



# The Geneva Association

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*General Assembly*

***review***  
2010

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## The Geneva Association

(The International Association for the Study of Insurance Economics)

The Geneva Association is the leading international insurance “think tank” for strategically important insurance and risk management issues.

The Geneva Association identifies fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. Through the development of research programmes, regular publications and the organisation of international meetings, The Geneva Association serves as a catalyst for progress in the understanding of risk and insurance matters and acts as an information creator and disseminator. It is the leading voice of the largest insurance groups worldwide in the dialogue with international institutions. In parallel, it advances—in economic and cultural terms—the development and application of risk management and the understanding of uncertainty in the modern economy.

The Geneva Association membership comprises a statutory maximum of 90 Chief Executive Officers (CEOs) from the world’s top (re)insurance companies. It organises international expert networks and manages discussion platforms for senior insurance executives and specialists as well as policy-makers, regulators and multilateral organisations. The Geneva Association’s annual General Assembly is the most prestigious gathering of leading insurance CEOs worldwide. Established in 1973, The Geneva Association, officially the “International Association for the Study of Insurance Economics”, is based in Geneva, Switzerland and is a non-profit organisation funded by its members.

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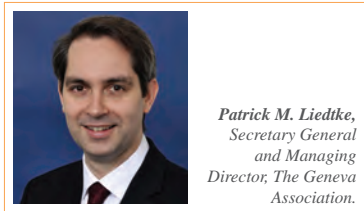
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# Introduction

## Foreword from the Secretary General

<b>INTRODUCTION</b>	Page 3
Patrick M. Liedtke	
<b>SECTION 1</b>	Page 6
<b>REGULATION</b>	
Dr Therese Vaughan Prof. Henri Schwamm Geneva Association Commentary	
<b>SECTION 2</b>	Page 11
<b>CLIMATE CHANGE</b>	
Walter Stahel	
<b>SECTION 3</b>	Page 15
<b>LIABILITY</b>	
Michael McGavick Rick Murray	
<b>SECTION 4</b>	Page 19
<b>DEMOGRAPHICS</b>	
Prof. Henri Schwamm	
<b>SECTION 5</b>	Page 21
<b>OPPORTUNITIES FOR INSURANCE</b>	
Christopher Condron Dominic Christian	
<b>PUBLICATIONS</b>	Page 25
<b>UPCOMING CONFERENCES</b>	Page 27



### Foreword from the Secretary General

I am pleased to welcome you to The Geneva Association's annual General Assembly review 2010.

The 37<sup>th</sup> General Assembly of The Geneva Association in Zurich brought 56 insurance CEOs together, more than ever before, and this despite the fact that for almost 20 years, the statutory limit to the number of members in the organisation has been static at 80. The review aims to provide the reader with a window onto this special meeting of the world's insurance leaders and to highlight some of the key strategic issues under discussion. Perhaps some of the issues covered will not surprise the reader; hardy perennials like demographics, regulation and business opportunities are regulars on the agenda, but there are also new kids on the block, climate change and liability are two examples in this review. Against today's backdrop of fast-moving social, economic and environmental change, the discussions at the General Assembly reflect the most current thinking on these strategic issues, new and old. That is why we wanted to offer a review, to open out a selection of these discussions for other stakeholders in our vital, diverse and socially important industry.

That a larger share of the world's insurance leaders attended the meeting to share their views, to take part in the discussion sessions organised and to debate the strategic issues defining the future of the industry is not only a sign of the relevance of The Geneva Association in these discussions but also a reflection of

the times. The past 12 months have been especially intense for the insurance industry. On the one hand, the brunt of the credit crisis is over and following a period of very active crisis management and concerns about survival strategies, companies have begun looking forward again with more optimism and are getting ready to exploit a post-crisis world where new business opportunities and prosperity await. On the other hand, public policy efforts to draw the right lessons from the crisis, to improve the stability of our global financial system, to set the right incentives for economic risk-takers, and to properly regulate the financial sector have just begun.

Although the large majority of new initiatives to increase financial stability and economic resilience are triggered by the massive failures that emanated out of banking activities, their effects are already buffeting the insurance sector and will continue doing so. Insurers need to find out which new initiatives under discussion amongst policy-makers and regulators will affect their industry, how they will impact the business, how they should respond to it—both to regulation under discussion and to regulation to be implemented—and then define the relevant action points. What is different concerning this crisis is not only the degree to which insurance companies are affected by the global crisis and the emerging regulatory debates, but also the way in which these initiatives are now applying to virtually all insurance companies regardless of size or domicile. Confronted with this new reality of global and encompassing regulation, insurers have realised that they need to be more proactive on the global stage. This is a development that has reinforced the role of The Geneva Association as the global membership organisation for insurance industry leaders—a function that is best reflected by the annual General Assembly.

However, while the insurance industry wants and needs to play a more

## Introduction

### Foreword from the Secretary General (continued)...

active role in the global financial debates, some very relevant non-insurance actors (like the Financial Stability Board (FSB), and many central banks) seem to believe that the new financial stability architecture does not need insurance.

Unfortunately these are some of the most influential actors driving the development of the new international financial stability architecture. They largely accept the analysis of The Geneva Association that insurance activities do not pose systemic risk to the financial system but unfortunately they erroneously deduct from it that

insurance plays no significant role for financial stability. Consequently, if insurers do not trigger financial instability they need not be involved in any discussions about it. While this might seem vaguely plausible at first sight, it is nevertheless wrong.

True, insurers do not pose any significant systemic financial risk in the same way banks do. However, insurance companies have an important role in how any financial crisis might play out. Insurance companies, faced with an ongoing financial crisis, can act as potential multipliers of the crisis, either exerting a stabilising

effect or potentially amplifying any problems. This depends on the exact nature of the crisis and the mechanisms that will dominate the decision-making processes at the insurance companies, which include pressure from the relevant outside agencies such as regulators and supervisors. While in this respect more research is clearly needed—especially to use the potential function of insurance companies as circuit-breakers—one only has to picture what would happen in a severely depressed market if large (life) insurers were pushed to eliminate long-term investments to meet short-term solvency requirements.



Tony Blair, former Prime Minister of the United Kingdom addresses the General Assembly | June 2010.

In as much as any rigorous and comprehensive catastrophe risk management plan requires the integration and cooperation of all concerned parties—and not only those that pose the original risk!—insurers need to be part of ongoing discussions about the international financial stability framework and any plans that define the operations of the financial markets where they play such an important role. On the investment side alone, insurers manage something in the region of 11 per cent of world assets, not to mention their role in protecting other parties' assets too. It would not only be extremely short-sighted to exclude the knowledge that insurers have in managing financial risk and especially tail risk—an understanding so much in demand precisely when events move into the tail of the probability distribution—it would also be counterproductive to the stability of the system if one of the potential sources of re-stabilisation, or an element that if mismanaged during a crisis could multiply negative effects, were not consulted properly on all aspects of the new financial architecture. The new financial stability architecture must have adequate insurance participation.

The Geneva Association has been occupying a crucial place for the insurance industry as the intellectual centre for advanced research into strategic insurance and risk management issues. While very limited in its

## Introduction

### Foreword from the Secretary General (continued)...

“Confronted with this new reality of globally and comprehensively encompassing regulation, insurers have realised that they need to be more proactive on the global stage.”



Mr Kunio Ishihara, Joint Chairman of The Geneva Association's Climate Change and Insurance Project, Chairman of the Board, Tokio Marine & Nichido Fire Insurance Co., presenting climate change and insurance issues at the General Assembly press conference.

own resources to carry out research, it has played an important role in identifying new challenges, helping to prioritise them and setting up industry-wide initiatives as a catalyst for change. Its capacity to organise global high-level discussion platforms for the industry and its key stakeholders, including in particular regulators and supervisors, has become an even more valuable asset to the industry but also to the larger economic system, its performance and future development. To aid in this mission, The Geneva Association has complemented its traditional role as a distributor of high-quality information on insurance matters by emphasising its position as champion of insurance through more advocacy.

There is no doubt that a deeper and more nuanced understanding about the role that insurance and insurance companies play for modern economic systems is required. Most observers agree that the performance of our financial and social systems and their ability to cope with adverse situations and spontaneous stress can be considerably improved. Many solutions will find their way in exactly the area that generated the

problems in the first place. However, for many others the solution will have to be an added dimension of good risk management and probably also some specific insurance mechanisms that will allow our societies to cope with the challenges than an uncertain future brings. The resilience not only of our financial architecture but that of societies in general depends on an appropriate toolbox to avoid danger, mitigate the consequences of disasters and deal with any remaining fall-out. As insurance plays a key role for the functioning of many markets, its possible contribution needs to be better taken into consideration and made an inherent part of coping strategies. The Geneva Association has been working on this set of issues intensively and will continue to do so. At the same time, it encourages any third party to share its views and contribute to the wider discussions. The 37<sup>th</sup> General Assembly of The Geneva Association in Zurich has been an important energiser in this respect.

I hope you enjoy the review.

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## Section 1 Regulation

### The Importance of Setting Proper Group Supervision, Supervisory Cooperation and the Role of Regulatory Capital Requirements

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*Dr Therese  
M. Vaughan  
NAIC Chief  
Executive Officer.*

**Zurich, 3 June 2010**—These are historic times for regulation and supervision in financial services, including insurance. Supervisors in all sectors are engaged in a process of self-examination, both domestically and globally. Over the next several years, insurance supervisors will collaborate in the development of systems to supervise internationally active insurance groups. As this work is undertaken, it is important that we all remember that insurance is not banking. The banking sector has a long history of banking crises and of policy-makers adopting reforms to prevent the next crisis. Prior banking reform efforts have been unsuccessful in preventing (and arguably exacerbated) the next crisis, and there is no guarantee that current reform proposals will be any more successful.

The problems at AIG reinforced the importance of having a better understanding of the risk profile of the group as a whole—that is, opening up the “window” to the rest of the organisation. It is important to note that this is not group supervision **instead of** focusing on the regulated entities. This is group supervision **in addition to** focusing on the regulated entities. Another lesson we learned in the financial crisis is that corporate structures **do** matter. When the music stops, it matters where the money is; one cannot ignore the legal structure. However, it is important to find the right approach to group supervision, an approach that builds on and does not duplicate work already performed in the process of supervising regulated entities.

“The alternative to a single supervisor model is a robust system of coordination among supervisors globally.”

It is widely recognised that the insurance sector has come through the financial crisis relatively well. The most notable exception was American International Group (AIG), which required a large bailout from the U.S. government, although the failures were in the noninsurance operations of the group. There are a number of lessons to be taken from the near-failure of AIG—lessons about how one supervises systemically important financial institutions, about regulatory arbitrage, about the importance of cross-sectoral regulatory cooperation and communication, and so forth. For insurance supervisors, the most important lessons relate to group supervision and supervisory cooperation.

Given the multitude of supervisors that are involved in supervising a globally active group, a system of group supervision could easily become unwieldy without strong supervisory cooperation. Creating a workable, cooperative system for supervising internationally active insurance groups must be a top priority for insurance supervisors.

## Section 1 Regulation (continued)...

### The Importance of Setting Proper Group Supervision, Supervisory Cooperation and the Role of Regulatory Capital Requirements

Also, supervisors do make mistakes. They can fail to identify a problem, identify the wrong solution, or fail to implement a solution. In part, this is because regulators are human and thus fallible, but they can also be subject to perverse incentives, such as political influence and regulatory capture. The recognition that supervisory failure was a contributing factor in the financial crisis motivates much of the current reform activity. The more concentrated the regulator, the more likely these problems exist. The larger the global footprint of the insurance group, the more likely the costs of failure will be high.



The alternative to a single supervisor model is a robust system of coordination among supervisors globally. Supervisory colleges could form the basis for this global coordination, but much work remains to be done. The system can only work with a culture of free-flowing information sharing among supervisors, and supervisors must be willing to engage in frank discussions. Building such a culture will be a challenge. But, if successful, it can provide powerful incentives for good supervision. It would engage diverse perspectives in supervision, including supervisors who have different views of markets and how they operate, and supervisors who will look at risk through a variety of prisms. Peer pressure can address incentive issues, motivate regulatory action, and counterbalance political influence and regulatory capture.

As Sir Callum McCarthy, the former Chairman of the U.K. Financial Services Authority, opined: “national supervisors do not challenge each other’s decisions often or fiercely enough”; building a world in which supervisors can and do challenge each other should be a top priority.



Dr Therese M. Vaughan  
NAIC, Chief Executive Officer.

### The Role of Regulatory Capital Requirements

Regulatory capital requirements are not about co-managing a firm, but are rather about setting up a box in which the insurance industry can operate and then figuring out when regulators need to intervene.

In recent months, the Solvency Modernization Initiative (SMI) has precipitated a robust discussion in the U.S. on the role of regulatory capital requirements. While the discussion is ongoing, there is a strong view that their main purpose in the U.S. is to provide a clear threshold for regulators to take action or to assume control of the firm, a threshold that will stand if the regulators are challenged in court. To serve this role, regulatory capital requirements must be objective and not subject to debate, thus providing the clear authority to take over a company if need be.

Regulatory capital is only one tool. We need multiple tools that create diverse ways to look at a company. These include smart people asking the right questions, data analysis, on-site and off-site examinations, and peer review processes, among other things. The qualitative aspects of supervision are arguably more difficult, but in the end, they are critical to understanding the risk concentrations that are emerging at individual companies and across the industry.

### Conclusion

No system is perfect, and there are certainly opportunities for improvement in insurance supervision. But let us be careful that, as we do this, we do not inadvertently infect ourselves with the very illness that the bankers have not yet figured out how to cure.

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## Section 1 Regulation (continued)...

### The Geneva Association Addresses the G-20



Henri Schwamm,  
Columnist and Hon.  
Prof. of Economics  
at Geneva University.

*In the aftermath of the financial crisis, international regulatory bodies, policy-makers and central bankers have been looking at ways of preventing any further recurrence. With input from leading international bodies such as the IMF and the FSB, the measures under discussion at the G-20 have included new regulations designed to prevent the devastating effects of systemic risk on the financial system. Since early 2008, The Geneva Association has been working on financial stability issues, addressing the relevant national and international regulatory bodies as well as the central bank governors, finance ministers and leaders of the G-20 to highlight the key insurance issues in the systemic risk debate. The article below, from a leading academic and columnist in Switzerland, Prof. Henri Schwamm, demonstrates an academic's perspective of the Association's activities and examines the hurdles the industry still faces in addressing the most influential international regulatory bodies and decision-makers.*

“The IAIS has acknowledged the main conclusions established in The Geneva Association's report on systemic risk”

Insurers are taking a stand. Following the most recent pronouncement of their global regulator on financial stability—the International Association of Insurance Supervisors (IAIS), domiciled at the Bank for International Settlements in Basel—they have once again addressed the G-20 and, indirectly, the Financial Stability Board (FSB), through The Geneva Association (the International Association for the Study of Insurance Economics), their think tank and spokesperson in the ongoing and constructive dialogue that they have established with international financial institutions.

Why has this new initiative been undertaken? As strange as it might seem, the IAIS has only now understood the specific nature of insurance activities and their important contribution to worldwide financial stability. The change is clear in the position change from their October 2009 statement to their most recent in June 2010. The IAIS has acknowledged the main conclusions established in The Geneva Association's report on systemic risk, published in February 2010 in this latest report. It also details the insurance industry's business model, acknowledges the fundamental differences between banks and insurance companies, and recognises that, for the most part, insurance activities cannot be qualified as systemic and therefore do not present any risk of this nature. The IAIS specifies that, in most product categories, insurance does not generate or amplify systemic risk, be it within the financial system or in the real economy.

The insurers enjoying membership status within The Geneva Association are naturally delighted about the change of stance of their international monitoring authority. But they are clear that the battle has not yet been won—the threat of banking-style regulation has not yet been fully countered. This is even more relevant when taking into account the fact that the G-20 agenda is first and foremost a political one, therefore subject to global political pressures and horse-trading, and that the FSB, who has to prepare the files for the member of the G-20, is mostly made up of people who have academic training in finance but who, generally speaking, do not know how the insurance sector works and do not seem to demonstrate any inclination to examine its specific characteristics.

The Geneva Association, by approving the IAIS's stance in its 17 June 2010 letter to the G-20, and by reiterating the main arguments that it puts forth, wishes to achieve two aims: to establish itself as a key insurance and reinsurance counterpart to the G-20 and to serve as a catalyst to the FSB, enabling improvement in the understanding of risk and of insurance in the global economy. It is in the strong interests of the industry that its messages are heard internationally.

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## Section 1 Regulation (continued)...

### Two Important Initiatives of the IAIS



Prof. Jan Monkiewicz, Vice Secretary General and Head of PROGRES listens to the regulatory discussion session | June 2010.

“the systemic risk debate has revealed an alarming lack of insurance understanding and experience in some of the international regulatory and supervisory debates that have taken place since the credit crisis.”



Commentary by The Geneva Association.

As the leading insurance voice in discussions with the IMF, BIS and the FSB, the International Association of Insurance Supervisors (IAIS) plays a critical role in providing subject specialist regulatory advice on insurance to groups that otherwise have limited expertise of our vast but complex industry. Indeed, the systemic risk debate has revealed an alarming lack of insurance understanding and experience in some of the high-level international regulatory and supervisory debates that have taken place since the credit crisis. This shortfall has accentuated the importance of the IAIS's role as an expert body on the international stage and there are two key initiatives that it has undertaken that have been broadly welcomed by the insurance industry. They are, the current IAIS discussions and position statement

on systemic risk (see 4 June IAIS Position Paper) and the establishment of a Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame; see recent information release on process by the IAIS). These initiatives were discussed by Mr Yoshihiro Kawai, Secretary General of the IAIS during the regulatory meetings at the General Assembly.

#### Systemic Risk and Insurance

In parallel with the General Assembly of The Geneva Association and following months of intensive discussions, the IAIS released its position statement on key financial stability issues. In the statement, the IAIS assessed the potential for financial instability in the insurance industry and determined what, if any, regulatory and supervisory action might be appropriate. In doing so, the IAIS has examined risks and circumstances where systemic risk might apply to the insurance sector, regardless of whether these circumstances emanate from the insurance sector or are merely transmitted to the insurance sector from another financial sector. This analysis, under

the direction of the world's insurance supervisors, found that the insurance sector is susceptible to systemic risks generated in other parts of the financial sector. According to the IAIS there is little evidence of insurance either generating or amplifying systemic risk, within the financial system itself or in the real economy. They made clear that they believe that in circumstances where insurers may amplify risk, an effective regime of regulation and supervision can mitigate these possibilities. But they also believe that non-regulated entities of financial conglomerates and some specific activities (such as financial guarantee insurance) can generate or amplify systemic risk and may be instrumental to contagion within conglomerates or between sectors. As a result of these findings, the IAIS is promoting enhancements to supervision and supervisory processes, combined with stronger risk management and enhanced approaches that will help resolve or minimise adverse external influences. These enhancements include group-wide supervision (including non-regulated entities) and the development of the ComFrame. The IAIS is also promoting cross-sectoral macro-prudential

## Section 1 Regulation (continued)...

### Two Important Initiatives of the IAIS

monitoring of potential build-up of systemic risk and planning to develop measures for national authorities to assess degrees of systemic risk.

Whilst some of the systemic concerns of the IAIS differ from the conclusions of The Geneva Association's February 2010 systemic risk report, the Association has welcomed the fact that the IAIS took careful note of the insurance business model (including the differences and similarities to banking), analysed systemic relevance and systemic risk with regard to size, interconnectedness and substitutability, underlined the realities associated with the run-off or rehabilitation of insolvent (re)insurers and proposed supervisory enhancements, which are broadly supported by the industry.

These enhancements include group-wide supervision and the development of the ComFrame.

#### ComFrame

In contrast to the development and global expansion of internationally active insurance groups, insurance supervision has generally long remained a national matter focusing more on solo supervision. Challenges arising from the gaps that exist between the development and expansion of groups and the supervisory frameworks that apply to them (or lack thereof) were recognised by certain jurisdictions and/or regions represented in the IAIS. As a result, some of them have started to address insurance groups accordingly. Specifically, frameworks and/or methods for group-wide supervision have been or are now being developed and/or advanced in certain jurisdictions and regions. This has also led the IAIS to increasingly address group aspects in their work; nevertheless, still no internationally coherent framework is available. Developing an internationally coherent and better aligned approach to supervising internationally active insurance groups has become a key issue for supervisors.

On this basis, in July 2009 the IAIS undertook a project involving the design and practicality of a common assessment framework for insurance group supervision. The Common Assessment Framework Task Force (ComFrame TF) initiated its work by conducting a three-part survey to analyse existing and planned group supervisory frameworks of individual jurisdictions and regions, to assess specific case studies (including some cases related to the recent financial crisis), and to look at the ongoing related activities of IAIS Working Parties. Through this process, the IAIS identified significant issues that a new framework would need to address in order to provide supervisors with better and more effective tools for undertaking group-wide supervision of internationally active insurance groups. The process also shed light on the source of some of the challenges experienced with internationally active insurance groups, especially during the recent and former financial crises. These challenges stem on the one hand from the activities of groups, and on the other from the lack of a regulatory proactive approach or appropriate regulatory response.

Based on these considerations, the IAIS Executive Committee has initiated a new multilateral framework that reaches beyond the regulatory approaches of individual jurisdictions and regions. The framework needs to be based on and address the perspectives of both home and host jurisdictions and be fit for effective and wide implementation. The new framework will be called the Common Framework for the Supervision of Internationally Active Insurance Groups or ComFrame.

ComFrame is intended to provide supervisors with a supervisory framework for internationally active insurance groups. It will be multilateral in nature because it will set out common parameters for insurance group supervision for multiple jurisdictions, thus going beyond individual national or regional regulatory approaches and

it will provide a basis of operation for both home and host supervisors. Substantively, it will set out parameters for assessing the group structure and the group business from a risk management perspective as well as quantitative and qualitative requirements that are specific and focused but not rules-based. It will also cover the area of necessary cooperation among supervisors. This requires a clear definition of the scope of application and of the way ComFrame comes into operation. The structure and content of ComFrame will be adapted to further insights gained through the development process. Many aspects of ComFrame will work off the base line provided by the IAIS Insurance Core Principles (ICPs). The revised ICPs will be issued in 2011 and will address group-wide aspects. ComFrame will further draw from and be built upon the IAIS Principles on Group-wide Supervision (2008) and the Group-wide Supervision Framework (GSF) that is being established which elaborates on the application of the ICPs and supporting Standards and Guidance to insurance groups, whether they operate domestically or internationally. The GSF is being developed as an overarching guidance setting out the general cornerstones of group-wide supervision. ComFrame will essentially complement such work-streams by providing a more narrowly defined principles-based framework supported by specific and tangible benchmarks or parameters applicable to internationally active insurance groups.

Monica Maechler, Vice Chairman of the Swiss FINMA, is chairing the ComFrame initiative of the IAIS and attended The Geneva Association's General Assembly.

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## Section 2 Climate Change

### Road-Mapping Insurance's Role in Climate Change



Walter Stahel,  
Vice Secretary General,  
Head of Research  
Programme, The  
Geneva Association.

**Geneva, 10 May 2010**—For the insurance industry, the issue of climate change is not the scientific discussion around global climate change, but the quest for a road map to understand, prioritise and focus the role of insurance and in particular the contributions by insurers to mitigation and adaptation. The following analysis is a draft of just such a road map for insurers...

#### Global Climate Change— Mitigation

**Climate change in its purest form is about changes in:**

- the concentrations of greenhouse gases (GHG) in the atmosphere;
- average sea levels; and,
- average temperatures in air and oceans.

At this level, climate change can mainly be influenced by mitigation in the form of reductions of GHG emissions, and especially CO<sub>2</sub> into the atmosphere. Unfortunately, general risk management principles, which should be applied here, are ignored: prevention, such as energy savings, is the most efficient mitigation strategy. In addition, global per capita objectives, such as a 2000 Watt society,<sup>1</sup> are necessary to create a global acceptance of mitigation, as the less developed countries, most hit by climate change, have been the lowest emitters of GHG. Such levels of energy consumption can only be achieved in OECD countries by drastically reducing energy consumption through prevention, and not only through higher energy efficiency.

“By applying its basic strengths of risk engineering and loss prevention, insurance has been providing major contributions to climate change mitigation for a long time.”

**A number of actors can take mitigation actions on specific issues independently and in cooperation:**

- Politicians can legislate energy consumption and influence the choice of primary energy used. Hydro- and nuclear energy are extremely low-carbon; natural gas emits a third less CO<sub>2</sub> than oil, and oil is “cleaner” than coal. Politicians also have a major impact on GHG emissions in defining economic policy; China’s circular (or loop) economy, and the 2008 EU waste directive giving priority to the reuse and the service-life extension of goods, are key examples of mitigating GHG emissions.
- Science can help reducing GHG emissions, such as methane, one of the most aggressive GHGs. All ruminants produce methane in large quantities, but this quantity depends on the quality of the feedstock, and can be reduced for domestic animals.
- Economic actors in industrialised countries can greatly reduce GHG emissions by choosing low-carbon business models, which often necessitate a departure from the industrial throughput economy. The Performance Economy<sup>2</sup> shows a variety of resource-efficient business models that manage the energy embodied in physical assets, such as infrastructure and equipment. This results in a reduction of up to 80 per cent in GHG emissions, and similar reductions in water consumption and the

loss of rare earths, which are two bottlenecks that could materialise before peak oil. But these business models need a different, holistic approach to economic optimisation.

- Best available technology (BAT) can in many cases reduce GHG emissions by up to 80 per cent in technical applications which are generally considered as highly efficient, such as IT.<sup>3</sup>
- Communication can shift the discussion from “save the planet” to the derived impacts of mitigation measures to improve the quality of our daily lives (see the example of New York City in the next paragraph).

**What is insurance’s role in mitigation?**

- By applying its basic strengths of risk engineering and loss prevention, insurance has been providing major contributions to climate change mitigation for a long time. But prevention as a means of climate change mitigation is ignored by policy-makers and not put into the limelight by insurance companies. It does not receive any carbon credits in all existing schemes; the Kyoto Protocol does not even mention prevention. Sprinkler systems which, by containing an initial fire outbreak prevent huge GHG emissions in the reconstruction, in addition to preventing economic losses, are but one example.

<sup>1</sup> A term coined in the 1980s by Prof. Hans Peter Dürr, Munich, and promoted in the new Millennium by ETH Zurich, promoting an energy consumption of 2kWh per inhabitant, corresponding to the solar radiation arriving on earth.

<sup>2</sup> Stahel, Walter R. (2010) *The Performance Economy*, second edition, Palgrave Macmillan London.

<sup>3</sup> See IBM report summarised the May 2010 edition of the Risk Management newsletter.

## Section 2 Climate Change (continued)...

### Road-Mapping Insurance's Role in Climate Change

“The changes of average temperatures have hidden impacts that are not in the focus of researchers today.”



Michael Butt, Chairman of Axis Capital Holdings and Joint Chairman of The Geneva Association's Climate Change and Insurance (CC+I) project reports the findings of the CC+I breakout session to the Assembly.

- Insurers can also play a big role in promoting BAT in for instance IT server farms, and in the construction of plus-energy buildings. The effect of such measures is multiplied by integrating them into societal concepts, such as towns as resilient energy systems. Buildings designed as plus-energy (energy-autarkic) buildings, originally a “green” concept, has now been adopted by politicians, such as New York City Mayor Michael Bloomberg.<sup>4</sup> He prefers energy autonomous buildings to increase resilience in case of an electricity

blackout, which creates general insecurity in the streets due to lack of lighting, and emergency situations in the metro and buildings, shutting down safety-relevant systems and elevators as well as jeopardising critical hospital and computer centre equipment.

- Insurers can reward corporations applying resource efficient business models in their investments, but few indices exist on resource efficiency,<sup>5</sup> and sustainability and Corporate Social Responsibility (CSR) indices ignore the issue of resource efficiency. On the

political level, the recognition of resource efficiency and its impact on climate change is in its infant stage.

#### The First Derivative of Climate Change—Still Mitigation

Indirect changes attributed to global climate change can be observed in atmospheric currents, the best known being El Niño, La Niña and the jet streams being used by aircraft pilots to increase (ground) speed. These currents directly influence extreme weather events on a regional level,

<sup>4</sup> Mayor Bloomberg's PlaNYC crafts the 2030 plan for New York City.

<sup>5</sup> Resource Efficiency Index (REI) is proposed in the book mentioned in footnote 2.

## Section 2 Climate Change (continued)...

### Road-Mapping Insurance's Role in Climate Change



such as hurricanes in the Gulf of Mexico, storms in Europe, and subsequently rainfall and thus the scarcity or (over) abundance of water.

Similar changes occur in ocean currents, such as the Gulfstream, and in coastal areas where they cause erosion by rendering existing man-made defences, for instance on the Dutch coast, inefficient.

#### The Second Derivative of Climate Change—From Mitigation to Adaptation

From the second derivative onwards, adaptation measures become more efficient to fight some impacts of climate change on a regional basis, rather than mitigation with a global view.

The frontier between global climate change (mitigation) and extreme weather events (adaptation) has a specific meaning for insurance: risks from extreme weather events are sudden and accidental and thus insurable, those from climate change are gradual and foreseeable and thus mostly uninsurable.

#### What is insurance's role in adaptation?

- awareness raising and risk education, which implies that policy-makers collect robust data and make it freely available to allow risk assessment;
- risk-based premiums, by which insurers provide incentives for loss reduction decision-making;



- reducing potential risks to an insurable level is a prerequisite for many risks, insurance can and should be a strong complementary mechanism in a wider framework of adaptation;
- excluding coverage for houses in flood plains or other known hazard areas gives a clear signal, but requires the cooperation with authorities to impose zoning laws and building regulation.

#### Hazards derived from Climate Change in its purest form are impacts from:

- increased concentrations of GHG in the atmosphere;
- rising sea levels; and,
- rising temperatures in air and oceans.

Increased concentrations in GHG will affect flora and thus the food and feedstock supply, as will rising temperatures detailed in the following paragraphs.

A rise in average temperatures has direct impacts that include the melting glaciers and ice shields, as well as the thawing of permafrost sites. The famous Matterhorn in the Swiss Alps now has to be closed to climbers regularly in summer because it is disintegrating. In fact, the Matterhorn is not a rock formation, but a gravel heap kept together by permafrost. For the same reason, the safety of oil pipelines on stilts in Alaska is now being questioned, and a number of buildings and roads have had to be



abandoned in the Alps.

The changes of average temperatures have hidden impacts that are not in the focus of researchers today. Yet they include changes in fauna and flora, which in turn have impacts on human and animal health and the food chain. Termites moving North were one of the causes of the high death toll of the Hanshin earthquake in Kobe; termites can now be found in southern Europe as far North as Geneva. As multi-storey timber buildings are being promoted for ecological reasons in many European countries, this heralds potential problems (in the past, multi-storey timber constructions were prohibited for reasons of fire safety). Also, tiger mosquitoes responsible for dengue fever are progressing in lock-step with termites, and such invasive plants as Ambrosia, causing strong allergies, are proliferating on uncultivated plots of land in Europe.

Changes in average temperatures seem to be equally devastating in both directions; a study in Latin America has shown that one degree more or less than today leads to a rise in mortality of 5 per cent.<sup>6</sup> This would indicate that most societies live in balance with their climate; but any change in temperature will disturb this balance.

With regard to a rise in average sea levels, direct impacts include an increased vulnerability of low level deltas, islands and sea shores, but

<sup>6</sup> Raquel Szalachman, Economic Affairs Officer, Potential impacts of climate change on Latin American cities, Sustainable Development and Human Settlements Division, Economic Commission for Latin America and the Caribbean, United Nations, Santiago; presentation at the M.O.R.E. 23 Seminar Bogota.

## Section 2 Climate Change (continued)...

### Road-Mapping Insurance's Role in Climate Change



also question the survival of coral reefs, which are not rock formations but living organisms with a low growth rate.

The line between climate change and extreme weather events is disputed on different levels, including politics: whereas climate change is the domain of science and of the UNFCCC<sup>7</sup>, extreme weather events have been observed and researched for more than 100 years by meteorologists, who are organised in national Meteorological Offices under the umbrella of the World Meteorological Organization (WMO), a specialised organisation.

Since 1960, satellite meteorology has constantly improved the knowledge, but at the same time the collection of local weather data on the ground is hampered by a lack of funds.

Whereas the United Nations is using a top-down approach to communicate, WMO uses a bottom-up one.

#### The Regional Level of Extreme Weather Events—Adaptation

Many different phenomena are cohabiting on this level, including windstorms, hurricanes, hailstorms, wildfires. The most efficient strategy to deal with these events is adaptation, and insurance can play a major role, both in its relation with customers to promote individual loss prevention measures and in cooperation with governments to improve the development and application of zoning laws and building regulations.

All of these events have a potential impact on the economy, from agro- and silviculture to transport and manufacturing. And the economy also has an opportunity to limit these impacts through adaptation measures.

Insurance could exercise a role in loss prevention and adaptation measures. A safety and quality monitoring of the operation and maintenance of mission-critical infrastructures, such as rainwater run-off systems and pumping equipment, would guarantee the performance of these installations when needed. Insurance has played this role before, for instance at the beginning of the age of steam boilers, sea going vessels and eleva-

tors, even if these services were later transformed into such independent surveying companies as Veritas.

#### The local level of extreme weather events—Adaptation

Storm surges, flash floods, river floods, mudslides and avalanches are among the many events on a local level. And again, adaptation strategies are the most effective way to combat the impacts of local extreme weather events, giving insurance similar options as sketched out for the regional level.

**By way of a conclusion, a few bullet points from the Kyoto Statement of The Geneva Association may be quoted:**

- The insurance industry is uniquely positioned to provide specialised services for countries and businesses facing climate risks worldwide.
- Insurers have the expertise to develop a broad range of affordable private insurance solutions for climate risks.
- Innovative insurance products built on risk-based premiums will become available to facilitate efficient mitigation and adaptation solutions.
- The insurance industry is willing to design insurance products to support low-carbon energy development projects and to help attract investments to such projects.
- As a major institutional investor, the insurance industry encourages mitigation and adaptation efforts, such as investing in low-carbon energy and resource efficient business models. But the long-term return of such investments has to be comparable with present investments.

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<sup>7</sup> United Nations Framework Convention on Climate Change (UNFCCC) and its Intergovernmental Panel of Climate Change (IPCC) reports.

## Section 3 Liability

### The Future of the Liability Marketplace: The Darkening Clouds of Opportunity?



Mike McGavick,  
Chairman of the  
Board of Directors,  
XL Capital Ltd.

“...governments can be increasingly expected to use liability theory to redress the social ills they see.”

This is one of those extraordinary periods in which the forces that shape outcomes for liability insurers are under intense pressure.

Since the U.S. liability crisis of the 1980s, when pressures like retroactive pollution liability and runaway jury sentiments led to an acute capacity crisis, there has been long, slow and uneven improvement in the underlying conditions.

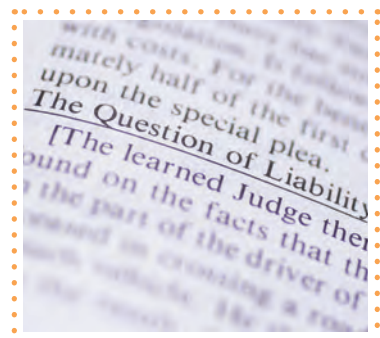
The industry's response to the crisis of the 1980s combined newly structured and well-capitalised markets, utilising different underwriting techniques. This was manifest in many ways, including the shift in corporate liability covers from frequency to severity oriented programmes. The insured community and the claimants bar rapidly adapted to the new conditions, resulting in a narrower but still severe crisis of volatile liability losses maturing in 1998-2002 from which the liability lines are only recently recovered and which produced new shifts in the terms and availability of liability coverage. This episode also reduced analyst confidence in the industry and suppressed Price/Earnings ratios.

Right now there is a dramatic, global return to negative trends underway. From the efforts to institute U.S.-style Board and Officer liability in the EU to the most recent appointments to the U.S. Supreme Courts, the liability reform progress of the past several decades is giving way to increased government-driven desires for systems of redress that have given pain to the private sector and its insurers in the past.

As was learned with the U.S. Superfund Program for hazardous waste clean-up in the United States, and as could be the fall-out of the environmental directives in the EU, liabilities can be created by legislators and courts long after the fact, leading to unexpected and underfunded liabilities that may be then transferred to insurers. The BP oil leak in the Gulf of Mexico presents a fresh and pointed example—after the U.S. adopted a US\$75 million cap on environmental liability to induce oil exploration firms to take risks, the President and Congress of the U.S. are seriously considering legislation to retroactively raise the cap more than 130-fold to US\$10 billion. BP based on its public statements to date does not appear even to be considering assertion of the US\$75 million cap as a defense to liability.

This threat is particularly potent at a time when governments around the world, reacting to the failures of the banking system in the late 2008, are both emboldened to increase corporate responsibility for contribution for various social purposes, and are strapped for cash themselves. Unable to pay for social needs they see as apparent, governments can be increasingly expected to use liability theory to redress the social ills they see.

These social ills, from obesity to corporate governance weaknesses, to climate change (to name but a few) are seen by governments as requiring correction. This is leading both to creative legal theories emerging in the U.S. Court system and the increasing curiosity about the advantages of such legal schemes in Europe, to the alarm of clients we seek to serve. And the trial bar is hard at work to create more transactional profits by exploiting these conditions.



## Section 3 Liability (continued)...

### The Future of the Liability Marketplace: The Darkening Clouds of Opportunity?



Mike McGavick, Chairman of the Board of Directors, XL Capital Ltd engaged in proceedings at the Assembly

## “For this is also an opportunity.”

Adding to the pressure is the reality of the need to bring down government debt levels at a time of likely slow economic growth (rates of growth likely to be further limited by increased capital standards and other regulation). This leads many to believe that we can expect a period of meaningful to high inflation, putting further pressure on the pricing and reserving for longer tail liabilities. These pressures are building, are in many ways interrelated, and are coming to bear at a time when current pricing for liabilities covers is already under severe pressure, reflecting increased competition in light of the relatively good industry results in recent years.

When these pressures boiled over in the 1980s, there was extreme dislocation in the insurance marketplace. Unexpected sources of loss were followed by panic and withdrawal of capacity. This, in turn, led to further dislocation, as those with legacy liabilities suffered and “clean” balance sheets gained market share. Bubbling out of the U.S., even venerable Lloyd’s was nearly destroyed. Millions, if not billions of premiums were lost, to this day, to alternative risk transfer strategies, whether through captives or other risk retention mechanisms. These events of the past stand ripe to be learned from and responded to in a way that could avoid a repeat of prior crises and allow for continuing availability of quality coverage.

For this is also an opportunity.

Clients are increasingly at risk, so, it should follow, insurers should be able to be helpful.

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## Section 3 Liability (continued)...

### The Dynamics of Liability Regimes



Richard H. Murray,  
Special Advisor,  
The Geneva  
Association.

#### Legal, Political and Social Influences

*The following piece is a synopsis of the discussion held at the breakout sessions following an introduction by Michael McGavick, Chairman of the Board of Directors, XL Capital, the subject of the preceding article.*

Liability insurance has characteristics unlike other lines that provide unique management, underwriting and claims challenges. It is only an aspect of insurance that serves to distribute the costs of human fault. Natural catastrophes, the inevitability of mortality and morbidity or other forces beyond human control may trigger a liability-inducing event, but they are stage pieces rather than active agents. It is a primary mechanism for distributing the costs of human imperfection. The availability and terms of liability insurance have influenced the development of liability law. That is a vital role in modern society and can generate significant premium opportunities, but it also creates challenges not encountered in other lines.

One of the challenges that contributed to the securities liability losses of the 1980s, and again in the financial and product liability burdens in the 1998-2002 period, and has generally been recognised since then, is the willingness of political and judicial forces to apply wider duties and greater recoveries with retroactive effect. The decisions to offer liability cover, and the terms and prices of the offer, are made under a defined set of risks faced by the insured when the insur-

ance promise is made. But the scope and size of the insured's risk can greatly escalate by the time a claim arises and is ripe for payment on that promise. One need only reflect on the recent traumas of asbestos, tobacco and environmental liability to recognise what enormous loss ratios can be generated by acts of the insured which were in compliance with all standards of law and regulation at the time of the insured event.

Liability insurance also suffers from the naïve assumptions of policy-makers, courts and juries that insurers have an endlessly elastic ability to absorb and distribute the escalating burdens of liability. It is understood that natural catastrophes can exceed insurance resources and therefore policy limits or underwriting restrictions are accepted. It is far less well understood that insured liability losses cannot be absorbed to the extent necessary to achieve the social objective. When an auto manufacturer places gas tanks in a location approved by the regulators, but results in widespread harm, the atmosphere in which those claims are resolved is dominated by the desire to deter future behaviour (newly deemed negligent) by awarding large damages, all in the belief that doing so will encourage business responsibility while the life-threatening size of such awards will be insured.

The liability insurance landscape of the past 40 years in America, and more recently in Europe and elsewhere is littered with the scars inflicted by the confluence of these two conditions. Some insurers have not survived those experiences, or not survived independently, and the entire industry has suffered from the resulting earnings volatility and its effect on P/E ratios.

This look at how liability law has evolved, and how it has been influenced by the presumed universal availability of liability insurance, was the platform for the panel's discussion of the approaching risks that could repeat or exceed the damage

of earlier unforeseen bursts of liability losses. Several concerns were identified.

#### A Spreading Compensation Culture

The recent Lloyd's "360 Degree Report" on liability conditions captures the concern. What was once assumed to be a cultural condition in the U.S. only is rapidly globalising, namely the assumption that for every injury there should be generous compensation. The culture of entitlement is overcoming the traditional legal conditions of tort law in the U.K., Europe and increasingly on a global basis. Tort liability was created in common law tradition as a reasonable financial obligation of a party whose negligent breach of duty has caused harm to another party with a legal right of reliance on compliance with that duty. The constraining requirements of proving Duty, Negligent Breach, Causation, Reliance and Reasonable Damages began to erode under the U.S. compensation culture revolution that began after World War II is found to have infected large parts of the world, accelerated by the influence of telecommunications technology that ignores geographic and cultural borders. Those traditional standards have been replaced by interpretations and revisions of traditional laws that ensure the steady and sometimes explosive growth of compensation through eviscerating liability standards. Populism that supports indirect wealth distribution through liability systems is rapidly globalising.

#### Governmental Policy

While the tort model evolved in the judicial traditions of common law countries, civil law jurisdictions have produced similar reliance on private sector liability practices as governmental and regulatory choices. Continental Europe has been a leader in the transition. Countries which had long provided statutory schemes of compensation for a wide variety of injuries, paid for out of public funds through the use of taxing power, have been forced to adopt new compensa-

## Section 3 Liability (continued)...

### The Dynamics of Liability Regimes

tion systems as demographic factors swelled the ranks of those with injuries and shrank the roles of earning taxpayers. The chosen alternative is transference of compensation duties into the private sector, using adaptations of the common law tort system as the favoured model. The early experiments involved the costs of environmental cleanup, where European policy-makers were even more aggressive than their American counterparts in establishing “strict” liability standards that made commercial enterprises liable for any contribution to environmental degradation, even where legitimate business activities could not have been conducted without environmental impact.

#### Judicial Tolerance

Fear of hazards and losses arising from climate change, claims are emerging in the U.S. and contemplated in all continents. The first manifestations appeared in the U.S. just after Hurricane Katrina devastated New Orleans. As was the case with the early tobacco and asbestos liability claims, the attempts to apply liability theory to climate-related property and mortality losses were dismissed as lacking a supporting duty and its breach. It took the asbestos and tobacco claims about 25 years to break through the legal obstacles into a world where losses overcame the barriers to recovery. For climate risk claims the shift began in three years, as the appellate courts began to accept the principle of “public nuisance” as an acceptable alternative basis for sustaining the claims. Once a class action or mass tort with thousands of claimants successfully jumps the hurdle of early dismissal, each case has significant settlement value due to the costs of defending and the risk of a company-destroying outcome. Insureds will settle, even where it is clear they have little theoretical exposure, as current insurance policies and claims practices inhibit insurers from avoiding losses never contemplated at the time of underwriting.

#### Social Demands

We are rapidly entering an era where the imperative needs of society can, independent of overt government action, become legal obligations. Dow Chemical discovered this when, after careful due diligence to establish that all liabilities were ring-fenced, it acquired Union Carbide many years after settlement of the Bhopal claims. Legal insulation was not sufficient to prevent Dow from a major additional settlement payment. It seems very likely that the same pattern of societal-driven responsibility will emerge from the tragic oil gusher in the Gulf of Mexico, extracting payments and generating insurance claims from a multitude of directly and indirectly involved companies. The trial for socially constructed law was laid by the human rights missionaries whose initial efforts to force liability upon large retailers for abusive working conditions in their supply chain were deemed hopeless. Those efforts now have broad liability and corporate behaviour impact. Liability insurers have paid some of the bills to date and will pay increasing portions as insureds become more adept at formulating their claims within policy terms.

#### The Combustion of Greed and Opportunity

The specialty claimants bar in America began as a cottage industry. Through persistence and innovation, combined with political and judicial tolerance, it has become a major industry with extended resources and political power second only to that of U.S. labour unions. It is widely and genuinely believed that cultural and judicial restraint will prevent the spreading of the claimant industry to Europe. Regrettably, the power of profit will ultimately prevail, though perhaps to a lesser degree than in America. But as the EU presses to adopt collective action mechanisms to support the aggregation of claims, greed will take its toll on European companies and their insurers.

Current conditions in the European liability regimes demonstrate the universality of the risks noted above. Two recent developments illustrate the trend. Asbestos claims have become an increasing burden in several countries. France has now declared that, because the risk of mesothelioma from asbestos exposure was widely understood by 1988, all such claims filed thereafter will be regarded as timely and will be the responsibility of all relevant employers and their insurers. When France leads the way toward private sector liability, surely others will follow. In the Plenary discussion among Members that followed the Breakout Sessions, two additional aspects of the liability challenge were addressed. It was noted that there was a strong congruence of issues and views reported from the Climate Change and the Liability sessions. Members encouraged the development of those congruities and anticipate close collaboration between the Liability Regimes and the Climate Change programmes.

Members also discussed the difficulties ahead for the industry, arising out of the evolving demands of government and society for insurance to assist in meeting new demands for compensation and the distribution of emerging losses, demands that will not be easy for the economics of insurance to accommodate. Liability exposures will be one of the key issues that will require the industry’s innovative attention.

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## Section 4 Demographics

### The Impact of Longevity on Insurance Risks— The Life Insurance and Annuities



*Henri Schwamm,  
Hon. Prof. of Economics  
at Geneva University.*

#### Five angles of the impact of longevity on insurance risks

Peter Zweifel, Prof. of Economics, University of Zurich, discussed the impact of longevity on insurance risks from five different angles at the Geneva Association's 37<sup>th</sup> General Assembly, on 3 June in Zurich. Prof. Zweifel argues that increased longevity will grow the demand for health insurance, enriching the opportunities for life insurers, shifting the burden of "excessive longevity" to insurers whilst not significantly affecting life and annuity insurers and giving insurers with international underwriting capabilities the opportunity to diversify further. This is a summary of those arguments.

**“...increased longevity will grow the demand for health insurance, enriching the opportunities for life insurers...”**

#### Increasing longevity primarily affects the demand for health insurance; the impact on life insurance and annuities is second-order in comparison.

Individuals have three assets to manage over their life cycles: Health, Wealth, and “Wisdom” (skills). Arguably, they have gained improved control over their health asset during the past few decades, approaching the ideal of “remaining 100 per cent healthy and then dropping dead”. The so-called rectangularisation of the survival curve in industrialised countries (showing that almost everyone reaches retirement age nowadays) can be taken as evidence supporting this view.<sup>1</sup> Attempts at controlling health at an older age call for an increasing use of healthcare services because these are more effective than one's own efforts at maintaining health later in life. However, it is health insurance that grants access to healthcare and medical innovation. Other lines of personal insurance are affected as well, but more indirectly.

#### Improved control over health at older ages affects also desired wealth and hence the demand for life insurance and annuities, but in different ways.

Improved control over one's health status typically enables one to derive more utility from consumption goods, calling for more wealth at retirement age. It also serves to increase longevity, requiring even greater wealth at retirement to avoid a reduction of consumption per year lived. This demand can certainly be met by whole life insurance with its benefit in terms of a capital paid, usually close to retirement age. For individuals who are unable to accumulate all this wealth, however, increased longevity constitutes a risk. The capital available may not be sufficient to finance the (high) desired consumption during these extra years of life. This is why most consumers prefer to shift the risk of “excessive” longevity to the insurer (as they can with public pension schemes), favouring annuities over whole life insurance.

<sup>1</sup>The process of rectangularisation is defined as a trend towards a more rectangular shape of the survival curve thanks to increasing number of survivors and the concentration of deaths around the modal age of death of the population.

## Section 4 Demographics (continued)...

### The Impact of Longevity on Insurance Risks— The Life Insurance and Annuities.



#### **Increasing longevity also affects desired wisdom, indirectly creating an opportunity for life insurers**

Skills augment labour income and thus help to achieve a higher accumulated wealth. In addition, they contribute to the quality of life after retirement. However, only labour income is insurable, coverage taking the form of unemployment insurance. Private insurers have been unwilling to write this type of insurance, fearing the cumulation of risks in an economic slump. However, due to the rectangularisation of the survival curve, payments under the “life” title have to be made much later on average than under the “unemployment” title. Contrary to earlier times when many workers died prior to retirement age, the two risks have become reasonably uncorrelated, creating the opportunity for writing a combined policy covering “life” and “unemployment”.

#### **Projected increases in longevity do not constitute a risk to the life and annuity insurer**

The fact that the rectangularisation of the survival curve is nearly perfect up to retirement age is a sign that people in industrialised countries have largely gained control over (the variability of) their health asset. Unforeseen changes are therefore very unlikely in that segment, facilitating the writing of whole life insurance. After retirement age, much of the future change can be foreseen, permitting the adjustment of the calculation of premia for annuity policies. Indeed, the concentration of deaths within a narrowing age band makes the unforeseen component of remaining life expectancy less important. This once more facilitates the writing of annuities. The true caveat is that annuities create an incentive to continue living because this triggers another year’s benefit. Researchers have found evidence of such a moral hazard effect in the United States.

#### **The risks created by the unforeseen increases in longevity can be neutralised by a multiline insurer. This holds true even more of a multinational one**

The risks “life” and unemployment are found to become less correlated as a consequence of increasing longevity. However, there are more opportunities for risk diversification even in a single country. For instance, expected losses in automobile liability and homeowners’ insurance have little tendency to change with age past retirement. Their combination with whole life and in particular annuity insurance serves to immunise insurers’ total risk exposure from longevity.

Insurers with international underwriting activity have additional scope for risk diversification. For example, they can offset risks contained in a whole life insurance portfolio in country A by an annuity portfolio of country B. Since being active in a country is a long-term decision, the two portfolios should not exhibit a common long-term trend. In the case of the United States and Switzerland, this condition was found to be satisfied, at least at the aggregate level.

Prof. Zweifel concluded that increasing longevity affects several other lines besides life and annuity insurance. This fact actually opens up opportunities for hedging risks emanating from underwriting life and annuity policies in the face of unexpected increases in longevity.

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## Section 5 Opportunities for Insurance

### Competitive Landscape for Insurance— A Look at Tomorrow's Insurance Market



*Christopher M.  
'Kip' Condran,  
President and CEO,  
AXA Financial, Inc.*

**Zurich, 3 June 2010**—Against the backdrop of a recent deep financial crisis, an era of great opportunity has emerged for insurers. It is the opportunity to play an increasingly important role in helping to fill the urgent needs of people faced with significantly weakened defined-contribution retirement plans, unreliable home-equity values, vanishing defined-benefit plans, and government pension programmes with long-term and even immediate funding risks.

For roughly 30 years after World War II, earners were savers. Banks thrived. By the mid-1970s, savers became investors. Asset managers thrived, energised by the advent of 401(k)s in the U.S. The asset managers, however, hit a succession of walls. In 1998, it was the collapse of Long-Term Capital Management, which required a coordinated banking industry-led bailout. In 2000, it was the bursting of the tech-stock bubble. In 2008, it was the bursting of the real estate bubble—by far the most destructive financial bubble of them all.

This succession of market meltdowns demonstrated the chronic shortcomings of unprotected investing. It also demonstrated the value of protected investing and financial protection products in general. At present, insurance clients do not need to be convinced of the value of a safety net when it comes to saving for retirement anymore than they need to be convinced of the value of fire insurance for their homes and businesses.

Today, insurers, both life and non-life, can and must fulfil their destiny—to play a vital role in the global economy. The insurance industry is the only financial-services segment with the crash-tested expertise and financial strength to reduce and manage the risks that every other industry sector, every company, and every individual need to mitigate in order to efficiently pursue enterprise and personal growth opportunities, as

**“Today, insurers, both life and non-life, can and must fulfil their destiny—to play a vital role in the global economy.”**

well as financial security, in the wake of the Great Panic and the Great Recession of 2008-2009.

More so than banks and asset managers, insurers are focused not on avoiding risks, but on selecting risks—and not on preventing underwriters or investment officers from taking risks. Our business depends on our ability to selectively take and price risk to generate enough of a profit margin to sustain the ability to pay claims and create sufficient value to sustain our long-term ability to pay claims. Therefore, in this new era, it will be the insurers—not the banks and the asset managers—who direct how much risk can and will be taken in portfolios and how that risk will be managed.

Going forward, the life insurance industry, for example, can and should play a key role in helping to offer another option and restore a level of simplicity to how people manage their investments on the way to and through retirement. Ultimately, only an insurer can provide an individual the financial security to sleep at night and still maintain, for example, the ability to stay invested in equities, the only asset class that historically has provided meaningful long-term, inflation-adjusted growth.

## Section 5 Opportunities for Insurance (continued)...

### Competitive Landscape for Insurance— A Look at Tomorrow’s Insurance Market

“Insurance on some portion of one’s savings today is increasingly viewed as a non-optional necessity in the same way that home, business and auto insurance is viewed. That is why we are now entering the era of the insurance industry.”

Risks and capital are the fundamental raw materials of an insurance company. The business of insurance is to relieve clients of some of their risks, to mutualise these risks, to manage them, and to do so profitably and sustainably. At the risk of stating the obvious, risk management—the management of mortality risk, longevity risk, health risk, liability risk, and property risk, as well as investment risk—is fundamental in an insurance company.

Insurance companies create value by helping society mutualise risk, giving their customers more perceived value than they pay for it, and providing liquidity by investing in society—all without excessive leverage.

To give a concrete example, AXA Equitable developed a product called Retirement Cornerstone: a variable annuity with a dual-account investment platform housing one account focused exclusively on investment growth and another focused exclusively on protecting asset values from downside risk and providing guaranteed lifetime income, all on a tax-deferred basis. The important distinction to be made here is that, while banks and asset managers can sell a product like Retirement Cornerstone, they cannot manufacture it and fund the risks it assumes. Only an insurer can do that, because it is an insurance product.

The reality of the new era—and new opportunity—for the insurance industry is that insurance for retirement savings is no longer a luxury item. Insurance on some portion of one’s savings today is increasingly viewed as a non-optional necessity in the same way that home, business and auto insurance is viewed. That is why we are now entering the era of the insurance industry. This is the unique opportunity we have today.



Mr John Strangfeld, Chairman and CEO, Prudential Financial Inc. with Mr Andrew Moss, CEO, Aviva Plc | June 2010.

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## Section 5 Opportunities for Insurance (continued)...

### The Insurance Value Proposition and Business Opportunities



“...the desire to take risk, the ability to understand risk, is one of the fundamental drivers behind our global economy.”

I have been asked to share a few words on a topic that is often discussed, but I would suggest to all of you more often misunderstood, and that is the topic of global risk.

For today, I want you to think about risk in a slightly different way. I want you to think about and consider that the desire to take risk, the ability to understand risk, is one of the fundamental drivers behind our global economy. Without it, we cannot make the investments, we cannot take the initiatives required to succeed. And if we do not understand it or manage risk correctly, it could be damaging to the future of an enterprise.

In some respects risk is very much married to innovation. It is married to exploration and it is married to expansion.

So what are the risks out there? What are the issues that companies face today? What are the upsides, what are the downsides? What are the opportunities that they face? What are the issues that are going to impact their income statements? What are the things that are going to impact their balance sheets? More importantly, what is the risk of inaction? What is the risk for firms if they do not go after opportunities? What is the risk of standing still?

How do companies calibrate risk? What do they think about in terms of risk? As you see, risk, and the opportunity to think about it, is everywhere.

Insurance is not seen as the most glamorous of industries, so let's look to some that are for our examples. From film-making to diamond pro-

duction, from outer space and space tourism to cyberspace and some of the world's busiest websites, Aon serves global firms that must make critical risk decisions at every stage of their growth and development.

Aon is a global firm—you will find our brand in over 120 countries around the world and over 36,000 colleagues focusing on one idea—how can we help a client or how can we help a colleague help a client.

Many of our major clients are global—and they have to decide whether they want to grow or not. Clients have to ask questions such as, “Do we want to grow in Iceland or Greece, where there is a rise in exchange transfer and sovereign non-payment risk as well as an increase in widespread protests and street disturbances? Do we want to invest in countries such as Iraq or Venezuela, where volatility in global commodity prices is contributing to political and economic instability?” Each and every company has a strategic decision to make: “Do we grow or not grow?” And at the crux of that decision is risk management.

Clients tell me and my colleagues who visit them that they are concerned about financial risks in the marketplace, whether they are related to the economic slowdown, commodity price risk, or cash flow and liquidity risk. They also are concerned about whatever regulatory or legislative changes that will take place to address the concerns surrounding the global credit crunch. And they continue to pay close attention to concerns associated with reputation risk.

I would like to give you six perspectives or observations that come directly from those conversations with CEOs, CFOs, risk managers and treasurers, from Asia, Europe and the Americas; six observations that I think they would want you to know about how they see risk, and talk about the fatal flaws if you do not address it.

#### Misunderstanding Risk

Observation number one: misunderstanding risk can be a fatal mistake. I have talked to many CEOs whose companies have gone through tremendous turmoil because they misunderstood risk. What is it, how big is it, what is the priority?

#### The Magnitude is Rising

The second observation is that everywhere around the world, the magnitude of risk is increasing. Think about the biggest set of events that ever happened over the course of the last decade. The tragedy of 9/11 in the United States, and Hurricane Andrew in Florida in particular were two of the biggest single events in history up to a couple of summers ago. They were US\$20 billion events. Hurricanes Katrina, Wilma and Rita in the U.S. combined were a US\$60 billion event; three times the difference. The magnitude is absolutely staggering.

#### The Complexity is Rising

Third lesson: complexity. Not only is the magnitude of risk increasing; the level of how people understand risk is also going up. There were US\$20 billion in insured losses from 9/11; probably more than that.

## Section 5 Opportunities for Insurance (continued)...

### The Insurance Value Proposition and Business Opportunities

Think about the threat of pandemic risk. We have talked with thousands of our clients over the course of the last year on pandemic and have done a lot of work analysing it. The projected potential impact of a pandemic over a six-month period could be as much as \$200 billion around the world, not to mention the personal tragedy that comes with that.

The conversations we have had with clients are about how to prepare for that. But it's incredibly complex. What if you are fully prepared for a pandemic? What if as a businessman you have a supplier in China or India? You aren't touched at all. Yet, your suppliers are directly impacted. Bottom line; you are in trouble. I am sure many of you remember all of the activity surrounding Y2K. We talk to clients every day about what if you spend a few million dollars and nothing happens? What do you say at that point? So risk is an incredibly complex game.

#### Scrutiny is Rising

The fourth thing I would say is that the level of scrutiny is going up at an unbelievable rate. I heard this in so many places and always from the risk managers.

It used to be that the risk manager could do his or her job in the corner without much fanfare. The insurance would be perfectly good. The reinsurance could be arranged. Today, that entire dynamic has changed. Over 40 per cent of organisations currently have an appointed Chief Risk Officer, and over 20 per cent intend on appointing one in the next three years.

CEOs want to know what is going on, the board of directors wants to know, CFOs want to know, treasurers want to know. Risk management is a big deal. The stakes are huge. In the U.S., Sarbanes-Oxley is out there for firms to deal with. So not only has the stage gotten bigger and the complexity of risk has gotten bigger, the level of scrutiny has gone up in a way that is quite incredible.

#### Opportunity— Three to One Downside Protection

Observation number five and this is the one I like the most. Risk ideas and solutions are three parts opportunity and one part downside protection. Behind every great idea is a view on how to think about risk and how to move around risk in ways that other people don't.

#### Attack and Embrace Risk

Risk, how a company views risk, how it thinks about risk, has to be attacked. It has to be managed, it has to be embraced. If a company waits to react, it's too late. It has to think ahead in ways that other people and other companies do not. In terms of the lessons that I have learned from CEOs around the world are, you have to have a strategic view. How do risk managers think about risk in their firms? Is it a big deal or not? Is there more upside or downside? How is it managed? What's the game plan? If they don't have a view, they are losing tremendous opportunity.

#### How do we respond?

As risk changes, as the business landscape on which we operate and our clients operate changes, so we must change. Many of the clients we deal with at Aon, because of industry, international presence, complexity or sheer size, deal with the most complex and challenging of risk issues and they need truly global partners to help them address those risks.

Pressures from regulatory bodies and governing authorities, global economic slowdown, softening rates and the ever-increasing expectations from clients have exposed the truth of the broking sector today—the traditional business model is just not able to cope. It is out of date and is not designed to survive, let alone thrive in today's world of risk.

As clients face increasing risk exposures and pressures, they demand more from us as brokers and insurers. They want and expect better services, more sophisticated solutions and

higher standards of service. If the insurance sector is to respond, then we need to reassess our own expectations. We have to reassess our own business strategies and structures. Are we in a position to respond to those client demands? In every decision we make as a business, I encourage our people to ask the very simple question I outlined for you earlier in my remarks: Does this help our clients or does it help those who help our clients?

It requires a change in thinking, a change in mindset and it requires a great deal of courage to make the necessary changes in our businesses.

Let me make one thing clear: our business is not about failures. It is all about providing solutions for our clients. The exciting challenge for our industry, and which really drives me day to day, is the fact that our firm is part of a great industry in a great position to make a difference at perhaps the time of greatest client need ever. For Aon, this represents both an incredible opportunity and an equally incredible obligation. We have a saying at our firm that "momentum never sleeps". It either goes up or it goes down, but it never stays the same.

#### In conclusion...

As the world changes, so does the global face of risk, as shown by the six observations I outlined here. Misunderstanding risk can be fatal to a business; the magnitude of risk is going up in a significant way; the complexity is going up in a significant way; scrutiny is going up in a significant way; and most importantly, **risk is about opportunity.**

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## Section 6 Publications



### The Geneva Association publications take six different forms in addressing its various audiences:

- two referenced journals, The Geneva Papers on Risk and Insurance—Issues and Practice and The Geneva Risk and Insurance Review (formerly The Geneva Papers on Risk and Insurance Theory);
- reports on major themes discussed throughout a part of the year, otherwise known as The Geneva Reports;
- seven different newsletters;
- Etudes et Dossiers, or working papers from conferences and meetings; and,
- books and monographs written by Geneva Association staff and/or external collaborators.

### Journals

#### The Geneva Papers on Risk and Insurance—Issues and Practice

Founded in 1976 and published quarterly by Palgrave Macmillan, The Geneva Papers publish papers which both improve the scientific knowledge of the insurance industry and stimulate constructive dialogue between the industry and its economic and social partners. It is essential reading for insurance academics and researchers, insurance industry executives and other professionals who are searching for a deeper insight into the strategic options for their sector. It bridges the gap between these groups, highlighting overlapping areas of interest and providing mutually beneficial research and dialogue.

#### The Geneva Risk and Insurance Review

The Geneva Risk and Insurance Review targets academics and university scholars in economics. The journal is published by Palgrave Macmillan in annual volumes of two issues. Its purpose is to support and encourage research in the economics of risk, uncertainty, insurance and related institutions by providing a forum for the scholarly exchange of findings and opinions.

### The Geneva Reports

The Geneva Reports series tackles issues of strategic importance to the insurance industry that warrant special attention and particular analysis. The series is published on an “as appropriate basis” and is available both in printed and electronic versions.

The Geneva Reports are rising in prominence, with two issues published during 2009/2010, one on climate change and one on the credit crisis.

### Newsletters

Seven newsletters on the main research activities, as well as on world fire statistics, are published throughout the year. They are published biannually, except for Insurance and Finance and the World Fire Statistics. They are disseminated in hard copy and in the form of e-newsletters.

### Insurance Economics

This newsletter for risk and insurance economists serves as an information and liaison bulletin to promote contacts between economists at universi-

ties and in insurance and financial services companies with an interest in risk and insurance economics.

### Risk Management

The Risk Management newsletter summarises The Geneva Association’s initiatives in the field. It is open to contributions from any institution or company wishing to exchange information on the subject.

### Four Pillars—Pensions

The newsletter of the Research Programme on Social Security, Insurance, Savings and Employment was initiated in 1985, and provides information on research and publications in this area. It also covers themes linked to the life insurance sector.

### PROGRES—Regulation

The aim of this newsletter is to contribute to the exchange of information on studies and initiatives aimed at better understanding the challenges arising in the fields of insurance regulation, supervision as well as other legal aspects.

### Health and Ageing

The Health and Ageing newsletter seeks to bring together facts and figures linked to issues in health, and to try to find solutions for the future financing of health and the role that insurance solutions can play in them.

### Insurance and Finance

The Research Programme on Insurance and Finance comprises academic and professional research activities in the fields of finance where they are relevant to the insurance and risk management sector.

### World Fire Statistics

Published annually, this newsletter presents statistics on national fire costs from over 20 leading countries in an effort to persuade governments to adopt strategies aimed at reducing the cost of fire.

## Section 6 Publications (continued)...



Greg Dobie, Editor of *The Review* and Managing Editor of *Insurance Day* | June 2010.

*The Geneva Association held its first ever General Assembly press conference at the event, gathering six Geneva Association Board Members for a discussion with leading economic and insurance commentators. The subjects under discussion reflected Member's discussion topics at the Assembly, including systemic risk and climate change. The results of a survey of Geneva Association membership were also released, providing a consensus view on current insurance issues.*

### Etudes et Dossiers

**Etudes et Dossiers** are the working paper series of The Geneva Association. These documents present intermediary or final results of conference proceedings, special reports and research done by The Geneva Association. Where they contain work in progress or summaries of conference presentations, the material must not be cited without the express consent of the author. Most of these documents are available freely on The Geneva Association's virtual library, except for those in restricted use, which remain in the private area. The Geneva Association Working Paper Series *Etudes et Dossiers* appears at irregular intervals about 10-12 times per year. Distribution is limited. Hard copies are automatically sent to all of The Geneva Association's members.



### Books and monographs

The latest books and monographs published by The Geneva Association are:

#### **Systemic Risk in Insurance—An analysis of insurance and financial stability, March 2010.**

It was widely picked up and reported in the press: more than 100 articles were published on this report from 26 February to date around the world. Among the newspapers/magazines/newswires having covered the story are **The Financial Times, Cinco Dias, Reuters, The Wall Street Journal, L'AGEFI, SonhoSeguros, Börsen Zeitung, The Financial Times Deutschland**, as well as **Insurance Day** and the vast majority of the trade press.

This document is available for download from the Association website.

#### **The Performance Economy, 2nd Edition, Walter R. Stahel, Palgrave Macmillan, 2010**

The industrial economy is transforming from a production-based model into a more intelligent performance-based model. Yet despite the proven benefits that selling performance provides, too many managers and policy-makers still focus on designing, manufacturing, and selling goods using costly economic models and production methods.

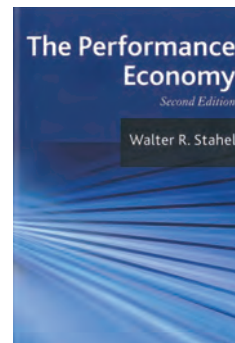
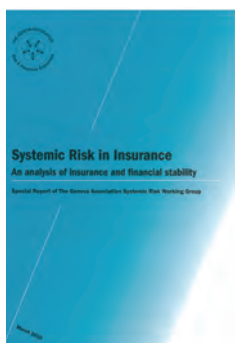
Replete with case studies, new examples, and decades of proven research, the second edition of **The Performance Economy** outlines the strategies needed to face tomorrow's challenges by using science and knowledge to improve product performance, create jobs, and in-

crease wealth and welfare. Additional topics include a description of the skills needed to produce and sell performance, details of how performance is managed over time (long-term thinking), and clear explanations that illustrate how manual and skilled jobs are created—all while reducing the consumption of non-renewable resources and contributing to a low-carbon, low-toxin society.

#### **The Economics of New Health Technologies—Incentives, organization, and financing Edited by Joan Costa-Font, Christophe Courbage and Alistair McGuire, Oxford University Press, 2009**

This book offers the first truly global economic analysis of health care technologies; takes the subject beyond simply economic evaluation and explores the behavioural aspects, organisation and incentives for new technology developments, and the adoption and diffusion of these technologies; and is hugely topical for modern health care, relevant to issues such as nanotechnology, cloning, and tissue engineering. It contains contributions from international experts including economists, health policy analysts, clinicians and social scientists.

For more information on The Geneva Association's publications, please visit [www.genevaassociation.org](http://www.genevaassociation.org).



# Upcoming Events

## 2010 and 2011

### 2010

July 25-29

#### Singapore

World Risk and Insurance Economics Congress (WRIEC), jointly organised by Asia Pacific Risk and Insurance Association (APRIA), American Risk and Insurance Association (ARIA), European Group of Risk and Insurance Economists (EGRIE) and The Geneva Association.

The Congress will stimulate debate and discourse on risk-related research and to provide a forum for networking amongst academics, industry and government professionals worldwide. The quinquennial conference is the premier meeting for risk and insurance economics professionals and for people who share an interest in promoting education and research in the broad areas of risk and insurance.

September 27-28

#### São Paulo

2nd CC+I Seminar on Climate Change and Health Impacts, hosted by Allianz Seguros do Brazil.

The objective of the CC+I Seminars is to deepen the knowledge pool on the impacts of climate change on different regions. The seminars are for experts involved in the analysis of climate change impacts.

October 4-5

#### Madrid

8th Meeting of The Geneva Association's Chief Communications Officers, (Chief Communication Officers only) hosted by Caser Group and Sistema MAPFRE.

The CCOM meetings address key issues in insurance that influence investors' relations, PR and general communication. Chief Communications Officers or equivalent functions from large international insurance companies are invited to attend the event.

October 12

#### Rome

The Italian AXA Forum, organised by AXA/MPS, AXA Assicurazioni and The Geneva Association.

The forum discusses the "scenario" of major emerging social and economic trends deeply affecting the very structure of our society and the role financial operators and specifically insurers have within it. It will also focus specifically on immigration and examine what challenges and opportunities that it represents for banks and insurers. The forum is open to leading financial executives from the insurance sector and the wider financial community as well as government officials with close interest in insurance.

### 2010

October 19-20

#### London

7th Liability Regimes Conference, hosted by RSA Insurance.

As liability plays increasingly prominent role in society, becoming more common and more expensive. The conference is for decision-makers with underwriting, product, claims and general management responsibilities.

November 1

#### London

5th Meeting of the Climate Change and Insurance Project of the Geneva Association (CC+I Working Group members only).

November 18-19

#### Paris

7th Health & Ageing Conference of The Geneva Association on "U.S. and French Long-term Care Insurance Markets Development", co-organised with Willis Re.

The aim of the conference is to better understand the differences and similarities of these two major long-term care funding approaches. Participants will come from insurance and reinsurance companies, universities and related institutions.

November 24-25

#### Munich

6th CRO Assembly, jointly organised by The Geneva Association, Munich Re and CRO Forum.

The Assembly aims to foster best market practice and to develop the insurance and reinsurance industry's risk culture. The Assembly is open to Chief Risk Officers or equivalent functions in insurance.

December 6-7

#### London

7th International Insurance and Finance Seminar of The Geneva Association, hosted by Prudential plc.

The seminar will discuss key strategic issues facing insurance in the field of finance. The seminar is attended by CFOs and leading financial executives from the insurance sector and the wider financial community as well as government officials with a close interest in insurance.

### 2011

January

#### New York

Joint Industry Forum for P&C Insurance Industry, co-sponsored by The Geneva Association.

The JIF is a platform for senior insurance managers to discuss topics of strategic interest and importance to the North American P&C Insurance Industry. There will be a wide spectrum of CEOs and senior insurance managers present as well as specialists on P&C issues (open event).

February 24-25

#### Innsbruck

14th Joint Seminar of the European Association of Law and Economics and The Geneva Association

The Seminar will deal with Law and Economics of Natural Hazard Management in a Changing Climate.

May 25-28

#### Rio de Janeiro

38th General Assembly of The Geneva Association (members only).

The Geneva Association General Assembly is arguably the most prestigious annual gathering of insurance CEOs world-wide. The Assembly provides a platform for the leaders of the insurance industry to meet and discuss key strategic issues. This review provides an insight of the sorts of subject under discussion. In 2011, the 38th annual General Assembly will take place in Rio de Janeiro, Brazil, and will be a key meeting opportunity for the stewards of the world's top insurance and reinsurance companies in an environment of unprecedented regulatory and environmental change.

June 19-22

#### Toronto

The Geneva Association/IIS Research Award Partnership.

November 24-25

#### Munich

6th CRO Assembly, jointly organised with Munich Re.

The Assembly aims to foster best-market practice and to develop the insurance and reinsurance industry's risk culture. It is targeted at Chief Risk Officers or equivalent functions in insurance.

This review is a retrospective on some of the key discussions at The Geneva Association's 37th annual General Assembly, the most prestigious gathering of insurance CEOs worldwide. Comprising essays by CEOs, Chief Regulators and leading commentators it is intended to provide an insight into the General Assembly and some of the strategic issues discussed by this key forum for insurance leadership. Subjects include, systemic risk regulation, climate change, developments in liability and law, demographics as well as opportunities open to the industry.

The Geneva Association is the leading international insurance “think tank” for strategically important insurance and risk management issues. Its members are the CEOs of the world's 90 leading insurers and reinsurers.

**[www.genevaassociation.org](http://www.genevaassociation.org)**

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