

Annual Report 2016/2017



April 2017

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.

Established in 1973, The Geneva Association, officially the International Association for the Study of Insurance Economics, is based in Zurich, Switzerland and is a non-profit organisation funded by its members.

Annual Report 2016/2017

The Geneva Association

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April 2017

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Published by The Geneva Association—International Association for the Study of Insurance Economics.

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CHAIRMAN'S STATEMENT

Dear fellow Geneva Association members:

I am happy to report to you that The Geneva Association had another productive and highly relevant year. Particularly as the Association's research is helping drive the (re)insurance industry and is of high interest to our key constituents, giving it additional visibility and a strengthened position as a thought-leader.

As The Geneva Association raises its profile it is bringing its valuable work closer to a much broader circle of stakeholders. And, at the same time, the Association is able to further highlight the strategic contribution of the (re)insurance industry more prominently on the agenda of policymakers and intergovernmental organisations. This was evident in 2016, when nine Geneva Association members joined a High Level Meeting at the United Nations (UN) headquarters in New York, in which the UN Secretary General Ban Ki-moon and other senior representatives from the UN, the World Bank and the international development community discussed the role of insurance in the implementation of the Paris Agreement. Another example was the Association's participation in the consultation of the Financial Stability Board's Task Force on Climate-Related Financial Disclosures. In its response, The Geneva Association assumed its role as an industry representative to ensure that new policy measures are appropriate to the specific nature of the (re)insurance sector.

The impact and resonance of the Association's research opens new doors for dialogue, which further challenge and develop additional key topics of interest. The Financial Stability and Regulation research programme's papers *Insurance Sector Investments and Their Impact on Financial Stability*, *Modernising Insurance Solvency Regimes* and *The Nature and Role of Capital in Insurance*—all had a very important role in promoting understanding of these complex topics, in particular amongst new policymakers, less familiar with our industry.

The Geneva Association has also reaffirmed its status as a thought leader in Extreme Events and Climate Risk, a research programme which goes a long way toward contributing to societal resilience. The Global Ageing research programme also continues to gain exposure, attracting some of the world's leading experts to its working group and annual conference.



Mike McGavick

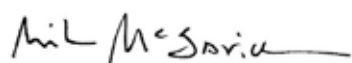
*CEO, XL Group and Chairman of
The Geneva Association*

2016 marked the formal beginning of Cyber and Innovation as a new research programme of The Geneva Association. Cyber risk continues to grow—getting larger in scale and more complex in type. The role insurance plays in understanding the ramifications of this issue and mitigating the risks cannot be overestimated. The Association has the full support of its Board to carry on the workplan for this research programme which has already published its first study—*Ten Key Questions in Cyber Risk and Cyber Risk Insurance*—and collaborates with eminent academic partners, including MIT, to investigate key concerns such as the insurability of cyber risk and the availability and usage of data.

I am happy with the results achieved in 2016/2017. As you will read in Anna Maria's letter, there are many other factors that shaped a robust performance and which make us confident that The Geneva Association is on the right track. It is lean and stable, nimble and focused—which are key to success as the Association looks at the next round of strategic issues for our industry.

Let me take this opportunity to thank you, our members, for your engagement and support. I look forward to greeting many of you at the General Assembly in San Francisco!

Kind regards,



Mike McGavick
Chairman

As The Geneva Association raises its profile it becomes more relevant to agenda setters and policymakers

SECRETARY GENERAL'S STATEMENT

Dear members of The Geneva Association:

A year ago I reported to you that we were bringing The Geneva Association closer to its membership and enhancing its influence in the interests of the (re)insurance industry. Certainly, if 2015 was about creating readiness for the Association to deliver on its strategic intent, in 2016 we made considerable progress in reinforcing our research capabilities while keeping the disciplined focus that guides our activities.

Between April 2016 and April 2017, we published 10 reports across our research programmes. We also elevated a research topic, Cyber and Innovation, to the category of research programme and released our first report. We organised or co-organised 14 high-profile events where we promoted our research amongst key constituencies including C-suite insurance experts, policy influencers and regulators, as well as professional and academic networks. Let me elaborate now a few highlights.

On Financial Stability and Regulation our work continues to focus on ensuring that new policy measures, in particular related to international capital standards (ICS), are appropriate, target the real underlying risk, and are developed with due attention to the insurance business model. During 2016 we responded to three consultations by the International Association of Insurance Supervisors (IAIS) and also submitted a response to the Task Force on Climate-related Financial Disclosures (TCFD), created by the Financial Stability Board.

Our three new reports on insurance investment behaviour, comparisons of insurance solvency regimes and the role of capital in insurance made a significant contribution to shedding light on these topics and assisting policymakers to further enhance their understanding of the industry. In particular, the report *Insurance Sector Investments and Their Impact on Financial Stability* was very well-received by policymakers in the U.S. and Europe. Moreover, our annual PROGRES seminar, in its 33rd edition, remains the most widely-acknowledged forum for dialogue between the global insurance industry and the international regulatory and supervisory bodies.



Anna Maria D'Hulster
*Secretary General,
The Geneva Association*

Our Extreme Events and Climate Risk (EE+CR) programme took a big step forward with our Board's approval of the working plan for 2016-2018. We also strengthened the Association's outreach to the most relevant institutions, as illustrated by the High Level Meeting at the UN headquarters in New York that was attended by the UN Secretary General and high-level representatives from the UN, the World Bank and the international development community.

We have adapted our research programmes to cover more contemporary topics

The EE+CR programme published two research reports, entitled *An Integrated Approach to Managing Extreme Events and Climate Risks—Towards a Concerted Public-Private Approach*; and *The Stakeholder Landscape in Extreme Events and Climate Risk*. The latter is a unique piece that for first time not only identified the key players in EE+CR, but also described how they interact with one another. The 2017 EE+CR Forum, entitled *How Will Risk Modelling Shape the Future of Risk Transfer?*, co-organised by the SCOR Foundation and The Geneva Association, brought together high calibre stakeholders from the insurance industry, the scientific community and international institutions.

Our Global Ageing research programme organised its 13th Health & Ageing conference in Hanover, Germany; and released the report *The Pension Gap Epidemic: Challenges and Recommendations*. While few would contest that the global pension gap is enormous and widening, the report puts the problem in context by estimating the gap at USD 41 trillion—more than 55% of the global Gross Domestic Product—and makes pragmatic suggestions on how industry, governments and the public can address it.

We have adapted our research programmes to cover more contemporary topics. The Cyber and Innovation research programme produced its first major report, *Ten Key Questions on Cyber Risk and Cyber Risk Insurance*. The study was very well received by our members and other key stakeholders. The Geneva Association is preparing additional reports on insurability of cyber risks and on data access and usage, and is also participating in joint research projects, for example with Singapore's Nanyang Technological University.

Running parallel to our flagship programmes, we continued to focus on the Protection Gap as a research topic. Underinsurance is one of the most pressing issues facing our society as it hinders resilience of nations and communities. The research report *Harnessing Technology to Narrow the Insurance Protection Gap* describes the digital transformation of the insurance industry as an important enabler of cost reductions across the value chain, thereby boosting demand for insurance.

Much of the progress we achieved in 2016 was possible thanks to the extensive acumen of our Deputy Secretary General, Dr Fabian Sommerrock, who is leaving the Association to pursue other professional opportunities. On behalf of our members and secretariat I thank Fabian for his support in further strengthening the relevance of our organisation.

The future looks promising for our Association. We have reinforced our engagement with key stakeholders and kept a disciplined focus on the topics that are of strategic relevance for the industry and our members. In the coming years, we will continue working on well-established themes whilst taking stock of emerging areas, for example digitisation, insurtech and the implications of genetics in life insurance.

I would like to thank our staff for their hard work over the last year. In particular, I would like to thank you as members for your continued guidance, support and contributions to this unique network of insurance industry leaders. I look forward to seeing many of you at the General Assembly in San Francisco!

With kind regards,



Anna Maria D'Hulster
Secretary General

*The 2017 General Assembly of The
Geneva Association will take place in
San Francisco*



BOARD OF DIRECTORS



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(Vice Chairman)
Chairman of the Management Board
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CEO and Chairman of the Executive
Board
AEGON N.V.

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 based in Zurich, Switzerland and is a membership organisation for a statutory maximum of 90 insurance and reinsurance CEOs. Its activities are governed by a Board of Directors, whilst a General Secretariat handles the daily operations of the Association. Its work is directed by the Secretary General.

The Association's research promotes policy-related, public discussions amongst its members, academics, standard setters, policymakers, governments, international organisations and the public at large. It interacts directly and constantly on global insurance issues with a broad spectrum of relevant international organisations such as the IAIS, the FSB, the United Nations, the World Bank Group, the Organisation for Economic Co-operation and Development (OECD) and other intergovernmental organisations, non-governmental organisations and national bodies.

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 Association's objective is to educate and develop understanding on the unique role and importance of insurance in economies and for societies

RESEARCH PROGRAMMES

The Geneva Association takes a strategic look at issues that affect the sustainability of communities, examines the needs of society and determines how the insurance mechanism can contribute to addressing those needs. The Association's work is currently focused on four research programmes:

Financial Stability and Regulation

Since the 2008 financial crisis 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.

The Geneva Association continues to pursue an intensive dialogue with regulators, supervisors, central bankers and the insurance industry to develop research that goes to the roots of the causes that triggered the crisis.

Extreme Events and Climate Risk

The severity of weather-related extreme events and other natural catastrophes (Nat Cats) 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 cooperation of governments, corporations and individuals, as well as the insurance sector.

The Geneva Association analyses the role of insurance and risk management in tackling the challenges posed by extreme events and climate risk. In parallel, the Association is engaged in high-level dialogue with leading policy influencers—including the World Bank, the OECD and the UN—to define the role insurance can play in public-private partnerships that mitigate disaster risk and help a speedy recovery after an extreme event.

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 ways in which the insurance mechanism can support governments and individuals in financing retirement and age-related health costs.

Cyber and Innovation

Cyber risks are one of the major emerging global risks in a more digitally connected world. Conducting research into the challenges and opportunities created by digitalisation is part of The Geneva Association's long-term strategic goal of supporting the role of insurance in the global economy. For this reason, Cyber and Innovation became a new research programme as of November 2016.

The Association has closed the Liability Regimes research programme but continues to monitor the theme through the Annual Liability Regimes Conference.

Research into the challenges and opportunities created by digitalisation is part of the Association's strategic goal of supporting the role of insurance in the global economy

RESEARCH TOPIC

In addition to its signature programmes, The Geneva Association works on one specific research topic of special interest for the (re)insurance industry.

Protection Gap

The 'insurance protection gap' or 'underinsurance' is the difference between the amount of insurance coverage that is economically beneficial and what is actually purchased. The Geneva Association's research intends to contribute to promoting multi-stakeholder solutions by shedding light on the underlying causes of underinsurance across the board, i.e. in life and non-life sectors in mature, emerging and frontier markets.

PUBLICATIONS

The Geneva Association issues a number of publications throughout the year. These include research reports on specific areas of interest, white papers by working groups, ad hoc topical reports, conference reviews and our flagship academic journals, *The Geneva Papers on Risk and Insurance—Issues and Practice* and *The Geneva Risk and Insurance Review*.

EVENTS

The Geneva Association organises or co-organises approximately 15 conferences and seminars every year. These include the Regulation and Supervision Seminar (PROGRES); the Extreme Events and Climate Risk Forum; and the Global Ageing Conference. Other high-profile gatherings are the Chief Investment Officers meeting; the Annual Circle of Chief Economists; the Annual Round Table of Chief Risk Officers; and the Association's General Assembly.

PRIZES, AWARDS AND GRANTS

Every year, the International Insurance Society (IIS) and The Geneva Association jointly present the Shin Research Excellence Award to recognise outstanding applied research in the field of insurance and risk management. The Association also awards annually the prestigious Ernst Meyer Prize for doctoral theses and offers two grants for research on insurance economics.



HIGHLIGHTS 2016-2017

HIGH LEVEL MEETING WITH THE SECRETARY GENERAL OF THE UN

Nine members of the Association join a High-Level Meeting organised by the Executive Office of the UN Secretary General and The Geneva Association, to discuss the role of insurance in the implementation of the Paris Agreement. The meeting is attended by the UN Secretary General Ban Ki-moon, high-level representatives from the UN, the World Bank and the international development community.



43RD GENERAL ASSEMBLY

The Geneva Association's 43rd General Assembly takes place in Rome. The programme includes keynotes from the Italian Finance Minister and from Nobel Prize-winning economist, Prof. Robert C. Merton.

MODERNISING INSURANCE SOLVENCY REGIMES

The study examines the essential features of solvency regimes in different jurisdictions, providing an overview of the commonalities and differences across regimes. It found significant common ground amongst them.

AN INTEGRATED APPROACH TO MANAGING EXTREME EVENTS AND CLIMATE RISKS

The report details the rising economic risks resulting from extreme events and climate change and offers recommendations for expanding the footprint of insurance within the integrated disaster and climate risk management framework.

APR 2016

JUN 2016

AUG 2016

SEP 2016

APR 2016

JUN 2016

SEP 2016



CHAIRMAN SPEAKS AT UN PARIS AGREEMENT SIGNING CEREMONY

Mike McGavick reaffirms the (re) insurance industry's commitment to supporting global climate resilience and disaster risk reduction at a high-level reunion hosted by UN Secretary General Ban Ki-moon, at the UN Paris Agreement signing ceremony in New York.

INSURANCE SECTOR INVESTMENTS AND THEIR IMPACT ON FINANCIAL STABILITY

The empirical study takes a close look at whether insurers' common investment behaviour could have systemic consequences. The conclusion is that the market impact of insurers' concerted investment behavior is unlikely to be systemically relevant.



DIRECTOR GLOBAL AGEING APPOINTED

Ronald Klein, previously Head of Protection Pricing and Head of Reinsurance for the Life Division of Zurich Insurance Group, joins The Geneva Association as Director of the Global Ageing research programme.

THE PENSION GAP EPIDEMIC—CHALLENGES AND RECOMMENDATIONS

The report highlights the impending pension crisis on the horizon for most nations, identifying the current global pension gap at an estimated USD 41 trillion.

TEN KEY QUESTIONS ON CYBER RISK AND CYBER RISK INSURANCE

A primer report in its category, the paper reviews current research in cyber risk and cyber risk insurance and makes recommendations about the potential role of insurers and governments in addressing cyber risks.

THE STAKEHOLDER LANDSCAPE IN EXTREME EVENTS AND CLIMATE RISK MANAGEMENT

For the first time, a research report identifies the key players in extreme events and climate risk and describes how they interact with one another. It also outlines major developments in expanding risk transfer and insurance.



33RD PROGRES SEMINAR

The seminar addresses topics such as governance, cyber and the ICS, bringing together participants from the global insurance industry and international regulatory and supervisory bodies.

NOV 2016

DEC 2016

JAN 2017

MAR 2017

OCT 2016

NOV 2016

DEC 2016

MAR 2017

THE NATURE AND ROLE OF CAPITAL IN INSURANCE

The report examines the role capital plays in insurance as a key metric to better understand, quantify and manage risk-taking in the sector.



13TH HEALTH & AGEING CONFERENCE

Hosted by Hannover Re, the conference focuses on 'underserved consumers' and sheds light on practical and innovative solutions to narrow protection gaps in the life insurance sector.

HARNESSING TECHNOLOGY TO NARROW THE INSURANCE PROTECTION GAP

One of the key findings of this report is that digital technologies can be a lever for the insurance industry to narrow market protection gaps through risk mitigation and protection products and solutions.



EXTREME EVENTS AND CLIMATE RISK FORUM

Co-organised with the SCOR Foundation and hosted by SCOR SE, the forum gathered leading international experts from the (re) insurance industry, risk modelling and scientific communities, governments, and non-profit organisations.



FINANCIAL STABILITY AND REGULATION

The Geneva Association remains focused on its efforts to ensure that new policy measures are appropriate, target the real underlying risk and are developed with due attention to the insurance business model.

In the aftermath of the financial crisis, regulatory bodies of the financial services industry have undertaken a wide range of initiatives to strengthen capital standards and, more generally, regulation. The FSB has mandated the IAIS to develop—and consult on—a capital standard for internationally active insurance groups. Moreover, the FSB has produced guidelines on recovery and resolution for insurers designated as systemically relevant. The development of this array of measures will continue over the coming years, with the insurance industry and The Geneva Association as active participants.

***During 2016
the Association
responded to several
consultations, often
in collaboration
with the Institute of
International Finance***

CONSULTATIONS

New and evolving regulatory initiatives are being closely followed by the secretariat of The Geneva Association. During 2016 the Association responded to several consultations, often in collaboration with the Institute of International Finance (IIF).

Systemic Risk from Insurance Product Features and Updated G-SII Assessment Methodology

In June 2016, the IAIS published *Global Systemically Important Insurers: Updated Assessment Methodology*, a paper that builds on the feedback the IAIS received from stakeholders on the non-traditional non-insurance (NTNI) consultative document that was released in November 2015. In tandem with the updated analytical framework on what used to be called NTNI, the IAIS launched, as part of a scheduled three-yearly review, an updated assessment methodology for global systemically important insurers (G-SIIs).

The revised assessment methodology abandoned the NTNI terminology in favour of an asset liquidation channel. In addition, it split the interconnectedness category into counterparty exposure and macroeconomic exposure and, where necessary, assigned the old indicators to new categories. The revisions, while justifiable for many reasons, did not change the focus on the single company or group as the potential cause for systemic disruptions. When the list of designated G-SIIs, based on the revised methodology, was published later in the year, there was no change compared to the 2015 designation.

However, the IAIS and other entities like the International Monetary Fund, the FSB and the European Insurance and Occupational Pensions Authority (EIOPA), seem to foreshadow a stronger bent toward macroprudential surveillance. In light of this, the Association's study *Insurance Sector Investments and Their Impact on Financial Stability* is an authoritative voice for explaining the role of insurance in absorbing—and not creating or pushing—movements in financial markets.

Risk-based Global Insurance Capital Standard (ICS)

The IAIS released in July 2016 the second round of consultation on the Insurance Capital Standard (ICS), which is to be applied to all internationally active insurance groups (IAIGs) by the end of this decade—and for confidential reporting already by 2017.

The consultation focused on a large number of technical questions related to valuation principles, capital resources and calibration. The consultation was closely linked to the field test exercise being prepared, leaving a lot of important outstanding issues, many of them of a more political nature, to be dealt with at a later stage. In light of this, The Geneva Association and the IIF decided to focus the response on a number of key issues that should be addressed before taking the ICS further. Key issues raised were:

- Getting valuation right. Prioritizing and understanding the fundamentals is key before moving to confidential reporting. ICS valuation methodologies should be brought into line with practices already in force and not neglect local differences.
- Urging on the IAIS to take into account that the ICS is part of the Common Framework (ComFrame) for the Supervision of IAIGs, which already provides for a range of important supervisory tools supplementing the quantitative requirements of the ICS.
- Ensuring broad political backing behind the ICS before taking it further at an unrealistic pace.
- Setting a less restrictive calibration target. Calibrating at a 200-year event—together with conservative reserving principles and the important premise that the ICS will be a minimum standard which can be topped up by local or regional regulators—would leave the system tight and inflexible, thus hindering the development and availability of products.

IAIS pre-consultation on Insurance Core Principle 12 and the Common Framework for the Supervision of Internationally Active Insurance Groups (IAIGs)

In August, the IAIS working group on resolution released a work-in-progress paper to a select group of stakeholders with the intent of getting initial feedback ahead of the formal public consultation.

One of the key issues raised in the pre-consultation was the intention to require all IAIGs to have recovery plans in place, as well as resolution plans for IAIGs for which supervisory authorities of their home jurisdiction consider it necessary. In its response, The Geneva Association indicated that it is important that this rule be proportional, i.e. that the degree of required recovery planning of insurers which are not considered to be systemic will not be as severe, detailed or frequent as for those insurers deemed systemic.

FSB Task Force on Climate-related Financial Disclosures

Around the COP21 meeting in December 2015 in Paris, the FSB established the Task Force on Climate-related Financial Disclosures (TCFD), an industry-led working group. The intent is to develop voluntary climate-related financial disclosures that would help investors, lenders and insurers understand the climate-related risks to which companies are potentially subject.

Members of the TCFD are users of financial data, such as insurers, banks, asset managers and pension funds. Firms from the mining, energy and manufacturing sectors are also represented. The TCFD launched its phase one report in March 2016 for public consultation. The Geneva Association along with other stakeholders provided input to the 22 questions that were raised by the task force.



Above: Panel on Cyber Risk at the 33rd PROGRES Seminar

On 14 December 2016 the TCFD released its final report with its recommendations for disclosure. These recommendations are bound to topics such as governance, strategy, risk management and metrics and targets. As a whole, they provide guidance for all sectors and represent a set of supplementary information for insurers and asset owners.

Key recommendations cover: i) the attention of Boards of Directors to climate-related risks; ii) the disclosure of annual expected losses from weather-related catastrophes by insurers; and iii) disclosure of greenhouse gas emissions (GHG) associated with investments. First reactions from industry representatives indicate support for the recommendations. The task force launched a 60-day public consultation and invited interested stakeholders to provide feedback. The final report includes the specific recommendation to the insurance industry to disclose the potential impact of different scenarios, including the effects of a two degrees scenario on the insurer's business strategy and financial planning.

The Geneva Association indicated in its response that there may be a gap when it comes to the practical implementation of this specific recommendation, not least because scenario analysis requires a specialised skillset which not all firms may currently have at their disposal. The guidance for asset owners covers a recommendation to disclose indirect GHG emissions associated with the investments owned. The Geneva Association considers this to be challenging for three reasons. First, GHG emissions are not necessarily a risk metric, but rather a proxy for some of the risk; second, collecting information on GHG emissions as they relate to investments is challenging as data may not be available; and last, this recommendation may lead to the creation of risks associated with the transition to a lower-carbon economy, potentially presenting varying levels of financial and reputational risk to insurers, not least financial risk. The response letter was submitted to the TCFD on 12 February 2017.



REPORTS

Insurance Sector Investments and Their Impact on Financial Stability

The potential of the insurance sector to act as a cohort and, through its common investment behaviour, affect the prices of financial assets has appeared on the radar screens of supervisors and bodies charged with macroprudential surveillance. They argue that such a pro-cyclical investment behaviour could potentially assume systemic proportions. This view reflects a shift in perspective—from identifying individual insurers of systemic importance, towards a focus on the sector as a whole, and calling the result of certain activities potentially systemically relevant.

In June 2016, The Geneva Association published the report *Insurance Sector Investments and Their Impact on Financial Stability*. It examines the question whether insurers' common investment behaviour could indeed impact the prices of financial instruments and trigger a reallocation of financial assets with potentially systemic consequences.

There are a number of considerations that rule out the kind of massive procyclical behaviour attributed to the insurance sector. First, most insurance liabilities are long-dated and highly illiquid; they are not susceptible to sudden cash drains caused by policyholder runs. And second, to meet the policyholder promise over time, most insurers pursue a liability-driven investment strategy that endeavours to match their liabilities to assets of similar or even equal durations. These characteristics enable insurers to 'look through the cycle' and ride out financial market turbulences. Therefore, the asset allocation of insurers should be less volatile than the allocation of other large institutional investors, a point that was well supported by the data. The report adds a perhaps surprising third finding: the share of financial assets held by insurers is smaller for many asset classes than the share held by other large institutional investors. Consequently, the price impact of industry-wide investment decisions by insurers should be small.

The report does not dispute the validity of studies arguing the potential for procyclicality, i.e. that fluctuations of financial asset prices could be exacerbated by buy and sell activities of the whole insurance sector. There were indeed a few data points after the burst of the dotcom bubble in 2001 (but not after the global financial crisis of 2008) that seem to support some degree of procyclicality. This is not surprising: after all, insurers are part and



parcel of the financial market and they will always be affected by broader market movements. However, based on historical data and forward-looking stress tests assuming several scenarios of forced asset sales by insurers, the report found the market impact of insurers' concerted investment behaviour to be small and unlikely to cause systemically relevant financial market distortions.

Modernising Insurance Solvency Regimes

The report *Modernising Insurance Solvency Regimes—Key features of Selected Markets* was published in August 2016. The report examines essential features of solvency regimes in different jurisdictions—some with well-established solvency regimes, and others that have recently developed or are in the process of developing their insurance solvency regulation. The report contributed to the broader discussion on capital by providing an overview of the commonalities and differences across regimes. It found significant common ground amongst them, as all regimes included in the study follow a risk-sensitive approach in setting the regulatory capital requirements.

The Nature and Role of Capital in Insurance

In October 2016 The Geneva Association released a new report on *The Nature and Role of Capital in Insurance*. This report is meant to be seen as a support to the current efforts of the IAIS to develop a global insurance capital standard.

In this report, the role capital plays in insurance is explained as a key metric to better understand, quantify and manage risk-taking in the insurance business. Insurers provide policyholders with a high level of security that the promises made in the form of insurance cover will be honoured. In doing so, insurance companies are able to protect individuals as well as small businesses and large corporations against the financial consequences of risk. Although the importance of capital in securing financial promises made to policyholders is recognized in the report, it is put forward that capital is not the answer to all economic problems potentially affecting insurers. Rather, capital needs to be one core element in the context of a broader supervisory framework, including but not limited to, corporate governance, enterprise risk management and stress testing.





*Right: At the 33rd
PROGRES Seminar,
above: Victoria Saporta,
Executive Director,
Prudential Policy, Bank of
England; below:
Dr Yulong Zhao, Deputy
Director General, China
Insurance Regulatory
Commission*

FINANCIAL STABILITY AND REGULATION VIDEOS

Visit www.youtube.com/TheGenevaAssociation

Members of The Geneva Association Board discuss international regulatory developments



▶ **Inga Beale**
CEO, Lloyd's of London



▶ **Mike McGavick**
CEO, XL Group Ltd

Participants of the 33rd PROGRES Seminar discuss cyber risk and the role of governance in regulation



▶ **Mel Goddard**
Market Liaison and
Underwriting Director for
Lloyd's Market Association



▶ **David Rule**
Executive Director,
Insurance Supervision,
Bank of England



▶ **Victoria Saporta**
Executive Director,
Prudential Policy, Bank of
England



Peter Skjoedt, Director Financial Stability and Regulation, The Geneva Association



Mark Grier, Vice Chairman, Prudential Financial



Yoshihiro Kawai, Secretary General, IAIS



Panel on ICS



Daljitt Barn, Head of Cyber, Munich Re

33rd Regulation and Supervision (PROGRES) Seminar

The Geneva Association hosted the 33rd PROGRES Seminar in Zurich on 3 March 2017. The event featured keynote speeches on *High Level Views on Supervision and Regulation* by Mark Grier, Vice Chair of Prudential Financial and *Lessons Learned from the Development and Implementation of the C-ROSS Supervisory Regime* by Dr Yulong Zhao, Deputy Director General of the China Insurance Regulatory Commission. Participants engaged also in three panel sessions on governance, cyber risk and the ICS.



Halina von dem Hagen, EVP, Treasury & Capital Management, Manulife



Tom Sullivan, Associate Director, Federal Reserve System



Side discussions





EXTREME EVENTS AND CLIMATE RISK

The Geneva Association conducts research that promotes the role of insurance in mitigating the societal impact of weather-related extreme events and climate risk.

WORKING PLAN 2016-2018

Following the approval of the priority themes and related projects at the February 2016 meeting of The Geneva Association Board, the Extreme Events and Climate Risk (EE+CR) research programme and its external working group started the roll out of a three year plan for 2016-2018.

The plan is built around two priority pillars covering four projects.

Specialised task teams have been established, bringing together strategic international partners, academic institutions and Association members

Pillar 1: Opportunities and challenges facing the insurance industry related to the transition to a low-carbon economy

- **Project 1:** A qualitative survey to assess The Geneva Association members' perceptions about the transition, along with their corresponding liability and investment strategies. The survey will also ask Association members about their challenges, opportunities and innovations in the liability and investment sides of their business, and explore their view points in the context of a low-carbon economy. The final paper will be an aggregated report of the findings and is expected to be published in November 2017.

Pillar 2: Role of the (re)insurance industry in building resilience to extreme events and climate risks

- **Project 2:** Coordination of risk modelling initiatives to determine: (i) how the (re)insurance industry's innovations and knowledge in catastrophe risk modelling can be shared with the public sector; and (ii) opportunities for leveraging scientific and technological advancements for the expansion and the development of forward-looking risk models.
- **Project 3:** Documentation of best practices and development of case studies that demonstrate the benefits of risk prevention and risk transfer mechanisms, as well as public-private partnerships, in the context of the framework introduced by the Association's report *An Integrated Approach to Managing Extreme Events and Climate Risks* published in 2016.
- **Project 4:** Opportunities for the insurance industry to contribute to enhancing the resilience of critical infrastructure to extreme events and climate risks. The project will also be coordinated with the EE+CR Forum of 2018.



Above: Panel session at the Extreme Events and Climate Risk Forum

Extensive consultations have been held with the EE+CR working group, which is comprised of 15 leading experts from The Geneva Association members' companies. In addition, specialised task teams have been established, bringing together strategic international partners, academic institutions and Association members.

PUBLIC ENGAGEMENTS

High Level Meeting with the Secretary General of the UN

On 13 April 2016 nine members of the Association joined a High-Level Meeting organised by the Executive Office of the UN Secretary General and The Geneva Association, also engaging the IDF and the IIS. The meeting took place at the UN headquarters in New York and was attended by the UN Secretary General Ban Ki-moon, high-level representatives from the UN, the World Bank and the international development community to discuss the role of insurance in the implementation of the Paris Agreement.

The following priorities for action were identified:

- Understanding risks through modelling and mapping;
- Leveraging and coordinating risk transfer and risk sharing initiatives and facilities for provision of scaleable and sustainable insurance in the developing nations;
- The need for alignment of national policies, legislation and regulatory frameworks aligned with development of insurance;
- The need for UN Resolution on Sustainable Finance and Insurance;
- Stronger public-private partnerships; and
- Insurance and investment in extreme event and climate-resilient infrastructure.

The meeting also discussed mechanisms for cooperation, particularly highlighting the IDF which will steer implementation.

UN High Level Signature Ceremony of the Paris Agreement

On 22 April 2016, the Chairman of The Geneva Association spoke at the UN High Level Signature Ceremony of the Paris Agreement. At the luncheon hosted by Ban Ki-moon, heads of state as well as leaders of businesses and



of the civil society delineated their contribution to the implementation of the Paris Agreement. Our Chairman's speech covered how the insurance industry can contribute to increase the resilience of communities to extreme events and climate risk.

Representation at the IDF

The Geneva Association is represented at the IDF by its Secretary General. The IDF, first announced at the 2015 Paris climate summit, was officially launched on 18 April 2016 by leaders of the UN, the World Bank and the insurance industry. The IDF is driven by a steering committee and supported by an implementation group. Seven members of The Geneva Association participate in the steering committee.

Discussion on Insurance and Climate Resilience

At the Climate Action 2016 Summit, which took place in Washington, DC on 4-6 May 2016, The Geneva Association organized a public forum panel discussion on *Insurance and Climate Resilience*.

Panel on Insurance and Infrastructure

The Geneva Association co-organized together with the World Bank Group the panel *Reinforcing foundations: The role of the insurance industry in resilient infrastructure*, during the Understanding Risk Forum in Venice, Italy on 16-20 May 2016.

CONFERENCES, SEMINARS AND MEETINGS

The Geneva Association participated in several high-profile events to help build a better understanding of extreme event and climate risks, whilst promoting closer cooperation to build resilience around those topics.

European Commission Workshop on Insurance, Disaster Risk and Climate Change

The event took place in Brussels on 5-6 October 2016. The session discussed the main challenges to make better use of insurance as a tool to adapt to extreme events linked to climate change. The Geneva Association participated in one of the sessions and presented the main outcomes of its recently published report.

Insurance Europe Meeting on Climate Change: From Words to Action

The meeting took place in Brussels on 19 October 2016. The objective of the meeting was to discuss the outcomes of COP21 conference of 2015, and to also address topics—such as the insurance protection gap—ahead of the COP22 conference in Marrakesh. During the meeting, the Association presented the report *An Integrated Approach to Managing Extreme Events and Climate Risks*.

IAIS Annual Conference

At the IAIS annual conference in Asuncion, Paraguay on 10-11 November 2016 The Geneva Association presented a synthesis of its latest reports, focusing on the regulatory implications in particular.

Reaffirmation of the Climate Statement at COP22

The 22nd Conference of the Parties (COP22) to the United Nations Framework Convention on Climate Change gathered the leaders of 195 countries in Marrakesh on 7-18 November 2016. The Geneva Association reaffirmed its 2015 Climate Risk Statement, signed by 68 insurance Chief Executives; and urged governments to actively engage in dialogue and public-private partnerships to achieve the goals of the Paris Agreement.

REPORTS

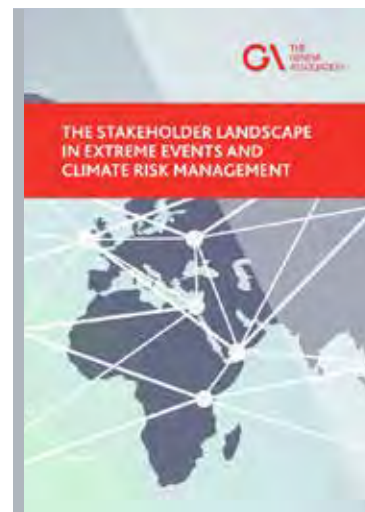
An Integrated Approach to Managing Extreme Events and Climate Risks

The report *An Integrated Approach to Managing Extreme Events and Climate Risks—Towards a Concerted Public-Private Approach* was released on 26 September 2016. It offers a comprehensive discussion of the benefits of an integrated public-private approach to managing extreme events and climate risks. The authors share insights about the causes and effects of mounting socio-economic risks, provide an account of international policymakers' increasing acceptance of the important role to be played by market-based insurance solutions, and analyse the obstacles to fully capturing the industry's potential. The report includes concrete recommendations on how to build resilience to extreme events and climate risk.



The Stakeholder Landscape in Extreme Events and Climate Risk Management

On 12 January 2017, The Geneva Association launched a report on *The Stakeholder Landscape in Extreme Events and Climate Risk Management*. The report describes and graphically illustrates the global patterns of stakeholder engagement over the last five decades in relation to disaster risk reduction, climate change and sustainable development. It displays the complex stakeholder landscape and multi-stakeholder initiatives in extreme events and climate risk management over the last decade, and outlines the major developments in expanding risk transfer and insurance.



National Guidelines for Risk Assessment to Support Sovereign Risk Financing and Insurance

This document is the response to a request from the UN Office for Disaster Risk Reduction (UNISDR) to The Geneva Association to develop this module as part of *Words into Action Guideline on National Disaster Risk Assessment: Governance System, Methodologies and Use of Result*, which will be distributed to governments globally. The interim version of the guideline will be distributed at the Global Platform for Disaster Risk Reduction to be held in Cancun, Mexico on 22-26 May 2017.

The final version will be shared with all governments during the second half of 2017. The Geneva Association invited the IDF to collaborate on the development of this report, for which it engaged with the EE+CR working group and other experts from Association members' companies. The guideline is intended to provide governments with a framework for developing sovereign risk financing and risk transfer programmes as critical components of a comprehensive approach to disaster risk management. The document is to be published as a joint initiative by the IDF and The Geneva Association.

EXTREME EVENT AND CLIMATE RISK VIDEOS

Visit www.youtube.com/TheGenevaAssociation

Participants from the Extreme Events and Climate Risk Forum



▶ **Denis Kessler**
CEO and Chairman,
SCOR



▶ **Maryam Golnaraghi**
Director Extreme Events
and Climate Risk, The
Geneva Association



▶ **Ian Branagan**
Group Chief Risk Officer
and Senior Vice President,
Renaissance Re



▶ **Paul Nunn**
Head of Catastrophe Risk
Modelling, SCOR Global P&C



▶ **Julia Slingo**
Former Chief Scientist, UK
Met Office



▶ **Molly Jahn**
Professor in University
of Wisconsin-Madison's
Department of Agronomy,
Global Health Institute, and
Center for Sustainability and
Global Environment



▶ **Mamiko Yokoi-Arai**
Principal Administrator
and Head of Insurance,
Organisation for Economic
Co-operation and
Development (OECD)

How Will Risk Modelling Shape the Future of Risk Transfer?

The annual Extreme Events and Climate Risk Forum has been re-established as an integral part of one of the Associations' research priorities. The 2017 forum, under the umbrella topic *How Will Risk Modelling Shape the Future of Risk Transfer?*, took place on 9-10 March 2017 in Paris and was co-organised by the SCOR Foundation and The Geneva Association, and hosted by SCOR SE. The conference explored opportunities along three areas: (i) utilization of Cat risk modelling methodologies to innovate risk transfer through expansion to other perils, regions, products and applications; (ii) opportunities for integrating Cat models with other risk models, for a more interconnected view of risks; and (iii) innovating risk transfer through a paradigm shift in defining and modelling risk.



Left to right: Dickie Whitaker, OASIS; Alexandre Allman, Munich Re; Jay Guin, AIR; Lixin Zeng, AlphaCat; Ian Branagan, Renaissance Re



Left to right: Jay Guin, AIR; Federico Waisman, Ariel Re; Gerry Lemcke, Swiss Re; Paul Nunn, SCOR



Maryam Golnaraghi, Director Extreme Events and Climate Risk, The Geneva Association



Denis Kessler, CEO and Chairman, SCOR SE



Julia Slingo, Former Chief Scientist, UK Met Office



Kirsten Dunlop, CEO, Climate KIC



Side discussions





GLOBAL AGEING

The Geneva Association researches the role of the (re)insurance mechanism in supporting governments and individuals in funding age-related costs and achieving a secure retirement.

The desire to dive deeply into the societal, economic and political effects that ageing has on the world is at the heart of The Geneva Association's Global Ageing research programme. The Association goes beyond identifying the challenges by seeking practical solutions that can mitigate them. As of May 2016, Ronald Klein has taken over the leadership of this research programme as Director Global Ageing.

13th Health & Ageing Conference

The 13th Health & Ageing Conference took place in Hanover, Germany on 3-4 November 2016, hosted by Hannover Re. The theme was *Underserved Consumers—Insurance Solutions to Close the Health and Longevity Protection Gap*. Participants were treated to sessions defining the protection gaps, discussing the magnitude of the problem and discussing practical and innovative solutions.

Protection gaps are the difference between the insurance coverages people have for life, disability, medical and retirement, and what they actually need. Such gaps are caused by lack of education about financial needs and insufficient available products, as well as by limited access to products and corresponding payment methods.

New technologies such as mobile telephony are assisting in reaching more people in a quick and more effective way. More affordable and individualised products are being developed too, for example by microinsurance companies, to better address the needs of lower income consumers.

There is a large investment being made to reach and participate in underserved markets. Insurers worldwide are beginning to realise the social and financial benefits associated with reaching low income and remote customers. Addressing the needs of underserved consumers can truly be a win-win scenario for insurers and society.

The insurance mechanism can support governments and individuals in financing retirement and age-related health costs

REPORT

The Pension Gap Epidemic

In its report entitled *The Pension Gap Epidemic—Challenges and Recommendations* released on 16 November 2016, The Geneva Association highlights the impending pension crisis on the horizon for most nations. At an estimated USD 41 trillion, the pension gap is more than 55% of the global Gross Domestic Product (GDP)¹.

The gap is defined as the difference between the 40-year present value of the yearly lifetime income needed to sustain a reasonable standard of living, and the actual amount saved for retirement; plus the 40-year present value of pay-as-you-go (PAYG) contributions.

A main tenet of modern society is that people should be able to age with dignity. The current and worsening pension gap will put pressure on society to maintain this goal. It will take a concerted effort from governments, industry and the population at large to mitigate the effects of the pension gap.

One of the most effective and practical solutions is to encourage people to work beyond normal retirement age, the age at which people can draw an unreduced social insurance pension. The Geneva Association calls this 'Pillar IV' and has been discussing it in publications since the early 1980s. According to the Association's own estimates, an increase in the normal retirement age to 69 would decrease the worldwide pension gap to approximately USD 10 trillion.

An increase in retirement age implies a number of assumptions, for example that i) people approaching 69 years of age are healthy enough to work; ii) they wish to continue working; iii) their employers allow them to do so; iv) their salary is kept at a similar level; v) their continued employment does not have an effect on other people entering or already in the workforce; and vi) they continue to save for retirement.



¹ The World Bank, 2015.



Claude Chèvre, Member of the Executive Board, Hannover Re



Paul Gaudin, CEO, Tutella Limited, NHS England



Ronald Klein, Director Global Ageing



Hannah Grant, Executive Director, Access to Insurance Initiative (A2ii)



Rolf Hüppi, Founder, Chairman & CEO ParaLife



Neelam Sekhri Feachem, Associate Professor of Epidemiology & Biostatistics, University of California



Panel session on the Definition and Scope of the Health and Longevity Protection Gaps



CYBER AND INNOVATION

Cyber is one of the top risks in a world that is ever more digitally connected. The strategic intent of The Geneva Association's Cyber and Innovation research programme is to promote the fundamental role of insurance in addressing this emerging and rapidly evolving risk.

Society's ever-growing reliance on information and communications technology means that the risks of its failure, be it from malicious acts or system malfunction, are increasingly significant. Companies face new exposures, including first- and third-party damage, business interruption and regulatory consequences. The issue calls for coverage solutions, from both private and public sectors, for individuals, businesses and societies.

Cyber risk represents a tremendous opportunity, but also challenges to insurability

PUBLIC ENGAGEMENTS

Insurance Risk Research Conference

Dr Fabian Sommerrock offered a presentation on *The Role of Research in Insurance Innovation* at this meeting in Singapore on 16 June 2016. He explained the Association's initiatives in regards to cyber. In particular, Dr Sommerrock gave an overview of the project with the University of St. Gallen that started in April 2016, which informed the report *Ten Key Questions on Cyber Risk and Cyber Risk Insurance*.

12th Annual Liability Regimes Conference

The event took place in Munich on 17-18 November 2016. Topics closely related to cyber and innovation, such as Internet of Things, cyber accumulation risks, nanotechnology and liability risks in regards to drones were discussed at a session moderated by Nicholas Roenneberg, Liability Regimes Project Manager of The Geneva Association.

12th Chief Risk Officer Assembly

Prof. Martin Eling, Director of the Institute of Insurance Economics at the University of St. Gallen, and Dr Fabian Sommerrock presented the report *Ten Key Questions on Cyber Risk and Cyber Insurance* during this meeting in Munich on 29-30 November 2016.

REPORT

Ten Key Questions on Cyber Risk and Cyber Risk Insurance

Using a database of 211 studies, articles and working papers, the report *Ten Key Questions on Cyber Risk and Cyber Risk Insurance* provides insurance practitioners and academics with a high-level overview of the insights from, and direction of, current research in cyber risk and cyber risk insurance. The paper also makes recommendations about the potential role of insurers and governments in addressing cyber risks. Prof. Martin Eling and Werner Schnell of the Institute of Insurance Economics, University of St. Gallen are the authors of the report edited by Dr Fabian Sommerrock.



SUMMARY OF EXISTING KNOWLEDGE ON CYBER RISK AND CYBER INSURANCE

1. What is cyber risk? Definition and categorisation.
2. What are the costs and detrimental effects caused by cyber risk?
3. Where do we find data on cyber risk?
4. How can we model cyber risks?
5. Micro perspective: How should cyber risk management be organised?
6. Macro perspective: Is cyber risk a threat to the global economy and society?
7. Cyber insurance market: What is the status quo and what are the main insurability challenges?



DERIVATION OF POTENTIAL FUTURE WORK (PRACTICAL PERSPECTIVE)

8. What should the insurance industry do to prevent cyber risks and to support cyber insurance?
9. What should the government do to prevent cyber risks and to support cyber insurance?

DERIVATION OF POTENTIAL FUTURE RESEARCH (ACADEMIC PERSPECTIVE)

10. What are future research directions in the area of cyber risk and cyber insurance?

Above: Research approach with three clusters and ten key questions

COLLABORATION WITH SINGAPORE'S NANYANG TECHNOLOGICAL UNIVERSITY

The Nanyang Technological University, Singapore (NTU Singapore) and The Geneva Association announced on 26 September 2016 a joint collaboration in cyber risk insurance research. The Geneva Association will join the Oversight Board of NTU Singapore's Cyber Risk Management Project (CyRiM) and support insurance-related research initiatives through its academic experts and global insurance and risk management networks. CyRiM is a new public-private partnership project between industry, academia and government.

The research findings will be shared with the public, private and academic sectors in the form of published papers and a joint NTU-Geneva Association conference. Both parties will also work together to promote the integration of Asian, European and North American insurance cultures in the cyber risk field.

CYBER AND INNOVATION VIDEO INTERVIEWS

Visit www.youtube.com/TheGenevaAssociation

**Prof. Martin Eling and Dr
Fabian Sommerrock discuss
implications of cyber risks**



▶ **Prof. Martin Eling**
*Director of the Institute
of Insurance Economics
at the University of St.
Gallen*



▶ **Fabian Sommerrock**
*Deputy Secretary General
and Head of Insight, The
Geneva Association*



PROTECTION GAP

The global insurance protection gap is one of the most pressing issues facing our society. It leads to a severe lack of societal resilience against external shocks such as natural disasters or pandemics.

The 'insurance protection gap' or 'underinsurance' is the difference between the amount of insurance coverage that is economically beneficial and what is actually purchased. The Geneva Association's research intends to contribute to promoting multi-stakeholder solutions by shedding light on the underlying causes of underinsurance across the board, i.e. in the life and non-life sectors in mature, emerging and frontier markets.

The Association's research promotes multi-stakeholder solutions, shedding light on the underlying causes of underinsurance

KEY HIGHLIGHTS

Multaqa Qatar

Anna Maria D'Hulster, Secretary General of The Geneva Association delivered a keynote address on the global mission of insurance. The conference took place in Doha, Qatar on 14 March 2016 and was attended by approximately 700 senior insurance and reinsurance executives and professionals. Ms D'Hulster also elaborated on the property insurance protection gap in the region—a gap which, for the Gulf countries, amounts to approximately 80% and reaches up to 95% for the Middle East-North Africa countries.

International Society of Catastrophe Managers

The event was organized in Zurich on 15 September 2016 and The Geneva Association was represented by Daniel Hofmann, Senior Advisor Financial Stability and Insurance Economics, who gave a presentation on natural catastrophe protection gaps in emerging economies. Mr Hofmann elaborated on indicators such as below-average levels of insurance penetration, as well as the difference between economic and insured disaster losses. The discussion also covered various causes of and remedies to protection gaps, distinguishing between mature and emerging markets and highlighting the importance of innovative approaches such as microinsurance, parametric insurance and alternative risk transfer.

Lloyd's China Day

Dr Kai-Uwe Schanz, Special Advisor to The Geneva Association, delivered a speech on how to harness digital technology to narrow insurance protection gaps. At the event held in Beijing on 28 October 2016, he offered a preview of the Association's forthcoming research report which will be particularly relevant for the rapidly growing Chinese insurance markets. More than 500 insurance executives and professionals attended the Lloyd's China Day, hosted by Lloyd's Chairman John Nelson.

InsuranceCom Asia

The Geneva Association was represented by Dr Kai-Uwe Schanz at this event in Hong Kong on 8 November 2016, which brought together insurance executives from South East Asia and the Greater China region. Dr Schanz presented an extract of the report *Harnessing Technology to Narrow the Insurance Protection Gap*.

REPORT

Harnessing Technology to Narrow The Insurance Protection Gap

Co-authored by Dr Kai-Uwe Schanz and Dr Fabian Sommerrock, the report published in December 2016 argues that the potential of new technologies to narrow protection gaps is not only a result of rapid advances in connectivity, mobility, cloud computing, big data analytics and social networking. It also reflects long-standing shortcomings of traditional business models and inherent inefficiencies of the insurance market, which digitisation is bound to mitigate. This potential is most pronounced in personal lines such as motor, health and homeowners insurance.

In the digital age, traditional information asymmetries in insurance are likely to disappear, with both insurers and policyholders benefiting from much improved information at much lower cost. The exponentially growing amount of digitally sourced personal data enables both policyholders and their insurers to more clearly discern 'good' and 'poor' risks.

The digital transformation of the insurance industry could enable a dramatic reduction in its high transaction costs, including claims settlement, acquisition and administration. These cost items can absorb up to about one-third of the insured's premium payments and are perceived as a major inefficiency, which deters many potential buyers from seeking insurance cover. Technology-based disintermediation and gains in operating efficiency can contribute significantly to surmounting this obstacle of high transaction costs and pave the way for a wider adoption of insurance, especially in retail.

In sum, the radical changes to the insurance value chain brought about by digitisation are expected to boost insurance demand.

At the same time, the challenges for regulators are very significant. More specifically, regulators need to: i) reconcile data protection and usage; ii) define insurers' scope for price differentiation in the age of big data; and iii) decide on the treatment of non-insurers engaging in insurance sales.



17th Asia CEO Insurance Summit

The Geneva Association was represented by Dr Fabian Sommerrock at this major industry event in Singapore on 21-22 February 2017. Dr Sommerrock presented the *Harnessing Technology to Narrow the Insurance Protection Gap* report.



17th Asia CEO Insurance Summit

PROTECTION GAP VIDEOS

Visit www.youtube.com/TheGenevaAssociation

Dr Fabian Sommerrock and Dr Kai-Uwe Schanz discuss causes of insurance protection gaps, and how technology could help to address them.



▶ **Fabian Sommerrock**
Deputy Secretary General
and Head of Insight, The
Geneva Association



▶ **Kai-Uwe Schanz**
Special Advisor to The
Geneva Association

DEVELOPMENTS IN ASIA

The liaison offices for Japan and Asia promote and increase recognition of The Geneva Association in the region by developing new relationships with insurance companies, governments, academia, NGOs, regulators and supervisors. The offices also support the Association's members in the region.

JAPAN

REGULATORY TRENDS

In the course of 2016, Mr Nobuchika Mori, Commissioner of the Financial Services Agency (FSA) of Japan, delivered several speeches in Tokyo that, whilst mostly focused on banking sector issues, also shed light on important regulatory implications for the insurance sector. For instance, he underscored that different but complementary balances are required, namely, between financial stability and effective financial intermediation, between consumer protection and consumer benefit, and between market integrity and market vigour.

In regard to the IAIS core principles, the FSA has designated enterprise risk management (ERM)—including the own risk and solvency assessment (ORSA)—as one of the core pillars of supervision. ORSA is an important tool for sound risk taking as well as for dialogues with shareholders and investors. In the non-life sector, due partly to ORSA, reinsurance premiums ceded to international markets increased from JPY 315 billion to JPY 566 billion between 2010 and 2015, according to the latest data published by the General Insurance Association of Japan.



Katsuo Matsushita
Liaison Officer Japan
The Geneva Association

TECHNOLOGY TRENDS

Autonomous cars. Although the Japanese government had been slow in authorising tests on public roads, it is gradually starting to grant permissions. In 2016, a non-life insurer announced its participation in a project to conduct tests on public roads.

Blockchain. A non-life insurer announced a joint experimental project to expand the application scope of this technology. By collaborating with a firm specialised in security algorithms, the insurer is trying to apply blockchain technology to create a safer and more agile method of transferring information related to medical treatment between hospitals and insurers.

Artificial intelligence. A life insurer is using artificial intelligence to increase the efficiency of the claim settlement process. Whilst this is a positive development for the industry, the reallocation of staff may be a cause of concern in the future.

Wearables. Most major life insurers in Japan assign strategic importance to promoting a healthy lifestyle and thus reflect the individual customer's condition in the price of insurance. Life insurance customers are starting to

use wearables in order to transmit health-related data to their hospitals. Based on the analysis of such information and the customer's health and physical condition, insurers in Japan are starting to experiment with insurance cover offered at a price tailored to each customer.

Cyber risk. Awareness of this emerging risk is growing more acute, due not only to the 2020 Tokyo Olympic Games but also the rising trend of the Internet of Things in the manufacturing and services sectors. Demand for coverage has increased, but underwriting remains challenging.

Insurers in Japan are starting to experiment with tailored pricing based on customer health data

IMPACT OF LOW OR NEGATIVE INTEREST RATES

Some insurers have suspended sales of certain products whose viability is compromised. In response, life insurers are expanding the spectrum of protection-type products, for example foreign currency-denominated insurance that does not depend on the yen interest rate. Another response has been to promote products that cover 'outliving risk', as well as survivor protection-type policies that offer a lump-sum payment in case of critical illness.

DEMOGRAPHICS

Japan's demographics are moving towards a highly aged society, and the number of people with dementia is rising. Some insurers are focusing on dementia-related coverage with an easy-to-contract feature.

As couples in Japan tend to marry late, there is a growing number of women who require expensive infertility treatments. In April 2016, a life insurer obtained permission from the FSA to sell infertility insurance.

NATURAL CATASTROPHE RISK

Every large-scale disaster reminds insurance companies of their core social mission: to assist their customers and affected communities to get back on their feet by quickly settling claims payments. This is critical for expediting post-disaster recovery. There is a need to spread disaster risk insurance more broadly, thereby reducing the protection gap.

As a national average, the percentage of individual fire insurance policyholders who purchased earthquake riders has increased from 53.7 per cent to 60.2 per cent in 2015, according to the latest available information. However,



the protection gap in commercial earthquake cover remains considerable despite increased expenditures by Japanese businesses on risk management and mitigation. Indeed, companies in Japan have been investing in risk management and mitigation, giving priority to enhancing resilience of buildings and supply chains against the effects of earthquakes.

ASIA (excl. Japan)

IMPACT OF MAJOR SOCIETAL TRENDS

The insurance industry in Asia is well positioned to grow in line with the general macroeconomic environment. However, some macro trends continue to be under the spotlight, such as:

- **Cyber risk insurance**, with the main challenge coming from the speed of the development of fintech, online products and online transaction platforms.
- **Ageing population**, whose continued growth may lead to lower productivity and thus reduce economic growth. Governments are taking measures by raising the retirement age in order to maintain productivity and competitiveness. This trend will have profound impacts on the insurance industry, as insurers would need to rearrange their priorities and put more emphasis on developing risk-mitigating solutions to the effects of people living longer lives.
- **Increase in protectionism** of local insurance markets, causing them to become less diversified and less capital efficient. This trend is already visible in Malaysia, China and Indonesia.
- **Continued urbanisation**, which will continue to pose challenges to the adequacy of Cat risk cover for extreme events in markets where there is limited capacity. Indonesia, for instance, will need to buy more Cat cover as urbanisation rates grow.

The increasingly globalised world and the fast development of fintech have made it clear that insurance needs are not fully covered. The Geneva Association expects Asian governments to focus more on developing the Cat markets, promoting product and fintech innovations and pushing regulation on cyber risk.



John Tan
Liaison Officer Asia (excl. Japan)
The Geneva Association



ECONOMIC GROWTH CHALLENGES

Global GDP growth rate has been slowing down, in Asia-Pacific in particular, despite the region's long-term favourable fundamentals. The region's GDP growth rate is expected to decelerate to 5.3 per cent this year¹. This deceleration, however, may be exacerbated by a number of challenges, described briefly below:

Protectionism

The change in the U.S. administration and the withdrawal of the United Kingdom from the European Union can be seen as reflections of the widening wealth gap between the rich and the poor, the constant trade imbalances and the delay in implementing restructuring reforms in the global economy. Voters are expressing their support for political programmes that call for increased protectionism.

However, protectionism may result in competing trade policies and geopolitical tensions amongst the major economies, which would pave the way for tariffs conflicts and foreign exchange instability. For a region such as Asia, which remains highly dependent on exports, the negative effects of protectionism are likely to further decelerate economic growth.

Interest Rates and Forex

The rise in U.S. interest rates and the strengthening of the U.S. dollar have affected foreign direct investment (FDI) flows into Asia, causing regional currencies to weaken against the U.S. dollar.

China, for example, has resorted to extreme measures to control the decline of the yuan, which has continued to stumble even in spite of the expectations around the One Belt, One Road initiative which calls for massive investment in and development of trade routes in the region.

¹ See IMF, *Regional Economic Outlook: Asia and Pacific*

IMPACT OF RECENT DEVELOPMENTS ON THE ASIAN INSURANCE INDUSTRY

Insurance Regulations

In 2016, China completed the implementation of the C-ROSS solvency regime, which makes it less attractive for insurers to place reinsurance outside the country. In order to increase domestic capacity, the China Insurance Regulatory Commission approved new licences for domestic reinsurers such as PICC Re and Qianhai Re. Taiping Re has also recently become a locally incorporated company in China to accommodate for the regulatory change.

Local regulators in Korea and India are encouraging foreign reinsurers to establish subsidiaries and branch offices in their countries.

This trend is likely to continue, with more local reinsurance companies being set up in the Asian markets amidst an environment of regulatory changes and macroeconomic uncertainty. The general scenario is set to indirectly reduce the stimulus for achieving an international capital standard in the near future.

Corporate Activities

The low interest rates environment and weak market conditions have created opportunities for mergers and acquisitions and also divestitures, with prominent examples being the acquisition of Asia Capital Re by Shenzhen Qianhai Financial Holdings and Shenzhen Investment Holdings, the purchase of Ironshore by Liberty Mutual, and the selling by Allianz and ING of their life insurance businesses in Korea.

Anbang Insurance, China's largest unlisted insurer, announced its intention to prepare an initial public offering of their life insurance unit. Also in China, some notable deals in the online insurance sector include Huize.com (a third-party insurance services provider) and Datebao.com (an online discount health insurer) raising approximately USD 15 million and USD 20 million, respectively.

Despite these promising developments, raising capital continues to be challenging for insurance companies as poor earnings, slow market growth and weak investment income impact company valuations.

The weakness of sector earnings deterred firms from any prominent debt issuances during 2016, notwithstanding the low interest rate environment.

Raising capital continues to be challenging for insurance companies

Innovations

Although insurtech is still in early stages in Asia, it is growing very fast, especially in China and India due to the large investments in the sector and the size of the potential markets. Premiums from the insurtech sector in China have shown growth rates of about 200–300 per cent annually for the previous two years, although coming from a small baseline.

The increasing volume of internet users and online transactions, along with the adoption of IT advancements such as blockchains, artificial intelligence, big data and cloud computing are set to make insurtech more pervasive in the near future and boost product development and premium growth.

Innovations in the sector call for a heightened awareness of cyber risk. This is an emerging risk for the insurance sector and has become a key focus area not only for regulators but also for insurers, which actively research for ways to mitigate cyber risk.

Natural Catastrophes

Losses related to natural catastrophe (Nat Cat) events in Asia were relatively benign during 2016. Nat Cat relief remains under the spotlight in China and India as insurance pools for earthquake and crop insurance are created.

***Innovations in the
sector call for a
heightened awareness
of cyber risk***

DEVELOPMENTS IN NORTH AMERICA

Although The Geneva Association does not have a formal liaison office in North America, the Association monitors developments in the region in order to keep an overview of the issues of strategic interest to our members in North America and beyond.

The major regulatory issues in North America in 2016 revolved around capital provisions, the structure of regulation, and cyber security and big data issues. Much of the discussion on climate issues has focused on flood coverage proposals.

U.S. FEDERAL ISSUES

The role of the U.S. Federal government in insurance remains a central issue for the industry. The Dodd-Frank Act is likely to be amended or repealed in the next year. The U.S. Department of Treasury has begun a review of the law as required in President Trump's Executive Order on financial regulation. The National Association of Insurance Commissioners (NAIC) has called for changes in the law to better respect the role and strength of the states in regulating insurance, to clarify those limited areas of federal involvement, and to eliminate what the NAIC considers redundant activity that weakens the effectiveness of state regulators at home and abroad. These proposals include elimination of the Federal Insurance Office (FIO), reform of the Financial Stability Oversight Council (FSOC) process for designating systemically risky non-bank financial companies, and minimizing the role of the Federal Reserve System in insurance regulation. However, it is still too early to tell how far Congress is willing to go with reforms.

Although their role in insurance is under review, both FIO and the Federal Reserve Board are continuing to carry out their mandates regarding insurance. In 2016, the Federal Reserve Board conducted a consultation regarding capital requirements for insurers under their supervision. The outlined proposal would differentiate systemically important insurers from those owning thrift institutions. A decision as to how the Federal Reserve will proceed may come later in 2017.

A covered agreement between the U.S. and EU, negotiated over several months in 2016 by the FIO and the U.S. Trade Representative, was presented to Congress in January 2017. The agreement would allow cross-border sales of reinsurance without collateral under certain conditions and mutually recognize group supervision of the U.S. and EU. The agreement is under review by the U.S. Secretary of Treasury and the European Council. The NAIC and some domestic companies have asked that portions of the agreement be clarified before the U.S. signs the document.

***In 2016, the
Federal Reserve
Board conducted a
consultation regarding
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for insurers under their
supervision***

The U.S. Department of Labour proposed a Fiduciary Rule regarding conflicts of interest in retirement investment advice and imposing federal standards in the sale of certain insurance products. The rule, which applies to insurance agents and financial advisors, describes the kinds of communications that would constitute investment advice and the types of relationships in which those communications would give rise to fiduciary investment advice responsibilities. It establishes conflict of interest provisions and disclosures. The Fiduciary Rule was scheduled to go into effect in April 2017, but the U.S. Administration has delayed its effective date to June 2017 and provides a transition to 2018 for certain provisions.

A proposed Fiduciary Rule establishes conflict of interest provisions and disclosures

Even though the international accounting standards for insurance are just being issued, it appears that the U.S. may be once again moving closer to International Accounting Standards Board's criteria in IFRS 4. On 29 September 2016, the Financial Accounting Standards Board issued an exposure draft on targeted improvements for the measurement and disclosure of long-duration (life) contracts. The exposure draft includes some very significant changes to life insurance accounting and valuation including unlocking, treatment of deferred acquisition costs, and use of other comprehensive income. If these changes are adopted, it might lead to a global approach to life insurance valuation. The IAIS has indicated they will field-test this approach in 2017 as part of the ICS 2.0 exercise.

U.S. STATE DEVELOPMENTS

Although the federal issues receive much attention, the majority of insurance regulation is adopted at the U.S. state level based on NAIC model laws and regulations. Much of the focus of NAIC activity in 2016 was on capital standards, group supervision, and cyber risk issues.

The NAIC devoted considerable effort in 2016 to the development of a group capital assessment. If the U.S.-EU covered agreement is signed, that action should provide even more incentives to complete the work in the next two years. The NAIC issued principles to guide its deliberations that call for a group capital calculation using a Risk Based Capital aggregation approach. The NAIC is evaluating the proposals from Federal Reserve Board and IAIS capital standards.

Although financial issues have taken centre stage, cyber security has been addressed both at the federal and state levels with the NAIC working toward developing an insurance data model law to establish standards for data security, including criteria for investigating a data breach and providing requirements for notifying regulators and consumers when a breach occurs. The U.S. Congress is also developing a uniform federal requirement on data breach notification.

In the area of climate change the NAIC actions have been more modest, due at least partly to the uncertainty around the U.S. Administration's policy toward international climate change agreements. The National Flood Insurance Program will expire in 2017, but is expected to be extended with changes to encourage expansion of private flood coverage.

The NAIC is working toward developing an insurance data model law to establish standards for data security

OTHER NORTH AMERICAN DEVELOPMENTS

Bermuda's equivalence with the EU on insurance regulation was finalized in March 2016. Meeting the conditions of equivalence required considerable changes to the Bermuda regulatory regime, but the value of equivalence has proven to be more beneficial than originally thought, allowing Bermuda companies to avoid the marketplace disruptions in Europe faced by companies from non-equivalence jurisdictions like the U.S. The Bermuda Monetary Authority (BMA) has continued to implement the new solvency regime. EIOPA and the BMA signed in January 2017 a memorandum of understanding providing the framework for regular exchanges of information and setting forth the basis for further cooperation under equivalence.



NETWORKS, PRIZES AND GRANTS

C-SUITE NETWORKS

The Geneva Association has built over time networks of C-suite insurance experts at members' companies. The Association organises a series of meetings that bring those experts together, offering a unique opportunity to exchange points of view about current and emerging topics.

13th Annual Round Table of Chief Risk Officers

The conference provides a forum for discussion on challenges and lessons learned from the practical application of a risk framework within an insurer. The discussions are practice-based and complementary to the more macro themes tackled at the Association's annual Chief Risk Officers Assembly.

The event was hosted by Nordea and took place in Copenhagen on 14-15 April 2016. The emphasis went beyond the implementation of Solvency II in Europe, to focus on the core elements of risk management—in particular, on the challenge of managing risk and adapting risk frameworks in the current changing macroeconomic, business and regulatory environment. Daniel Hofmann, Senior Advisor Financial Stability and Insurance Economics, discussed the challenges to the insurance industry around what he considers to be the most likely industry paradigm going forward—one of prolonged growth stagnation and low interest rates.

Other topics discussed included the far-reaching consequences of emerging technologies, which pose a challenge in striking a balance between consumer protection and the advantages that consumers may obtain derived from the wealth of personal data—sometimes highly sensitive—that is being created and available in astonishing volumes.

12th Chief Risk Officer Assembly

The CRO Assembly facilitates a debate outside The Geneva Association's membership. The assembly thus serves as a platform in which the wider CRO community meet with each other and with leading experts and academics in emerging areas of risk.

Hosted by Munich Re at its Munich headquarters, the 12th Chief Risk Officer Assembly took place on 29-30 November 2016. Under the umbrella topic *Risk Management in a Digital World*, the event focused on three core themes that have a profound impact on the insurance industry: digitalisation, the protection gap and the evolving risk landscape.



Left to right: Anna Maria D'Hulster, Secretary General, The Geneva Association; Nikolaus von Bomhard, former CEO, Munich Re; Joachim Levy, CFO, World Bank Group, at the 12th Chief Risk Officer Assembly

Maryam Golnaraghi, Director Extreme Events and Climate Risk, participated in the panel *Climate Change: Emerging Risks and Opportunities*, which was followed by a discussion between Joaquim Levy, CFO of the World Bank Group, and Nikolaus von Bomhard, CEO of Munich Re, moderated by Anna Maria D'Hulster, Secretary General of The Geneva Association.

10th Geneva Association Meeting of Chief Investment Officers

The Geneva Association Chief Investment Officers Network strives to create more knowledge and better understanding about issues that confront the role and function of insurance asset management and the formulation and implementation of investment strategies. It serves as a platform for the interchange of information, expertise and best practices.

Hosted by Prudential Financial, the 10th Geneva Association Meeting of Chief Investment Officers took place in Newark on 6-7 September 2016 and assembled a panel of infrastructure specialists to provide their insights on the current opportunities and challenges in infrastructure investment. The persistent macroeconomic challenge represented by low interest rates has increased the attraction of a wider range of investments and opportunities geared toward balancing portfolios and increasing returns. The characteristics inherent in infrastructure investments, such as long-term cash flows, hard assets and inflation hedges, have long been attractive to long-term investors.

Certain characteristics of alternative assets have also found greater favour as the search for yield pushes investors to consider wider investment opportunities. A moderated panel debated on the potential of green investments—a nascent investment market that offers significant development opportunities and enjoys a supportive political environment.

Another highlight of the event was a panel on how current and emerging technologies in portfolio management offer asset managers the insights and efficiencies they need to invest successfully in today's and tomorrow's markets.

12th Annual Liability Regimes Conference

The Liability Regimes annual conference gathers experts from the (re) insurance industry, academia and the legal world to discuss the dynamics of liability law and underwriting.

The risks the insurance industry is dealing with are getting more and more complex. It is essential that insurers keep up with the pace of developments and adapt to changes. Risk awareness and risk management based on sound knowledge of the risks and cooperation with other stakeholders are crucial.

This overarching concern was covered at The Geneva Association's 12th Annual Liability Regimes Conference, *New Frontiers of Liability Risks: The Challenges of Insuring New Technologies*, hosted by Munich Re on 17-18 November 2016 in Munich. Participants discussed strategic issues such as the industrial application of the Internet of Things, cyber accumulation risks, liability risks in the context of unmanned aerial vehicles, and nanotechnology. The panel was moderated by Nicholas Roenneberg, Liability Regimes Project Manager of The Geneva Association.

19th Meeting of The Geneva Association's Annual Circle of Chief Economists (ACCE)

The Geneva Association Chief Economists network provides a forum for the discussion of the current and future macroeconomic environment for (re) insurers. This platform enables the exchange of ideas about the development of insurance as well as the analysis of key challenges to the industry.

The event hosted by Achmea gathered Chief Economists of Association members' companies in Zeist, Netherlands on 22-23 March 2017. The programme examined a number of factors affecting the insurance industry which make the role of Chief Economist more relevant than ever. For example, the unprecedented macroeconomic environment seems to compel key industry actors to try and rush ahead of the implications—a situation not conducive to consensus building and where regulators place ever increasing importance on capital as the pillar for systemic security.

On the investment side, the search for yield and growth continues and is not getting any easier. Currency instability abounds and the vast infusions of capital into the financial system have not found their way to the real economy.



Daniel Hofmann, Senior Advisor Financial Stability and Insurance Economics presents at the 13th Annual Round Table of Chief Risk Officers



Annette Olesen, Group Chief Risk Officer, Nordea Life & Pensions, at the 13th Annual Round Table of Chief Risk Officers



12th Chief Risk Officer Assembly



John Strangfeld, Chairman and CEO, Prudential Financial, and Anna Maria D'Hulster, Secretary General, at the 10th Meeting of Chief Investment Officers



12th Annual Liability Regimes Conference



19th Annual Circle of Chief Economists

Meanwhile, technology is moving with astonishing speed and challenging different aspects of the insurance business model, e.g. what data can the insurance industry legally use to build a picture of someone's risk profile? Will there be disruption in the foreseeable future, and where is it likely to come from? Answering these questions requires Chief Economists—executives who understand the intricacies of the networked economy and model them into key inputs that shape business strategy.

19TH ACCE MEETING

Visit www.youtube.com/TheGenevaAssociation

Speakers from the 19th Annual Circle of Chief Economists (ACCE) Meeting discuss key topics impacting the insurance industry today



▶ **Kurt Karl**
Chief Economist, Swiss Re



▶ **Philippe Trainar**
Chief Economist, SCOR



▶ **Henk Vlessert**
*Corporate Strategist,
ACHMEA*



▶ **Daniel Hoffman**
*Senior Advisor Financial
Stability and Insurance
Economics, The Geneva
Association*

*Discussion at the 13th Annual
Round Table of Chief Risk Officers*



ACADEMIC NETWORKS

The Geneva Association's academic networks, prizes and grants support the diffusion of research in insurance by both academics and industry professionals.

43rd Seminar of the European Group of Risk and Insurance Economists

The 2016 European Group of Risk and Insurance Economists (EGRIE) took place in Cyprus on 19-21 September 2016 and touched upon a wide range of issues, including multiple contracting in insurance markets, insurability of low-probability risks, asset pricing in insurance markets, variable annuities, adverse selection in insurance markets, product rating in health insurance markets, cognitive abilities and life insurance purchase. Prof. Bernard Salanié of Columbia University delivered the 28th Geneva Risk Economics Lecture, which elaborated on the topic of equilibrium in insurance markets.

ACADEMIC JOURNALS

The Geneva Association started publishing *The Geneva Papers on Risk and Insurance* on 1976. Since its inception by the Association's first president, Prof. Raymond Barre, the intent of the journal is twofold: i) to be the voice of the insurance sector at the highest global level to help elaborate and confront key strategic issues for the sector; and ii) to stimulate a constructive dialogue between insurance and its social and economic partners.

Since 1990 the Geneva Papers has been published under two series:

- *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*.

The journals are peer-reviewed and published by Palgrave Macmillan. Articles older than three years are publicly available in The Geneva Association website. Online access to both 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 publishes papers aimed at improving the scientific knowledge of the insurance

industry. The Editor-in-Chief is Prof. Christophe Courbage who, assisted by the Editorial Board, assesses the quality of submissions, determines their potential contribution to the industry and organises the peer-review process.

The publication, published quarterly, 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 is displaying healthy growth with a 5-year impact factor of 0.645 according to the latest edition of the Thomson Reuters Journal Citation Reports®.

The following issues have been published since April 2016:

Vol. 41, Issue 3 (July 2016)

This issue includes articles on cross-border insurance supervision, insurance corporate reputation, motor insurance pricing, life insurance purchase decision, and moral hazard in insurance.

Vol. 41, Issue 4 (October 2016)

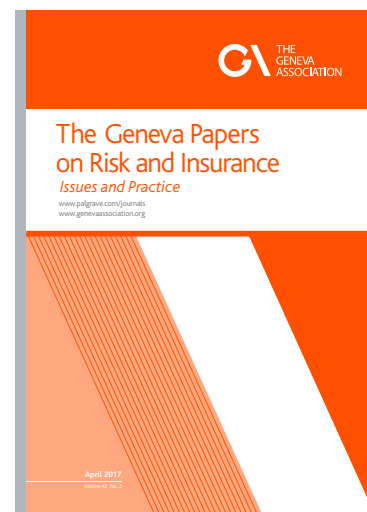
This issue includes articles on insurance regulation and supervision, insurance and economic growth, electric grid disruption and insurance, and insurance versus risk retention.

Vol. 42, Issue 1 (January 2017) Special Issue on Health

Edited by Prof. Christophe Courbage and John Nymann, this special issue covers four topics: the links between health consumption and health insurance coverage, competition in health insurance markets, the supply of medical malpractice insurance, and the health of an ageing population and its financing.

Vol. 42, Issue 2 (April 2017) Special Issue on Risk Sharing and Catastrophic Events

This special issue, edited by Jeroen Aerts, Reimund Schwarze and Gert G. Wagner, was prepared in connection to the 16th Joint Seminar of the European Association of Law and Economics and The Geneva Association, which took place in Berlin on June 2015 and covered risk sharing and catastrophic events topics. The publication also commemorates the work of the founding father of these joint seminars, Göran Skogh, whose 2008 paper was a seminal influence on the theory of risk sharing and insurance.



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

The Editors-in-Chief are Prof. Michael Hoy of the Department of Economics and Finance, College of Management and Economics, University of Guelph and, since January 2015, Prof. Nicolas Treich of the Toulouse School of Economics.

The Geneva Risk and Insurance Review is also the official journal of EGRIE.

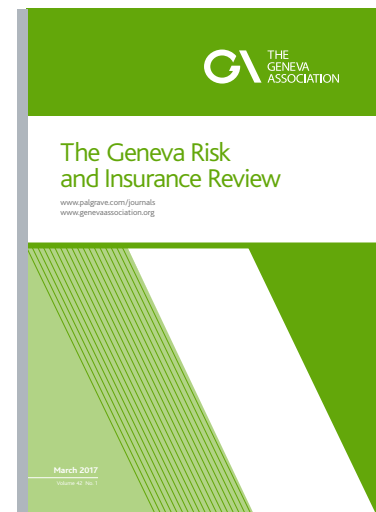
The following issues have been published since April 2016:

Vol. 41, Issue 2 (September 2016)

This edition explores the topics of communication and risk management, risk pooling and reinsurance, the ranking of risk preferences, and the effects of consumers' present bias and naivety on insurance markets.

Vol. 42, Issue 1 (March 2017)

This issue presents the 2016 EGRIE seminar keynote address on empirical models of insurance markets and articles on insurance and endogenous bankruptcy risk, probability weighting functions for very low loss probabilities and the impact of inefficient risk sharing on public self-protection.



PRIZES AND GRANTS

The Geneva Association Research Grant

The Geneva Association awards an annual CHF 10,000 research grant for submissions—usually doctoral theses carried out in the field of risk and insurance economics or a research paper in that field. Research topics such as cyber risk, climate change and public health, and the impact of demand conditions and technological change on the structural evolution of the insurance industry, amongst others, have been awarded the grant in the past.

The winner of The Geneva Association Research Grant 2017 was **Susana Vasserman**, a PhD candidate at Harvard University for her research proposal *Digitalisation in Insurance*. Ms Vasserman's paper, selected from a pool of very high quality submissions, investigates the use of telematics and usage-based programmes on automobile insurance.

The Ernst Meyer Prize

The Geneva Association awards the prestigious Ernst Meyer Prize annually for university research work in the form of a doctoral thesis which makes a significant and original contribution to the study of risk and insurance economics. The prize is worth CHF 5,000.

The winners of the Ernst Meyer Prize awarded in 2016 for their work presented the year prior, are:

Tse-Ling Teh for her Columbia University PhD on *Governing Uncertainties: Financial Policies for Risk*. This dissertation tackles three obstacles to insurance demand: the availability of free insurance or assistance, exposure to moral hazard and adverse selection, and the inherent rarity and little experience of rare risk classes.

Maddalena Ferrana for her Toulouse School of Economics PhD, *Three Essays on the Decision Making under Risk and Equity Concerns*. This thesis investigates how to characterise optimal public policies in the presence of a risky situation that has heterogeneous consequences across the population.

Shin Research Excellence Award

The IIS and The Geneva Association jointly present the Shin Research Excellence Award, designed to foster original research in the insurance area by examining subjects which directly influence business operations and operational business issues on a practical level.

The IIS and The Geneva Association announced in May 2016 the winners of the award, which is endowed by Kyobo Life Insurance Company. The honoured scholars are:

Dr Pamela R. Hurley, Associate Professor of Insurance and Risk Management, University of Houston-Downtown for her research *Re-engineering the Insurance Industry for Innovation in Emerging Markets*.

Dr Nihar Jangle, Director Climate Change Program, Micro Insurance Academy, New Delhi for his research *Climate Cost of Cultivation: A New Crop Index Method to Quantify Farmers' Cost of Climate Change Exemplified In Rural India*.

Dr Hurley and Dr Jangle were each awarded USD 5,000 and invited to present their work during the IIS Global Insurance Forum in Singapore on 12-15 June 2016, attended by more than 500 senior insurance leaders from around the globe. Their work was published in *The Geneva Papers on Risk and Insurance*.



The winners receive the Shin Research Excellence Award at the IIS Global Insurance Forum. Above: Dr Pamela R. Hurley and Shin Chang-jae, Chairman and CEO of Kyobo Life Insurance Company. Below: Dr Nihar Jangle and Dr Fabian Sommerrock.

SCOR–EGRIE Young Economist Best Paper Award

This prize was created by SCOR, the Institut d'Economie Industrielle (IDEI) and the University of Paris-Dauphine to honour outstanding research presented by a young economist at the EGRIE annual seminar. The award, endowed with €2,000, is presented to the best paper from those accepted by the scientific committee of the seminar.

The 2016 SCOR–EGRIE Young Economist Best Paper Award went to **Maria Efthymiou and Andreas Milidonis** for their paper *Does Limited Attention Affect Institutional Trading?*

SCOR–Geneva Risk and Insurance Review Best Paper Award

Created also by SCOR, the IDEI and the University of Paris-Dauphine, the award recognises the best paper of the year published in *The Geneva Risk and Insurance Review*. The winner is presented with a grant of €1,000.


The 2016 award went to **Vickie Bajtelsmit and Paul Thistle** for their paper *Liability, Insurance and the Incentive to Obtain Information About Risk*, published in *The Geneva Risk and Insurance Review*, Volume 40, Issue 2 of September 2015.

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Cover and back cover: View of historic Zurich city centre by Gevision, Shutterstock.com

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An aerial photograph of Geneva, Switzerland, showing a dense urban landscape with historic architecture. In the foreground, the Rhodan River flows, with several boats moored along the banks. A large, ornate building with a clock tower is prominent on the left. To its right, a tall, narrow building with many windows stands out. The background shows a vast expanse of city buildings under a clear sky.

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. This Annual Report covers the period 1 April 2016 to 31 March 2017.

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