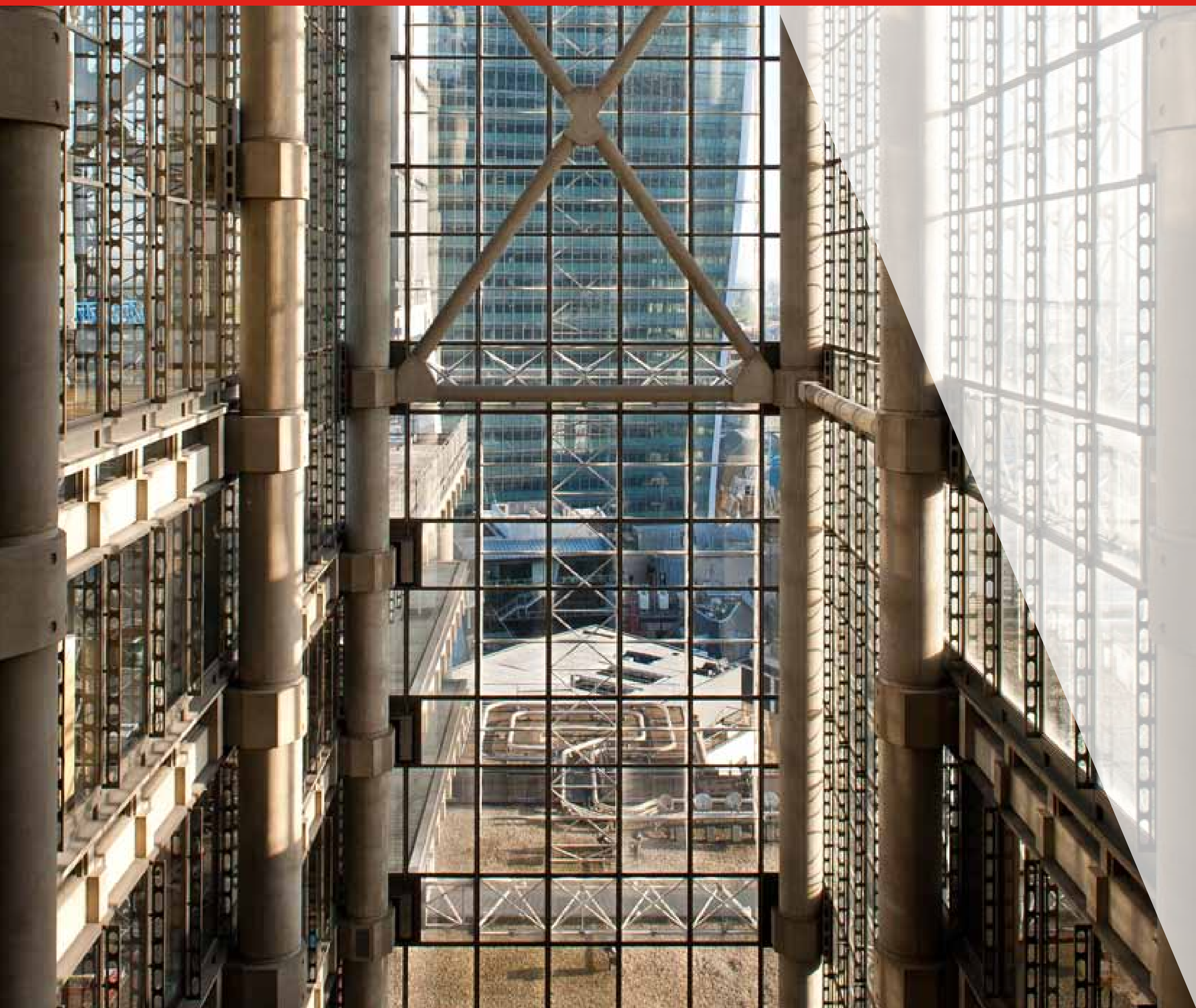
THE GENEVA ASSOCIATION

Annual Report 2013/14

THE GENEVA ASSOCIATION



The Geneva Association

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 insurance and reinsurance companies. It organises international expert networks and manages discussion platforms for senior insurance executives and specialists as well as policymakers, 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", has offices in Geneva and Basel, Switzerland and is a non-profit organisation funded by its Members.

Annual Report 2013/2014

THE GENEVA ASSOCIATION

The Geneva Association

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April 2014

Annual Report 2013/2014

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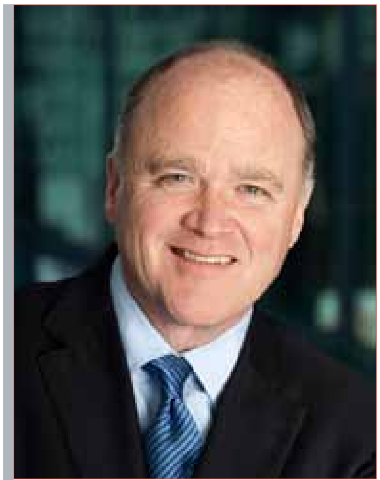
CHAIRMAN'S STATEMENT



Mike McGavick

CEO, XL Group plc and Chairman of The Geneva Association

Dear fellow Members,

Right now is an important period for our industry. Over the last year we have seen the final adoption of Solvency II, the designation of G-SIIs, the naming of insurance SIFIs in the U.S. and the resultant creation of new regulatory capital requirements. At the same time discussions are underway about the development of a global system of supervision for the insurance industry. There is no question that the effects of these decisions will permeate the entire industry and may change the way our business is conducted. The Geneva Association is fully engaged in this process and aims to make clear the viewpoint of our industry, backed by its deep insurance knowledge and understanding, as the current debates impact the way all of our businesses will be regulated and supervised in the future.

Meanwhile, across the globe, risk grows riskier and more plentiful. As (re)insurers we are on the forefront of the experience of a changing climate and under the strong leadership of Michael Butt of Axis Capital and Shuzo Sumi of Tokio Marine, The Geneva Association's Climate Risk and Extreme Events working group has been positioning the (re)insurance industry as a key contributor to the discussions, not only on fundamentals of insurance as a shock absorber in the wake of a disaster, but also, and with critical potential, on the role insurance can play in disaster risk reduction. The working group has been championing the need for greater cooperation between governments and the insurance industry and is making progress, alongside a number of other partners, in providing insurance industry input into the forthcoming Hyogo Framework for Action 2.

To further educate our stakeholders on the critical role of our industry in these events, and the value we contribute to society at large, the Association has begun work on a new topic of research: the social and economic value of insurance. This work will look into issues that hinder our industry and those that represent an opportunity, areas for innovation and ways that risk transfer products enable society to move forward faster. Similarly, the substantial work the Association has conducted for some time on the issues facing our ageing population is contributing enormous value to how our life and other insurance products are seen as solutions to pension and related ageing and demographic challenges.

As Chairman of the Association, and as a Member, I view it as critical that our Members continue to set the tone, the pace and voice of The Geneva Association. As the organisation evolves towards greater advocacy, the Board and I are mindful that it is vital the work of the Association remains research-grounded and research-driven. This is the real strength of the Association today and it will continue to be the primary means by which our industry is represented through The Geneva Association.

In the coming months we will announce a new Secretary General who will continue the work that John Fitzpatrick has started in developing the Association's role in advocacy. I'd like to thank John for his service to The Geneva Association during this period of time, and especially for his representation with regulatory bodies and industry events.

On behalf of the Membership I would also like to extend our thanks to Carlo Acutis who will step down from the Board this year. Carlo joined the Association in 1977 and subsequently the Board. Over that time he has made a considerable contribution to the work of the Board and has been a source of great support to a succession of Chairmen since. Thank you Carlo and we look forward to your continued contributions as a Member!

On behalf of the Membership I would like to thank the Board for their guidance in the development of the Association and its staff for their dedication during this period of change.

The General Assembly remains the foremost meeting of insurance Chief Executives in the world and I would like to thank you for your continued support and contributions. I look forward to seeing most of you at the annual General Assembly in Toronto.

Mike McGavick

Chairman of The Geneva Association

SECRETARY GENERAL'S STATEMENT

This last year has been marked by a significant increase in activity in all four areas of focus for The Geneva Association.

In particular, The Geneva Association and its Members are deep in discussions with global insurance and other regulatory bodies regarding the right policy mix to achieve a more stable financial system while retaining the insurance industry's significant and supportive role in the system. As these discussions occur around the world, the important work we do to provide well-regarded research, facts and evidence about the functioning of the insurance industry has proven to be particularly relevant to our members, regulators, policymakers and other stakeholders active in these debates.

Since the announcements by the Financial Stability Board (FSB) naming nine insurers as global systemically important insurers (G-SIIs) and the International Association of Insurance Supervisors' (IAIS) publication of policy measures and consequences to be applied to G-SIIs, The Geneva Association, in conjunction with the International Institute of Finance (IIF) and their members have been active in proposing policy and responding to proposals by policymakers. In October The Geneva Association published a series of articles responding to the IAIS announcement of its intent to develop for the first time a global insurance capital standard (ICS) in addition to the previously announced intent to develop a backstop (now called basic) capital requirement (BCR) and, for the G-SIIs, higher loss absorbency. This unprecedented ambition to develop three new global capital standards for the insurance industry in a very short period of time has challenged our Members, ourselves, and, without doubt, the regulators themselves.

Also in October The Geneva Association issued a response to an FSB Consultation titled *Applications of the Key Attributes of Effective Resolution Regimes to Non-Bank Financial Institutions*. Subsequently in December, The Geneva Association responded to the IAIS consultation on the Common Framework for the Supervision of Internationally Active Insurance Groups. In February 2014 The Geneva Association published its response in collaboration with the IIF on the IAIS BCR. Research to support these efforts is currently underway on consequences and measures and on the nature and frequency of insurer resolutions. From the outset, the position developed by The Geneva Association and the wider insurance industry has been that the insurance sector requires regulatory standards that reflect its business model and that this effort should be focused on identifying activities that are potentially systemically risky. Once these potentially systemically risky activities are identified, appropriate and adequate regulatory responses can be applied to maintain a strong and resilient insurance industry.

Our work in the past year was not restricted to financial stability and insurance regulation issues however. The General Assembly press conference in London

John H. Fitzpatrick
Secretary General,
The Geneva Association

featured the launch of the Association's work on disaster risk reduction, a publication that provided a series of case studies on the role of insurance in disaster risk reduction around the world. We were joined by Margareta Wahlström, Special Representative of the Secretary General for Disaster Risk Reduction, UNISDR, who provided the UNISDR perspective on the role insurance can and should play in disaster risk reduction.

In July we published a report, *Warming of the Oceans and Implications for the (Re)insurance Industry* resulting in considerable and ongoing media coverage around the globe. In October we held a first conference in Sendai, Japan, kindly hosted by Tokio Marine, to discuss the current and potential future role of insurance in disaster risk reduction and were joined by a broad range of academics, modelling and disaster recovery experts from government, industry practitioners as well as NGO leaders in the field. On the anniversary of Superstorm Sandy's first landfall in October and subsequently at the UN Climate Change Conference, the working group made representations to governments highlighting the expertise that insurers can provide in supporting disaster risk reduction and resilience building. The Climate Risk and Extreme Events working group will continue its focus on disaster risk reduction and preparation for the 3rd UN World Conference on Disaster Risk Reduction, also in Sendai in March, 2015.

The Association was also active on life and pensions, holding a number of important conferences including "Insuring the Health of an Ageing Population", co-hosted with Swiss Re, which brought some of the world's leading experts from both business and academia together to discuss trends and opportunities for the industry in long-term care insurance. In March 2014 the Association published a report on the U.S. municipal pensions situation, examining the issues at the root of the Detroit crisis and suggesting the lessons that should be learned to prevent a repetition of the crisis elsewhere.

The Geneva Association also held its Liability Regimes Conferences in London, Beijing, and for the first time Rio de Janeiro. Other conferences for CIOs, CROs and other professionals in our Member companies occurred throughout the year.

Operationally, we have also been busy, launching a new website for the Association at the London General Assembly, providing us with greater access to the 40 years of Geneva Association publications and a better platform for the delivery of multi- and social media. At the beginning of September we launched a new logo and colour palette for the Association to support our work by delivering greater visibility and impact for our Association. A new contact relationship management system has also been launched to support our increasing advocacy and outreach activities.

Our work is being recognised with a social media campaign to highlight the social and economic value of insurance winning the prize for "Insurance Initiative of the Year" from leading trade publication *Insurance Day*. Our recent PROGRES seminar had an unprecedented level of attendance and received strong and positive feedback from Members and from the key insurance regulators in attendance.

I would like to take this opportunity to thank both the Members and the staff of The Geneva Association for their support and hard work respectively over the last two years and wish you all every success in the future. The Geneva Association has a bright future and an important role to play in securing a sustainable insurance system for society. Finally, I look forward to seeing many of you at the General Assembly in Toronto which promises an outstanding programme of keynote speakers, discussions and social events.

John H. Fitzpatrick
Secretary General
The Geneva Association

BOARD OF DIRECTORS

EXECUTIVE COMMITTEE

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Mike McGavick, CEO, XL Group plc

VICE CHAIRMAN
John Strangfeld , Chairman and CEO, Prudential Financial Inc.

VICE CHAIRMAN
Shuzo Sumi, Chairman of the Board, Tokio Marine & Nichido Fire Insurance Co., Ltd.

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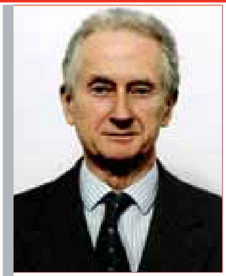
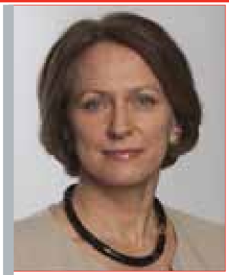
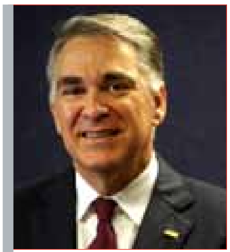
TREASURER
Michel Liès, Group CEO, Swiss Reinsurance Company Ltd.

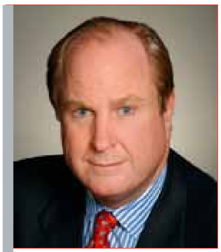

Carlo Acutis, Vice President, Vittoria Assicurazioni S.p. A.


Inga Beale, CEO, Lloyd's

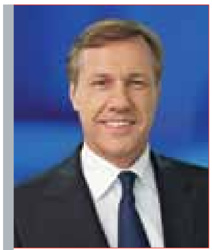

Henri de Castries, Chairman of the Management Board and CEO, AXA Group

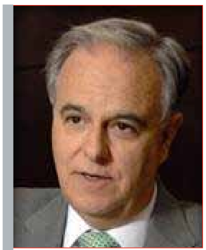

Patrick de Larragoiti Lucas, President, Sul América Seguros


Mario Greco, Group CEO, Assicurazioni Generali S.p.A.


Donald Guloien, President and CEO, Manulife Financial Corporation


Denis Kessler, Chairman and CEO, SCOR SE


Martin Senn, CEO, Zurich Insurance Group


Esteban Tejera Montalvo , 1st Vice Chairman, MAPFRE S.A.


Tidjane Thiam, Group Chief Executive, Prudential plc


Nikolaus von Bomhard, Chairman of the Board of Management, Munich Reinsurance Company


Mark Wilson, Group CEO, Aviva plc


Yan Wu, Chairman, The People's Insurance Company (Group) of China Ltd.

OVERVIEW OF THE GENEVA ASSOCIATION

Founded in 1973 by the CEOs of leading insurance companies, The Geneva Association is an international insurance think tank that produces and distributes high-quality research and analysis on global strategic insurance and risk management issues.

The Association is a non-profit organisation with offices in Geneva and Basel. It is funded by its Members, comprising a statutory maximum of 90 insurance and reinsurance CEOs, and governed through the activities of its Board of Directors.

The General Secretariat handles the daily operations of the Association. Its work is directed by the Secretary General, assisted by the Deputy Secretary General and Head of Research. The Association is further assisted in its research and relationships with international institutions through the support of external collaborators.

The Association's research promotes policy-related, public discussions among its Members, academics, standard setters, supervisors, policymakers, governments, international organisations and the public at large. It interacts directly and constantly with a broad spectrum of relevant international organisations such as the International Association of Insurance Supervisors (IAIS), the Financial Stability Board (FSB), the G20 and the International Accounting Standards Board (IASB)/Financial Accounting Standards Board (FASB), as well as intergovernmental organisations, non-governmental organisations and national bodies on global insurance issues.

The Association's objective is to educate and develop understanding on the unique role and importance of insurance in economies and for societies through publications, conferences and active discourse with policymakers and others. It strives to be known as the best and most influential research think tank on global insurance issues in the world.

THE GENEVA ASSOCIATION RESEARCH TOPICS

The Geneva Association's research takes a strategic look at issues that affect the global community from a perspective of sustainability, examines the needs of society and determines how the insurance mechanism can contribute to addressing those needs. In 2013/2014 the Association worked on four research topic areas: financial stability and regulation, climate risk and extreme events, global ageing and liability regimes and dynamics.

Financial stability and regulation

Since the financial crisis erupted in 2008, policymakers around the world have been working on improving financial market oversight in order to increase global financial stability. The role of insurance has been an area of particular focus.

Throughout this period, The Geneva Association has pursued an intensive dialogue with regulators, supervisors, central bankers and the insurance industry to develop research that tackles the issues that emerged during the process. (See p. 17)

Climate risk and extreme events

The human and economic impact of natural catastrophes and extreme events has radically increased since the turn of the century, causing major economic losses and human suffering. Societal resilience, loss mitigation and the protection of populations require the involvement and cooperation of multiple actors: governments, corporations, individuals as well as the insurance sector.

The Geneva Association analyses the existing and potential role of insurance and risk management in tackling the challenges posed by climate risk and extreme events. In particular, it takes a close look at disaster risk reduction, where insurance can play a role in public–private partnerships to help reduce the impact of climate-related extreme events. (See p. 23)

Global ageing

The financing of pension systems has not been adapted to account for changing demographics (improved longevity and lower fertility rates). Adding to this concern is the increase of age-related illnesses and the health-care costs of an ageing population.

The Geneva Association continues to research funding solutions, including post-retirement work and how the insurance mechanism can support governments and individuals in financing retirement and age-related health costs. (See p. 29)

Liability regimes and dynamics

Liability dynamics comprise the forces that drive the increasing frequency, severity and innovation of liability claims, including societal, political and economic influences. Regimes are the laws, legal systems and standards by which claims are processed.

The Geneva Association has highlighted the changing nature of liability insurance through its Liability Regimes project. It was initiated in 2003 in recognition that unexpected liability loss conditions were the leading causes of every industry crisis of the past 30 years. (See p. 37)

THE GENEVA ASSOCIATION EVENTS

The Geneva Association organises or co-organises approximately 15 conferences and seminars every year. These include, but are not limited to, the Insurance and Finance, Regulation and Supervision, Health and Ageing, Life and Pension, and Liability Regimes conferences; the European Group of Risk and Insurance Economics (EGRIE); the Annual Circle of Chief Economists (ACCE); the Annual Round Table of CROs and the CRO Forum; the Management of Risks in the Economy (M.O.R.E.) seminar; the Climate Risk and Insurance seminars; and, of course, the annual General Assembly. (See p. 46)

THE GENEVA ASSOCIATION PRIZES, AWARDS AND GRANTS

Every year, The Geneva Association presents an award jointly with the International Insurance Society (IIS) on applied research in the insurance area. The Association also awards the prestigious Ernst-Meyer Prize for doctoral theses annually and offers two grants for research on insurance economics. (See p. 52)

THE GENEVA ASSOCIATION PUBLICATIONS

The Geneva Association issues a number of publications throughout the year. These include seven newsletters published twice a year (one for each research programme and the *World Fire Statistics Bulletin* once a year), white papers by research working groups, ad hoc topical reports (The Geneva Reports), special contributions by experts and Members, and its flagship publications, *The Geneva Papers on Risk and Insurance—Issues and Practice* and *The Geneva Risk and Insurance Review.* (See p. 55)

Reception with HRH The Prince of Wales at Clarence House

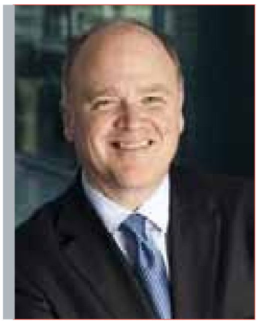
From left to right and front to back: Rowan Douglas, CEO, Willis Analytics, London; Tidjane Thiam, Group Chief Executive, Prudential plc, London; HRH The Prince of Wales; Donald Guloien, President and CEO, Manulife Financial Corporation, Toronto; Michael A. Butt, Co-chairman of The Geneva Association's Climate Risk and Extreme Events project and Chairman of Axis Capital Holdings, Hamilton; Mark Wilson, Group CEO, Aviva plc, London; John H. Fitzpatrick, Secretary General, The Geneva Association, Basel/Geneva; Mike McGavick, CEO, XL Group plc, Dublin and Chairman of The Geneva Association; Carlo Acutis, Vice President, Vittoria Assicurazioni S.p.A., Turin; Dr h.c. Walter R. Stahel, Head of Research, Climate Risk, The Geneva Association, Geneva; Barbara Botterill, Conference Coordinator, The Geneva Association, Geneva; Katharine Thoday, Programme Manager, Cambridge Programme for Sustainability Leadership, London; and Justin Mundy, Director, The Prince's Charities International Sustainability Unit, London.

2013/2014 HIGHLIGHTS

5 June 2013—Climate Risk Report

In its report *Insurers' Contributions to Disaster Reduction—a Series of Case Studies*, presented at a press conference ahead of its 40th General Assembly in London, The Geneva Association examines examples of existing collaboration between insurers and governments on disaster risk and shows that governments around the world can reduce the human and economic impact of natural catastrophes by cooperating more closely with insurers. (See p. 23)

6 June 2013—New Chairman



Mike McGavick, CEO of XL Group plc, is elected Chairman of The Geneva Association. Mr McGavick takes over from Dr Nikolaus von Bomhard, who steps down by statutory requirement after four years as Chairman.

6 June 2013—New Deputy Secretary General and Head of Research

Dr Shaun S. Wang is named Deputy Secretary General and Head of Research of The Geneva Association. Dr Wang was formerly Professor, Director of the Actuarial Science Program, and holder of the Thomas P. Bowles, Jr. Chair of Actuarial Science at the J. Mack Robinson College of Business, Georgia State University, U.S.

24 June 2013—Report on Ocean Warming

The Geneva Association issues a report that examines the evidence for the role of ocean warming in extreme event changes and their implications for the insurance industry. The report calls for an acceleration in the shift from historic to predictive risk assessment methods and for the use of scenario-based approaches and tail risk modelling to become an essential part of enterprise risk management. (See p. 27)

19 July 2013—G-SII Designation

The Geneva Association responds to the publication of both the Financial Stability Board's (FSB) list of global systemically important insurers (G-SIIs) and the publication by the International Association of Insurance Supervisors (IAIS) of policy measures and consequences to be applied to G-SIIs. (See p. 17)

5 September 2013—New Look

The Geneva Association adopts a new look, including a new logo and colour palette, providing stronger recognition and a clearer identity for the Association going forward. The logo and colour scheme modernise the Association's appearance and enable clear recognition of the Association across all media.

24 October 2013—Call for Disaster Resilience

In light of the anniversary of Superstorm Sandy's first landfall and following the recent publication of the *Fifth Assessment Report* from the Intergovernmental Panel on Climate Change, The Geneva Association calls on governments to expand and increase their disaster resilience and response efforts.

28–29 October 2013—Climate Risk and Insurance Seminar in Sendai

Jointly with Tokio Marine & Nichido Fire Insurance Co. Ltd., the CR+I working group organises its 5th seminar in Sendai, Japan. This was the first field trip of the working group to the scene of a natural catastrophe. It sought to establish the lessons learned from the events of 11 March 2011 in Tohoku—the earthquake and tsunami—and their impact on human life, terrestrial infrastructure and consequential losses. (See p. 25)

Margareta Wahlström, Special Representative of the Secretary General for Disaster Risk Reduction, United Nations Office for Disaster Risk Reduction, at the Sendai seminar.

18–19 November 2013—Health and Ageing Conference

The Geneva Association organises a highly insightful conference on "Insuring the Health of an Ageing Population", co-hosted with Swiss Re. Topics focused on the medical aspects of ageing, the challenges of financing the health of an ageing population and the role that insurance can play. (See p. 32)

21 November 2013—Call for Disaster Risk Reduction

The Geneva Association calls on the ministerial delegates attending the United Nations Climate Change Conference of the Parties in Warsaw (COP19) to recognise the importance of disaster risk reduction and resilience-building in the face of increasingly extreme weather events due to climate change.

5 December 2013—Roundtable on The Challenge of Global Ageing

The Geneva Association organises a roundtable on finding solutions to the global ageing challenge. Participants and speakers examine, inter alia, the causes and implications, the challenges and opportunities facing insurers, what constitutes a sustainable retirement system, longevity risk, and a new approach to helping households manage retirement risks. (See p. 31)

5 December 2013—London Market Awards

The Geneva Association is announced as the winner of the 2013 London Market Awards "Insurance Initiative of the Year" for its efforts to promote the social and economic value of insurance by means of a report, articles and its social media campaign #goinsurance.

24–25 March 2014—Regulation and Supervision Seminar

The Geneva Association organises its 30th Regulation and Supervision (PROGRES) seminar, highlighting the growing complexity and sophistication of the multiple regulatory and supervisory regimes in insurance around the globe, asking the question: are we safer? (See p. 47)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FINANCIAL STABILITY AND REGULATION

With the designation of global systemically important insurers (G-SIIs) in July 2013, The Geneva Association has concentrated its research over the past 12 months on the impact of the designation; the International Association of Insurance Supervisors' (IAIS) proposals on policy measures and recovery and resolution regimes; and the issue of global capital standards. Another important regulatory development on which The Geneva Association concentrates is the development of the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame).

FSB G-SII DESIGNATION

The designation of nine companies as G-SIIs by the Financial Stability Board (FSB) was a long-awaited decision. Recognising that the consequences of the designation and how the proposed IAIS policy measures were going to impact the designated companies, The Geneva Association dedicated its October 2013 *Insurance and Finance Newsletter* to this topic.

In the newsletter, the CEOs of some of the world's largest insurers, including Michael Diekmann of Allianz, Denis Kessler of SCOR, Robert Benmosche of AIG and Steven Kandarian of MetLife, commented on G-SII status and its potential consequences. They highlighted in particular the importance of precisely identifying systemically relevant activities in order to avoid penalising insurance activities that do not cause or enhance systemic risk. Noticeably absent from the announcement was mention of the criteria and measurements used to designate the G-SIIs, meaning that the process was far from transparent, predictable or indeed measurable.

The Geneva Association has also conducted a first, preliminary analysis of market reactions to the designation and compared it to the market reactions in banking when the global systemically important banks (G-SIBs) were designated. The analysis concluded that G-SIIs did not expect any significant advantage from the designations, unlike the effect observed in the banking sector. This was also indicated in short-term reactions to the designation. In addition, the "too big to fail" label did not, as expected, provide any benefit to the G-SIIs.

RESEARCH ON G-SII POLICY MEASURES AND CONSEQUENCES

Even before the IAIS published its paper on policy measures and consequences, The Geneva Association engaged its Members in discussions on enhanced supervision, recovery and resolution plans and higher loss absorbency as potential

policy measures. First findings were presented and discussed with the FSB, the IAIS and national supervisory bodies in early autumn 2013.

The Geneva Association considers enhanced supervision and effective recovery and resolution plans as being the most important mitigating factors of systemic risk. These plans focus on reducing the impact of failures and, as such, guarantee an orderly resolution process.

While The Geneva Association agrees that separation of certain activities can prevent spill-over effects to other areas of the insurance business, it recommends using separation for non-insurance activities by carefully assessing the consequences. The Geneva Association does not see separation of insurance activities as a helpful measure, given that it could diminish the positive effects of diversification within the insurance business.

Equally, any restrictions considered should apply to non-insurance activities only. With regard to recovery and resolution plans, The Geneva Association stresses the importance of reflecting the specificities of the insurance model, which allows a ladder of intervention to be applied in recovery and resolution phases. More important, however, is the prevention of excessive risk taking, which can be controlled and managed by a comprehensive risk management system.

The Geneva Association considers higher loss absorbency as a measure to be applied to activities which have the potential to create systemic risk and are not already captured by any risk-based solvency framework and all other measures that prove not efficient enough to reduce systemic risk. The Geneva Association advocates giving a strong priority to measures which reduce the impact of a failure, as this ensures companies exit the market should they prove to be unviable.

FSB CONSULTATION ON RECOVERY AND RESOLUTION

The Geneva Association commented on the FSB's consultation on the *Application of the Key Attributes of Effective Resolution Regimes to Non-Bank Financial Institutions* in October 2013.

The Geneva Association stressed in its response that any resolution measures should only apply to systemically relevant activities proportionate to the threat that these activities pose to the viability of the insurance group. The scope of application needs to be clearly defined to avoid capturing other insurance activities that do not pose any systemic risk. Equally essential as the preparedness of insurance groups to engage in recovery and resolution planning, is the supervisors' readiness to recognise the importance of capital fungibility

THE OBJECTIVE OF A RESOLUTION PLAN SHOULD BE THE CONTINUATION OF THE INSURANCE BUSINESS

to achieve diversification effects in the insurance group. Unnecessary ring-fencing should be avoided to maintain beneficial diversification effects.

In the interest of policyholders, The Geneva Association has proposed a ladder of intervention, which sees wind-up as a last resort option, applicable in exceptional circumstances. The objective of a resolution plan should therefore be the continuation of the insurance business.

IAIS GLOBAL CAPITAL STANDARD ANNOUNCEMENT

In October 2013, the IAIS announced its intention to develop a global insurance capital standard (ICS) for internationally active insurance groups (IAIGs) by 2016 for implementation in 2019. The ICS is going to be part of the ComFrame. At the same time, the IAIS is going to work on a basic capital requirement (BCR) for G-SIIs, which will form the basis for any higher loss absorbency (HLA) capital charge applied to designated G-SIIs. The Geneva Association, in cooperation with the International Institute of Finance (IIF), is working with the industry in contributing to the discussion by presenting potential approaches to the BCR. Building on the ongoing discussions, The Geneva Association's research work will continue throughout 2014.

IAIS 2013 COMFRAME CONSULTATION

In April 2013, The Geneva Association conducted a survey on group capital management to contribute to the discussions on ComFrame. It therefore focused its answer on the IAIS 2013 ComFrame consultation on Module 2 of ComFrame, which addresses the capital adequacy of an internationally active insurance group.

In its December 2013 response to the IAIS 2013 ComFrame consultation, The Geneva Association cautioned that the decision-making process on a valuation standard for ComFrame should include a thorough impact assessment. For the same reason, qualifying capital resources should only be defined once the field test results are available.

The classification of capital resources into categories is unnecessary and narrows the range of capital that IAIGs can use to comply with capital requirements. The Geneva Association highlights the disconnection between the tiering system suggested in the latest ComFrame draft and the capital tiering system used in current regulatory regimes, and suggests introducing one concept of capital instead.

LOOKING AHEAD TO 2014/2015

Basic capital requirement

The BCR is the first of the new capital standards required to be completed (by the end of 2014) and so has received significant focus and the largest degree of development. The Geneva Association is working with the industry to support this process. Concerns remain regarding the challenges of the timeline. The BCR was initiated as a base from which to create HLA capital for G-SIIs (see below). However, with the announcement of the ICS, the objectives and scope of the BCR have been subjected to significant widening. In 2014, the IAIS will announce whether the BCR will be extended beyond G-SIIs to also capture IAIGs. Additionally, the development of the BCR has now been linked to the development of the ICS.

A factor-based approach has been adopted, but clarity over the exact form and calibration in the development will not be known until after the ComFrame field testing in summer 2014. The challenge remains to creating a standard that covers the entire balance sheet, is simple in approach, has some risk sensitivity, is globally comparable and provides a meaningful base for HLA.

Much of the initial work has focused on the attempt to find an approach which sets balance sheets under different accounting standards into a common valuation format. The valuation of insurance liabilities is a major challenge in this area. During field testing the IAIS will also test the feasibility of using economic balance sheets.

Insurance capital standards

In October 2013, the IAIS announced its intention to introduce a global ICS by 2016 with full implementation in 2019. This standard will apply to G-SIIs and IAIGs.

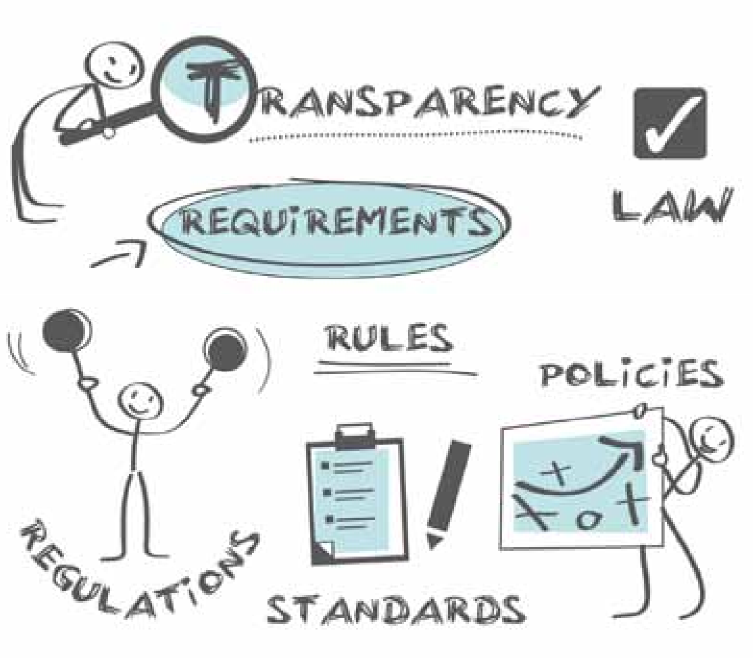
Given the challenging timeline and the work of the BCR, the IAIS is set to use the BCR factor-based model approach as the basis to inform the development of ICS. It will then become a more sophisticated model, building upon the BCR. The concept is that the ICS will continue to develop and be refined in 2017 and 2018. This leaves open the possibility that it also replaces the BCR and becomes the basis for HLA.

The Geneva Association has responded to the early outline of ICS within the ComFrame consultation as indicated above. One of the main concerns of The Geneva Association is the concept of the tiering of capital (or of "tiering capital") into going-concern and winding-up categories. All elements of the balance sheet for required and available capital should be based on a consistent and going-concern fair valuation if the objective is to assess the viability of an entity at any given time.

Higher loss absorbency

HLA remains an additional capital charge related to G-SIIs only, covering their additional exposure to systemic risk. The outline provided in the July 2013 IAIS Policy Measures paper focuses on its application as a charge for non-traditional non-insurance (NTNI) risk. Although NI risk can be easily understood and charges can be calculated by applying other sector approaches, a clear and concise definition of NT business remains outstanding.

The Geneva Association would be concerned if HLA were to be extended beyond a charge for systemic activities as perceived in NTNI assessments and result in additional charges for traditional business. The result would be an unwelcome distortion of the competition in the markets. The Geneva Association expressed its view to use HLA as the last measure should the other consequences like enhanced supervision and recovery and resolution plans not reduce systemic risk sufficiently. This would be fully in line with IAIS's goal to achieve an internalisation of all costs related to systemic risk.



CLIMATE RISK AND EXTREME EVENTS

After being largely absent from the 2012 U.S. presidential elections, the issue of climate change and associated risks has made an almost daily appearance in the global news in recent months. In 2013, The Geneva Association pursued its work on how insurance can contribute to mitigating the impact of climate-related natural catastrophes and examined new ways to assess climate risks.

President Obama spoke about "strong action against climate change" in his January 2014 State of the Union address. In March, the U.S. Congress passed a bill enacting changes to the National Flood Insurance Program. Last summer, Central Europe experienced extreme flooding, while in the U.K. the storms and flooding between December 2013 and February 2014 cost £1.1bn in insured losses, according to the Association of British Insurers. Research on how governments, insurers and citizens can, and must, cooperate is as essential as ever if societies and nations are to prepare for and mitigate effectively the impact of natural catastrophes and other extreme events.

The Geneva Association Climate Risk and Extreme Events project was established in May 2008 as a strategic mandate from the Association's Members, to promote research on climate risk and its multifaceted challenges to the insurance industry. During 2013/2014, the project focused on the issues of disaster risk reduction, ocean warming and risk modelling.

The project working group consists of experts from a dozen of the Association's Members, complemented by external experts from internationally renowned institutions and modelling firms. It holds an open seminar event once a year to share its findings with a broader audience. The project is co-chaired by Shuzo Sumi, Chairman of Tokio Marine & Nichido Fire Insurance Co. Ltd. and Michael Butt, Chairman of Axis Capital Holdings Ltd.

DISASTER RISK REDUCTION

At last year's General Assembly, The Geneva Association issued Geneva Report No. 7: *Insurers' Contributions to Disaster Reduction—A Series of Case Studies*, which examines the cooperation between governments, insurers and citizens in their endeavours to mitigate extreme events, which are exacerbated as much by poor risk management as by the effects of climate change. Given the insurance sector's unique capacity for mitigating the losses resulting from extreme events, this report focuses on the arrangements, regulation and conditions that best exploit its deep knowledge of risk management.

In an interview with The Geneva Association, Andrew Maskrey, Senior Coordinator for the United Nations Office for Disaster Risk Reduction (UNISDR) *Global Assessment Report on Disaster Risk Reduction*, said, “Whilst mortality losses from disasters are falling, the economic losses from natural catastrophes are rising at an exponential rate. The expectation that societies can recuperate from disaster with the help of insurance alone is not realistic. Government intervention is crucial.” Indeed, The Geneva Report No. 7 highlights how public policy can facilitate insurance effectiveness or warp the incentives it provides. Strict building codes and sensible land-use policies are examples of how policy can facilitate the contribution of insurance to disaster risk reduction.

In 1999, United Nations Secretary General Kofi Annan succintly described the difficulty in implementing policies aimed at mitigating the impact of natural catastrophes as such, “Building a culture of prevention is not easy. While the costs of prevention have to be paid in the present, its benefits lie in the distant future. Moreover, the benefits are not tangible; they are the disasters that do not happen”.[1]

Yet, insurance has the relevant expertise in risk reduction and claims compensation to support government actions and inject liquidity into catastrophe-affected markets. This is essential in today’s increasingly connected societies. Superstorm Sandy showed that the most severe impacts and economic costs of a natural catastrophe are often not due to the storm itself but to the systems and business interruptions, power outages and other knock-on effects.

In 2013/2014 The Geneva Association continued its efforts to draw public attention to the need for public–private cooperation in this area. In November 2013, the Association called upon delegates meeting in Warsaw (11-22 November 2013) for the 19th Conference of Parties (COP) to recognise the importance of countrywide disaster risk reduction measures, and risk-conscious urban planning and building standards.

Secretary General John Fitzpatrick said, “Societies and governments must be prepared to learn from these disasters. While the world is receptive in the wake of the Haiyan catastrophe, the global governors present at the COP19 meetings have the ability and the opportunity to increase disaster resilience globally through the creation of an effective successor to the Hyogo Framework for Action.” Endorsed by the United Nations General Assembly in the Resolution A/RES/60/195 following the 2005 World Disaster Reduction Conference, the *Hyogo Framework for Action* (HFA) is a 10-year plan to make the world

[1] United Nations. (1999). *Report of the Secretary-General on the Work of the Organization*, General Assembly, Official Records, Fifty-fourth Session, Supplement No. 1 (A/54/1), para. 23.

THE INSURANCE SECTOR HAS A UNIQUE CAPACITY FOR MITIGATING LOSSES FROM EXTREME EVENTS AND A DEEP KNOWLEDGE OF RISK MANAGEMENT

safer from natural hazards. A successor to HFA is currently in development and will be launched in Sendai, Japan in March 2015.

Finally the report draws attention to the "developing country conundrum": the lower a country's GDP, the greater the impact from natural catastrophes. Nowhere was this more evident than in the starkly contrasting human and economic impacts of the earthquakes in Japan and Haiti. Despite the shocking mortality in Japan, the stock of resilient infrastructure and building in the country means that the impact of the same event would have been far worse in any other country, by several orders of magnitude.[2]

LESSONS LEARNED FROM TOHUKU

The issue of mitigating the effects of a natural catastrophe was the focal point of The Geneva Association's 5th CR+I seminar, which was held in Sendai, Japan, on 28–29 October 2013. Chaired by Michael Butt, Chairman of AXIS Capital Holdings, and hosted by Shuzo Sumi, Chairman of Tokio Marine, the seminar was the working group's first field visit to the site of a disaster to draw on lessons learned from the event.

Germany, June 2013.

This 5th CR+I seminar set a platform for insurance-focused discussions at the 3rd United Nations World Conference on Disaster Risk Reduction, to be held in Sendai City in March 2015. HFA 2 is expected to be signed at this globally anticipated event. The Geneva Association aims to be one of the key representatives of the insurance industry in the discussions with the UNISDR and other global governance organisations.

Over two days, participants attended several workshops that touched upon the state of global development in disaster risk reduction, lessons learned from 11 March 2011, advancements in risk research, and how to harness public–private partnership programmes in the Asia Pacific region.

Japan provides a good example of risk sharing between insurers and governments, with the government functioning as a reinsurer through the Residential Earthquake Insurance System. In his opening remarks at the Seminar, Shuzo Sumi told participants that "the way that insurers handled claims and worked in the community following the Tohuku earthquake and tsunami changed perceptions of insurance in Japan" but that "there is much more room for exploration of how insurance can be used as a useful social measure to prepare for the next disaster."

Michael Butt concurred, stating that "the insurance industry has a lot more to contribute at a structural level to the social and political debate on disaster risk reduction than it has currently been able to manifest or show itself able to do."

Finally, Margareta Wahlström, Special Representative of the Secretary General for Disaster Risk Reduction, UNISDR, also hoped to see more involvement from insurance in prevention and not only after an event. She called on insurers to make a substantial commitment at the 2015 HFA conference and to be part of the public discussions.

[2] According to the *Lloyd's Global Underinsurance Report* (2012), the Japanese economy had recovered within 12 months of the devastating earthquake and tsunami; Haiti was, and still is, recovering from the earthquake in 2010.

THE WARMING OF THE OCEANS

On the eve of President Obama's remarks on climate change at Georgetown University and the presentation of the White House's action plan (25 June 2013), The Geneva Association issued a report on the effect of ocean warming on climate-related events and the need to reassess how risks are calculated.

Global warming affects not only the land surface but also the waters of our planet, and there is new and robust evidence that the global oceans have warmed significantly. Given that energy from the ocean is the key driver of extreme events, ocean warming has effectively caused a shift towards a "new normal" for a number of insurance-relevant hazards. This shift is quasi irreversible—even if greenhouse gas emissions completely stopped tomorrow, oceanic temperatures will continue to rise.

The Geneva Association tackled this issue in its report *Warming of the Oceans and Implications for the (Re) insurance Industry*, which became part of the global discussion (see box for more details on report). The Geneva Association dedicated a page of its website to this important topic.

PLANNED RESEARCH

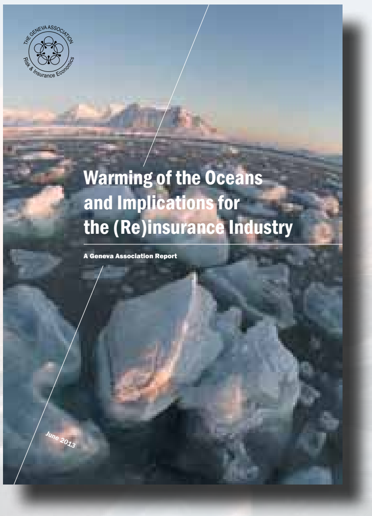
With its built-in knowledge of extreme events, the insurance industry has been leading efforts to increase risk awareness amongst governments, individuals and businesses for many years. Data collection, risk analysis and assessments are the common tools of trade—not only does great insurance penetration lead to lower economic and social fallout, but also the results of research on risk can send pricing signals that fuel public debate on safety and lead to more risk-resilient behaviour.

As recent events show, however, we still face a gap between risk awareness and action taken to respond to those risks, and more can be done getting climate and disaster risks on to the political and corporate agenda. There is a need for another message from the industry: the economic benefits of taking action, not just in terms of risk transfer, but reflecting on the broad range of tools, services and instruments that the industry can bring to the table.

The Geneva Association is therefore planning a research paper on "The Economic Benefits of Managing Climate Risks", proposed by Dr Swenja Surminski of the London School of Economics and a member of the Climate Risk and Extreme Events Working Group. This brief paper/ research note will capture our current knowledge and propose an annual report on "the state of play" on the use of insurance products and services.

WE STILL FACE A GAP BETWEEN RISK AWARENESS AND ACTION TAKEN TO RESPOND TO THOSE RISKS, AND MORE CAN BE DONE GETTING CLIMATE AND DISASTER RISKS ON TO THE POLITICAL AND CORPORATE AGENDA

Warming of the Oceans and Implications for the (Re)insurance Industry



The global oceans and their currents are of fundamental importance for the storage and distribution of solar energy absorbed by the climate system. Energy is exchanged between the atmosphere and ocean mainly via radiative exchange and the transport of latent heat from evaporation and condensation. By transporting vast amounts of energy and being the main source of water to the atmosphere, the oceans determine weather patterns and provide the energy needed for the development of extreme events.

Understanding the changes of ocean dynamics and the complex interactions between the ocean and the atmosphere is the key to understanding current changes in the distribution, frequency and intensity of global extreme events relevant to the insurance industry, such as tropical cyclones, flash floods or extra-tropical winter storms.

Recently, improved observational records and the increased length of reliable time series provide new evidence of the degree of global ocean warming and the distribution of energy within the ocean. A positive temperature trend in the ocean is now detectable and has already changed selected but relevant metrics for extreme events away from what we have observed in the past.

The implications of today's effective ocean warming for insurance-relevant extreme events include the need to reassess the way we quantify and manage today's catastrophe risk; specifically, after moving away from historical averages, the need to define a "new normal", which is itself highly uncertain.

Historical data-driven (or climatological) approaches to estimate the background risk of different events will fail in a non-stationary environment, as they do not adequately incorporate recent changes. Even if some of the changes might not be significant yet, risk estimation has to include the consequences of what current physical understanding can tell us about the implied changes of the observed ocean warming. New methods in risk estimation, such as scenario-based approaches and tail-risk modelling, are becoming an essential part of the insurance business with a variety of different applications, such as setting capital requirements, pricing and/or risk mitigation.

This report published in June 2013 gives an overview of the detected changes in the oceans and their impact on extreme events and hazard probabilities over the last decades. It summarises the changes in risk management strategies that (re)insurance companies can implement in order to address the new situation appropriately, be compliant with regulatory requirements and ultimately improve their ratings.

To download the report click here.

GLOBAL AGEING

THE CHALLENGE OF GLOBAL AGEING

In 2013/2014, as the Detroit bankruptcy highlighted the extent of the U.S. pension crisis, The Geneva Association continued to examine retirement funding issues and the health concerns of ageing populations as they affect governments globally.

The 19th century German Chancellor Otto von Bismarck introduced his "Old Age and Disability Insurance Law" 125 years ago. This welfare scheme provided workers with a pension annuity upon reaching the age of 70—at a time when life expectancy at birth was 42. Today, of course, the trend has reversed: in most countries, retirement is set at 65 years of age, while the average life expectancy in many industrialised nations is near or even above 80.

Lower fertility rates combined with increased longevity have exacerbated the challenge of financing retirement, and the evolution of pensions systems is not keeping step with these changing demographics. This creates enormous funding challenges for governments globally, particularly since the issue requires long-term solutions that transcend the political cycle.

Adding to this concern about pensioners living longer is the need to address the costs of health care for these ageing cohorts. The Geneva Association has been studying these issues for a quarter of a century and proposing solutions to the challenges they raise.

Global retirement systems: the fierce urgency of now

In January 2013, the Institute for Public Policy Research in the U.K. issued qualitative research that discussed the barriers holding the public back from saving and engaging with pensions, explored what they realistically want from the pension system, and asked whether there are new "defined ambition" models that can deliver it. As a result, they issued a call for ambitious pension reform in the U.K., whilst challenging the existing status quo.

In March, President Barack Obama appeared to recognise the urgency in the U.S. by proposing a retirement savings plan in his 2015 fiscal budget, designed to allow workers who do not have access to a 401(k) plan to plan for retirement with tax-deductible investments in government bonds.

Western economies are not the only ones affected by the global ageing challenge; the Russian Federation is in the process of reforming its public pension system (*Life and Pensions Newsletter* No. 53, September 2013) and the most recent *Life and Pensions Newsletter* (No. 54, March 2014) has analysed the state of pension systems in four emerging markets on different continents: Chile, in South America;

Left: morning tai chi in Tiantan park, Beijing. ©AFP/Hemis France.

the Gulf Cooperation Council states in the Middle East; Turkey in Central Europe; and China in East Asia.

The challenges each system faces are rather different, not only as a result of their population age profiles, but also as a result of their existing pensions systems. In the face of growing life expectancies, for example, Chile made the decision to move from a pay-as-you-go system to one based on individual capitalisation, which has had the additional beneficial effect of boosting the economy.

In the Middle East, hydrocarbon wealth has made possible highly generous social security systems that have not created much pressure for individual provisions for retirement. Religious reservations about insurance and the limited ability of blue-collar workers resident in the region to afford retirement provisions have also led to the current low levels of insurance uptake. However, that situation is changing, and takaful represents an opportunity for the expansion of products to support security in retirement.

In Turkey, the youthful population means far less demographic strain, and recent reforms (2012) have increased the attractiveness of private pension insurance, with subscriptions already having doubled. There remains, however, a culture of early retirement, which means the country suffers from higher retirement expectancies than most OECD countries. Still, Turkey's demographic advantages (mainly a relatively youthful population) and economic stability means that further reforms are possible.

Finally, in China, the one-child policy, low returns on investment and a significant gap between the contribution rate and the replacement rate are cited as the key challenges facing the Chinese government and population. Whilst family members still have a legal responsibility for their ageing parents and family members, the dissolution of nuclear families due to economic development and urbanisation mean that the public and private pensions systems will be critical in ensuring a secure retirement for the Chinese elderly in the future.

U.S. public pension crisis

The urgency of pension reform is certainly felt more acutely in a country like Japan, where the population is ageing faster than the global average, than in the U.S. where little more than a fifth of the population is expected to be aged 65 or older in 2050. Yet, in the U.S., not only the federal but also local and state governments cannot afford to be complacent, particularly as the Detroit bankruptcy is only the tip of the iceberg when it comes to the simmering pension crisis facing U.S. municipalities.

In January 2014, President Obama hired lawyer Phyllis Borzi, Assistant Secretary for Employee Benefits

THE GENEVA ASSOCIATION HAS LONG BEEN AN ADVOCATE OF LABOUR MARKET FLEXIBILITY IN ORDER TO PROMOTE THE CONTINUED EMPLOYMENT OF WORKERS PAST RETIREMENT

Security of the United States Department of Labor, in an attempt to tackle the dire problems facing U.S. pensions.[3] Recently in March, the CFA Institute hosted a discussion on this pressing topic.

A report published by The Geneva Association entitled *The Public Pensions Crisis in the U.S.* suggests that policy choices and lack of fiscal discipline—namely, the failure to make annual payments for pensions systems at actuarially recommended levels and expanding benefits without considering their long-term costs—have contributed to this situation.

New York Roundtable

On 5 December 2013, The Geneva Association organised a roundtable in New York on finding solutions to the global ageing challenge, convening insurance executives and top research experts on this topic. Tackling various aspects of the causes, the meeting discussed the implications of and solutions for the global ageing challenge and included presentations on longevity risk, managing retirement risks, sustainable state and local retirement systems, as well as the challenges and opportunities facing insurance companies.

It emerged that retirement readiness is lacking, particularly for lower income consumers and that great increases in savings are needed to provide adequate income. Often the process of planning the entire retirement is complex for individual consumers, but planning for a finite number of years is possible, with a late-life annuity to fill any gap.

The roundtable also highlighted other issues, such as the volatility of health care costs and the difficulty in assessing long-term care risks. It underscored the importance of economic growth for all types of plans and pillars, and stressed the need for retirement systems to support economic growth. Some proposals included a system of regular annuity purchases in addition to existing defined contribution schemes, as well as flexible target benefit plans or "defined ambition" plans, which essentially split the savings risk between workers and their employers.

Insurance solutions and post-retirement work

The Geneva Association has long been an advocate of labour market flexibility in order to promote the continued employment of workers past retirement, considering them valuable contributors to financial, economic and societal stability—and even growth. Indeed, human capital, i.e. the ability to earn income, should be valued, particularly in societies with ageing populations.

[3] Hallez, E. (2014). The woman President Obama hired to avert the US pensions crisis. *Financial Times*, 12 January 2014.

These "silver workers" constitute one of the four pillars required for sound pension planning[4] and should become an increasingly important contributor to economic growth in the future. Not only would this be of benefit to the economy, but also to the workers themselves, many of whom report significant health as well as financial benefits of working past retirement, according to a study conducted in Germany.[5] In the *Life and Pensions Newsletter* No. 53, Hans Dubois examined the growing trend of retirees in the European Union, as well as who they are and why they want—or need—to go on working, in his article "Work after Retirement in the EU".

Again, post-retirement work is only one of the four pillars necessary to sound pension planning—it cannot be the only solution. Indeed, as highlighted by the report *The Public Pensions Crisis in the U.S.*, excessive reliance on any one of the four pillars, particularly public schemes or private savings only, strains public finances and/or an individual's ability to finance retirement adequately.

[4] This builds on the traditional three-pillar approach: 1) public pay-as-you-go (PAYG) schemes; 2) occupational benefit plans; and, 3) private insurance savings.

[5] Deller, J. (2014). Transitions and old age potential. *Life and Pensions Newsletter* No. 54: 20–24.

INSURING THE HEALTH OF AN AGEING POPULATION

While increased longevity is a great achievement for societies, at the same time it is an unprecedented challenge, not only with respect to financing retirement but also to handling rising health costs.

Indeed, today's individuals are expected to live longer than previous generations, but part of these extra years of life may not necessarily be healthy years. Such trends can impact the sustainability of current health systems and call for the development of new forms of financing, in particular in the area of insurance.

The recent 10th Health and Ageing Conference of The Geneva Association, which took place in Zurich on 18–19 November 2013, reflected on these new developments with the aims of better understanding the medical aspects of ageing, the challenges of organising the financing of the health of an ageing population and the role insurance can play in this regard.

Today's health systems are mainly unfunded, pay-as-you-go schemes with intergenerational redistribution and a fixed age limit. The consequence of the ageing phenomenon is to destabilise the financing of these health-care systems. Faced with a shrinking tax base and rising health costs, they are bound to experience increasing difficulties. Consequently,

WE MUST NOT NEGLECT THE FACT THAT PEOPLE LIVING LONGER, HEALTHIER LIVES, CAN IMPACT THE SUSTAINABILITY OF CURRENT HEALTH SYSTEMS AND CALL FOR NEW FORMS OF FINANCING

it may happen that the package of health services covered by social security or other social insurance schemes will be systematically reduced. Thus, in many industrialised countries, supplementary health insurance is developing at a fast pace, and privately funded systems are slowly emerging.

In looking at the ways insurance can participate in the financing and coverage of health risks for an ageing population, two important dimensions need to be addressed. The first one relates to the specific products made available by insurers. The second dimension is gaining a better understanding as to how health insurance premiums are established and how private health insurance can be made affordable for an ageing population.

Specific insurance products to cover the health of an ageing population

Broadly speaking, three main classes of products have been developed by insurers to fulfil the needs of an ageing population in terms of health coverage. These are long-term care (LTC) insurance, either as a stand-alone product or a hybrid product, critical illness insurance and impaired life annuities.

LTC, that is, care for people dependent on help for daily activities, is one of the biggest threats to the wealth of the elderly, and insurers for some decades have been developing LTC insurance contracts. Stand-alone LTC insurance products, however, have encountered limited success and might not be totally adapted to all markets and people.

These products can be expensive, especially when bought at an older age, and underwriting might be time-consuming. In recent years, new products to cover the risk of needing LTC have been developed in the form of LTC insurance and life insurance combined into a single product. Longevity risk is usually covered through life and annuity insurance, while the risk of using LTC is covered by LTC insurance. The strategy of combining these two products into one is that the risks compensate each other: healthy people with a high life expectancy attracted by life insurance offset those in poor health with a short life expectancy attracted by LTC insurance.

Combining these two risks in one product has further advantages. First, it reduces the phenomenon of adverse selection in the market for life insurance, since dependent people will likely not live long enough to qualify for long-term annuities. Second, the selection of risk is minimised, because it consists only of filtering out individuals who can immediately benefit from insurance payments.

Another insurance product to cover the health of an ageing population is

impaired life annuities. Impaired life annuities are annuities designed for those who, at the time of retirement or contracting insurance, are already suffering from chronic illness. Unlike traditional annuities, these are underwritten with full knowledge of the applicant's state of health.[6] Correctly pricing and underwriting impaired life annuities is very challenging, as mortality assumptions for people with specific impairments change rapidly. This is even more challenging because populations with specific impairments may also be subject to co-morbidities, making mortality rates difficult to forecast.

The third product, critical illness insurance, is a product that has been developed extensively in Asia, Australia, South Africa the U.K. It provides a lump-sum benefit in the event that the insured suffers from chronic medical conditions that are covered by the policy. Common examples include heart attack, stroke, cancer, bypass surgery, kidney failure, organ transplant and many chronic illnesses. The medical conditions in the policy are rigorously defined.

While critical illness insurance is not yet common in Europe, it could be an interesting product there, subject to a competent pricing and rigorous underwriting process. This product is interesting for an ageing population, since the financial impact of diseases included in the policy strongly increase with age whether it is through health care, rehabilitation, temporary assistance or housing modification. While currently 60 to 80 per cent of all critical illness claims are cancers, it is most likely that old-age dementia and other age-related diseases will become more important.

Pricing and premium affordability

Two features govern the coverage of chronic conditions, and this should be reflected in the ways premiums are constructed. First, chronic sickness rates rise with age. Second, the treatment duration for chronic conditions is for life. These extra costs have to be passed on to existing policyholders through premium adjustments, it being difficult to accommodate such coverage into constant annual premium structures.

Various pricing models exist to fund health insurance premiums for an ageing population. The first one is the risk premium provision, for which premiums paid increase each year with utilisation and medical inflation. The policies written are guaranteed renewable, and insurers have no requirement to build up any significant reserves.

The advantages of this model are that the base entry-level premiums for the

[6] This type of contract is mainly popular in the U.K., possibly due to the legislation there, but because it is considered unethical in some countries it is not allowed and therefore has not developed.

GOVERNMENTS AND THE MARKET HAVE DIFFERENT ROLES IN THE PROVISION AND FINANCING OF HEALTH CARE THAT CAN BE COMPLEMENTARY

working-age population are low, and insurers have low capital requirements and more flexibility to adjust full premiums. The drawback, however, is that older people continue to pay higher and higher premiums with no savings component. This may lead to higher lapse rates, which is detrimental to both insurers and policyholders.

A second model of premium funding corresponds to policies with ageing reserves. Under this model, insurers have the requirement to build up significant ageing reserves. Policies are written as long-term business in a way similar to life insurance. The only source of annual increase premiums is medical inflation.

The main advantages are that the policyholder is protected from utilisation increases, and, in most cases, national systems have a legal framework for promoting fairness. This presupposes that assumption changes are passed on in a controlled environment. However, medical inflation increases still have to be passed on, and, in an uncontrolled cost environment, the increases can be large. This also requires that, under Solvency II or internal models, the insurer holds a significant amount of market risk capital.

A third model, less developed, is based on health savings funds, whereby identifiable funds are allocated to individuals. Under this model, premiums are paid by the client into a fund, from which claims are paid. The fund, owned by the client, is not a collective system. Insurers can also provide stop-loss protection to avoid large claims depleting the fund.

The main advantages are that the policyholder is fully aware of health-care costs and can choose what benefits to cover. Information provision therefore is a key factor in individual decision-making. The assumption changes are implicitly passed on via funding recommendations. The disadvantages are that medical inflation increases still exist, although the individual has the information to shop around. Also, the fund may be exhausted due to medical reasons before death, requiring topping-up mechanisms.

Finally, whatever funding model is implemented, a crucial issue is the integration of insurance products with national public systems. Such integration is not always easy to achieve, because means testing is necessary to assess the financial net worth of the individual before considering whether premium support is required.

There is no doubt that, ultimately, in mixed systems, the importance will lie in developing a strong link between public and private provisions. Government and the market have different roles in the provision and financing of health care. While these roles may substitute each other, possibly leading to some form of crowding out, they can complement each other, leading to partnership. The challenge is then to implement the right incentives to develop such a partnership.


BHOPAL :
25000 DEAD

LIABILITY REGIMES AND DYNAMICS

In 2013, The Geneva Association tied the issue of liability and insurance directly with global current affairs and regional preoccupations. It hosted three international liability regimes and dynamics conferences on the challenges of emerging risks, climate-related catastrophic events, and environmental liability.

The effective management of risk requires an understanding of the nature of the risk and the forces that influence its frequency and severity (the dynamics), as well as the laws, economic conditions and social forces (the regimes) that shape and change the ways in which the risk is processed.

Liability exposures are uniquely affected by these regimes and dynamics: unlike other major categories of insurance, they are the ways in which society adjusts responsibilities for the effect people and businesses have on one another. Whilst historical data is enlightening for all classes of business, the effective management of liability risk also requires an understanding of the current and prospective influence of changes in the regimes and the dynamics.

CYBER RISKS

The 10th Annual Liability Regimes Conference

(London, 4–5 November 2013)

One of the emerging risks to which CEOs are paying increasing attention is the threat and implications of cybercrime. "The effects of a hacking attack can be devastating for a company's reputation and its bottom line," *The Economist* wrote in its article "White Hats to the Rescue" on 22 February 2014, citing the case of the giant U.S. retailer Target. The article went on to say that "Target's catastrophic breach may come to be seen as the digital equivalent of BP's disastrous Deepwater Horizon oil spill."

Following President Obama's executive order in February 2013 allowing the government to share more information on national cyber threats with private companies, the White House issued a set of incentives including a proposal to establish a competitive "cyber insurance market". It also tasked the National Institute of Standards and Technology to compile a "Framework for Improving Critical Infrastructure Cybersecurity", and this report was issued in February 2014.

Several insurance companies see this as an opportunity, as reported by *Les Échos* on 4 February 2014 in its article "*Le bel avenir du marché de la cyber-assurance*" (A Bright Future for the Cyber Insurance Market). The topic has featured in the past two General Assemblies of The Geneva Association, with the most recent breakout session led by Robert Benmosche, CEO of AIG. Benmosche shared his own experience with cybercrime and his panel of experts described the nature of

Left: India, New Dehli—Survivors of the 1984 Bhopal Gas disaster and activists protested on 12 July 2012, demanding adequate compensation for health damages from Union Carbide. ©AFP Photo/ Raveendran

THE INSURANCE INDUSTRY CAN HAVE AN ACTIVE ROLE IN MANAGING ENVIRONMENTAL OUTCOMES AND CONTRIBUTE TO BUILDING A SUSTAINABLE LIABILITY MARKET

the different threats, and the need and potential for insurance.

Cyber liability was also the topic of three presentations at The Geneva Association's 10th Annual Liability Regimes Conference, hosted in London by Lloyd's. Presentations covered new risks and opportunities, uncertainties and security strategies, data security and privacy, and the insurance marketplace. In particular, discussions focused on how to anticipate where threats may be coming from and which risks may be uninsurable or only partially insurable, such as cyber espionage and sabotage.

The conference also looked at other emerging risks and the key liability developments of 2012 and 2013, with updates on Deepwater Horizon and Costa Concordia, and at new trends in liability insurance. It broached the issue of the growing incidence of casualty claims arising from property events, and initiated discussions about recent claims experiences and the rationale for the claims, as well as anticipated developments and the industry's response to changing perceptions of liability overtaking acts of God provisions.

The emerging issue of food liability was the focus of another session where discussions touched upon globalisation and its increasingly complex networks, on exposures resulting from food's new performance-enhancing features, and on predicting food risks.

CLIMATE RISKS

The Latin American Liability Regimes Conference

(Rio de Janeiro, 26 September 2013)

The main drivers of climate liability claims against emitting industries are societal anger, social media, regulation by the private sector, undercompensated hardship and leverage of mass claims, as well as opportunism and greed. Current obstacles to transnational liability include legal barriers; jurisdictional limitations; political, cultural and economic factors; and the inability with current data to define a clear line of attribution.

The Geneva Association's inaugural liability regimes conference in Latin America, held in Rio de Janeiro and organised with the Brazilian Academy of Sciences, examined the causes and extent of climate-related catastrophes in Brazil and the possibility of climate liability. It suggested the need for products tailored to the region, and highlighted casualty growth market opportunities as well as opportunities for collaboration with the government. Finally, it questioned whether climate liability claims globally are beneficial to society or a substitute for government regulation.

Flooding accounts for more than half (58 per cent) of the natural disasters in Brazil. These threaten to become worse in coming years with an increase in the frequency and intensity of extreme rainfall events in south-eastern South America. José Marengo, Chief of the Earth System Science Center and full member of the Brazilian Academy of Sciences, stated in his presentation that "the most effective adaptation and disaster risk reduction actions are those that offer development benefits in the relatively near term, as well as reductions in vulnerability over the longer term". This mitigates *ex post* losses, particularly important in Brazil, where the reconstruction costs associated with natural disasters have increased from US$65m to US$1.5bn from 2004–2010.

Florian Kummer, Head of the Reinsurance Property & Casualty Underwriting hub for Latin America at Swiss Re, highlighted the importance of an integrated risk management strategy for climate change adaptation and reinforcing public-private sector cooperation to create efficient flood insurance markets for individuals, corporations, public assets and disaster-related public spending. In essence, Kummer suggested that pre-financing a society's disaster risk is a key adaptation measure. He further highlighted the need to promote economic growth by mobilising greater financial resources and remove substantial uncertainties to economic development.

ENVIRONMENTAL IMPAIRMENT

The Geneva Association's 3rd China Liability Regimes Conference

(Beijing, 21 August 2013)

The China conference series is an annual discussion of the emerging liability laws and conditions in China, and the opportunities for generating growth in the Chinese casualty market. This year's conference, hosted by Swiss Re, focused particularly on environmental impairment liability.

In his opening remarks, Qin Lu, President of Swiss Re China and General Manager, Beijing Branch, touched upon the global challenges in environmental liability from an insurance perspective. In the U.S., the issue is dominated by the emergence of climate change litigation, new technologies such as hydraulic fracturing (fracking) and ageing infrastructure. In Asia, there is also growing public awareness about pollution, and pressure on governments and industries for environmental protection, leading to new legislation projects in China, South Korea and Taiwan and the promotion of environmental risk assessments. The European Union is developing new environmental liability legislation, in particular, the restoration of environmental and natural resource damage, as well as liability schemes for offshore oil operations.

Following this introduction, the first session presented participants with the liability lessons learned from the intersection of public and private sector forces surrounding several high-profile industrial catastrophes and their environmental consequences: Bhopal, BP, Chernobyl, and Chevron.

The leaking of toxic chemicals by a pesticide plant in Bhopal occurred in 1984, yet the damage is still active and litigation continues (though insurers are only marginally involved) nearly 30 years later.

The BP oil spill of 2010 cost the company US$60–100bn, with insurers involved in covering other parties (BP was self-insured), and has resulted in major new safety regulations adopted by the U.S. and other countries.

The environmental consequences of the Chernobyl nuclear incident of 1986 can also still be felt today and, though liability insurance was not present at the time and litigation was not permitted by Russian authorities, new rules for nuclear reaction containment were promulgated.

Litigation continues for criminal fines in four countries over the Chevron oil exploration in Ecuador that took place 1964–1990, with class-action suits amounting to US$19bn in awarded damages (though insurance limits were too small to have any influence).

Following discussions on environmental impairment liability (EIL) and how the insurance industry can have an active role in managing environmental outcomes, Adeline Chua, Head of Casualty Treaty China at Swiss Re, moderated a panel session on building a sustainable environmental liability market in China. The country has experienced a rate of insurance premium growth that has outpaced GDP, but it is mainly driven by the life and motor insurance sectors. Secretary General John Fitzpatrick, panellist at the discussion said, "These are admirable conditions. But they do not represent sufficiently diversified growth for China's needs. With the global trends in climate-related catastrophes, property insurance needs similar rates of growth and also needs to work with the public sector to help with disaster risk reduction and rapid recovery."

LIAISON OFFICES

CENTRAL AND EASTERN EUROPE

In 2013/2014 the activities of the Liaison Office were coordinated by Jan Monkiewicz with the support of Marian Malecki. They were streamlined into three major areas:

- monitoring of major regulatory and supervisory developments in Central and Eastern Europe;
- supporting research and sponsoring initiatives;
- outreach events, including acquisition of new Members.

Jan Monkiewicz, Liaison Officer for Eastern Europe

Research support and sponsoring activities

The Liaison Office assisted in implementing research initiatives within the Regulation and Supervision research programme. The general focus was on macroprudential supervision in insurance and its theoretical and practical aspects.

Macroprudential policy is seen as a mitigating factor for systemic risk, and, in the aftermath of the global financial crisis, The Geneva Association has written extensively on macroprudential policies, tools and supervision in recent years. The primary aim is to inform its network on the differences in business models between banks and insurers and how this affects regulatory policy.

In 2013, the Liaison Office continued its editorial cooperation with PZU. It brought to the Polish market three new books on contemporary issues in insurance. The first was written by Barbara Cieślik on the bonus/malus system as a tool of competition in motor insurance,[7] the second one, by Piotr Manikowski on insurance cycles and their morphology,[8] and the third one by Jacek Lisowski and Jakub Stępień on liquidity management of insurance companies in times of distress.[9]

Outreach

For the third consecutive year, Professor Monkiewicz was invited to the Special Award Committee of the monthly *Gazeta Bankowa* to nominate the most consumer-friendly insurer of the year. He participated as the introductory speaker

[7] Cieślik, B. (2013). *Systemy bonus-malus jako narzędzie konkurencji na rynku ubezpieczeń komunikacyjnych* [Bonus-malus systems as a competitive tool in the insurance market]. Warsaw: Poltext.

[8] Manikowski, P. (2013). *Cykle ubezpieczeniowe w gospodarce rynkowej. Pojęcie, cechy, struktura* [Actuarial cycles in a market economy: concepts, features, structure]. Warsaw: Poltext.

[9] Lisowski, J. and, Stępień, J. (2013). *Zarządzanie płynnością zakładu ubezpieczeń w warunkach perturbacji na rynkach finansowych* [Liquidity management by insurance companies in times of financial market disruption]. Warsaw: Poltext.

at the All Polish Insurance Conference in Rydzyna, May 2013 and was guest speaker at the ceremonial conference commemorating the 65th anniversary of the Poznan Chair of Insurance in November 2013.

The Liaison Office also participated in the organisation of the December 2013 All-Polish Conference on motor insurance and technical developments.

Supervisory developments in Central and Eastern Europe

Russia

The law establishing a mega-regulator in Russia[10] was signed by the president on 23 July 2013 and went into effect on 1 September.

Based in the Central Bank of Russia (CBR), its purpose is to regulate and supervise financial markets in the country. To this effect, all functions and authorities of the Federal Financial Markets Service (FFMS) and certain regulatory powers of the Russian Ministry of Finance and the Russian government have been transferred to the CBR.

Control over non-credit institutions—including investment and pension funds, insurance, clearing and microfinance institutions, rating agencies, stock exchanges and other securities market members—will now be carried out by the CBR.

In addition, the CBR will monitor Russian financial market conditions and provide the State Duma every three years with key areas for development and steady operation of the financial market. Reports, data, notifications, other information and documents that were formerly subject to submission to or approval by the FFMS shall be submitted to the CBR. The FFMS will actually be integrated as a division of the CBR.

Romania

On 23 April 2013, Romania established the Financial Supervisory Authority (FSA) in response to weaknesses noted in the activity of securities and insurance regulators. The principal aims are to provide better financial supervision of entities active in the securities, insurance and private pensions industries and to effect cost reduction by merging three regulators into one.

Effectively, the FSA assumes all functions (including supervisory and regulatory) previously held by securities, insurance and private pensions regulators in Romania, i.e. the National Securities Commission, the Insurance Supervisory Commission and the National Private Pensions System Supervisory Commission, all of which have ceased to exist.

[10] Federal Law No. 251-FZ "On Amendments to Certain Legislative Acts of the Russian Federation Connected with Transfer of Authorities to Exercise Regulation, Control and Supervision of Financial Markets to the Central Bank of the Russian Federation".

Czech Republic

The *Česká Národní Banka* (CNB) is the central bank of the Czech Republic and the supervisor of the Czech financial market. The CNB is a part of the European System of Central Banks and contributes to the fulfilment of its objectives and tasks. It is also a part of the European System of Financial Supervision and cooperates with the European Systemic Risk Board and European supervisory authorities.

Achieving and maintaining price stability, i.e. creating a low-inflation environment in the economy, is the central bank's ongoing contribution to the creation of conditions for sustainable economic growth. In addition, the CNB fosters financial stability and oversees the sound operation of the financial system in the Czech Republic. To this end, the CNB sets macroprudential policy by identifying risks jeopardising the stability of the financial system and contributing to its resilience. The CNB also supports the general economic policies of the government and the European Union.

For the last two years, the CNB has been actively developing its macroprudential policy framework. The role of this framework is to complement existing microprudential systems to identify and address emerging risks across the entire financial system. The CNB is currently discussing how to formalise decisions on macroprudential policy.

Hungary

As of 1 October 2013, the functions of the Hungarian Financial Supervisory Authority (HFSA) have come under the control of the *Magyar Nemzeti Bank* (MNB), the national bank of Hungary.

By extending the MNB's supervisory role to incorporate the HFSA's prudential oversight of the financial intermediary system, it is hoped to improve the overall monitoring and control of systemic risk factors threatening the stability of the whole financial system. This should enable a better balance to be struck between macroprudential oversight of the whole system and microprudential oversight of individual institutions and risks.

The MNB took on the FSA's obligation to provide information to the relevant parliamentary committee in order to allow proper parliamentary oversight of its activities. It will also acquire the FSA's power to enforce rights of public interest, giving it the full range of supervisory measures available to its predecessor.

The MNB's governor will be given the FSA's former powers to issue decrees regulating the legal aspects of microprudential tasks, although these will now rank higher than previously in the hierarchy of laws (on the same level as government decrees).

JAPAN AND EAST ASIA

The Liaison Office for Japan and East Asia, headed by Katsuo Matsushita, was established in October 2009. Its role is to promote and increase recognition of The Geneva Association in the region by strengthening ties with Members' companies and developing new relationships with insurance companies, regulators, media and other stakeholders.

From mid-2013 to early 2014, macroeconomies, interest rates and the value of currency (inflation) in Asia have been affected by U.S. Fed tapering and slower growth of the Chinese economy. However, compared with developed countries, the Asian region reinforced its long-term potential and demonstrated relatively high, stable economic growth.

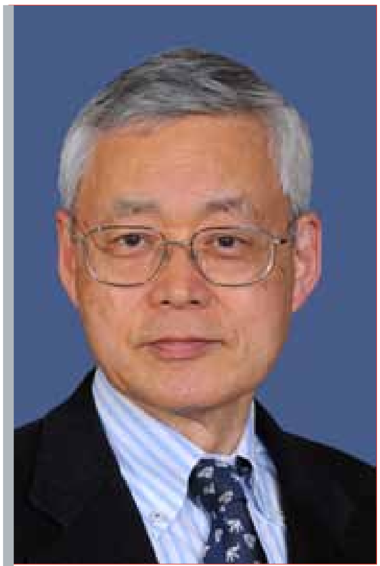
The Asian region, particularly China and the Association of Southeast Asian Nations (ASEAN) countries, therefore, remains attractive to internationally active insurance companies. Foreign direct investment in the sector continues to grow, and, in the quest for mergers and acquisitions, not only European and North American insurers, but also the increasing number of players of Asian origin are participating as potential investors.

On top of insurers or brokers, various insurance-related clusters of professional service providers are increasing their operational presence in the region. They cover areas such as risk management, actuarial consulting, risk modelling, legal, IT and communication, education, fund management, claims adjusting and so on. This has resulted in the emergence of a diversified, resilient "ecosystem" of insurance or risk management/ solution providers.

The Asian market is increasingly interconnected with the international market through reinsurance and is subject to the Financial Sector Assessment Program implemented by the IMF and the World Bank. Asian regulators have become active members of the IAIS. Through these interactions, Asian insurers are well aware of the latest developments of international regulatory discussions and how they affect their strategies and operations. They also closely follow research papers on financial stability and insurance and climate risk published by The Geneva Association.

Enhance the relevance of insurance

The insurance industry must not stay in its comfort zone, however. Every time a large-scale natural catastrophe (natcat) hits the region, we hear the same, repeated news showing the huge gap between the total amount of economic loss caused and the much smaller portion of insured loss. This reflects a low penetration of insurance coverage and a low level of recognition



Katsuo Matsushita, Liaison Officer for Japan and East Asia of the value of insurance to society. Both Asian and multinational insurers have to do what is needed to enhance basic roles and relevance by increasing recognition of the value of insurance to society. Asia as a whole is a diversified region in terms of geography, culture, population size and level of industrialisation. As far as the basic environment of life and economy are concerned, however, many Asian countries share the same challenges. With a limited number of exceptions, Asian society and its economy always has to adapt to, mitigate and survive the risk of natcats.

Also, most Asian countries will face demographic turning points earlier than generally expected and eventually become ageing societies. Some countries will try to conquer the "middle-income-nation trap". During the long and winding road of their journey to cope with these challenges, insurers have to enhance the relevance, role and value of insurance.

We would like to say that, for Asian countries, the role of insurance is indispensable to the sustainable growth and sound development of their societies and economies. This is not wishful thinking on the part of the industry however. To enhance the relevance of insurance services in society is not for the industry; rather it comes from the expectations and requests of various stakeholders, including policymakers, governments and international institutions such as the United Nations, the World Bank and the Asian Development Bank.

In China, for example, Mr Xiang Junbo, head of the China Insurance Regulatory Commission clearly mentioned his expectations of the insurance sector in an interview with *The Wall Street Journal* in August 2013: "Insurance should be a major pillar of social security. [...] We need to look at the issue from the perspective of sustainable development of state finance. [...] insurance should be a major pillar of the disaster relief system. [...] the government has generally assumed unlimited responsibility for losses. This is unsustainable."[11] This thought seems to be shared by other countries and is why international institutions are advising Asian countries exposed to natcats to establish special insurance schemes in public- private partnership arrangements, etc.

Harness the value of insurance

These expectations from a regulator are good news, but how should we enhance the relevance of insurance? One way is to activate the basic function of insurance and its built-in pricing mechanism, by encouraging policyholders to mitigate risk through risk management, benefiting them in

[11] Hu, S., Ling, H. and Wang, S. (2013, 14 August). Official Seeks China insurance reform. *Wall Street Journal*. Retrieved from http://online.wsj.com/news/articles/

THE INSURANCE MECHANISM CAN CONTRIBUTE TO TACKLING THE CHALLENGE OF AGEING POPULATIONS AND INCREASED CLIMATE-RELATED EXTREME EVENTS, WHICH ARE MAJOR CONCERNS FOR MANY ASIAN COUNTRIES

the form of favourable rates, terms and conditions.

This is in line with an economic value-based, international solvency regime which puts emphasis on enterprise risk management, with a focus on own risk and solvency assessment (ORSA). To implement ORSA consistently, data quality and risk models that evaluate the amount of risk carried by an insurer on a day-to-day basis are important. The key is both quality of data and quality of the risk model.

Therefore, the transparency of data moving between policyholders and insurers, between insurers and reinsurers, and between insurers and supervisors, is expected to be improved consistently.

An industry-wide database should be built in a consistent manner. These combined efforts will make pricing more transparent and more risk-based, which is more acceptable to policyholders and potential purchasers of insurance. This would bring a renewed impression of the insurance industry, a more professional image.

As the AEC (ASEAN Economic Community) is expected to be achieved by 2015, attention to this huge region-wide initiative is growing. Compared with the EU single market, the ASEAN region is more diversified in its cultural background, GDP per capita and type of national economy. Singapore is service-oriented and is a main gateway to the region; Thailand concentrates on manufacturing and agriculture; Indonesia focuses on its natural resources, agriculture and manufacturing, etc.

This may make the integration process more time-consuming and complicated. Another difference is that the AEC is planned and carried out in a bottom-up approach by promoting intra-regional trade first. This is quite different from the EU approach initiated by major European political leaders from France and Germany.

For multinational insurers, one of the major benefits of a single insurance market is converged regulation. This goal is not low-hanging fruit, however, and the road to achieve it may be long and bumpy. The gap of supervisory capability in member countries must be narrowed. Multinational insurers should also try to contribute to the regional insurance markets in building layers of talent pools and in converging levels of databases in member nations.

What is expected most is that throughout the process towards a single market, both the regulators and the regulated of the region closely share the same mission, so that insurance can function as a truly valuable safeguard for the people and for changing societies.

EVENTS

International Conference on Collateral Risk: Counter-Cyclical Measures
28 March 2014, Berlin

The Geneva Association co-organised this conference with HypZert GmbH and the American Enterprise Institute's International Center on Housing Risk to engage multiple-sector collaborations in developing counter-cyclical measures and tools for policymakers and supervisors. During the Conference the appraisal theory and practice of valuation for lending purposes through the cycle valuations in Germany and the U.S. was discussed and case studies on intrinsic values, giving both the German and U.S. perspective were presented.

Consult the conference papers on our website.

16th Meeting of the Annual Circle of Chief Economists (ACCE)
27 February 2014, Munich

This meeting of chief economists is organised as a platform for the exchange of ideas and visions about the future development of insurance and the analysis of key challenges to the industry. Hosted this year by Munich Re, the meeting touched upon the topics of climate change in light of the 5th IPCC report, macroprudential supervision and insurance, alternative capital in (re) insurance and the growing insurance gap in developing and emerging countries.

Consult the conference papers on our website.

Life and Pensions Roundtable
5 December 2013, New York

The Geneva Association's roundtable on the global ageing challenge focused this year on "The Retirement Crisis: The Fierce Urgency of Now".

Read a full summary of the event on p. 31 of this report.

10th Health and Ageing Conference: Insuring the Health of an Ageing Population
18–19 November 2013, Zurich

Hosted by Swiss Re, this conference entitled "Insuring the Health of an Ageing Population" presented the medical aspects of ageing, the challenges of financing the health of an ageing population and the role insurance can play.

See p. 32 for a review of this conference, and consult the conference papers on our website.

9th CRO Assembly
5-7 November 2013, Zurich

Jointly organised with Swiss Re and CRO Forum, this event is open to chief risk officers (CROs) from all insurance companies and related sectors. The 9th edition focused on managing risk for future generations.

30th Regulation and Supervision (PROGRES) Seminar

24–25 March 2014, Geneva

This landmark seminar of The Geneva Association focused this year on the growing complexity and sophistication of the multiple regulatory and supervisory regimes in insurance around the globe. Topics included: global systemically important insurers (G-SIIs): issues, policies and challenges after designation; macroprudential oversight in insurance: policies and practices; building up a framework for cross-border and cross-sectoral supervisory cooperation; the growing complexity of the oversight system in insurance: what implications for the industry; and the future of European banking regulation: a model for insurance?

Consult the conference papers on our website.

Left to right: Rob Jones, Managing Director, European Financial Services Research Group, Standard & Poor's; Julian Adams, Deputy Head, Prudential Regulatory Authority and Executive Director of Insurance, Bank of England; Tom Wilson, CRO, Allianz; Bob Benmosche, President and CEO, AIG; and, Peter Braumüller, Chairman, IAIS and Director, Austria Financial Market Authority during the session "Global systemically important insurers: issues, policies and challenges after designation".

John H. Fitzpatrick, Secretary General of The Geneva Association (right) thanks Jan Monkiewicz, Conference Director, for his leadership of the PROGRES research programme and seminar series since January 2007.

At The Geneva Association's 2014 Seminar on Regulation and Supervision in Geneva, (re)insurance CEOs and other informed parties talked about the value of the seminar, global systemic risk regulation, and the U.S. designation process. Visit the dedicated webpage on our website to watch the videos.

10th Annual Liability Regimes Conference

4-5 November 2013, London

Hosted by Lloyd's, the 2013 event was dedicated to the challenges insurers face in coping with emerging conditions in the world's liability regimes. The conference planning board had the honour of having Richard Ward, CEO of Lloyd's, as welcome speaker and John H. Fitzpatrick, Secretary General of The Geneva Association, to open this 10th edition.

See p. 37 of this report or consult the conference papers on our website.

5th Climate Risk and Insurance (CR+I) Seminar

28-29 October 2013, Sendai

Jointly organised with Tokio Marine & Nichido Fire Insurance Co. Ltd., the 5th CR+I Seminar focused on "Lessons Learned from the Events of March 11—the earthquake and tsunami and its impact on human life, terrestrial infrastructure and consequential losses".

See p. 25 of this report or consult the conference papers on our website.

Latin America International Liability Regimes Conference

26 September 2013, Rio de Janeiro

Organised with the Brazilian Academy of Sciences, The Geneva Association launched its inaugural International Latin America Liability Regimes Conference on "Climate-Related Catastrophic Events in Brazil: The Challenges and Opportunities for the Insurance Industry". The conference reviewed climate, seismic and environmental extreme events, and focused on the key features of what the global insurance industry can and cannot do to mitigate harm and strengthen resilience to catastrophic loss.

See p. 38 of this report.

40th Seminar of the European Group of Risk and Insurance Economists (EGRIE)

16–18 September 2013, Paris

The 2013 European Group of Risk and Insurance Economists (EGRIE) Seminar touched upon a wide range of issues, including the effect of uncertainty on optimal control models; comparative risk apportionment; investors as risk-averse expected-utility maximisers; catastrophe risk transfer; exposure and underinsurance with regard to natural disasters; precautionary saving in the presence of ambiguity; optimal collateralisation with bilateral default risk; valuation and risk assessment of participating life insurance in the presence of credit risk; and welfare gains from illiquid annuities.

Consult the conference papers on our website.

3rd Annual China Liability Regimes Conference

21 August 2013, Beijing

Hosted by Swiss Reinsurance Company Ltd, this year's event focused on "Liability—The Next Growth Engine". The conference brought together selected leaders of the Chinese insurance market and representatives of the key government ministries affected by liability risks.

See p. 39 of this report or consult the conference papers on our website.

John H. Fitzpatrick, Secretary General of The Geneva Association, at the 3rd Annual China Liability Regimes Conference

M.O.R.E. 27 Seminar

16-17 July 2013, Berlin

This year's 27th Management of Risks in the Economy Seminar, jointly organised with Allianz, tackled the issue of "Ground Effects of Solar Storms" and other impacts of solar storms on terrestrial infrastructure and consequential losses.

Earth-directed solar storms are caused by solar flares and coronal mass ejections (CME). Magnetic tensions and instabilities on the sun, visible as sunspots, are the source of solar flares. These can, in turn, trigger CME in which huge clouds of plasma particles escape the sun's atmosphere (the corona) and, if so directed, reach Earth in less than two days, triggering geomagnetic storms.

The M.O.R.E. 27 Seminar covered the following specific areas: the science behind solar activities and storms; potential effects of solar storms on, and vulnerability of, terrestrial infrastructure; potential societal and economic impacts of solar storms; and mitigation strategies and technologies.

Read the paper *Solar Storm Ground Effects* by The Geneva Association available on our website.

15th Joint Seminar of the European Association of Law and Economics (EALE) and The Geneva Association

13-14 June 2013, Girona

Since 1985 The Geneva Association has been building a close collaboration with the European Association of Law and Economics (EALE) to promote the cross-fertilisation between law and economics in insurance. This year's seminar, jointly organised by the Institute of European and Comparative Private Law (IECPL), University of Girona and Universities of Maastricht and Rotterdam, focused on "Liability and Insurance in Times of Crisis".

Consult the conference papers on our website.

40th General Assembly
5–8 June 2013, London

The General Assembly of The Geneva Association is the most prestigious gathering of insurance executives in the industry calendar and has been an annual event since The Geneva Association's founding by a group of insurance chief executives and luminaries including former French prime minister Professor Raymond Barre, in 1973. It allows Members to exchange their ideas and discuss key strategic issues that are major opportunities or challenges for the sector and to prioritise long-term strategic issues.

The emphasis of the 40th General Assembly was on the role insurance plays in the economy, with a focus on the current financial and regulatory climate. Keynote speakers were George Osborne, U.K. Chancellor of the Exchequer; Paul Tucker, former Deputy Governor for Financial Stability, Bank of England and Member of the Financial Stability Board; and Paul Sharma, former Deputy Head, Prudential Business Unit—Director of Policy, FSA, and former Chairman of the Financial Stability Committee of the IAIS. The special guest speaker was Robert Peston, Business Editor at the BBC, and honorary speakers included the Right Honourable the Lord Mayor of London Roger Gifford, and David Milliband, former Secretary of State for Foreign and Commonwealth Affairs.

The 40th General Assembly also touched upon the issues of cyber risk, G-SII designation policy consequences and measures, insurance in an era of financial repression, insurance in developing economies and insurance relevance in the modern economy. Articles on these topics by Member CEOs and The Geneva Association staff are available in our *General Assembly Review 2013*.

George Osborne, Chancellor of the Exchequer

Paul Tucker, Bank of England and Paul Sharma, Prudential Regulation Authority

Robert Peston, Business Editor for BBC News

Board of Directors of The Geneva Association

Clockwise from top left: Esteban Tejera Montalvo, First Vice Chairman, MAPFRE, Madrid; Richard Ward, CEO, Lloyd's, London; Mark Wilson, CEO, Aviva plc, London; Henri de Castries, Chairman of the Management Board and CEO, AXA Group, Paris; Tidjane Thiam, Group Chief Executive, Prudential plc, London; Donald Guloien, President and CEO, Manulife Financial Corporation, Toronto; Patrick de Larragoiti Lucas, President, SulAmérica Seguros, Rio de Janeiro; Denis Kessler, Chairman and CEO, SCOR, Paris; Mario Greco, Group CEO, Assicurazioni Generali S.p.A., Milan; Carlo Acutis, Vice President, Vittoria Assicurazioni S.p.A., Turin; Michel Liès,Group CEO, Swiss Reinsurance Company Ltd, Zurich; Kunio Ishihara, Chairman of the Board, Tokio Marine & Nichido Fire Insurance Co., Tokyo; Mike McGavick, CEO, XL Group plc, Dublin and Chairman of The Geneva Association; Nikolaus von Bomhard, Chairman of the Board of Management, Munich Re, Munich, and former Chairman of The Geneva Association; John Strangfeld, Chairman and CEO, Prudential Financial Inc., Newark; Michael Diekmann, Chairman of the Management Board, Allianz SE, Munich; and Yan Wu, Chairman, The People's Insurance Company (Group) of China Ltd, Beijing. In absentia *Martin Senn, CEO, Zurich Insurance Group, Zurich*

PRIZES, AWARDS AND GRANTS

ERNST-MEYER PRIZE

The Geneva Association annually awards the prestigious Ernst-Meyer Prize (CHF5,000) for university research work—usually in the form of a doctoral thesis—that makes a significant and original contribution to the study of risk and insurance economics. The 2012 judging committee comprised Prof. Andreas Richter, Prof. Sandrine Spaeter and Prof. Richard Watt.

The Ernst-Meyer Prize for 2012, bestowed in 2013, went to Nathaniel Hendren for his MIT Economics PhD dissertation entitled "Essays on Information and Insurance Markets". See the article from the *Insurance Economics Newsletter* No. 68 on our website for a full summary of Nathaniel Hendren's winning contribution.

THE GENEVA ASSOCIATION/IIS RESEARCH PARTNERSHIP—SHIN RESEARCH EXCELLENCE AWARD

In partnership, The Geneva Association and the International Insurance Society (IIS) offer the Shin Research Excellence Award, designed to foster original applied research in the insurance area addressing issues of concern to global insurance leaders by examining subjects which directly influence business operations and operational business issues on a practical level.

Winners in 2013 were W. Jean Kwon, PhD, Manton/AIG Endowed Chair Professor of International Insurance and Risk Management at the School of Risk Management of St. John's University, U.S. for his paper "Human Capital Risk and Talent Management Issues in the Insurance Market: Public Policy, Industry and Collegiate Education Perspectives", and Nadine Gatzert, PhD, Chair for Insurance Economics and Risk Management and Alexander Bohnert, PhD candidate, Friedrich-Alexander-University, Germany for their paper "Fair Valuation and Risk Assessment of Dynamic Hybrid Products in Life Insurance: A Portfolio Consideration". See the article from the *Insurance Economics Newsletter* No. 68 on our website.

Each paper won US$5,000 and the authors were invited to present their work during the International Insurance Society's 49th Annual Seminar in Seoul, Korea, 16–19 June 2013, where their research was presented in front of more than 400 insurance leaders attending the seminar. The papers were also published in *The Geneva Papers on Risk and Insurance—Issues and Practices* Vol. 39(1) in January 2014 (see p. 55 of this report).

SCOR–EGRIE BEST PAPER AWARDS

SCOR–EGRIE Young Economist Best Paper Award

The SCOR–EGRIE Young Economist Best Paper Award was created jointly by SCOR, the *Institut d'Economie Industrielle* (IDEI) and the University of Paris-Dauphine to honour the best paper presented by a young economist at EGRIE's annual seminar.

The amount offered to the laureate of the award is €2,000. The competition is organised under the supervision of the "Risk Markets and Value Creation" chair at IDEI and the University of Paris-Dauphine, which is sponsored by SCOR and the *Fondation du Risque*.

The selection committee is composed of five people representing the following institutions: EGRIE, SCOR, *Fondation du Risque*, University of Paris-Dauphine and IDEI.

The 2013 SCOR/EGRIE Award for the best paper presented by a young economist at the annual EGRIE Seminar was awarded to Sebastian Ebert and Philipp Strack for their paper "Until the Bitter End: On Prospect Theory in a Dynamic Context".

Shin Research Excellence Award

From left: Dr. Chang-Jae Shin, Chairman and Chief Executive Officer, Kyobo Life Insurance Company, Korea, A. Bohnert and N. Gatzert

From left: Dr. Shin and W. Jean Kwon

SCOR–Geneva Risk and Insurance Review Best Paper Award

SCOR, IDEI and the University of Paris-Dauphine created the SCOR-GRIR Award to distinguish the best paper of the year published in *The Geneva Risk and Insurance Review*.

The amount offered to the laureate of the award is €1,000. The competition is organised under the supervision of the "Risk Markets and Value Creation" chair at IDEI and University of Paris-Dauphine, which is sponsored by SCOR and the Fondation du Risque.

The selection committee, composed of the editors and associate editors of *The Geneva Risk and Insurance Review*, choose and reward the best paper published the previous year.

The 2013 SCOR-GRIR Award for the best paper of the year published in *The Geneva Risk and Insurance Review* was bestowed on W. Henry Chiu, for "Risk Aversion, Downside Risk Aversion and Paying for Stochastic Improvements", *The Geneva Risk and Insurance Review*, 37(1), pp. 1–26, March 2012.

RESEARCH GRANTS AND SUBSIDIES FOR THESES

Each year, The Geneva Association also awards up to two research grants for submissions—usually doctoral theses carried out in the field of risk and insurance economics.

Each grant is worth CHF10,000 and past topics awarded include: climate change and public health, non-parametric testing for asymmetric information, the impact of demand conditions and technological change on the structural evolution of the insurance industry, and adverse selection and moral hazard in agricultural insurance contracts.

Subsidies of up to CHF3,000 are also granted to authors of university theses on risk and insurance economics to help defray printing costs and to support the publication of high-quality work.

Ran Shorrer from Harvard University and Harvard Business School, and Blagica Petreski from the University of Macedonia were awarded these research grants for the year 2013. Their work touched respectively on "Consistent Indices of Riskiness" and "Empirical Analysis of the Risks and Resilience to Shocks of the Macedonian Insurance Sector". A summary of their research can be found in *Insurance Economics Newsletter* No. 68.

PUBLICATIONS

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

- two 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;
- conference papers including the proceedings, presentations, special reports and research done by The Geneva Association in the context of an event; and
- research reports, presentations and white papers written by The Geneva Association staff and/or external collaborators.

JOURNALS

Founded in January 1976 under the auspices of the first President of The Geneva Association, Prof. Raymond Barre, *The Geneva Papers on Risk and Insurance* was separated into two series in 1990:

- *The Geneva Papers on Risk and Insurance—Issues and Practice;*
- *The Geneva Papers on Risk and Insurance Theory*, later to become *The Geneva Risk and Insurance Review*.

As stated by Prof. Barre, the goals of *The Geneva Papers on Risk and Insurance* were, first and foremost, to become the voice of insurance at the highest global level to help elaborate and confront key strategic issues for the sector; and second, to stimulate a constructive dialogue between insurance and its social and economic partners.

Both journals are peer-reviewed and published by Palgrave Macmillan. Articles older than three years are publicly available in the resource centre of The Geneva Association website.

Online access to both Palgrave Macmillan journals provides users with advance online publication (AOP)—definitive, citable versions of papers (complete with digital object identifier, or DOI) available online ahead of print.

The Geneva Papers on Risk and Insurance—Issues and Practice

The Geneva Papers on Risk and Insurance—Issues and Practice publish papers quarterly aimed at improving the scientific knowledge of the insurance industry. The Editor-in-Chief, Dr Christophe Courbage, Research Director, Health and Ageing/Insurance Economics at The Geneva Association, assisted by the editorial board, assesses the quality of submissions, determines their potential contribution to the field and organises the peer-review process.

The publication is essential reading for academics and researchers in insurance, insurance industry executives and other professionals who are searching for 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 Papers on Risk and Insurance—Issues and Practice has displayed healthy growth since 2009, with a five-year impact factor[12] of 0.531 (up from 0.452 last year) according to the latest edition of the Thomson Reuters *Journal Citation Reports*.

[12] A measure of the frequency with which the "average article" in a journal has been cited in a particular year.

Issues published since April 2013:

Volume 38, Issue 2 (April 2013): special issue on Regulation and Supervision in Insurance, guest edited by Jan Monkiewicz;

Volume 38, Issue 3 (July 2013): special issue on Disaster Reduction and Extreme Events, edited by Christophe Courbage and Olivier Mahul;

Volume 38, Issue 4 (October 2013): special issue on the Four Pillars: The Next 25 Years, guest edited by Krzysztof Ostaszewski and Anthony Webb;

Volume 39, Issue 1 (January 2014) showcasing the two Geneva Association/IIS Shin Research Excellence Award-Winning papers[13] in 2013 with "Insurance Gaining Relevance in the Global Economy" as their theme;

Volume 39, Issue 2 (April 2014): special issue on Microinsurance, guest edited by Prof. David M. Dror.

The Geneva Risk and Insurance Review

The Geneva Risk and Insurance Review targets academics and university scholars in economics. The Review 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

[13] See Prizes, Awards and Grants, pp. 52-54 of this report.

institutions by providing a forum for the scholarly exchange of findings and opinions.

The editors-in-chief of *The Geneva Risk and Insurance Review* are Prof. Achim Wambach, Director of the Institute for Economic Policy, University of Cologne and Prof. Michael Hoy of the Department of Economics and Finance, College of Management and Economics, University of Guelph.

The journal is considered to be the official journal of EGRIE.[14] Its five-year impact factor is 0.722 according to the latest edition of the Thomson Reuters *Journal Citation Reports*.

Issue published since April 2013:

Volume 38, Issue 2 (September 2013) with articles on background risk, adverse selection in public insurance, the satellite insurance market and attitudes towards income risk.

[14] The European Group of Risk and Insurance Economists (EGRIE) is a European-based non-profit organisation dedicated to promoting research on risk and insurance. See p. 48 for more details.

THE GENEVA REPORTS

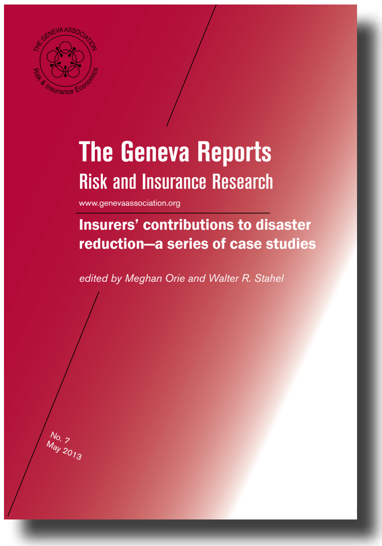
The Geneva Reports series tackles issues of strategic importance to the insurance industry that warrant special attention and particular analysis. In June 2013, The Geneva Association took up the issue of climate risk, particularly the contribution of insurance in adapting to the impact of natural disasters and mitigating the associated risks:

Geneva Report No. 7: *Insurers' contributions to disaster reduction—a series of case studies*

The frequency and severity of natural catastrophes (natcats) have radically increased since the turn of the century, causing major economic losses and gross human suffering. Mitigating losses and protecting populations has become one of society's greatest challenges. The magnitude and scope of these events require the involvement and cooperation of multiple actors to strengthen societal resilience.

Given insurance's unique capacity for mitigating the losses resulting from extreme events, this report focuses on the arrangements, regulation and conditions that best exploit its deep knowledge of risk management.

See p. 23 for more information on the issue of climate risk and disaster reduction. Please also visit the



dedicated webpage of our website where you will find an interview by Andrew Maskrey, UNISDR Coordinator for the *Global Assessment Report* (GAR).

NEWSLETTERS

Each research programme of The Geneva Association publishes a dedicated newsletter twice annually. In addition, the Association publishes an annual *World Fire Statistics Bulletin*.

Since early 2013, these publications have been disseminated almost exclusively in electronic format.

Insurance Economics

This newsletter for risk and insurance economists serves as an information and liaison bulletin to promote contacts between economists at universities and in insurance and financial services companies with an interest in risk and insurance economics.

Risk Management

This 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.

Life and Pensions

This newsletter provides information on the programme's activities and showcases articles on the structuring of social security and retirement systems, as well as the insurance industry's potential role in addressing the challenge of retirement security.

Regulation and Supervision

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 and supervision, as well as other legal aspects.

Health and Ageing

This 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. It also highlights 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 Bulletin

This information bulletin 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.

CONFERENCE PAPERS

The conference papers series of The Geneva Association presents the proceedings, presentations, special reports and research done by The Geneva Association in the context of an event. The proceedings of an event are available on our website on the relevant event page. Please note that a few events are closed to the general public and access to the conference papers may be restricted.

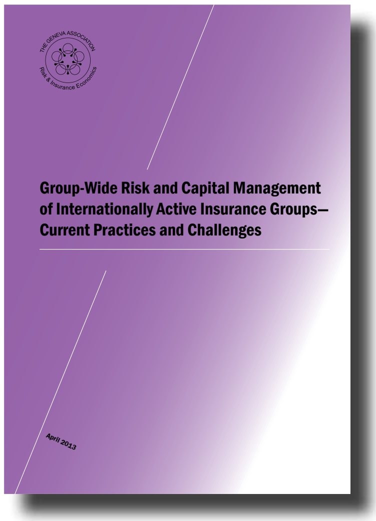
SPECIAL REPORTS, PRESENTATIONS AND WHITE PAPERS

Group-Wide Risk and Capital Management of Internationally Active Insurance Groups—Current Practices and Challenges

(April 2013)

This report on the group-wide risk and capital management of internationally active insurance groups (IAIGs) aims to support the discussions underway at the IAIS on ComFrame. The report comprises a survey of the risk and capital management practices of 19 large insurance groups.

See p. 19 for more details.



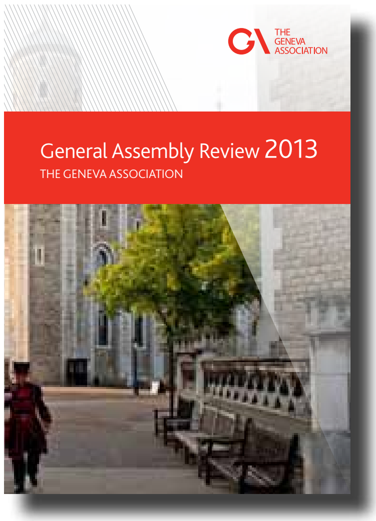
The General Assembly Review 2013

(September 2013)

The Review is a retrospective on some of the key discussions at the 40th annual General Assembly of The Geneva Association in London.

The review comprises accounts of keynote speeches on issues of insurance regulation and financial stability by Christine Lagarde, Managing Director of the International Monetary Fund, Michael McRaith, Director of the U.S. Federal Insurance Office (FIO), Gabriel Bernardino, Chairman of European Insurance and Occupational Pensions Authority (EIOPA), and Senator Mark Warner of Virginia.

Providing an insight into the most prestigious gathering of insurance CEOs worldwide, the review also features essays by Members on highly relevant and forward-thinking issues such as industry valuations, longevity and pandemics, cyber risks and the impact of space weather.



Warming of the Oceans and Implications for the (Re)insurance Industry

(June 2013)

There is robust evidence that the global oceans have been warming over recent decades. And whilst many think of the atmosphere when thinking of the effects of climate change it is the oceans that are the key driver of global extreme events. The warming of the oceans means that the use of historical data and methodologies for climate risks assessments is increasingly failing. This report examines the evidence for the role of ocean warming in extreme event changes and their implications for the insurance industry.

See p. 27 for more details.

The Geneva Association Response to the FSB Consultation, Application of the Key Attributes of Effective Resolution Regimes to Non-Bank Financial Institutions

(October 2013)

The Geneva Association submitted this consultation response to support the development of appropriate and effective regulatory and supervisory measures designed to create greater financial stability. Solid recovery and resolution measures are fundamental to achieving this. From the outset, the position developed by The Geneva Association and the wider insurance industry has been that the insurance sector requires regulatory standards that reflect its business model and that this effort should be focused on identifying activities that are potentially systemically risky. A designation based on size would be against the basic insurance concept of the law of large numbers and the benefits of the diversification of risks.

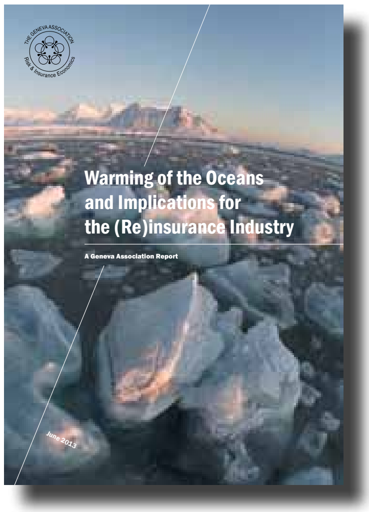
See p. 18 for more details.

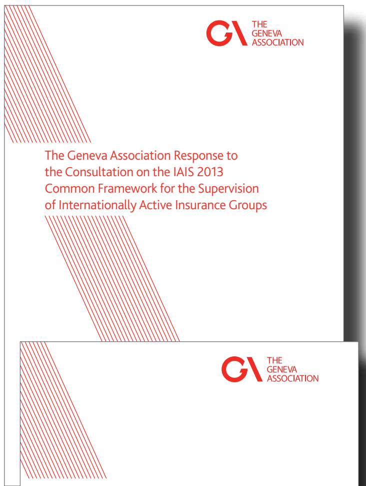
The Geneva Association Response to the Consultation on the IAIS 2013 Common Framework for the Supervision of Internationally Active Insurance Groups

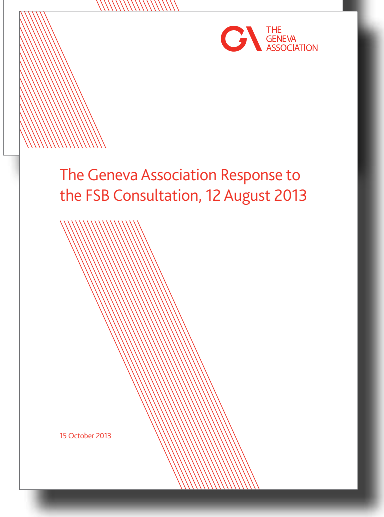
(December 2013)

Following the publication in April 2013 of its survey of chief risk officers on group-wide risk and capital management of Internationally Active Insurance Groups (see above), The Geneva Association focused this response primarily on the area of capital adequacy in view of the future development of a risk-based global insurance capital standard.

See p. 19 for more details.







The Public Pensions Crisis in the U. S.

(April 2014)

On 3 December 2013, Detroit became the largest city in the U.S. to become legally eligible for Chapter 9 bankruptcy. Its ballooning deficits and large pension shortfall are characteristic of municipal bankruptcy cases. Across the country, states have posted funding shortfalls of more than a trillion dollars.

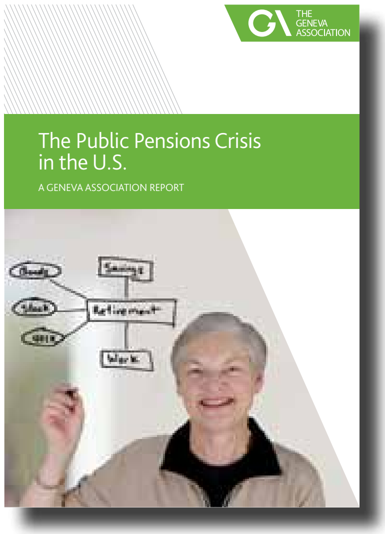
In this report, The Geneva Association examines the issues at the root of this crisis and suggests that the non-payment of annual required contributions and an unbalanced structure to pension planning are among the most sigificant challenges to overcome.

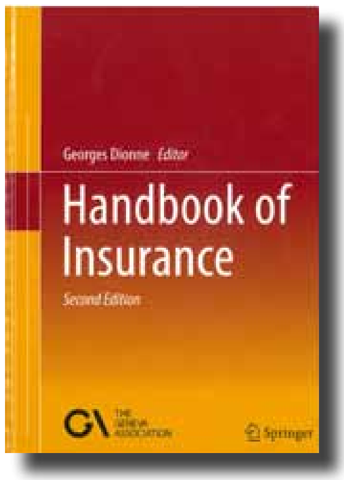
See Global Ageing pp. 28-29 for more details.

Handbook of Insurance, 2nd edition

(edited by Georges Dionne, Springer, 2014)

Published by Springer and supported by The Geneva Association, with contributions by staff members, this second edition of the *Handbook of Insurance* reviews the last 40 years of research developments in insurance and its related fields. In his Preface, Denis Kessler, CEO of SCOR, writes: "Many key concepts at the core of risk, uncertainty and insurance economics have been further refined, reassessed, and reanalyzed. New issues have emerged, including systemic risk, longevity risk, long-term care, the corporate governance of insurance companies... I have a simple wish: that this handbook be diffused to as wide an audience as possible, both in academic and professional spheres."





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

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