zweimüller  
Tel.: +49 (89) 38 91-35 87  
Fax: +49 (89) 38 91-7 35 87

**Editor responsible**

Karin Gross-Kaun (address as given above)  
E-mail: [kgross-kaun@munichre.com](mailto:kgross-kaun@munichre.com)

**Printed by**

Druckerei Vogl  
Tölzer Strasse 5a  
81379 München  
Germany

**Picture credits**

Cover: Oliver Soulas

© 2007

Münchener Rückversicherungs-Gesellschaft  
Königinstrasse 107  
80802 München  
Germany

Order number 302-05241