THE GENEVA ASSOCIATION

2017 ANNUAL REPORT 2018

May 2018

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.

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2017 ANNUAL REPORT 2018

The Geneva Association

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Annual Report 2017 / 2018

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Chairman's Statement

Dear fellow Geneva Association members:

The work of the Association has successfully underscored the uniqueness of the insurance mechanism, whilst promoting amongst policymakers and intergovernmental organisations the industry's contribution to macroeconomic stability.

This approach has served well the interests of our industry and leveraged the decision to move towards a research-based advocacy model. Now, as the changes affecting our society pick up speed and become increasingly pervasive, we have identified an opportunity to implement a strategy update that further sharpens the value proposition of the Association, not only to the insurance industry but to society as a whole.

The intent is to embed a broader purpose into our activities, whereby The Geneva Association (i) increases awareness of the economic and social impact of a well-functioning insurance industry; and (ii) steers its research programmes to identify today the topics that policymakers and regulators will discuss in the next two to three years.

Several factors drive this, including the digitisation of the economy and the fragmentation of the regulatory landscape, which means certain advocacy initiatives, while still important, have become less prominent on the global agenda.

Building on the previous years' achievements, the strategy update will realise an operating model that integrates the Association's research agendas, leveraging cross-functional expertise and bringing out top-level stories that span multiple programmes.

One example is the initiative to establish a comprehensive and empirically substantiated inventory of reasons for underinsurance in advanced economies. The *Why People Don't Buy Insurance* (WPDBI) project is a joint effort between the Global Ageing and Protection Gap research programmes to look at the behavioural aspects of underinsurance in life and non-life markets.

Another example is the Digitisation research initiative. Drawing expertise from the Cyber and Financial Stability and Regulation streams, it has already published its first report—*Big Data and Insurance: Implications for Innovation, Competition and Privacy*. As the initiative takes a deep dive into topics such as virtual competition and new business models, the connection with the WPDBI project is expected to generate new cross-functional insights.

Further research highlights include the report *Cyber Insurance as a Risk Mitigation Strategy*, prepared in collaboration with the Massachusetts Institute of Technology and Boston Consulting Group. With cyber currently the fastest growing specialty line of business in insurance, this paper represents a baseline for defining the contours and characteristics of a growing market.

In a focus shift that reflects our strategy update, the report *The 'Low for Long' Challenge* puts the socio-economic role of life insurers at centre stage as it questions whether an extended period of low interest rates could impair the crucial role life insurers have played for so many years.

Few issues are more socially relevant than climate change. The report *Climate Change and the Insurance Industry*, prepared with the input of 62 insurance executives, offers new insights into the role of insurers in addressing climate change.

These are only a few highlights of the many achievements of 2017-2018, a period during which the Association continued to consolidate its international recognition. The strategy update refines the Association's forward-looking focus and offers greater flexibility to mobilise its centres of knowledge. Many challenges lie ahead for our industry, and I have no doubt that the Association will continue to be pivotal in promoting the value that insurance creates for our society.

This is my last letter to you as chairman. I am extremely grateful for the opportunities I have had over the last five years to contribute to making The Geneva Association what it is today. Our incoming chairman Mark Wilson has the energy, charisma and vision to drive the Association through the exciting times ahead. I am sure that you will give Mark the generous support that you have offered me throughout my tenure.

As we prepare to gather in Paris for our 45th General Assembly, I look forward to meeting with you and to the inspiring and thought-provoking discussions this will afford.

Kindest regards,

Mike McGavick
Chairman of The Geneva Association and CEO, XL Group

Secretary General's Statement

Dear Geneva Association members:

The year 2017 marked a very important evolution of the Association. The strategy continues to be geared towards research and advocacy, and now focuses increasingly on promoting the contribution of the insurance industry to the sustainability of the economy and society.

Take, for example, our Digitisation research initiative, where we look at the fundamental socio-economic transformations triggered by the digital economy, and reflect on how the insurance industry should respond to the many implications, for instance on data privacy and innovation. Cyber is another case in point. As cyber risk becomes more and more pervasive, it touches every aspect of society. Our Cyber programme aims to help stakeholders understand cyber risks and devise ways in which the insurance industry can respond, bringing issues of insurability to the forefront.

Our reports reflect this broader approach. *The 'Low for Long' Challenge* study looks at how low interest rates make it more difficult for individuals to find reliable retirement solutions with appropriate returns, and highlights how life insurers are developing solutions to serve customer needs in the current challenging environment. Another example is the report *Understanding and Addressing Global Insurance Protection Gaps*, which puts forward a taxonomy of underinsurance root causes to enhance the understanding of insurance protection gaps as a function of stages of socio-economic development.

If the insurance industry is to deliver on its mission, it must understand why people do not buy the necessary insurance to cover themselves for risks they are well aware of. To find an answer to this question, the working groups of the Global Ageing and Protection Gap research programmes have started a joint project that will take a deep dive into consumers' insurance purchasing behaviours in France, Germany, Italy, Japan, U.K., U.S., and Switzerland.

During the last year, we also further developed our conference programmes to facilitate multi-disciplinary discussions that help us assess the consequences of emerging risks for our industry. Let me highlight just a few examples. The 14^{th} Annual Round Table of Chief Risk Officers (ART of CROs), hosted by MAPFRE in Madrid, explored topics including protectionism, technology and the societal impacts of artificial intelligence. The 11^{th} Chief Investment Officers' Meeting, hosted by Lloyd's in London, highlighted global trends such as the low interest rate environment and the effects of climate change. And the 20^{th} Annual Circle of Chief Economists (ACCE), hosted by Munich Re in Munich, focused on the effects of accelerated digitisation—for example cyber risk—particularly as accumulation exposure becomes a cause of concern on a societal scale.

The Geneva Association is well positioned to reinforce its status as the leading think tank of the insurance industry. Our focused approach allows us to concentrate on identifying the global themes where insurance can—and should—make a contribution to building socio-economic resilience.

Please join me in thanking our outgoing chairman, Mike McGavick, for his insight, leadership and dedication in making The Geneva Association stronger over the last five years. Our industry is currently facing great opportunities and challenges and I am sure that our incoming chairman, Mark Wilson, will build upon Mike's legacy and ensure that our Association continues to deliver on its mission.

I look forward to seeing many of you at the General Assembly in Paris!

With kind regards,

Anna Maria D'Hulster
Secretary General

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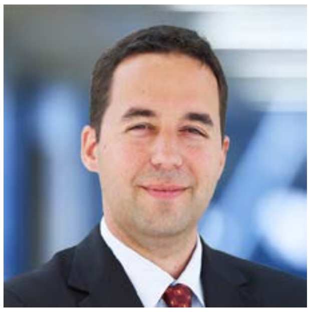
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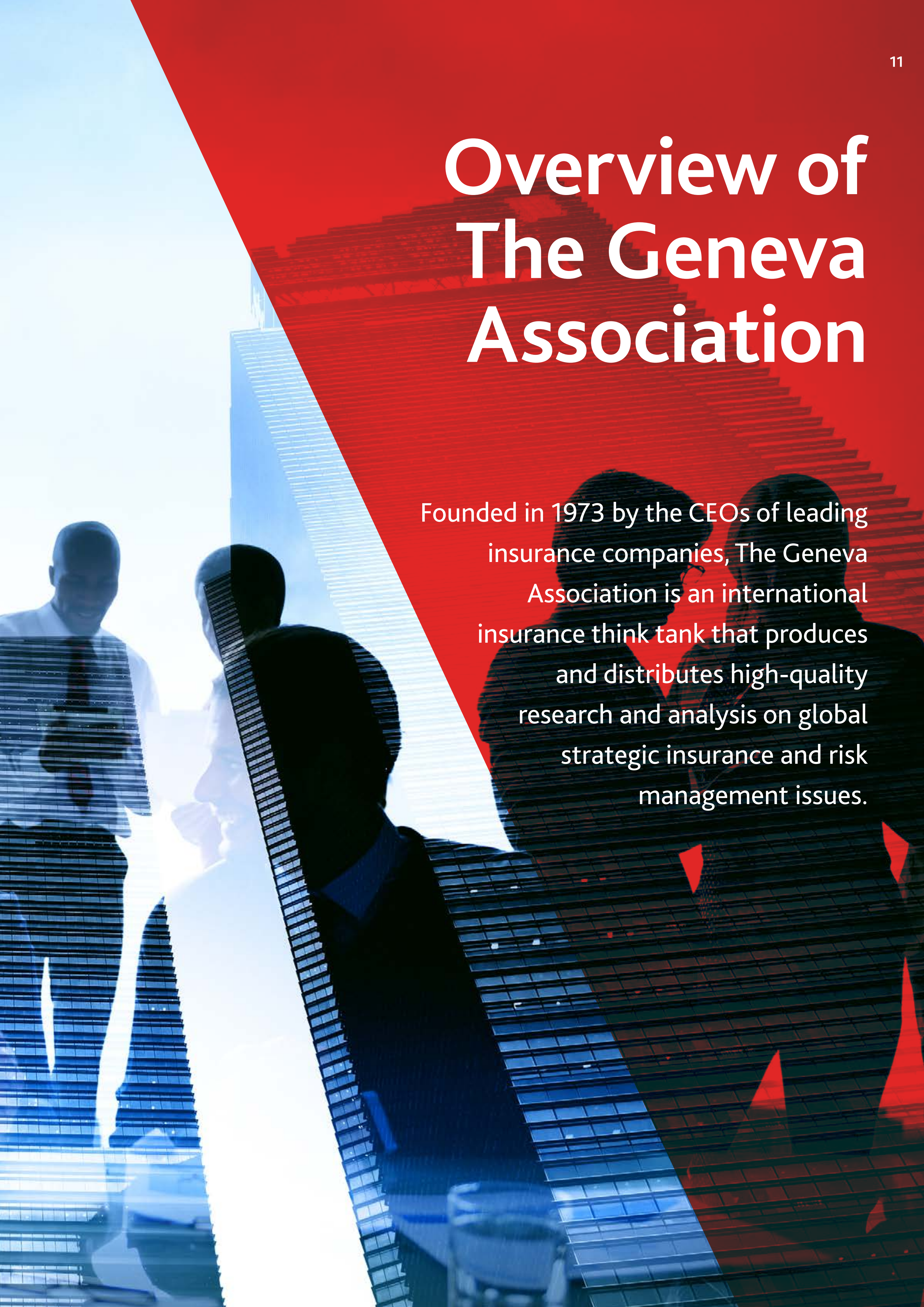


Overview of The Geneva Association

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 with a statutory maximum of 90 insurance and reinsurance CEOs. Its activities are governed by a Board of Directors and its work directed by the Secretary General, supported by a secretariat.

The Association's research promotes policy-related, public discussions amongst members, academics, standard setters, policymakers, governments, international organisations and the public at large. It interacts directly and continuously on global insurance issues with a broad spectrum of relevant international organisations such as the International Association of Insurance Supervisors (IAIS), the Financial Stability Board (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 provide information and develop understanding on the unique role and importance of insurance for economies and 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.

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 and two additional fields of research.

Financial Stability and Regulation

Policymakers around the world are working on improving financial market oversight in order to increase global financial stability. The role of the insurance industry is also under discussion. The Geneva Association continues to pursue an intensive dialogue on financial stability and capital regimes with regulators, supervisors, central bankers and other key stakeholders, leveraging its research to steer discussions towards the underlying risks.

Extreme Events and Climate Risk

Societal impacts of weather-related events and other natural catastrophes (NatCat) cause major economic losses and human suffering. Socio-economic factors such as population growth and development patterns exacerbate this situation. The framing of climate risk as a physical, liability and transition risk has made it possible to incorporate it into core business, risk management and investment decisions.

The Geneva Association analyses the role that the insurance industry can play, as risk managers, underwriters and investors, in enabling societal resilience to extreme events and climate risk (EECR) and developing entrepreneurial pathways for addressing climate change goals. Current focus areas include (i) decarbonisation of critical infrastructure; (ii) flood risk protection gap; (iii) next generation of catastrophe risk models; and (iv) integration of climate change risk into investment decisions of insurers and other institutional investors.

Global Ageing

Ageing of the population has put tremendous strains on social and occupational retirement systems, resulting in an even greater need for individuals to provide solutions for themselves. However, insurance and pension sales are not keeping up with needs. The Geneva Association's Global Ageing research programme explores ways to improve awareness of this major societal issue and promote the role of insurance in supporting governments, companies and individuals in financing retirement, whilst enabling regulators and policymakers to enact proper incentives.

Cyber

Cyber risk touches every aspect of society, on both business and personal levels. As exposures grow, it becomes clear that solutions call for greater collaboration between the insurance industry, intelligence agencies, technical cyber experts, law enforcement and governments.

The Geneva Association's Cyber research programme aims to help stakeholders understand cyber risks and devise ways in which the insurance industry can respond, bringing the issues of insurability to the forefront. Current focus areas include the need for enhanced data availability, accumulation of cyber risks, capacity (including capital availability) for cyber insurance products and ways the industry can evolve as cyber risks transform.

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. Current focus areas include obstacles to buying insurance in mature economies as well as the health protection gap in emerging markets.

ADDITIONAL FIELDS OF RESEARCH

Digitisation

The exponential growth of available data and the expansion of Internet access globally have spurred the advent of the digital economy. Opportunities created by this fundamental shift change very fast and affect the way societies understand risk. The Geneva Association is developing an additional research field to explore the effects of digitisation on the insurance industry and its customers. Current focus areas include big data, personal privacy and customisation of insurance.

PUBLICATIONS

The Geneva Association issues a number of publications throughout the year, mostly related to its research programmes. The Association also publishes two academic journals.

EVENTS

The Geneva Association organises and 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.

ACADEMIC JOURNALS, AWARDS AND GRANTS

The Geneva Association publishes *The Geneva Papers on Risk and Insurance—Issues and Practice* and *The Geneva Risk and Insurance Review*. Furthermore, every year the International Insurance Society 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 in insurance economics.

Highlights 2017-2018

Christian Schmidt joins The Geneva Association, with a focus on macroprudential regulation.
Christian was Head of Macroprudential Supervision and Chief Economist at Liechtenstein's Financial Market Authority, and prior to this, a Senior Economist at Swiss Re. He was Vice-Chair of the Macroprudential Policy and Surveillance Working Group and a member of various other committees at the International Association of Insurance Supervisors (IAIS).

Shin Research Excellence Award 2017
Thomas Holzheu and Ginger Turner of Swiss Re receive the award, jointly presented by The Geneva Association and the International Insurance Society, for their paper *The Natural Catastrophe Protection Gap*.

Life Insurance CEO Round Table held in London
The first Life Insurance CEO round table is held in London as part of the Global Ageing research programme. Participants discuss issues such as the impact of low interest rates on the life insurance industry, which helped to inform *The 'Low for Long' Challenge* paper later this year. The forum will be held each year from 2018 onwards as the Annual Life Insurance Executive Round Table (ALERT).

Antoine Baronnet joins as Deputy Secretary General and Head of Insight
Antoine Baronnet joins The Geneva Association as Deputy Secretary General and Head of Insight. Antoine was Head of Client Business at VP Bank (Luxembourg) SA, and prior to this, led the Private Banking Solutions pillar at Zurich Financial Services.

April 2017

June 2017

October 2017

Genetics and Life Insurance – A View into the Microscope of Regulation
The use of genetic information for life, disability, critical illness and long-term care insurance is likely to increase in relevance. This report represents an attempt to understand key aspects of genetics, as well as its limitations and the controversies surrounding its utilisation in life insurance.

Guidelines for Risk Assessment to Support Sovereign Risk Financing and Risk Transfer
Developed in response to a request from the United Nations Office for Disaster Risk Reduction (UNISDR), this report prepared in collaboration with the Insurance Development Forum (IDF) provides governments with a framework for risk assessment to support development of sovereign risk financing and risk transfer programmes.

44th General Assembly
The Geneva Association's 44th General Assembly takes place in San Francisco, including panel sessions on Disruptive Innovation and Insurance of the Future, amongst others, and a gala dinner at the De Young Museum.

November 2017

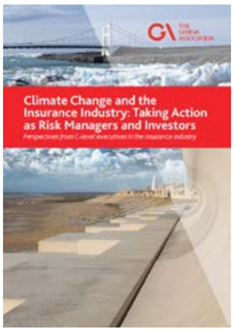
14th Annual Global Ageing Conference

The 14th Global Ageing Conference takes place in Zurich, hosted by PartnerRe. The conference focuses on *Competing Influences on Longevity*, covering a broad range of topics, from ageing due to increasing longevity and decreasing fertility, to pandemics and antimicrobial resistance.

The 'Low for Long' Challenge: Socio-economic implications and the life insurance industry's response

Could prolonged low interest rates jeopardise the unique socio-economic role of the life insurance industry in delivering retirement solutions and funding the economy? This report explores how life insurers are responding to this challenge.

January 2018



Climate Change and the Insurance Industry: Taking Action as Risk Managers and Investors

This report offers new insights into the role of the insurance industry in addressing climate change adaptation and mitigation goals. Based on input from 62 C-level insurance executives, it highlights the insurance industry's value proposition and efforts to build financial resilience to climate risks and to support the transition to a low-carbon economy.

February 2018

Establishment of Digitisation working group

The working group discusses potential research topics such as virtual competition and new business models, algorithms and artificial intelligence, cloud computing and human-machine interaction to determine ongoing research priorities for the Association in the area of digitisation.

March 2018

34th Regulation and Supervision (PROGRES) Seminar

The 34th PROGRES seminar takes place in Zurich. Topics include global geopolitics, the role of the IAIS in times of turbulence, systemic risk and insurance, and insurance regulation in a digitised environment.

20th Annual Circle of Chief Economists (ACCE)

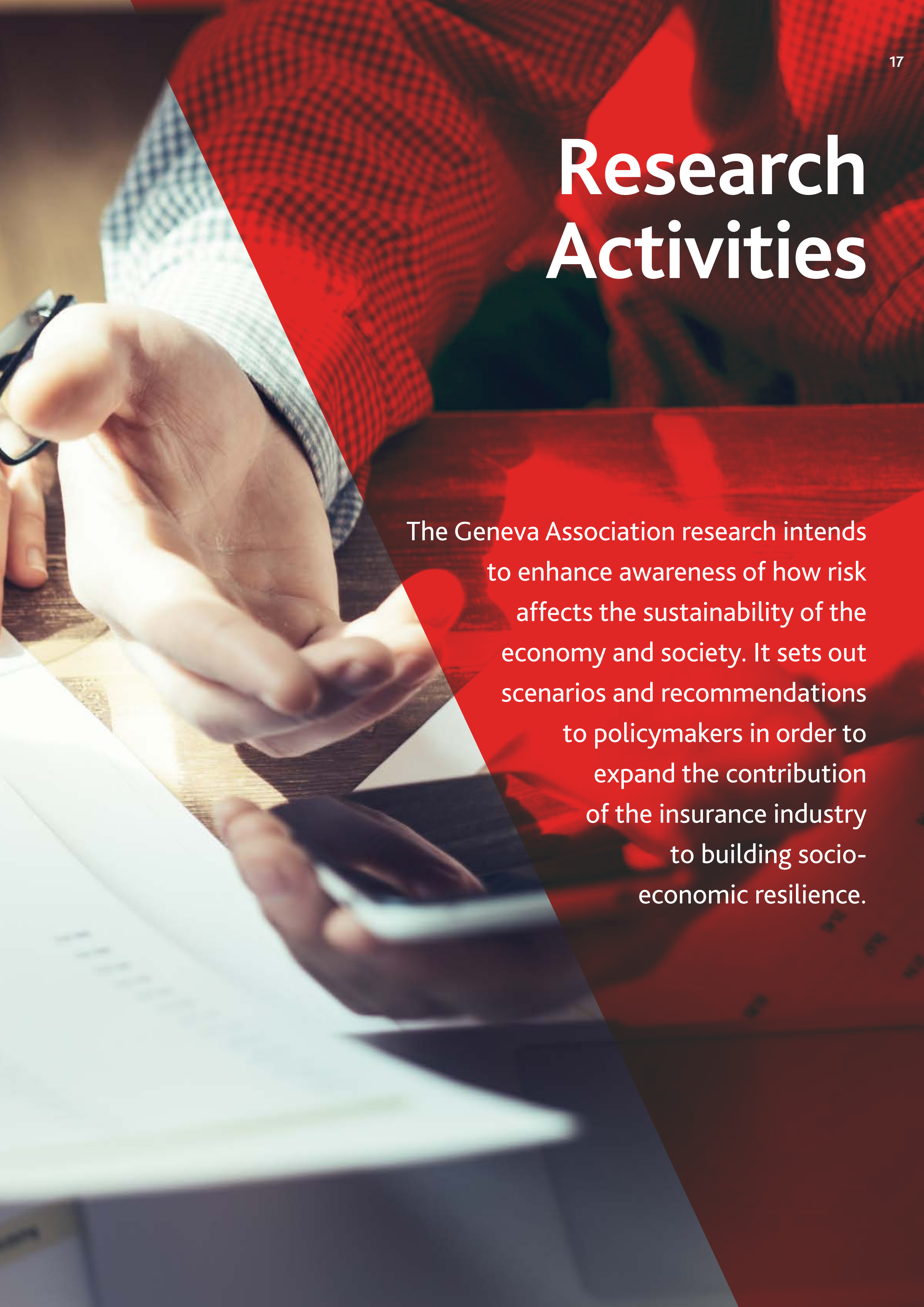
On 22-23 March Munich Re hosts the ACCE conference in Munich. Under the umbrella topic *The Digital Economy – Challenges and Opportunities for Insurance*, participants discuss how the digital economy has become a reality with deep societal implications.

Big Data and Insurance: Implications for Innovation, Competition and Privacy

This report discusses societal and economic benefits resulting from the use of big data analytics in insurance as well as key concerns that have been raised in public and regulatory debates. It also identifies the key trade-offs deriving from the enhanced use of personal data in insurance.

Understanding and Addressing Global Insurance Protection Gaps

This report offers an updated quantification of insurance protection gaps in the areas of natural catastrophe, cyber, healthcare and pension risk. The paper discusses root causes and potential remedies, taking into account commonalities and differences across various lines of business and country income groups.



Research Activities

The Geneva Association research intends to enhance awareness of how risk affects the sustainability of the economy and society. It sets out scenarios and recommendations to policymakers in order to expand the contribution of the insurance industry to building socio-economic resilience.

FINANCIAL STABILITY AND REGULATION

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

CONSULTATIONS

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

Revised Insurance Core Principles (ICPs) and ComFrame

In the spring of 2017, the IAIS started an ambitious revision of the Insurance Core Principles (ICPs), seeking to integrate and streamline the ICPs with the common framework (ComFrame) for the supervision of internationally active insurance groups. ICPs form a globally accepted framework for the supervision of the insurance sector.

In March 2017, a public consultation was launched to overhaul the ICPs related to suitability of persons, corporate governance, risk management and internal controls, supervisory review and reporting, preventive and corrective measures, winding-up and exiting from the market, and supervisory cooperation and coordination.

The Geneva Association responded jointly with the IIF. The joint response stressed the importance of proportionate application and implementation of the ICPs and the ComFrame material across jurisdictions, while adopting a consistent treatment of corporate governance. Another important element was the request for recovery planning to be discretionary and subject to the principle of proportionality. The IAIS standard setting should leverage the Financial Stability Board (FSB) guidance on resolution-related matters for insurers.

The IAIS launched a separate consultation on the ICP concerning macroprudential surveillance and insurance supervision. In a response letter to Victoria Saporta, Chair of the IAIS Executive Committee, The Geneva Association indicated that the revised draft ICP pre-empts the work on the activities-based approach to Systemic Risk (ABA); hence, it was recommended to wait with the revision of this particular ICP until the IAIS has concluded its work on the ABA.

Activities-Based Approach to Systemic Risk (ABA)

The IAIS started the development of the ABA in mid-December 2017 with the publication of an interim consultative document in which the IAIS requested input on the development of the ABA as well as feedback on the proposed steps and definitions.

The Geneva Association engaged its Financial Stability working group to assist in drafting the response to this document. The response gave broad support to the approach taken, but it also highlighted that the insurance business model makes it unlikely that systemic risk issues would pose a big problem for insurance. In defining activities that contribute to systemic risk, the IAIS looks at liquidity risk and macroeconomic exposure in particular. Liquidity risk management plans (LRMPs) were mentioned as a potential policy measure, and The Geneva Association considered it a sound step forward even though potentially too broad in scope. With regard to macroeconomic exposure, the response included advice to further improve this topic. Further clarification is also needed in relation to vulnerabilities and amplifying factors.

Although no concrete policy measures were proposed at this stage, The Geneva Association stressed in its response that the forthcoming Insurance Capital Standard (ICS) is seen as a potential policy measure, hence a strong argument was brought forward to ensure the ICS does not include features that might incentivise procyclical behaviour. The Geneva Association presented a summary of these points at a stakeholder session, held in February 2018 at the Bank of England, during which broad support was given for the approach taken. A second public consultation, including final proposals, is expected by the end of 2018; this would include specific policy measures to address systemically risky activities, as well as a review of the G-SII methodology (known as entity-based approach). It remains unclear whether the ABA would replace the entity-based approach, known as the G-SII designation.

Insurance Capital Standard (ICS) 2.0

At the IAIS Annual Conference in November 2017 in Malaysia, the 'Kuala Lumpur agreement' was announced. It was decided by the IAIS Executive Committee that the implementation of the ICS 2.0 will be conducted in two phases.

The first phase consists of a five-year monitoring period, during which the ICS will not be used as a prescribed capital requirement, followed by the implementation phase. The monitoring phase will help stakeholders to gather first-hand experience and will allow supervisors to discuss and assess the ICS in comparison to the existing group capital standards or calculations currently in development (such as the U.S. aggregation approach). It is important to note that the five-year monitoring period will be different from the field testing that has taken place so far. The adoption of ComFrame, including ICS 2.0 by the IAIS in 2019, will signal approval of the design. The IAIS indicated, however, that this does not mean no corrections or refinements will be made. The process of how it will be done will be part of the public consultation later in 2018.

During the monitoring period, all IAIGs will be subject to mandatory confidential reporting of a reference ICS based on market-adjusted valuation, as well as additional reporting at the discretion of the group-wide supervisor. As part of the 'Kuala Lumpur agreement', the IAIS has agreed to collect data from relevant jurisdictions throughout the development period. By doing so, the IAIS intends to be in a position to assess whether the U.S. aggregation method provides comparable outcomes to the ICS. If so, it will be considered an outcome-equivalent approach to the ICS by the end of the monitoring period.

Throughout the year, The Geneva Association held several stakeholder sessions with the IAIS on the ICS (for example, in Kuala Lumpur, Basel and Nashville). These activities led to the development by IAIS of a Q&A document on the ICS 2.0, which partly addressed our inquiries. The year ahead will see another field testing exercise as well as a public consultation on the full common framework for the supervision of internationally active insurance groups (ComFrame).

FSB public consultation on key attributes assessment methodology for the insurance sector

In December 2017, the FSB launched a consultative document on the methodology for assessing the implementation of the key attributes of effective resolution regimes for insurers. The document included `essential criteria´ and explanatory notes for the assessment of existing resolution regimes performed by authorities as well as peer reviews of resolution regimes that implement the key attributes.

The Geneva Association responded jointly with the IIF. The joint response was supportive but also included messages that urged the FSB to continue to work with the IAIS to refine the underlying framework for resolution in insurance regarding both key attributes and the ICPs. It was stressed that guidance should be proportionate and tailored to the specificities of the insurance business model, and also acknowledged that failures in the insurance industry are rare, and if they do happen, they are unlikely to have systemic implications.

IAIS public consultation on revised ICPs 8, 15 and 16 and related ComFrame material

The document was published in mid-November and included revisions to ICP 8 (risk management and internal controls), ICP 15 (investments) and ICP 16 (enterprise risk management for solvency purposes). As ICP 8 was consulted on earlier in 2017, the only element that was consulted on this time was the insertion of ComFrame material. ICPs 15 and 16 saw not only ComFrame material inserted but also revisions to existing ICP provisions.

The Geneva Association issued a joint response with the IIF. An overarching comment in our joint response letter included the urge for consistency across IAIS standards and policy frameworks. Furthermore, we pointed to the fact that a holistic and proportionate approach should be taken into account, particularly in regard to ComFrame, where we sensed increased prescriptiveness of requirements. On the investment side, we highlighted the need for the recognition of differences between bank and insurance liabilities.

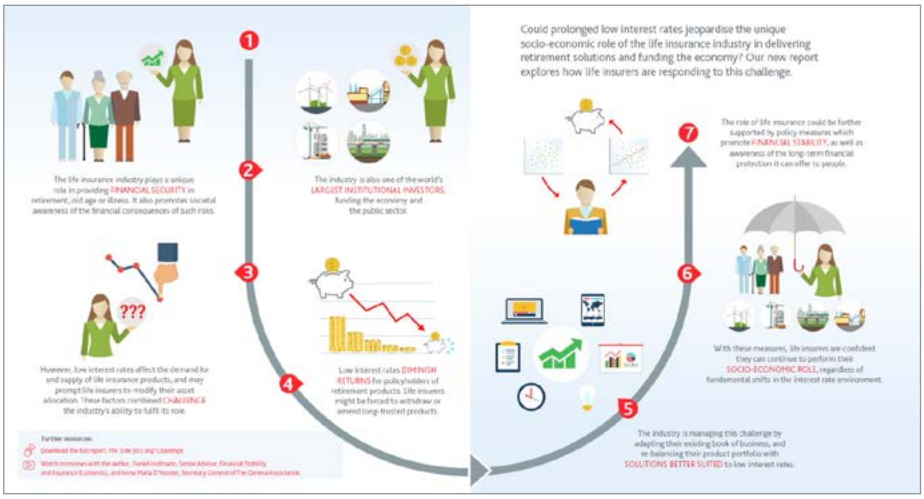
RESEARCH REPORT
The ‘Low for Long’ Challenge

In November 2017, The Geneva Association published *The ‘Low for Long’ Challenge: Socio-economic implications and the life insurance industry’s response*. The report considered the impact of low interest rates on life insurers and their customers. The broader content centred on the question of whether an extended period of low interest rates could impair the socio-economic role life insurers have played for so many years.

The question is even more important in light of the fact that the world’s population is ageing rapidly. The financial risks associated with longevity rank at the top of social, economic and political issues that will need solutions over the coming decades. Low interest rates exacerbate the problem. They penalise individual retirement savings. And they induce insurers to withdraw certain product offerings, which customers had relied upon in the past, but which can no longer be adequately priced in the current macro-financial environment. At the same time, there is an increasing likelihood that governments will eventually cut retirement benefits that were granted in the past.

Read the report online

This puts the socio-economic role of life insurers at centre stage. Their ability to pool longevity risks and absorb financial market fluctuations in a long-term Asset Liability Management framework enables life insurers to offer retirement solutions that cannot be matched by other financial service providers. The report's message is cautiously optimistic. The industry is in the midst of adapting to a difficult macro-financial environment, and its leaders are convinced that life insurance will continue to play an important socio-economic role in the future.



'Low for Long' infographic

CONFERENCE

Federation of Afro-Asian Insurers & Reinsurers (FAIR)

Secretary General Anna Maria D'Hulster delivered the international address, and Kai-Uwe Schanz, Special Advisor to The Geneva Association, chaired the plenary session *Regulatory Dynamics in FAIR-Land* at the 25th FAIR Conference, which took place in October 2017 in Bahrein.

Another plenary session, *Digital Strategy for Insurance—Product Innovation and Practical Solutions* was chaired by Ronald Klein, Director, Global Ageing.

The event brought together regulators from several African and Asian countries as well as a representative of the Asian Development Bank. Topics discussed included risk-based solvency regimes, the use of technology and regulation, policyholder protection and market conduct, as well as market growth and access to insurance in the context of policyholder protection and financial stability.

Anna Maria D'Hulster gives the international address at the 25th FAIR Conference

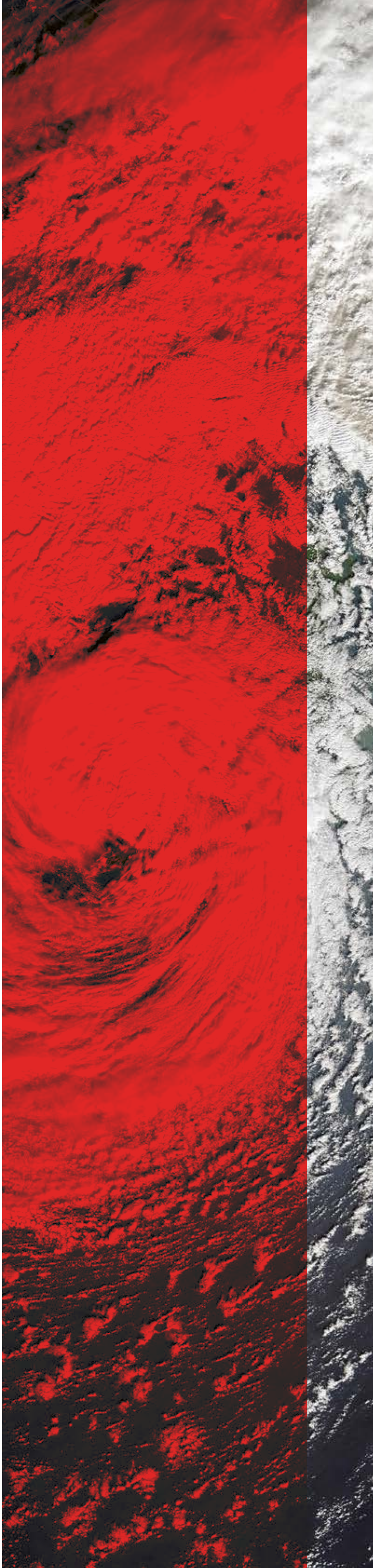
34th Regulation and Supervision (PROGRES) Seminar

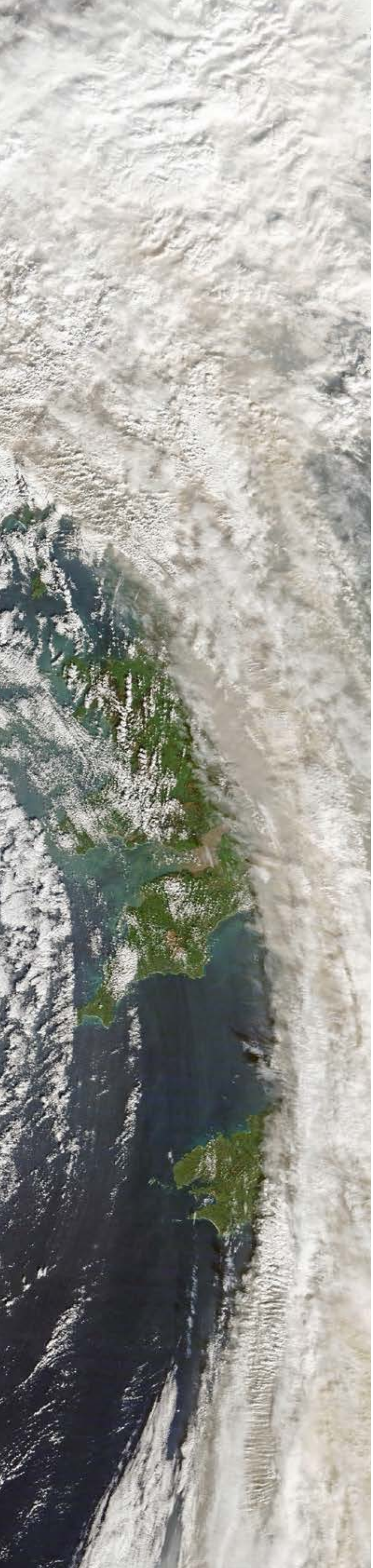
The 34th PROGRES seminar took place in Zurich, and topics included global geopolitics, the role of the IAIS in times of turbulence, systemic risk and insurance, and insurance regulation in a digitised environment.

Jonathan Dixon, Secretary General, IAIS, gives the introductory address

Gabriel Bernadino, Chairman, EIOPA, chairs the CEO panel on insurance in a changing world

CEO panel - **Inga Beale**, CEO, Lloyd's (above); **Philippe Donnet**, Group CEO, Generali (below left); **Alexander R. Wynaendts**, CEO, Aegon (below right)





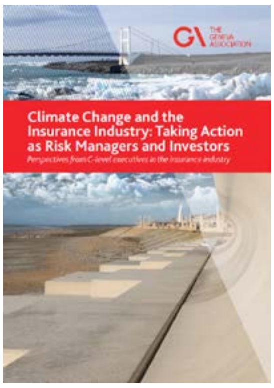
EXTREME EVENTS AND CLIMATE RISK

The Geneva Association conducts research that promotes the role of insurance in mitigating the societal impact of extreme events and climate risk and explores ways in which the insurance industry, as underwriters and investors, can support the transition to a low-carbon economy.

RESEARCH REPORTS

Climate Change and the Insurance Industry

The report *Climate Change and the Insurance Industry: Taking Action as Risk Managers and Investors* is based on interviews with 62 C-suite level executives of globally active insurance and reinsurance companies, and offers insights into the role of the (re) insurance industry in addressing climate change adaptation and mitigation goals. The study, released in January 2018, has confirmed that climate change is a topic that has made its way up to the boardrooms of the insurance industry, despite the fact that insurers are neither the polluters nor the policy setters.



Read the report online

Pipeline of investable opportunities and sufficient data needed to scale up green investments: Maryam Golnaraghi

Key findings of the study include the following:

1. The insurance industry is already taking action in addressing the climate change challenge.

- Insurance companies provide leadership in risk modelling and pricing, knowledge of preventive measures and innovation in risk transfer solutions—all of which enable building socio-economic resilience to climate change, incentivise reduction in greenhouse gas emissions, and promote entrepreneurial pathways for clean technologies.
- Insurers are evaluating portfolio strategies that increasingly integrate climate change considerations.

2. There are a number of external hurdles that hinder the expansion of the insurance industry's contributions to climate change adaptation and mitigation.

- The expansion of effective risk transfer solutions is currently impeded by limited access to risk information and lack of incentive to take up insurance due to post-disaster government aid.
- Additionally, the scaling-up of green investments is inhibited by factors such as a limited capacity of markets to accommodate large-scale portfolio allocations, a need for well-defined asset classifications, and fragmented climate policy and regulatory frameworks.

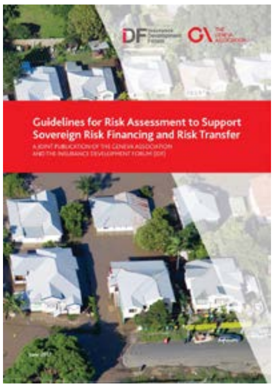
3. Executives interviewed indicated that climate resilient and decarbonised critical infrastructure represent an opportunity that poses specific challenges for the insurance industry.

- Insurance companies require risk data to assess such infrastructure projects throughout their lifecycle—from design and construction to operation and maintenance.
- Additionally they require a stable regulatory and political framework, a robust pipeline of opportunities, and an efficient market.

Guidelines for Risk Assessment to Support Sovereign Risk Financing and Risk Transfer

The paper, released in June 2017 and prepared in collaboration with the Insurance Development Forum (IDF), provides governments with a framework for conducting the risk assessment underpinning national risk transfer programmes. In order to adequately quantify the risk context, governments should partner with multiple stakeholders including the insurance industry, risk modelling experts and data providers. Through public-private partnerships, governments can benefit from the insurance industry's holistic risk management expertise.

The report was developed in response to a request from the United Nations Office for Disaster Risk Reduction (UNISDR). It also supports the adoption of the Sendai Framework for Disaster Risk Reduction 2015-2030, the 2030 Agenda for Sustainable Development, and the Paris Agreement.



Read the report online

ONGOING STUDIES

Innovating Risk Modelling to Reshape Disaster and Climate Risk Management

This study intends to explore ways for a more coordinated approach to catastrophe risk modelling. It offers insights from 20 leading experts from the industry, risk modelling firms, the scientific community and the international development community. The intent of the paper is to look into ways to utilise current methodologies and knowledge to improve risk management and risk transfer measures, leverage scientific and technological advancements to enhance current methodologies, expand CAT risk modelling for critical infrastructure, and envision the development of the next generation of risk models. The paper was informed by the outcome of the 2017 Extreme Events and Climate Risk (EECR) Forum.

Comparative Analysis of Flood Risk Management

Formally launched in October 2017, the study aims to analyse the interplay of risk reduction and risk transfer measures for building socio-economic resilience to floods in seven countries: Australia, Canada, Germany, Japan, Spain, the U.K. and the U.S. The project will look at the issue from the perspective of customers, governments and the insurance industry, and will explore the role of policy, regulatory and institutional frameworks across government levels as well as incentive/disincentive mechanisms. Academic partners include the London School of Economics, Wharton Business School and University of Waterloo. A task team has been established, engaging experts from 15 members' companies.

CONFERENCES

Global Platform for Disaster Risk Reduction

This biannual meeting, organised by the UNISDR, took place in Cancun, Mexico on 24-26 May 2017. The Geneva Association leveraged the high-level leaders' forum, plenary sessions and technical discussions to raise awareness of the value proposition of the insurance industry towards an integrated approach to disaster and climate risk management.

Globe Capital Conference

Maryam Golnaraghi, Director EECR, participated as a speaker in the panel *Climate Adaptation: Is Canada Investing Aggressively Enough to Mitigate the Risks?* at the conference organised on 4-5 April 2017 in Toronto. The session explored whether the level of investment and speed of deployment at the federal and provincial levels is adequate to protect Canadians.

Building Sustainable Flood Insurance Solutions

The event took place in Berlin on 9-10 May 2017 and brought together leading figures from science and academia, non-governmental organisations and the (re)insurance industry to examine the rapidly growing impact of flooding and explore measures to significantly reduce that impact. The Geneva Association was represented by Maryam Golnaraghi.

GLOBAL AGEING

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

Social pension systems designed to provide financial security in retirement have not accounted for improvements in life expectancies and low fertility rates. The issue is exacerbated by the increased healthcare costs of an ageing population.

Adequate solutions will require a concerted effort (and perhaps compromise) from governments, corporations and individuals alike. 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.

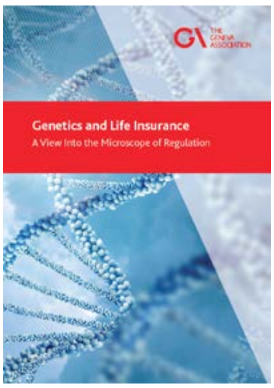
RESEARCH REPORT

Genetics and Life Insurance

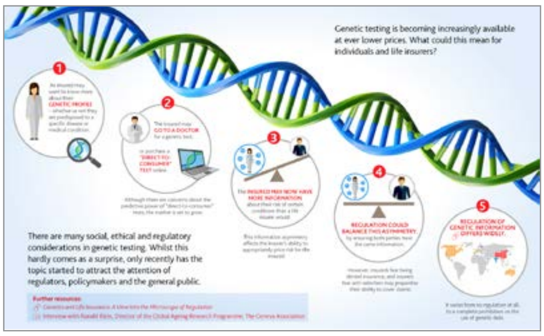
In its report entitled *Genetics and Life Insurance—A View into the Microscope of Regulation*, released in June 2017, The Geneva Association highlights the inconsistency in regulation concerning genetic testing by country and even within certain countries. Direct-to-consumer genetic testing creates an asymmetry in underwriting knowledge between the potential insureds and the insurer. Armed with medical data not known to the insurance company, individuals can make life and health insurance decisions against the interests of their insurer.

The insurance industry has always been innovative with respect to anti-selection risks and should also be able to find a way to manage this one. On the other hand, genetic testing can create a huge opportunity for the insurers' inforce blocks of business. If insurers offered 'free' genetic tests to their inforce policyholders, longevity could increase, making the cost of testing more than worthwhile.

There are many challenges facing the insurance industry with respect to longevity. A combination of thoughtful regulation, consumer-oriented products and proper financial education for individuals could go a long way in solving these issues. New technologies, such as genetic testing, will continue to emerge. The life insurance industry should embrace these technologies by working with technology companies to enhance policyholder value as well as the sustainability of insurance companies themselves.



Read the report online



Genetics and Life Insurance infographic

CONFERENCES

14^{th} Global Ageing Conference

The 14^{th} Global Ageing Conference, under the umbrella theme *Competing Influences on Longevity*, took place in Zurich on 2-3 November 2017 and was hosted by PartnerRe.

Several competing influences on longevity are being discussed by insurance industry leaders. New technologies can help to improve longevity, for example wearable devices. On the negative side, the world is increasingly faced with antimicrobial-resistant bacteria that are difficult to treat. Also, climate change seems to be causing new and more powerful natural catastrophes that are taking a toll on life as well as on property.

The most promising positive development is in the field of genetics. With direct-to-consumer genetic testing now accessible to everyone at a very low cost, individuals can find out their susceptibility to certain diseases and take mitigating steps early enough to help increase longevity. While this is positive news for individuals, the new technology also introduces challenges for the insurance industry with respect to anti-selective risks. Governments, the insurance industry, academia and policyholders will need to continue to work together to achieve reasonable solutions to embrace this technology, increase lifespan and improve the health of all individuals.

However, increased longevity, decreased fertility rates and persistently low interest rates mean that a large majority of individuals are facing retirement funding issues that they find difficult to solve by themselves. Governments are not able to fulfil their pension obligations to retirees, and at the same time employers are passing more investment risk onto employees. The average individual is not equipped to make informed decisions about investment options for retirement, not least because of a lack of awareness and financial literacy.

1^{st} Annual Life Executive Round Table (ALERT)

The 1^{st} Annual Life Executive Round Table took place in London in May 2017. The event brought life insurance executives together to discuss the low interest rate environment. At the conference, the research report *The 'Low for Long' Challenge* was presented and discussed.

Life insurers are moving away from investment-type products (especially those with guaranteed benefits) towards protection products in the European markets. This has proved to be a challenge because consumers are not willing to switch to protection products quickly. Sales representatives are not always well equipped to support this fundamental change.

The likelihood of the industry adopting new digital technologies was discussed at length. However, most industry executives did not envisage a disruptive shift in the life insurance industry within the next few years. Legacy systems and a focus on inforce policies with guarantees that are currently unprofitable for insurers are draining resources. The consensus is that digital technologies are important, but it will take some time before they become fully functional in the life and pension business.

14th GLOBAL AGEING CONFERENCE

The conference, hosted by PartnerRe, offered participants a platform to discuss influences on longevity. Increased longevity, decreased fertility rates and persistently low interest rates mean that a large majority of individuals are facing retirement funding issues.

CEO panel - **Christian Mumenthaler**, CEO, Swiss Re; **Barry Stowe**, CEO, Jackson National; and **Phil Waldeck**, President and CEO, Prudential Retirement

Emmanuel Clarke, President and CEO, PartnerRe, welcomes participants

Ronald Klein, Director of Global Ageing

Left: **Greig Woodring**, retired CEO and Chairman, RGA moderates the panel on genetics and genomics

Questions from the audience

For more interviews from the conference, visit The Geneva Association YouTube channel.

Genetic testing could cause anti-selection, but also have positive impact on in-force book: Christian Mumenthaler

Transparency in products' assumptions a net upside for life insurers: Barry Stowe

Low interest rates like 'termites in the basement' for longevity products: Phil Waldeck

WHY PEOPLE DON'T BUY INSURANCE: A NEW PROJECT

Insurance protection gaps exist across all geographies and lines of business. The insurance industry has gone to great pains to measure and report on these gaps. What is clear is that measuring and reporting on protection gaps is not sufficient to solve the problem, making it clear that a holistic view is required to better understand the underlying drivers of underinsurance.

A joint project of the Global Ageing (life) and Protection Gap (non-life) working groups intends to take a deep dive into consumers' insurance purchasing behaviours, aided by a survey. After a bidding process, Edelman Intelligence, creators of the Trust Barometer®[1], was selected in March 2018 to design the survey, which will be conducted in seven developed markets (France, Germany, Italy, Japan, U.K., U.S., and Switzerland) in three phases:

1. A scan of social media sites to determine what terminology people are using regarding insurance
2. Qualitative personal interviews with 49 people in the seven in-scope markets to dig deeply into their behaviour regarding the purchase of insurance
3. Quantitative Internet surveys of 7,000 people in the same seven markets

Products covered in the survey will be residential property, private health, term life, and retirement annuity. The goal of this project is to highlight practical steps that the insurance industry can take to address consumers' behavioural issues regarding the process of buying insurance and to reduce protection gaps in life and non-life insurance markets.

1 Edelman's Trust Barometer® is an annual global trust survey which measures attitudes about the state of trust in business, government, NGOs and the media.

Alexander R. Wynaendts, CEO of Aegon, discusses the issue of undersaving

Fiscal incentives & employer saving schemes necessary to overcome undersaving: Alexander R. Wynaendts

CYBER

Cyber is one of the top risks in a world that is ever more digitally connected. The Geneva Association's Cyber research programme endeavours to provide deeper insights into the challenges of treating cyber as an insurable peril and promote the fundamental contribution of insurance in helping stakeholders in the private and public sectors to mitigate this 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 becoming increasingly significant. Companies face new exposures, including first- and third-party damage, business interruption and regulatory consequences. This risk landscape calls for coverage solutions, from both private and public sectors, for individuals, businesses and societies.

SETTING-UP OF WORKING GROUP

The Geneva Association's Cyber Research Programme continues to reach out to thought leaders in the insurance and technology industries, academia and the policymaking arena. The objective is to integrate the best thinking in timely reports that will describe the key building blocks needed to support the sustainable growth of the cyber insurance market. A Cyber Risk working group (CRWG), comprising cyber specialists from ten leading insurers, was established to support the research programme and oversee its output.

The CRWG embarked on a research programme to shed light on the many obstacles impeding the growth of the cyber insurance market. Going forward, it intends to take a deep dive into specific topics, namely (i) accumulation and capacity, (ii) strengthening resilience, and (iii) policy issues and the role of governments.

RESEARCH REPORT

Cyber Insurance as a Risk Mitigation Strategy

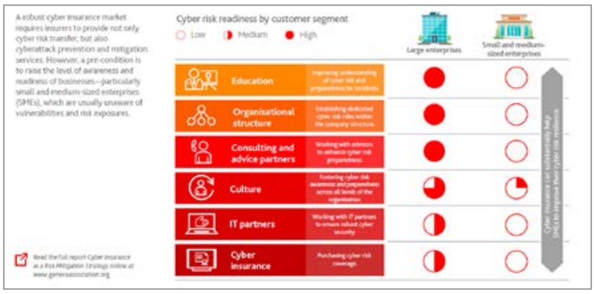
The report *Cyber Insurance as a Risk Mitigation Strategy* was published in early April 2018. The paper was prepared in collaboration with academics of the Interdisciplinary Consortium for Improving Critical Infrastructure Cybersecurity (IC)³, headquartered in the MIT Sloan School of Management, and with BCG Platinion, a company of The Boston Consulting Group focused on technology and cybersecurity.

The report intends to provide a platform for industry discussion on cyber risk and insurance and seeks to develop and inspire research and insights that support its sustainable development. The paper analyses the state of the cyber market and the role insurers play in advancing cyber resilience. A key proposition is that insurers are uniquely positioned to help their customers improve cyber awareness, and better understand and manage cyber risks.

Moreover, the report reviews the transformation along the value chain as insurers move from providing risk transfer products only to offering prevention, mitigation and resolution services.

In addition to the growth of policies for cyber risk transfer, the cyber risk insurance value chain provides a range of cybersecurity services, the report argues. This offering includes not only risk mitigation and protection services for customers but also valuable data for insurers regarding cyber risks, cyberattacks, successful mitigation strategies, and the financial impact of actual cyber events.

Inga Beale, CEO, Lloyd's, gives a special address at the OECD cyber insurance market conference



Cyber risk readiness infographic

Read the report online

CONFERENCES

Unleashing the Potential of the Cyber Insurance Market

On 22 February 2018, Secretary General Anna Maria D'Hulster moderated the panel *Addressing the gaps in incident data and advances in modelling capacity*, as part of the OECD Conference *Unleashing the Potential of the Cyber Insurance Market* in Paris. The panel found that much progress has been made towards sophisticated risk modelling and that there are a number of valuable efforts underway to support modelling with appropriate data.

Even though there is a growing market for cyber insurance, cyber risk remains relatively uncharted. As a result, limited historical data is available to underwriters and the risk modelling community. A cyber insurance data repository would encourage the development and refinement of insurance product offerings, whilst enhancing the insurance industry's understanding of prevention and mitigation measures for different types of cyber incidents.

Accumulation Risk and Insurability

The Geneva Association's 2018 Annual Circle of Chief Economists, hosted by Munich Re on 22-23 March, discussed the challenges and opportunities of rapidly progressing digitisation for the insurance sector. One session was dedicated to the analysis of accumulation risk with a focus on what the industry can do to resolve the insurability challenge and lay the foundation for the sustainable growth of the cyber insurance market.

PROTECTION GAP

The global insurance protection gap is one of the most pressing issues facing our society. It exacerbates exposure to a wide spectrum of risks, from natural disasters, pension savings gaps and healthcare expenses to cyber incidents.

Against this backdrop, The Geneva Association's research intends to contribute to promoting multi-stakeholder solutions, including risk transfer via insurance, 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.

RESEARCH REPORT

Understanding and Addressing Global Insurance Protection Gaps

The report, published in March 2018 and authored by Kai-Uwe Schanz, Special Advisor to The Geneva Association, offers an updated quantification of protection gaps in the areas of natural catastrophes, cyber risk, health care and pensions. In addition, the report puts forward a comparative taxonomy of root causes, distinguishing between high-, middle- and low-income countries in order to enhance the understanding of insurance protection gaps as a function of economic stages of development. Finally, the study discusses potential remedies and contributions from insurers, governments and private-public partnerships. As capitalised risk absorbers, facilitators of cost-efficient risk transfer and diversification, and enablers of more risk-conscious behaviours, insurers have a vital role to play in this mix of solutions. These are some of the specific findings.

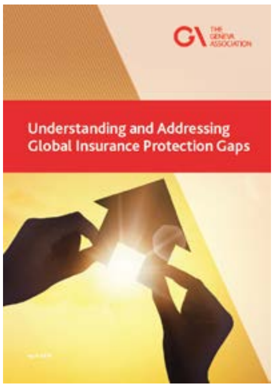
According to Munich Re, the natural catastrophe protection gap (uninsured losses as a share of total losses) has narrowed steadily over the past 30 years, from 78 per cent to 70 per cent. This global trend, however, masks huge differences between the various country income groups. Progress in terms of shrinking the gap was basically limited to high- and upper middle-income countries. Alarmingly, there was hardly any progress in lower middle- and lower-income countries, with protection gaps persisting in excess of 95 per cent.

The least researched protection gap is cyber risk. A comparison of the current aggregate global damage from cyber incidents with today's cyber premiums generated by the insurance industry suggests that virtually all cyber losses remain uninsured and, from a macro perspective, insurance-based transfer of cyber risk still lacks any real relevance. Lloyd's recently attempted to quantify the cyber risk protection gap, based on modelled economic loss scenarios of up to USD 53 billion (i.e. equivalent to losses from a major hurricane) and protection gaps of about 90 per cent.

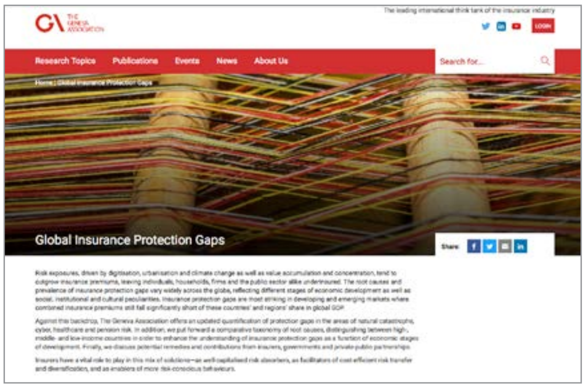
The report reviews a number of empirical studies which show that the reasons for insurance protection gaps lie with both demand and supply side factors. On the demand side, affordability remains a relevant obstacle, primarily in developing and emerging insurance markets. In addition, numerous studies suggest that a lack of awareness, as a result of poor financial literacy or poor general education, plays an important role in explaining underinsurance, also in countries with higher levels of per-capita income. Product appeal and service quality matter, especially in advanced insurance markets. This also includes the ease of buying insurance cover, and rising customer expectations in the wake of digitisation. Policyholder trust in the context of insurance protection gaps is particularly relevant for developing and emerging markets which are frequently characterised by relatively weak legal and regulatory systems for enforcing payment of valid claims. Cultural and social factors can also help understand insurance protection gaps, ranging from differences in risk aversion to factors attributed to religion, as shown by various empirical analyses focusing on low-

income countries. Behavioural biases are of a more general relevance. One example is loss aversion, i.e. individuals being more sensitive to small losses than large gains. In insurance, the premium is a certain and near term expense, whereas the claim benefit is uncertain and distant, and, therefore, perceived as a potential loss.

Transaction cost is one of the most prominent examples of supply-side obstacles. In non-life insurance, for example, about 30 cents of each premium dollar are generally absorbed by distribution and general administrative expenses. In addition, imperfect and asymmetric information is a long-standing feature of today's insurance markets. It can also explain insurance protection gaps as it is set to lead to adverse selection. Furthermore, institutional parameters, such as the legal and regulatory environment, are major determinants of insurance supply. Last but not least, certain risks do not meet the most fundamental criteria of insurability and are considered uninsurable from a commercial viability point of view.



Read the report online



Find more resources at our global insurance protection gaps hub

CONFERENCE

XXVI International Insurance Convention

Deputy Secretary General Antoine Baronnet represented The Geneva Association at the XXVI International Insurance Convention, hosted by the Colombian Insurance Association in Cartagena, Colombia which took place on 4-6 October 2017. He presented the key findings of the 2017 report *Harnessing Technology to Narrow the Insurance Protection Gaps*.

Antoine Baronnet presents at the XXVI International Insurance Convention

DIGITISATION

The exponential growth of available data and the expansion of Internet access globally have spurred the advent of the digital economy. Digitised data and technology-enabled business models can lead to improvements—as well as disruptions—along the sector's value chains. The Geneva Association is developing an additional research field to explore the effects of digitisation on the insurance industry, policyholders and society at large

The digital economy is also driving changes in the competitive landscape of the industry: new technology start-up firms (or InsurTech) are entering the industry to deliver some of the services typically provided by traditional insurers and intermediaries, and established technology giants are eyeing opportunities in the sector. Insurers have realised the importance of these developments, and are determined to investigate how to seize their benefits and be prepared for the challenges they pose.

The strategic intent of the programme is to raise awareness amongst industry stakeholders about the changing competitive landscape and the risks and opportunities for the industry. After all, insurers have been using data for centuries to make risk assessments and underwriting decisions. However, the implications of the digital economy could disrupt the competitive landscape, making it necessary to ensure there is a level playing field for all market participants.

SETTING-UP OF WORKING GROUP

In order to steer the research activities on digitisation topics, a working group has been established, with topical experts from seven members' companies. The proposed working plan includes research on (i) the implications of competition from online platforms and their relevance to insurance, (ii) the effect of algorithms and artificial intelligence on consumers and competition, and (iii) outsourcing and cloud computing and their consequences for insurance.

RESEARCH REPORT

Big Data and Insurance: Implications for Innovation, Competition and Privacy

On March 2017, The Geneva Association published its first research report on the topic of digitisation. The paper *Big Data and Insurance: Implications for Innovation, Competition and Privacy* focuses on the usage of data analytics in insurance. It aims to contribute to an informed and fact-based debate by identifying and discussing key trade-offs involved in the application of big data in insurance. The paper discusses the implications of a wide range of data usage and develops potential future scenarios to highlight likely consequences of different policy choices.

The report, which was developed in collaboration with the universities of Zurich and St. Gallen, argues that the availability of vast amounts of new data, generated by individuals' online behavior as well as through the Internet of Things (IoT), will allow insurers to play a much stronger role in predicting and preventing risks. This development is expected to generate large economic and societal benefits by reducing risks, diminishing informational asymmetries, lowering the cost of insurance and allowing for new insurance solutions for risks that were up to now considered uninsurable.

At the same time, however, these developments raise a number of concerns regarding privacy and data protection, individualisation of insurance at the detriment of risk pooling, and the implications for competition. Assessing these trade-offs requires intricate value judgements by consumers, insurers and policymakers/regulators. There is no 'one-size-fits-all' solution to these issues, but rather new uses of data should be evaluated on a case-by-case basis.

Based on a detailed analysis of the respective benefits and concerns of new digital business models, the report develops five potential future scenarios for the sector to highlight the likely consequences of policy interventions regarding privacy and access to data.

Find more resources at our big data and insurance hub

CONFERENCE

18th Asia CEO Insurance Summit

Deputy Secretary General Antoine Baronnet presented the main results of the study *Big Data and Insurance* at the 18th Asia CEO Insurance Summit in Singapore on 27-28 February 2018. The potential future scenarios for the insurance industry, based on different policy choices regarding privacy and access to data, attracted particular interest from conference participants.

Antoine Baronnet, Deputy Secretary General and Head of Insight, at the 18th Asia CEO Insurance Summit

C-Suite Networks

The Geneva Association organises a series of meetings that bring together top decision makers from members' companies and experts from a wide range of fields, offering a unique opportunity for high-level dialogue and exchange on emerging and priority topics.

44th General Assembly

The General Assembly's programme is designed to prompt questions that have no easy answers. Members of The Geneva Association and some of the world's leading experts on key societal trends gathered in San Francisco to take a novel perspective on current and emerging issues affecting the insurance industry. The agenda covered topics such as geopolitics, the effects of low interest rates, cyber risk, disruptive innovation and the impact of technology, as well as genetics and life insurance.

Christian Mumenthaler, CEO, Swiss Re, chairs the panel on insurance of the future

John Strangfeld, CEO, Prudential Financial (left) and **Yoshinobu Tsutsui**, President, Nippon Life Insurance Company (right) present on the societal impacts of low interest rates

Left: **Lard Friese**, Chairman of the Executive Board and CEO, NN Group, chairs the panel on disruptive innovation

Denis Kessler, CEO, SCOR, gives a special address on insurance and natural catastrophes

Left: **Charles Brindamour**, CEO, Intact Financial

Right: **Anna Manning**, President and CEO, RGA; **Herbert Haas**, Chairman of the Supervisory Board, Talanx AG; and **Ajit Jain**, President, Berkshire Hathaway

Left: **Inga Beale**, CEO, Lloyd's, chairs the panel on cyber risk

Right: **Mike McGavick**, CEO, XL Group and **Bronek Masojada**, CEO, Hiscox plc

Watch more videos from the General Assembly on our YouTube channel

Life insurers can help address societal effects of ultra-low rates: John Strangfeld

Insurance industry needs to partner with governments on cyber data: Inga Beale

Technology will have an impact across the whole insurance value chain: Christian Mumenthaler

14th ANNUAL ROUND TABLE OF CHIEF RISK OFFICERS

Hosted by MAPFRE in Madrid, 11-12 May 2017

The conference, also known as ART of CROs, provides an open, informal and inspiring forum to discuss the challenges and lessons learned from the practical application of risk management frameworks within insurance companies.

The 14th ART of CROs explored the rapidly changing political and economic landscape, assessing the impact of the rise of populism, the new tendencies to protectionist policies and the new emerging geopolitical order. It was agreed that accelerated and disruptive political change leads to new challenges for the risk management functions and calls for a far more interdisciplinary approach than is currently commonplace.

Technology was also high on the agenda, with discussions on the challenges of underwriting and managing cyber risk. There was also a debate on the political and economic uncertainties of the societal impact of artificial intelligence, including unemployment and social unrest, which could reinforce political instability.

Risk disclosure continues to have an important place in a risk management framework, and the demand for risk information is likely to increase and to cover aspects that have hitherto been neglected. It is possible that supervisors may start to use information of an insurer's business model as a risk indicator, which may shed light on the sustainability of a company's operations and on potential problem areas.

11th CHIEF INVESTMENT OFFICERS' MEETING

Hosted by Lloyd's in London, 4-5 September 2017

The Chief Investment Officers' Meeting serves as a platform to exchange expertise, and to nurture improved understanding of issues facing insurance asset management and the implementation of investment strategies.

In her keynote address, Inga Beale, CEO of Lloyd's, highlighted global trends with significant implications for the insurance industry: first, the shift in economic power from the West to Asia; second, the all-encompassing digital revolution and its implications for insurance products, risk profiles and valuation of investments; and third, the effects of climate change, which represent both an enormous threat and opportunity in light of decreasing insurance coverage of economic losses over the last decades.

Watch an interview with Inga Beale at the Chief Investment Officers' Meeting

Discussion of the macroeconomic environment explored concerns about higher inflation and higher interest rates, as well as the unsustainability of current income and wealth disparities, which could have political implications.

Also, the impact of big data and artificial intelligence was found to offer significant opportunities to new market entrants. It was suggested that insurance investment departments are well behind this particular curve, and catching up will be an important challenge.

Findings of The Geneva Association study on climate change and the insurance industry were discussed, particularly the investment challenges which currently hinder scaling up contribution to climate resilience and decarbonisation.

13th LIABILITY REGIMES CONFERENCE

Hosted by Zurich Insurance Group in Zurich, 9-10 November 2017

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

The focus of the 13th Annual Liability Regimes Conference was on key liability issues arising from new and emerging technologies, as well as recent social trends and developments. This included exploration of the potentially disruptive impact of gene modification and gene therapies for insurers and regulators. Also, the rise of autonomous vehicles, which should theoretically mean safer driving and fewer claims, will fundamentally change the mobility ecosystem and the vehicle insurance business model.

The rapidly growing phenomenon of the 'sharing economy', in which physical assets are turned into services, and face-to-face interaction between supplier and client is superseded by online communication, was discussed; unquestionably, it redefines the value of ownership, and raises concerns about customer experience and trust.

Third-party litigation as a feature of modern litigation was explored, and the implications for liability regimes are not minor. Ethical concerns were identified, as the practice is for the larger part unregulated and conflicts of interest abound.

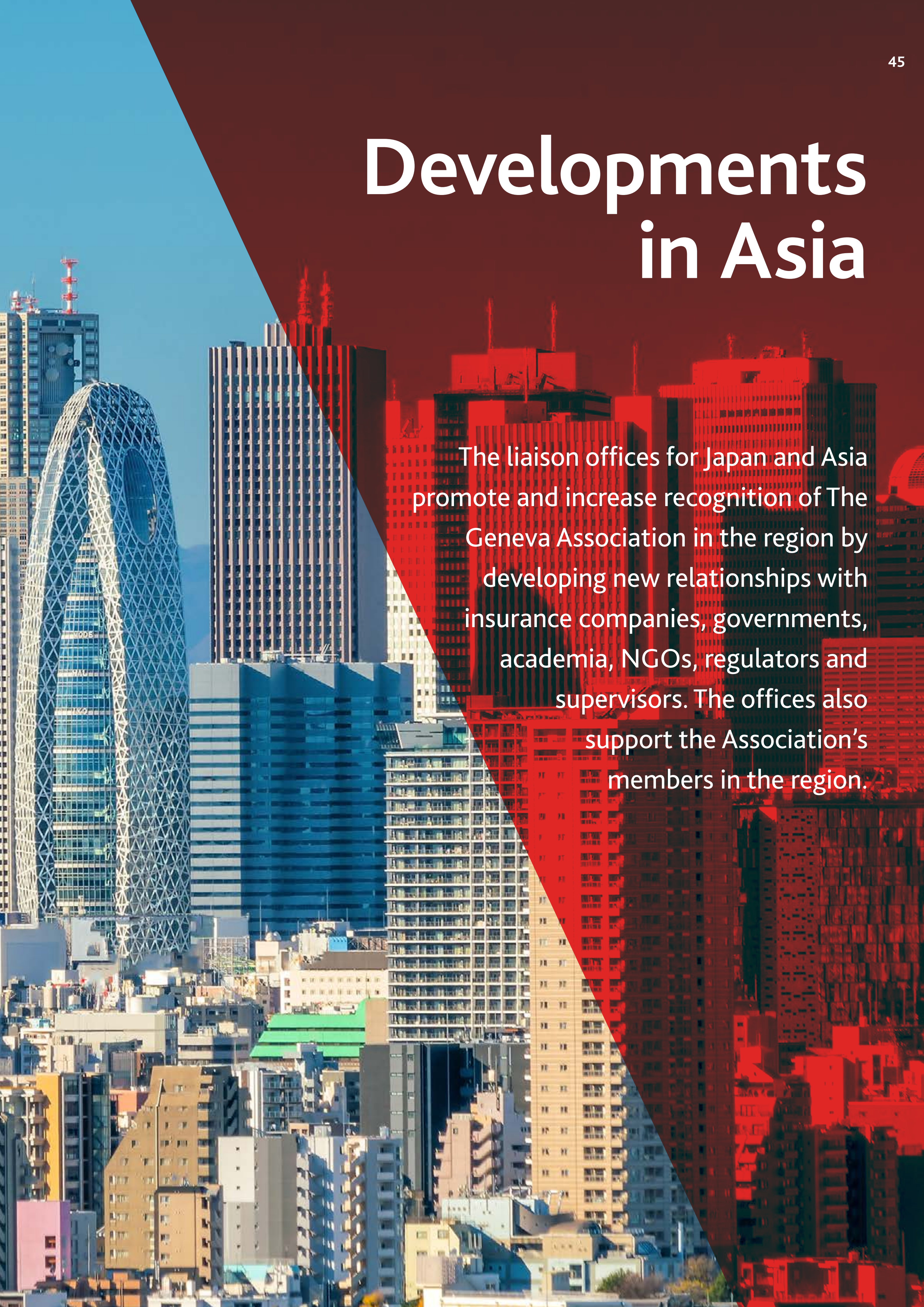
20th ANNUAL CIRCLE OF CHIEF ECONOMISTS

Hosted by Munich Re in Munich, 22-23 March 2018

The conference, known also as ACCE, provides a forum for the discussion of the current and future macroeconomic environment for (re)insurers, a platform to exchange ideas on the development of insurance and the analysis of key challenges to the industry.

The 20th ACCE meeting was dedicated to the challenges and opportunities for insurance in the digital economy. The broader economic implications of digitisation were explored, including potential impact on productivity growth, as well as its deflationary impact, through which insurers could suffer loss of business and margin pressure as a result of new competitors; these could include big technology firms. New business models with a strong focus on distribution are foreseen, as well as the necessity to rethink mutualisation. An increasing unwillingness of society to accept risk-commensurate pricing may be an obstacle, particularly concerning cyber risk. It was also highlighted that resilience should be a foundational element of risk management.

The requisites for a sustainable cyber insurance market were discussed, including disciplined underwriting and management of accumulation risk. Also, the implications of big data on competition and privacy were explored, including the role regulation could play in catalysing or restricting innovation. It was concluded that regulation should be activity- and evidence-based, proportional and neutral, and endeavour to ensure a certain degree of international collaboration.



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 December 2017, Japan's Financial Services Agency (FSA) published the consultation 'FSA Supervisory Approaches'—replacing checklists with engagements and solicited comments from stakeholders. Although the document covers all financial sectors, it has important implications for the Japanese insurance sector.

The key principle is to make supervisory approaches consistent with the ultimate goal of regulation which is to (i) enhance national welfare by contributing to the sustainable growth of the economy and national wealth; (ii) attain both financial stability and effective intermediation, ensure better consumer protection and services as well as market integrity and vigour; (iii) minimise market and government failures so as to further improve the functioning of markets; and (iv) shift from rule-based compliance to a balanced use of rules and principles.

Under these principles, supervisory approaches are expected to be transformed from backward–looking, element-by-element compliance checks, to substantive, forward-looking and holistic analysis and judgement.

The new approach is expected to energise the financial markets in Japan so that people can build the financial means to support longer life expectancy and make society more resilient to large-scale natural and man-made disasters.

DISRUPTION, INNOVATION/TECHNOLOGY AND CYBER

M&A Activity

Rakuten, an e-commerce firm in Japan, announced the acquisition of Asahi Fire Insurance, a small-sized Japanese insurer. As Rakuten had already purchased a life insurer in Japan, the news was not surprising. The announcement that earned more headlines was that Soft Bank (SB), a Japanese IT and communication giant, and Swiss Re initiated talks on SB buying an equity stake in Swiss Re.

Autonomous Cars

In 2016, the General Insurance Association of Japan (GIAJ) conducted a comprehensive study on the legal aspects of automobile insurance, covering issues such as liability of drivers, algorithm vendors and manufacturers for each level of autonomous driving technology embedded in cars. Following this report, during 2017 and into 2018 insurers have been carrying out their own surveys among drivers, policyholders and potential purchasers of cars in order to learn about their priorities in terms of car insurance.

Cyber Risk

The Ministry of Internal Affairs and Communications, which in Japan is responsible for ensuring that society is resilient to cyber risk, launched a new task force focusing on cyber security policy in the age of IoT and artificial intelligence. Task force members have proposed to discuss cyber risk disclosure and preparedness among public and private enterprises so that their stakeholders become aware of the nature of the risk. Given the relevance of the issue for insurance, experts from three Geneva Association members' companies have joined the task force.

Blockchain, Robotics and Artificial Intelligence

A non-life insurance member of the Association announced a pilot project on cargo claims settlement using blockchain technology. Due to its global mobility, the cargo business is prone to incidents anywhere in the world, which means that claims handling can be complex and time-consuming. The benefits of using blockchain may prove to be advantageous. Moreover, robotics process automation has been applied by a life insurer to their claims settlement process and has made a significant improvement in efficiency. Some insurers are using artificial intelligence in their call centres to help their staff select the most appropriate answer to questions from policyholders and consumers.

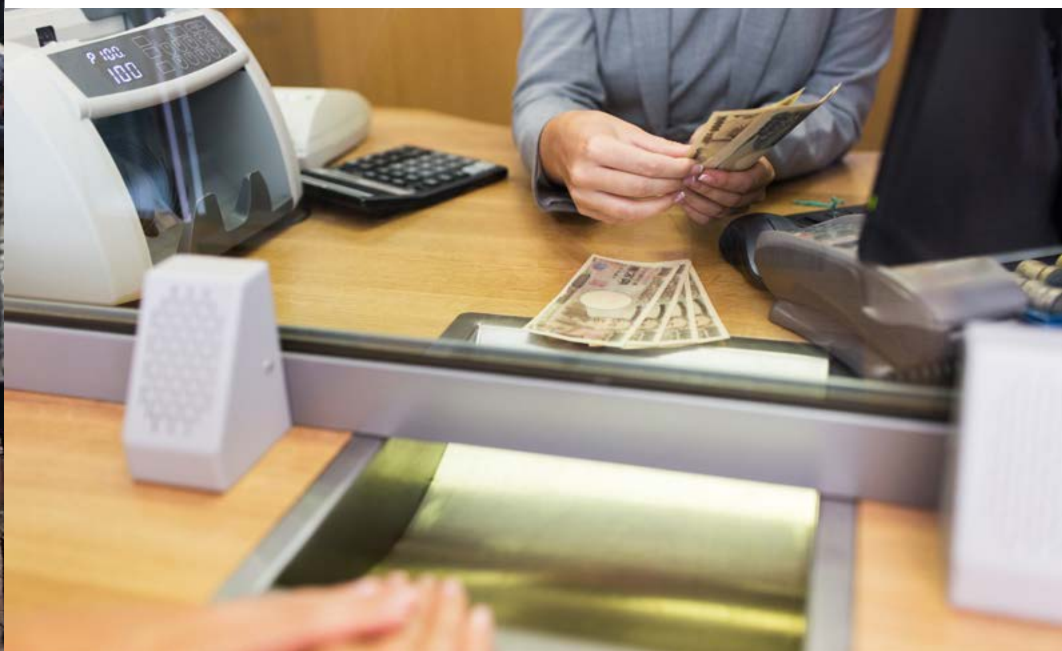
LOW INTEREST RATES AND DEMOGRAPHICS

The Japanese Prime Minister, Shinzo Abe, reappointed Haruhiko Kuroda as governor of the Bank of Japan; this was interpreted as a signal that low interest rates will continue. Some economists are concerned about what they perceive as a lack of resolve to break away from the situation, especially because the government's debt principal does not increase with low interest rates. However, younger generations see the current situation as unsustainable and are preparing for harder times, which is affecting consumption levels.

Amid this backdrop, the situation of life insurers has remained unchanged, with many of them suspending the selling of savings products and trying to focus instead on promoting medical insurance policies denominated in foreign currency. However, as levels of income of the corporate sector have increased, so has the dividend income in insurers' investment portfolio.

Demographics

The FSA asked the Institute of Actuaries of Japan (IAJ) to review the standard mortality table. While the table is the basis for insurers to calculate statutory reserves in accordance with the Insurance Business Act, the revision of the table (expected to be completed in May 2018) will affect the pricing strategy of life insurers. In fact, some of them have already announced price reductions for some products.



NATURAL CATASTROPHE RISK AND INTERNATIONAL COOPERATION

The hurricanes in the Atlantic and the earthquake in Mexico caused insured losses of approximately JPY 200 billion (USD 2 billion) net of reinsurance to Japanese member companies during 2017. However, the financial sustainability of affected insurers was confirmed by rating agencies and analysts.

Recently, the setting up of business continuity plans (BCP) has been a priority for Japanese corporations and municipal governments. A large insurance group has been providing advice and organising seminars to roll out BCPs involving various scenarios such as earthquake, tsunami, flood, fire, volcano eruption, and pandemic.

The GIAJ and Japanese insurers are promoting risk mitigation support to countries in the ASEAN region that are prone to many types of risks. In November 2017, the GIAJ and ASEAN Insurance Council reached a cooperation agreement covering all of ASEAN's insurance associations.

ASIA (excluding Japan)

In line with the improvement in the global macroeconomic environment and financial markets, the insurance industry in Asia continues to grow steadily. The following developments will continue to shape the industry.

DIGITISATION AND CYBER RISKS

The increasing digitisation of the economy is likely to increase cyber risk exposure in a significant way in the years to come, driven by the IoT, artificial intelligence, robotics, drones and autonomous vehicles. China and India are leading the way in these and other developments whilst ASEAN countries are embracing cutting-edge technologies for their financial services sectors. Major players like Alibaba, Tencent, and Didi are already providing online insurance and investment services; and Tai Ping Life, a major life insurer, is pushing for a transformation of healthcare services where households, connected via an online platform, exchange under-utilised capacity of assets or human resources.

AGEING POPULATION

In countries such as China, Singapore, Korea and Hong Kong this is an issue that is recognised as a major potential mid-term crisis. Life and health insurers are getting more capital and developing new products, for example modified annuities and long-term care, to offer wider coverage and create larger risk pools by reaching more elderly people under subsidised public programmes.

The insurance industry in markets across the region has also started to provide tailor-made coverage for people who have been diagnosed with diabetes and heart disease as these conditions become more prominent amongst the ageing population. This is just one example of how the insurance industry is adapting itself to the changing environment.

PROTECTIONISM

An increase in protectionism and regulation is likely to delay the implementation of the ICS across the region. In addition, regulators are challenged even more to regulate cyber risk exposures effectively, as non-insurance institutions provide cyber insurance disguised as warranties as well as services without the constraints borne by regulated insurance carriers. This situation is apparent in China, India, Korea and some of the South East Asian nations.

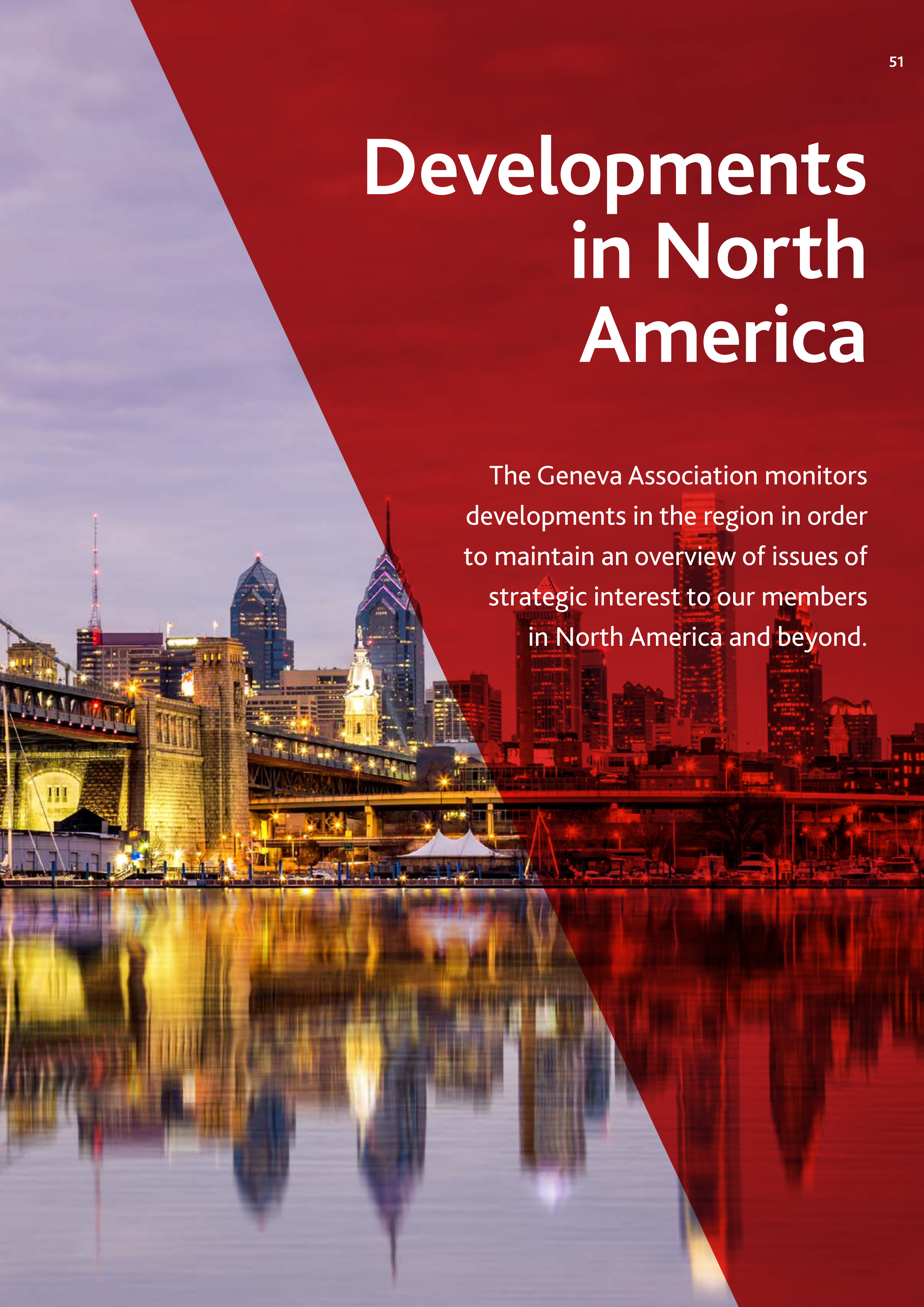
NATURAL CATASTROPHES AND URBANISATION

In terms of NatCat losses, 2017 (and also the previous year) was good for Asia. Risk pools were created and expanded. However, the market continues to remain soft in Asia despite hurricanes Harvey, Irma and Maria and the increased demand for natural catastrophe coverage driven by greater urbanisation and economic integration.

CORPORATE AND REGULATORY ACTIVITIES

The China Insurance Regulatory Commission seized control of Anbang Insurance Group and removed the company's chairman. A working group has been formed to oversee the restructuring and ensure a smooth transition.

ZhongAn, a Chinese online insurer, launched an initial public offering in Hong Kong in September 2017, making it the first Insurtech public offering. The firm, although technically an insurer, was valued instead as a technology company and raised USD 1.5 billion.



Developments in North America

The Geneva Association monitors developments in the region in order to maintain an overview of issues of strategic interest to our members in North America and beyond.

Even though 2017 was a record year for natural catastrophes in North America, there was little action on climate change or on flood mitigation. The major regulatory issues in North America in 2017 revolved around group capital provisions, the U.S.-EU covered agreement, cyber security and Fintech issues.

U.S. FEDERAL ISSUES

The role of the U.S. Federal government in insurance remains a focus of debate. Several proposals to amend or repeal the Dodd-Frank Act have been introduced in the U.S. Congress. 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 minimising the role of the Federal Reserve System in insurance regulation. One proposal, the Creating Hope and Opportunity for Investors, Consumers and Entrepreneurs (CHOICE) Act, has passed the U.S. House of Representatives, eliminating many of the key banking reforms of the Dodd-Frank Act; however, it is still too early to tell how far Congress is willing to go with reforms.

Even without a change in the Dodd-Frank law, the FSOC is moving away from entity-based action on systemic risk. FSOC has rescinded the designation of AIG as systemically risky to end the appeal on the MetLife case. The U.S. Federal Reserve Board was also reported to have challenged any further G-SII designations by the Financial Stability Board towards the end of 2017.

Both FIO and the Federal Reserve Board are continuing to carry out their mandates regarding insurance and are working with the National Association of Insurance Commissioners (NAIC) on group capital calculation and international issues. FIO's 2017 annual report defines its international role as one of coordination 'to ensure that the United States speaks at the IAIS with a unified voice and with the benefit of advice from the U.S. insurance community.'[1]

A covered agreement between the U.S. and EU was signed in September 2017. Final adoption by the EU took place on 20 March with an effective date of 4 April 2018. The agreement will allow cross-border sales of reinsurance without collateral or requirements for local presence under certain conditions, and establish mutually recognised group supervision between the U.S. and EU. While the agreement encourages early compliance with the terms, many of the provisions allow a five-year period for full enforcement. The NAIC is already working to update its model laws to comply with the terms of the agreement, and several EU member states have suspended their local presence rules for U.S. reinsurers.

In the U.S., flood coverage is not included in a homeowner's package, but is provided separately though the National Flood Insurance Program (NFIP). The NFIP was praised this year for having purchased USD 1 billion of reinsurance in 2017 to reduce the financial impact of flooding caused by hurricanes. The NFIP was set to expire in early 2018, but there have been temporary renewals. Congress indicated that the renewal bill might include reforms to facilitate an increase in private flood insurance and reinsurance, to increase funding for mitigation and mapping, and to address NFIP claims issues, specifically those issues related to Hurricane Sandy.

The U.S. Department of Labor Fiduciary Rule regarding conflicts of interest in retirement investment advice and imposing federal standards on the sale of certain insurance products was scheduled to come into effect in 2018, but the Department of Labor has now delayed the effective date of many of the key provisions to July 2019.

1 2017 Annual Report on the Insurance Industry, Federal Office of Insurance, U.S. Department of Treasury, September 2017, p. 4.

In 2017, the U.S. Financial Accounting Standards Board reached tentative conclusions for the measurement and disclosure of long-duration (life) contracts. The new standard includes some very significant changes to life insurance accounting and disclosures. An effective date has still to be decided.

U.S. STATE DEVELOPMENTS

Much of the focus of NAIC activity in 2017 was on group capital standards and cyber risk issues.

The NAIC devoted considerable effort to the development of a group capital assessment and is moving quickly to the field testing phase. The signing of the U.S.-EU covered agreement and the IAIS Kuala Lumpur agreement on the Insurance Capital Standard (ICS) provided even more incentive to complete the work as soon as possible. The NAIC is using a Risk-Based Capital (RBC) aggregation approach as the basis for the group capital calculation. The RBC would aggregate individual RBC requirements for U.S. insurers, add home jurisdiction measures for non-U.S. insurers, and include industry-specific measures for non-insurance entities such as Basel III for banks.

In 2017, the NAIC adopted the Insurance Data Security Model Law, which creates rules for insurers, agents and other licensed entities covering data security, investigation, and notification of breach. The model includes provisions for maintaining an information security programme based on ongoing risk assessment, overseeing third-party service providers, investigating data breaches, and notifying regulators of a cyber security event.

OTHER NORTH AMERICAN DEVELOPMENTS

Canada

After ten years of work, in November 2017, the Canadian Office of the Superintendent of Financial Institutions (OSFI) released the final version of its 2018 Life Insurance Capital Adequacy Test Guideline (LICAT) for federally regulated life insurers. According to the OSFI, the LICAT represents a more advanced and risk-sensitive approach to capital, recognising significant changes in the nature and management of risk within the life insurance industry.

Bermuda

With Bermuda companies expected to pay 30 per cent of the insurers' losses from hurricanes Harvey, Irma and Maria, Bermuda again proved its critical link to North America. Bermuda, as one of the U.S. qualified jurisdictions under the credit for reinsurance model law, has been pushing to extend the benefits of the U.S.-EU covered agreement to all qualified jurisdictions so that Bermuda reinsurance can operate on a level playing field with European companies. Bermuda was also a leader in the unsuccessful effort to block U.S. tax changes affecting foreign reinsurance transactions. Under the new provisions, payments to foreign affiliates are subject to a base erosion minimum tax (BEMT). The BEMT is specifically applicable to affiliated reinsurance transactions at the rate of 5 per cent in 2018, 10 per cent in 2019, and 12.5 per cent in 2025.

Academic Journals, Prizes and Grants

The Geneva Association supports excellence in research that expands the understanding of insurance economics and the financial consequences of risk.

ACADEMIC NETWORKS

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

44th Seminar of the European Group of Risk and Insurance Economists

The 2017 European Group of Risk and Insurance Economists (EGRIE) took place in London on 16-18 September 2017 and touched upon a wide range of issues, including insurance incentives on road safety, online health insurance marketplaces, systemic risk, cyber risks, life insurance investment behaviour, variable annuities, guaranteed renewable life insurance, adverse selection and moral hazard in insurance markets. Prof. Olivia Mitchell of the Wharton School delivered the 29th Geneva Risk Economics Lecture, which elaborated on the topic of retirement products in an ageing world.

ACADEMIC JOURNALS

The Geneva Association started publishing *The Geneva Papers on Risk and Insurance* in 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* and *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. Online access to both journals provides our members and other users with advance online publication (AOP)—definitive, citable versions of papers (complete with digital object identifier, or DOI) available online ahead of print. Articles older than three years are publicly available online.

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 five-year impact factor of 0.645 according to the latest edition of the Thomson Reuters Journal Citation Reports®.

The Geneva Papers on Risk and Insurance—Issues and Practice

The Geneva Risk and Insurance Review

The following issues have been published since April 2017.

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

This special issue, edited by Jeroen van Aerts, Reimund Schwarze and Gert G. Wagner, was prepared in connection with the 16th Joint Seminar of the European Association of Law and Economics and The Geneva Association, which took place in Berlin in June 2015 and covered risk sharing and catastrophic event 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.

Volume 42, Issue 3 (July 2017) Special Issue on Pension Financing and Insurance

Edited by Antony Webb and Teresa Ghilarducci, this special issue focuses on how to improve the second pillar of occupational pensions. It also investigates how increases in labour supply affect wages, and it contributes to an understanding of how the fourth pillar—working in older age—can enhance retirement income security. Finally, it examines trends in socio-economic mortality differentials and assesses the distributive effects of proposed reforms to social insurance programmes.

Volume 42, Issue 4 (October 2017) Special Issue on Extreme Events and Climate Risks

This special issue, edited by Maryam Golnaraghi and Olivier Mahul, is a collaboration between The World Bank and The Geneva Association that aims to foster better knowledge and innovative ideas on the development of effective, affordable and sustainable disaster risk financing strategies.

Volume 43, Issue 1 (January 2018)

This issue includes articles on the role of education in life insurance purchase, the new Chinese risk-oriented regulatory framework, the NatCat protection gap, bank insurance risk spillovers, asymmetric information in disability insurance and the efficiency of Argentinian non-life insurance market.

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

Volume 42, Issue 2 (September 2017)

This issue publishes articles featuring various aspects of insurance markets. It addresses topics such as how to incentivise the purchase of long-term care insurance, the impacts of heuristics on insurance purchase, the role of screening mechanisms in automobile insurance, and the phenomena of advantageous selection in insurance markets.

Volume 43, Issue 1 (March 2018)

This issue features articles dealing with topics including the welfare effect of insurance, precautionary saving in the face of increasing risks, ambiguity and the value of information in decision making, higher-order non-monetary measures for risks, and new methods to compare risks.

AWARDS AND GRANTS

The Geneva Association Research Grant

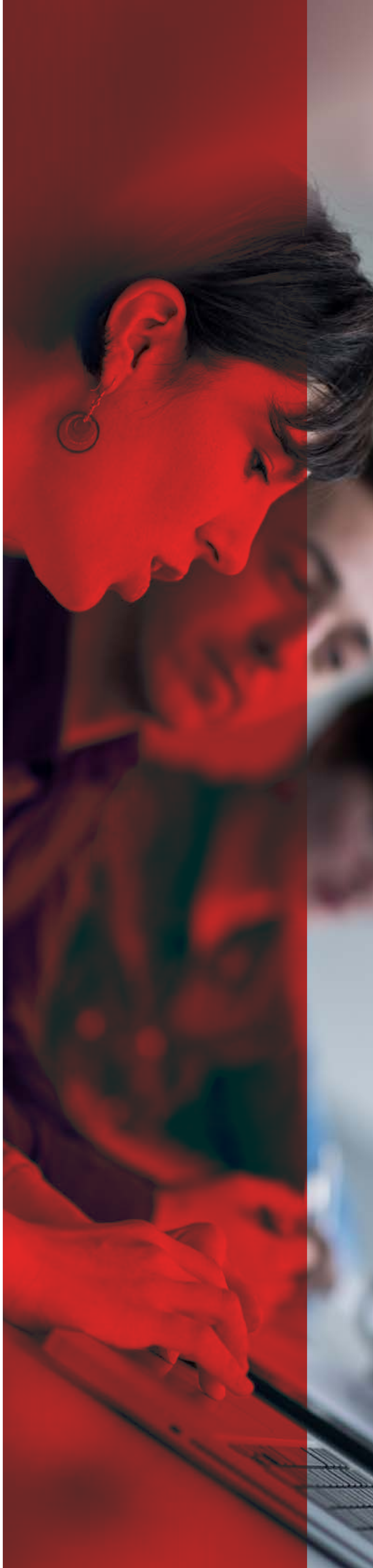
The Geneva Association awards an annual CHF 10,000 research grant for submissions—usually doctoral theses carried out in the field of risk and insurance economics or a research paper in that field. Research topics such as cyber risk, climate change and public health, and the impact of demand conditions 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 2018 is Gert Meyers, a PhD student at the Life Sciences & Society Lab, Centre for Sociological Research, KU Leuven, for his research on big data and insurance. The objective of his research is to understand if and how practices of big data-enabled personalisation in insurance reconfigure the roles and responsibilities of insurers and insureds, and envision what the effects of these developments mean for solidarity in future insurance markets.

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 winner of the Ernst Meyer Prize awarded in 2017 for his work presented the previous year, is Arnaud Goussebaile of University Paris-Saclay, for his PhD dissertation on *Prevention and Insurance of Natural Disasters*. The thesis, by modelling individual behaviours, markets and public policies, suggests innovative prevention actions and insurance mechanisms that can efficiently mitigate wealth shocks for economic groups exposed to natural disasters.



Shin Research Excellence Award

The International Insurance Society (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 2017 the winners of the award, which is endowed by Kyobo Life Insurance Company.

The winners were Thomas Holzheu and Ginger Turner of Swiss Re for their paper on *The Natural Catastrophe Protection Gap*. The winners were awarded USD 5,000 and invited to present their work during the IIS Global Insurance Forum in London on 17-20 July 2017, attended by more than 500 senior insurance leaders from around the globe. Their work was published in *The Geneva Papers on Risk and Insurance—Issues and Practice* Volume 43, Issue 1, January 2018.

Thomas Holzheu and **Ginger Turner** receive the Shin Research Excellence Award at the IIS Global Insurance Forum, with **Shin Chang-jae**, Chairman and CEO of Kyobo Life Insurance Company, and **Anna Maria D'Hulster**, Secretary General of The Geneva Association

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 EUR 2,000, is presented to the best paper from those accepted by the scientific committee of the seminar.

The 2017 SCOR–EGRIE Young Economist Best Paper Award went to Sebastian Ebert for his article *Decision Making When Things Are Only a Matter of Time*.

SCOR–Geneva Risk and Insurance Review Best Paper Award

Also created 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 EUR 1,000. The 2016 award went to Michel Denuit, Louis Eeckhoudt, Liqun Liu and Jack Meyer for their paper *Tradeoffs for Downside Risk-Averse Decision-Makers and the Self-Protection Decision*, published in *The Geneva Risk and Insurance Review*, Volume 41, Issue 1, March 2016.

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p.14 / p.61: photos of the Shin Research Excellence Awards courtesy of Asia Insurance Review
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p.27: OECD cyber insurance market conference by Andrew Wheeler, OECD
p.29: Antoine Baronnet at the 18th Asia CEO Insurance Summit courtesy of Asia Insurance Review
p.36: Antoine Baronnet at the XXVI Insurance Convention courtesy of Fasecolda
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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 2017 to 31 March 2018.

**The Geneva Association—
International Association for the
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