THE GENEVA ASSOCIATION

2018-2019 Annual Report

The Geneva Association

The Geneva Association—International
Association for the Study of Insurance Economics

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Chairman's Statement

CHARLES BRINDAMOUR

As the new Chairman of The Geneva Association, I look forward to reinforcing our commitment to advancing the contributions of insurance to a more resilient and prosperous world. As the only global association of insurance and reinsurance Chief Executive Officers, it is a truly unique organisation.

My priority is to further strengthen the Association's positioning amongst our key stakeholders, including insurance leaders, policymakers, academic institutions, multilateral organisations and global opinion leaders. We will achieve this by focusing on three main pillars.

First, we will work to leverage The Geneva Association's research and networks in business and academia to promote a holistic approach to the risks and opportunities arising from the changes and trends the world is experiencing. Whether these changes are concurrent or cross-cutting—through the fields of climate change, global ageing or new technologies—our Association has an important role to play in highlighting what is at stake for insurers, policymakers, communities, businesses and individuals.

Second, we might expect that in an unpredictable world, insurance would become increasingly popular. This is not the case. There is a discrepancy between what customers expect from insurers and the perceived value of what they receive. The Geneva Association is taking steps to investigate the underlying reasons for this trust gap. We are well positioned to shed light on why insurance customers behave the way they do and how insurers should change to better meet customers' expectations.

Third, and equally important, is the work we have embarked on to promote insurance as a force for good. It is tempting to describe the relevance of our industry in terms of premiums collected, claims settled, taxes paid, number of people employed or assets under management. Such figures, important as they are, do not capture insurance's fundamental purpose: to help people and businesses face the burden of unexpected risks and help economies and societies prosper.

All in all, it comes down to advancing the contributions of insurance to humanity. To us insurers, these contributions are obvious, but they are not necessarily to the public. Insurance provides peace of mind and enables the risk-taking that propels entrepreneurship and innovation. The Geneva Association is uniquely positioned to put insurance centre-stage in the quest to make our world a better place.

These tasks are ambitious. That is why I am happy that Jad Ariss has joined The Geneva Association as the new Secretary General. With his extensive insurance experience and his international background, Jad is the right executive to write a new chapter of our organisation and drive change. He will ensure that The Geneva Association is a thought leader on global insurance trends and a strong promoter of the contributions of our industry to society.

The future of our industry and our Association is promising. I would like to thank you for your support and trust.

Charles Brindamour

Secretary General's Statement

JAD ARISS

It is with both humility and excitement that I am taking over the challenge of leading The Geneva Association at a time when the insurance industry is facing unprecedented change. I would like to thank our Chairman, Charles Brindamour, and the whole Board for their trust.

Perhaps the most significant change affecting the industry comes from the expectations of its stakeholders. Insurance is expected to help the world not only adapt to climate change but also mitigate it. It is expected to strengthen financial safety nets and promote social cohesion in a context of global ageing, increasing healthcare costs and rising income inequalities. It is expected to push the limits of insurability to support innovation and the development of new technologies. It is expected to promote responsible investment practices.

This backdrop is an opportunity to take a step back and reflect on the very purpose of The Geneva Association. We must better articulate our value proposition for the insurance industry. I have a strong conviction: there is a wide gap between the reputation of our industry—which can be improved, to say the least—and its actual contributions to people, businesses, economies and societies, which are massive. The Geneva Association is uniquely positioned to help narrow this gap. Let me highlight three paths of action.

We are revamping our research streams to better reflect the complexity of our times and the urgency of achieving sustainability. Climate change is the most visible environmental challenge today, whilst other related threats, such as eroding biodiversity, are mounting. Beyond ageing, some growing public health issues—obesity, tobacco consumption—require the engagement of insurers and policymakers. Also, the interconnectedness of the risks facing the world requires multidisciplinary approaches, for example to explore the links between climate change and health. The intent is not only to identify future trends that are relevant for the insurance industry and to provide insights on them: it is also to build scenarios and formulate recommendations for insurers and policymakers.

Our dialogue platforms are ripe for evolution, too. For many years, The Geneva Association has gathered insurance leaders, regulators and academics to discuss current and emerging topics affecting insurers. The reality is that many of these topics directly affect customers and their communities. Therefore, we are taking steps to enrich our exchanges through more inclusive forums.

Our operating model needs to be adjusted, as well. With the proliferation of think tanks, it is becoming less relevant to conduct research on a stand-alone basis. We must move to a more agile way of working based on open architecture that encourages collaboration with academic institutions, the research departments of multilateral organisations and other think tanks, in order to enhance the impact of our work.

Since our foundation we have served as a catalyst for better understanding and managing risks. We can honour our tradition of robust, fact-based research and high-level dialogue, and at the same time project our mission forward to highlight the contributions of insurance to more sustainable economies and societies.

I look forward to working with the members of the Association and with its staff to promote insurance for a better world.

Jad Ariss

Board of Directors

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CEO, Intact Financial Corporation

Board members

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CEO, AXA Group

Philippe Donnet
Group CEO, Assicurazioni Generali

Denis Kessler
Chairman and CEO, SCOR

Alejandro Simón
CEO, Grupo Sancor Seguros

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Group CEO, Swiss Re

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Yoshinobu Tsutsui
President, Nippon Life Insurance Company

Joachim Wenning
Chairman of the Board of Management, Munich Re

Alexander R. Wynaendts
CEO and Chairman of the Executive Board, AEGON

Overview of The Geneva Association

The Geneva Association is the global organisation of insurance and reinsurance Chief Executive Officers. We collaborate with our members, academics, thought leaders and non-governmental organisations to advance the contribution of insurance to societal resilience, prosperity and sustainability.

Since our founding in 1973, we have researched ways in which insurance can help to solve the world's most pressing challenges and engage policymakers to promote risk management as an enabler of progress.

We focus on:

- Identifying the societal issues for which insurance can make a difference
- Researching ways that the insurance industry can mitigate the corresponding risks
- Defining the conditions that enable insurers to take action and have an impact

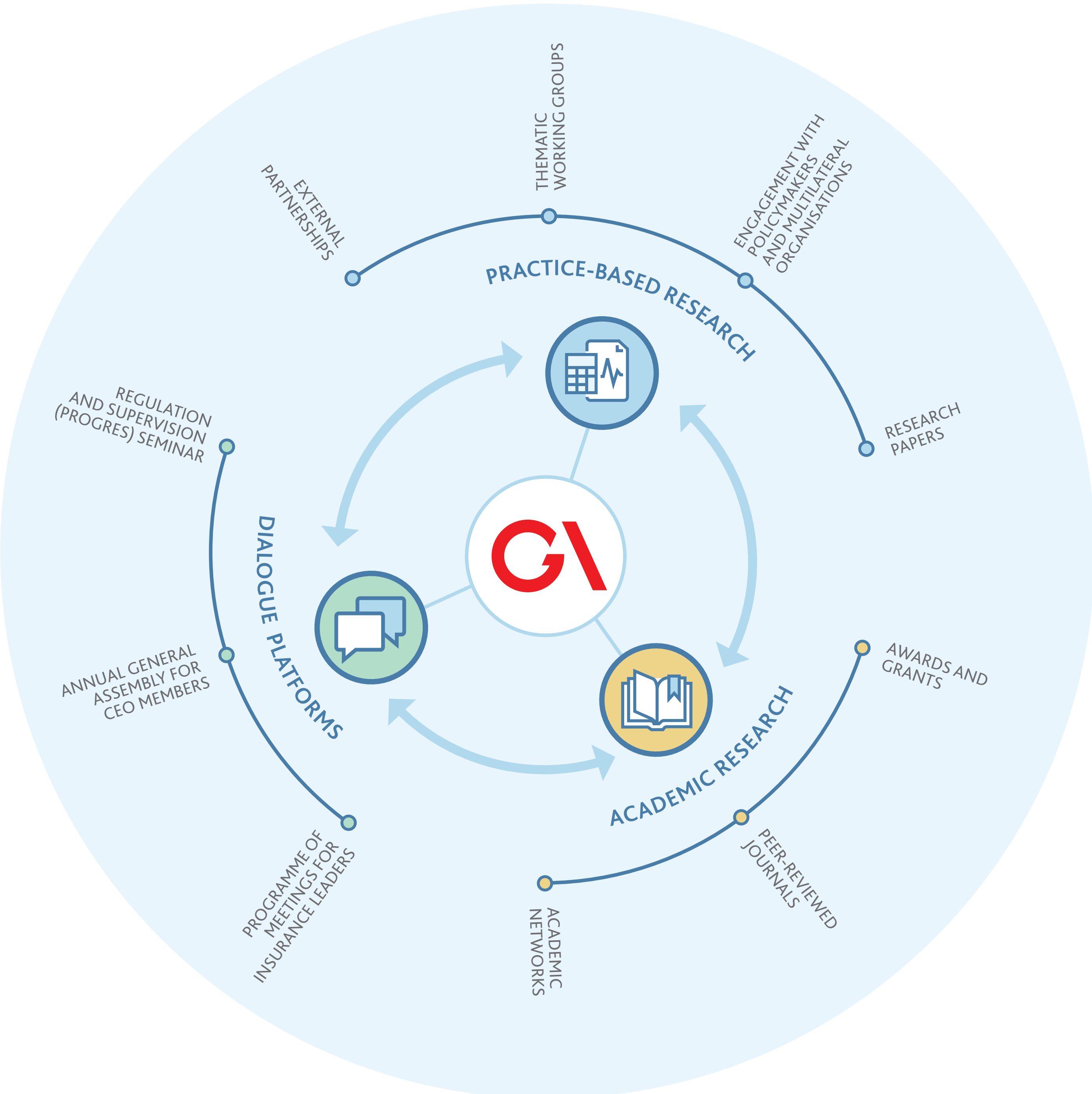
Our research focuses on globally relevant topics—some of these drive change in our societies; others require change. In both cases, we promote the industry's unique ability to accelerate transformation.

The Geneva Association's current research streams:

- Financial Stability and Regulation
- Extreme Events and Climate Risk
- Global Ageing
- Cyber
- Protection Gap
- Digitalization

Through both practice-based and academic research, as well as by facilitating exchanges among key decision makers, we aim to advance the insurance the world needs.

WE PROMOTE THE CONTRIBUTION OF INSURANCE TO SOCIETAL RESILIENCE, PROSPERITY AND SUSTAINABILITY



Highlights 2018-2019

2018

MAY

Shin Research Excellence Award

Alexander Bohnert, Albrecht Fritzsche (both from University of Erlangen-Nuremberg) and Shirley Gregor (Australian National University) won the award for their paper *Digital Agendas and the Insurance Industry: The Importance of Comprehensive Approaches.*

Shin Research Excellence Awards

JUNE

45th General Assembly, Paris

The leading voices of the insurance industry, thought leaders, academics, agenda setters and other key stakeholders met to exchange ideas on the role of insurance related to geopolitics, the future of health, climate risk and digital technologies.

JULY

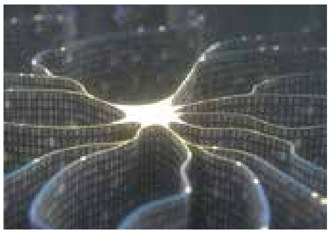
Annuitisation: Retirement Income that Lasts a Lifetime – Research report

Government-supported social retirement plans are under extreme pressure due to increased life expectancy and low fertility rates. People need to provide suitable retirement funds for themselves. The annuitisation of pension assets represents an insurance solution.

AUGUST

Advancing Accumulation Risk Management in Cyber Insurance – Research report

There are three prerequisites for ensuring sustainability of the cyber insurance market: sufficient resilience at the source of risk, insurers making an acceptable return on capital and sufficient capital to withstand shocks and provide adequate compensation to insureds.



NOVEMBER

15th Annual Global Ageing Conference, Paris

With ageing populations comprising a greater proportion of the total world population, long-term care insurance products should be in high demand. However, a lack of trust in the industry and low understanding of insurance have hurt sales.

Managing Physical Climate Risk: Leveraging Innovations in Catastrophe Risk Modelling – Research report

The insurance industry can make a significant contribution to the next generation of catastrophe (Cat) risk models. Connecting Cat models with models applied in economics, the water-food-energy nexus or infrastructure and health could result in improved policymaking, planning and risk management.

14th Liability Regimes Conference, London

Insurers need to evaluate the implications of artificial intelligence and the Internet of Things and adapt their products to protect clients. The insurability of wildfires and counterfeiting has become increasingly complex and calls for enhanced cooperation with external experts.

DECEMBER

Virtual Competition: Online Platforms, Consumer Outcomes and Competition in Insurance – Research report

Online platforms can enhance market efficiency and help overcome consumer bias in purchasing insurance. On the other hand, biased information and loss of privacy represent potential risks. Transparency and non-discrimination are key to ensuring consumer trust.

SEPTEMBER

2018 Extreme Events and Climate Risk Forum, Toronto

Insurers are key stakeholders in enhancing infrastructure climate resilience and mobilising capital into infrastructure projects. Institutional investors should engage with insurers not only to protect physical assets but also to mitigate the risk profile of projects across their whole life cycle.

12th Chief Investment Officers' Meeting, Hong Kong

Suitable solutions to retirement funding should lower government financing whilst improving retirement income. Moreover, the combination of rising asset prices and protracted low interest rates makes savings and risk mitigation ever more important.

Ernst Meyer Prize

Francisco Ceballos from Georg-August-University Göttingen won the award for his PhD dissertation *Demand and Design Considerations for Smallholder Farmers' Weather Index Insurance Products*.

OCTOBER

Insurance in the Digital Age – Research report

Digital technologies underpin modern societies and as a consequence, many aspects of daily life become increasingly personalized. However, risk pooling is likely to remain the best response of the insurance industry to risks emerging from the digital age.

2019

FEBRUARY

Jad Ariss joins The Geneva Association as Secretary General

The Geneva Association's Board of Directors appointed Jad Ariss as Secretary General, effective 1 March 2019. Mr Ariss joined from AXA, where he had been Group Head of Public Affairs and Corporate Responsibility and CEO Middle East & Africa, amongst other leadership roles.

35th Regulation and Supervision (PROGRES) Seminar, Zurich

Insurers face high expectations from society to commit to environmental, social and governance standards. Insurers and supervisors need to discuss the expected impact of regulatory reforms on policyholders and markets.

MARCH

Healthcare in Emerging Markets: Exploring the Protection Gaps – Research report

Health insurance in emerging markets represents 2% of healthcare expenditure. Based on out-of-pocket spending that is financially stressful, the annualised health protection gap for all emerging markets amounts to around USD 310 billion, 1% of these countries' combined gross domestic product.

Research Activities

The Geneva Association's 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 socioeconomic resilience.

Financial Stability and Regulation

Regulatory initiatives could affect the global insurance industry and its ability to offer adequate cover to customers. The Geneva Association studies the effects of regulation and strives to ensure that new policy measures are developed with due attention to insurance customers.

CONSULTATIONS

Over the past year, The Geneva Association responded to International Association of Insurance Supervisors (IAIS) public consultations on the Holistic Framework for Systemic Risk in the Insurance Sector and the Insurance Capital Standard (ICS).

Holistic Framework for Systemic Risk in the Insurance Sector

The IAIS launched in November 2018 a public consultation on the Holistic Framework for Systemic Risk in the Insurance Sector (previously referred to as Activities Based Approach). Around the same time, the Financial Stability Board (FSB) released a statement announcing that while it welcomes the proposed IAIS framework, it would not engage in identifying Global Systemically Important Financial Institutions (G-SIIs) in 2018. The FSB will review in November 2022 whether the IAIS framework is robust enough and decide whether there is a need to discontinue or re-establish the annual identification of the G-SII designation.

In its response to the consultation, The Geneva Association advised the IAIS to clarify how insurers are 'systemic' and to reconsider references to the ICS, as this indicator will still be used only for monitoring purposes and not as a prescribed capital standard—at least until 2025.

ICS version 2.0 and Common Framework

As previously announced by the IAIS, the second version of ICS (known as ICS 2.0) will be implemented in two phases. In the first one there will be a five-year monitoring period starting from 2020, during which Internationally Active Insurance Groups (IAIGs) will be subject to mandatory confidential reporting and ICS 2.0 will not be used as a prescribed capital requirement. In the second phase ICS 2.0 will become a prescribed capital requirement.

The ICS 2.0 consultation was launched in July 2018. The Geneva Association and the Institute of International Finance (IIF) produced a joint response, underscoring the purpose of the ICS 2.0 and its potential impact on the ability of the insurance industry to fulfil its societal role in providing protection against risk via long-term insurance products.

The Geneva Association–IIF response encouraged a transparent governance framework throughout the monitoring period to ensure active stakeholder engagement. The Geneva Association and IIF also highlighted that ComFrame, ICS and other ongoing regulatory initiatives should work as a comprehensive and integrated insurance policy framework.

APPLICATION PAPERS

The IAIS develops application papers to provide supervisors with practical guidance on how to implement IAIS standards on Insurance Core Principles (ICPs), the Common Framework (ComFrame) for the Supervision of Internationally Active Insurance Groups (IAIGs), and policy measures for Global Systemically Important Financial Institutions (G-SIIs).

Supervision of Insurer Cyber Security
In July 2018 the IAIS launched a draft application paper on the supervision of insurer cyber security. In its response, The Geneva Association suggested looking more closely at macro IT trends that confront the insurance industry with new risks and further emphasised the need to agree upon definitions of cyber risks, scenarios and mitigation measures to support the adoption of a risk-based cyber approach.

The Geneva Association recommended producing a follow-up paper that includes a core set of IT preventive and reactive measures with regard to certain types of incidents, such as malware, ransomware and distributed denial of service (DDoS) attacks.

Composition and the Role of the Board
The IAIS draft issues paper of June 2018 intends to provide supervisory authorities with guidance on interpreting and applying the ICPs in two respects: suitability of persons joining the board and corporate governance.

The Geneva Association's response focused on behavioural aspects of the board's functioning and warned that the IAIS's proposed approach could have negative consequences, including a possible shift of decision making away from the boardroom that could hinder open discourse in board meetings. The Geneva Association advised that the proposed approach, particularly with regard to supervisors possibly attending board meetings, is too prescriptive and puts new and far-reaching powers in the hands of supervisors.

CONFERENCE

G20 Insurance Forum

The Geneva Association participated in the G20 Insurance Forum in September 2018 in Bariloche, Argentina. The Association was represented on the panel, *Promoting Long-term and Sustainable Investment in Infrastructure*, which focused on the role of insurers as institutional investors with approximately USD 24 trillion in assets under management. However, for insurers to invest in asset classes which have a long duration and/or carry greater risks, managing the capital requirements is a key consideration. Therefore, balancing the need for adequate capital charges against allowing insurers greater scope to invest in new assets classes has become an increasingly important consideration for insurance regulators and insurers alike.

G20 ARGENTINA 2018

G20 Insurance Forum in Bariloche, Argentina - Juan Pazo*, Superintendent of Insurance, Argentina;* Toyonari Sasaki*, Vice chairman, Life Insurance Association of Japan;* José Cardoso*, President, Brazilian Reinsurance Institute;* Adrián Werthein*, Chairman, Experta ART;* Alejandro Simón*, CEO, Sancor Seguros and member of The Geneva Association's Board*

35th Regulation and

The PROGRES Seminar, which took place in Zurich on 28 February–1 March 2019, brings together leading representatives of the global insurance industry, regulators, standard setters, academics and members of non-governmental organisations to discuss key issues facing the insurance industry.

Insurers are confronted with higher expectations from stakeholders to play a role in addressing societal challenges such as climate change, poverty, social unrest and quality of infrastructure. By pricing the risks involved and embracing sustainable investment practices, insurers can help to influence behaviours that contribute to meeting societal goals.

More than a decade after the 2008 global economic meltdown, the post-crisis reforms of the IAIS are near completion. There is a need to discuss the impact of initiatives such as ICS and the Holistic Framework to Systemic Risk, as well as other issues in the run up to implementation. These approaches must observe local and regional differences and consider that insurance does not create systemic risk but absorbs it.

While the intent of some regulatory measures is to provide metrics that allow for comparable outcomes across geographies, their implementation affects insurance customers. For example, debate still looms as to whether certain standards may disincentivize investments and force insurers to withdraw certain long-term life insurance products.

Economic growth ought to be inclusive and create resilience. But should this premise be part of insurance supervisors' mandate? As the regulatory framework defines the boundaries of what insurers can do, regulators and supervisors play a crucial role in enabling the insurance industry to contribute to advancing inclusiveness and resilience whilst observing policyholder protection and financial stability.

Participants in the 35th PROGRES Seminar

Supervision (PROGRES) Seminar

Suzette Vogelsang, Head Banking, Insurance and FMI Supervision Department, South African Reserve Bank

CEO panel on social responsibilities of insurers – Vicky Saporta (moderator), IAIS; Charles Brindamour, Intact Financial; Joachim Wenning, Munich Re; Denis Duverne, AXA; Alexander Wynaendts, Aegon

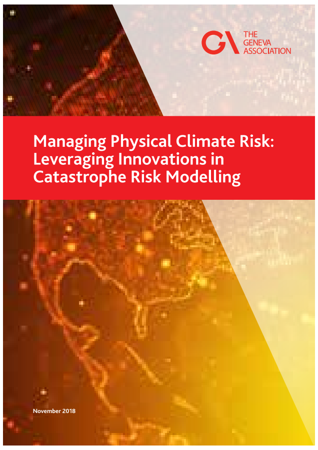
Panel on inclusive growth and resilience - Jonathan Dixon (moderator), IAIS; Hannah Grant, Access to Insurance Initiative; Anderson Caputo Silva, World Bank; Grace Mohamed, Namibia Financial Institutions Supervisory Authority; Tom Gitogo, CIC Insurance; Ekhosuehi Iyahen, Insurance Development Forum

(Above) Denis Duverne, Chairman, AXA

(Left) Fireside chat on Brexit - Miles Celic (moderator), The City UK; Nicolas Veron, Bruegel; Karel Lannoo, CEPS

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. It explores ways in which the insurance industry, as underwriters and investors, can support the transition to a resilient low-carbon economy and contribute to the Sustainable Development Goals.



READ THE REPORT ONLINE ↗

RESEARCH REPORT

Managing Physical Climate Risk: Leveraging Innovations in Catastrophe Risk Modelling

Over the last 30 years, catastrophe loss models ('Cat models') have revolutionized the (re)insurance industry's capacity to assess, price and manage disaster risks. Few sectors of the economy play a role as intense in catastrophe recovery as insurance; therefore, the industry should strive to continually strengthen its Cat modelling capabilities.

The report, published in November 2018, indicates that in line with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures, more sectors are considering physical climate risk in their core business and investing methodologies. Cat models, if properly conditioned to climate change scenarios, could be utilised to understand the impacts of weather-related risk on assets, operations and investments and to develop risk mitigation measures. Already the financial sector and governments recognize and leverage the value of Cat models in making risk-based decisions.

The insurance industry, with its extensive experience in catastrophe risk modelling, can make a significant contribution to the next generation of Cat models. Embedding the latest climate science and data, such as advanced hazard simulations or innovative engineering perspectives on physical damage, would go a long way in reinforcing the value proposition of Cat models.

Furthermore, Cat models should embrace a systems-based approach by connecting them with other modelling systems such as those applied in economic analysis, the water-food-energy nexus and infrastructure and health systems. This could result in improved policymaking, planning and risk management decisions.

ONGOING STUDY

Building Resilience to Flood Risk

The study analyses the interplay of risk reduction, risk prevention and risk transfer measures for building socio-economic resilience to floods in five countries: Australia, Canada, Germany, the U.K. and the U.S. The project looks at flood risk from the perspective of customers, governments and the insurance industry, and explores the role of policy and regulation as well as incentive mechanisms for flood risk mitigation and post-event response and recovery. Academic partners include the London School of Economics, the Wharton Business School and the University of Waterloo.

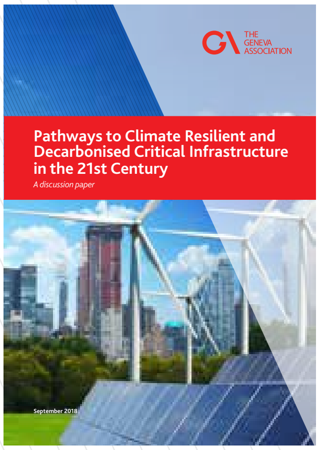
Extending the value of Cat models requires a multi-stakeholder endeavour: Maryam Golnaraghi

DISCUSSION PAPER

Pathways to Climate Resilient and Decarbonised Critical Infrastructure in the 21st Century

Critical infrastructure constitutes the backbone of a functioning economy. Interruption in critical infrastructure could cause significant harm to populations' well-being and hinder economic growth. Therefore, investing in climate resilient and decarbonised critical infrastructure is fundamental to addressing both economic and environmental goals.

The discussion paper, prepared for The Geneva Association's 2018 Extreme Events and Climate Risk Forum, provides a review of the complexities, risks and opportunities associated with critical infrastructure by looking at how the full life cycle of infrastructure projects is affected by climate change.



READ THE PAPER ONLINE ↗

2018 Extreme Events and Climate Risk

Public policy is necessary to make climate resilience a requisite for infrastructure: Charles Brindamour

Insurers need to work with regulators to ensure capital charges are fair and balanced: Dean Connor

The event, co-hosted by Intact Financial and Sun Life Financial, took place in September 2018 in Toronto and gathered top officials from the UN, OECD, the World Bank, institutional investors and leaders of the insurance industry to discuss the role of insurers in enhancing infrastructure resilience to climate risk and mobilising long-term private capital into low-carbon infrastructure projects .

Public policy and regulation are key to making climate resilience a prerequisite for infrastructure projects. Governments also play a critical role in implementing risk reduction measures such as land use zoning, upgrading and enforcing building standards and recovering and maintaining natural infrastructure, such as wetlands. Further, emerging technologies are leading to 'smart and green' infrastructure systems, and governments and the private sector must cooperate to ensure appropriate risk assessment for such advanced systems.

Investing in infrastructure could offer life insurers a good match with long-term liabilities as well as enhanced portfolio diversification. Institutional investors should engage with non-life insurers not only to protect the physical assets but also to mitigate the climate risk profile of infrastructure projects across their full life cycle. This would improve expected returns and make infrastructure investments more attractive.

Tsuyoshi Nagano, President and CEO of Tokio Marine welcomes participants

Panel on private investments in climate resilience - Masamichi Kono, OECD; Marcia Moffat, BlackRock; James Hempstead, Moody's Investor Service

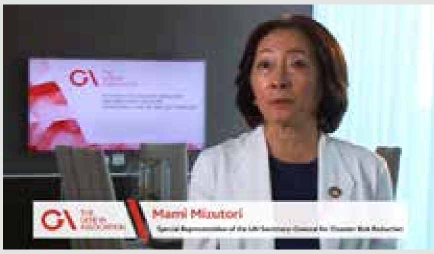
Forum

Panel on view of CEOs on climate-resilient infrastructure – Hiroshi Ozeki*, Nippon Life (Americas and Europe);* Dean Connor*, Sun Life Financial*

Patricia Espinosa*, Executive Secretary of the UN Framework Convention on Climate Change*

Panel on critical infrastructure – Amanda Lang *(moderator), Bloomberg;* Robert Palter*, McKinsey;* Joaquim Levy*, World Bank;* Brian Deese*, BlackRock;* Michael Mylrea*, Pacific Northwest National Laboratory*

Infrastructure climate resilience should be addressed urgently: Tsuyoshi Nagano



Regulation alone will not incentivize private investment in climate-resilient infrastructure: Mami Mizutori

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

Global Ageing

As life expectancy increases and fertility rates decrease in many countries, there is added pressure on social insurance systems supported by governments. The Geneva Association explores how the insurance industry can support governments and individuals in financing retirement and age-related health costs.

RESEARCH REPORT

Annuitisation: Retirement Income that Lasts a Lifetime

The research paper, published in July 2018, stresses that increased life expectancy, low fertility rates and low interest rates are putting extreme pressure on government-supported retirement plans, which leads to a reduction of benefits for people going into retirement. More and more individuals today are compelled to provide suitable retirement funds for themselves.

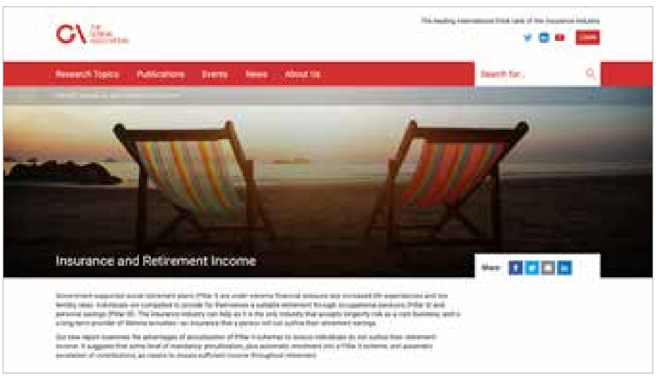
READ THE REPORT ONLINE ↗

The risk of people outliving their retirement savings represents a threat to their standard of living, meaning many could lapse into poverty. The insurance industry can help, as it is the only industry that accepts longevity risk as a core business, and it is a long-term provider of lifetime annuities—an insurance that a person will not outlive their retirement savings.

The report examines annuitisation schemes of occupational retirement savings, known as Pillar II, in the U.S., U.K. and Switzerland. The paper finds that the U.S. system has been transferring retirement risk from employers to employees, while the U.K. has provided more freedom for retirees and put more pressure on the government. The Swiss system has features that cause the average Swiss employee to save more for retirement than his or her counterpart in the U.S. or U.K.

Whilst different countries have different needs, policy measures to prevent people from outliving their retirement savings could be based upon three principles: automatic enrolment of employees into an occupational pension plan, automatic escalation of contributions with age and duration of employment and some level of mandatory annuitisation.

The case for a new social contract for retirement: Alexander Wynaendts



VISIT THE INSURANCE AND RETIREMENT INCOME WEB PORTAL ↗

ONGOING STUDY

Why People Do Not Buy Insurance

The Geneva Association took on the task of shedding light on why people do not buy insurance, using a survey to leverage insights from behavioural economics. For this joint project with the Protection Gap research stream, Edelman Intelligence designed the survey and applied it to 7,000 people in seven developed markets (France, Germany, Italy, Japan, U.K., U.S. and Switzerland). Additionally, 49 people in the seven target markets were interviewed to dig deeper into personal behaviours that influence the purchase of insurance.

The results of the three phases of the survey were consistent in highlighting three main causes for why people do not buy insurance: distrust, uncertainty and misunderstanding. Two initial research papers presenting the survey's findings are scheduled for publication in the second half of 2019. The first paper will focus on non-life insurance and the second on life insurance.

CONFERENCES

2nd ANNUAL LIFE EXECUTIVE ROUND TABLE (ALERT)

The event was held in London in May 2018 and brought life insurance executives together to discuss long-term care insurance and what caused early products to fail. Some identified causes include assumptions on lapse rates and expenses, as well as poor underwriting and onset rates. One potential solution, therefore, is to restructure products altogether. There is also a need for simplified products, agents who explain them better and increased financial literacy.

Although the impact of digital technologies on insurance is a popular topic, a disruptive shift in the life insurance industry within the next few years still seems unlikely. There is consensus that it will take more time before digital technologies replace existing administrative systems and drive the development of new products in the life and pension businesses.

15th GLOBAL AGEING CONFERENCE

Under the umbrella theme *Long-term Care and the Behaviour Behind Insurance Purchasing*, the event took place in Paris on November 2018 and was hosted by SCOR.

With ageing populations comprising a greater share of the world's population, long-term care insurance products should be in high demand. However, early products did not perform as expected, making many companies and individuals wary of them.

Behaviours driving insurance purchase are complex. Even when customers know the benefits of being insured, something other than price prevents them from taking up cover. Behavioural economics helps shed light on how 'irrational behaviour', as it is known, affects purchasing patterns. If people can be 'predictably irrational', insurance business models need to take this into account.

Ronnie Klein, Director Global Ageing, presents at the 15th Global Ageing Conference

Robert Eaton, Milliman; Pierre-Yves Le Corre, JeSuisBienAssuré; Ilan Cohen, SCOR; Olivier Cabrignac, SCOR

Cyber

Limited data makes cyber risk a relatively unchartered territory. The Geneva Association explores the impediments to a sustainable cyber (re)insurance market, generates insight into the challenges of treating cyber as an insurable peril and promotes the contribution of insurance to mitigate this risk.

RESEARCH REPORT

Advancing Accumulation Risk Management in Cyber Insurance

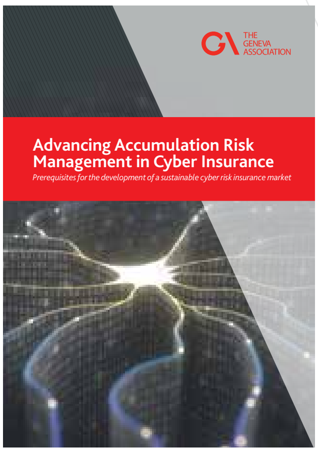
Although cyber risk premiums have expanded sizeably in recent years and loss ratios are favourable compared to other product lines, cyber risk creates unprecedented challenges. Accumulation risk, notably, is at the heart of many concerns about cyber risk.

The research report identifies three prerequisites for ensuring sustainability of the cyber insurance market.

First, there needs to be sufficient resilience at the source of risk. The first steps in addressing any risk are to assess, measure and manage it. Insurance can then mitigate residual risks, or those that cannot be contained at the source.

Second, insurers must make an acceptable return on capital. This requires disciplined and effective underwriting.

Third, the available capital must both withstand shocks from accumulation events and provide adequate compensation to insureds after such an event—in the case of cyber, that means absorbing accumulation risk.



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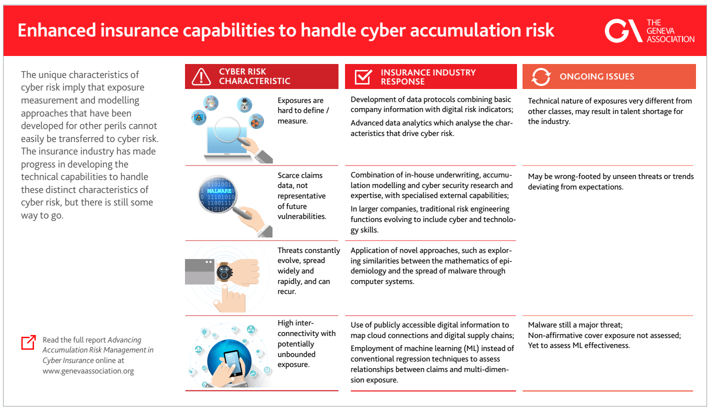


VIEW INFOGRAPHIC ONLINE ↗

Cyber incidents are frequent, but the market has yet to experience a major adverse event. For this reason, without due attention there is the potential of slipping into undisciplined underwriting. A single major event, or a series of consecutive events, could generate losses large enough to render the market unprofitable, inducing (re)insurers to withdraw. A large event may also trigger regulatory intervention, requiring insurers to provide cover at unviable terms and rates. Lack of discipline in policy wording, especially to control exposure to acts of terror, is a key concern.

TASK FORCE ON CYBER WARFARE AND CYBER TERROR

The Geneva Association continues to collaborate with thought leaders in the insurance and technology industries, cyber security and defence fields, academia and policymaking to integrate the best thinking on industry-specific mechanisms through reports and initiatives.

The Geneva Association's Cyber Risk Working Group provides feedback and guidance on the issue of cyber resilience. Additionally, a task force on Cyber Warfare and Cyber Terror is a joint initiative with the International Federation of Terrorism (Re)Insurance Pools (IFTRIP). It focuses on better understanding cyber risk and contextualising the traditional notions of war and terror in a cyber context, taking a global approach in exploring a framework that better enables the industry to assess cyber risk and potential solutions.

The Cyber Warfare and Cyber Terror task force also brings together the insurance industry and cyber security professionals, defence experts, government officials and risk pool leaders to explore the technical nature of cyber risk, primarily through co-authored papers and joint meetings. The initiative intends to enrich the understanding of what security risks or acts would amount to cyber terrorism and cyber warfare, and how these cyber events differ from the more traditional physical versions. The results of these initiatives will feed into The Geneva Association's forthcoming cyber resilience research report.

VISIT THE CYBER WEB PORTAL ↗

CONFERENCES

The Geneva Association's Director Cyber, Rachel Carter, contributed her expertise on cyber risks and insurance at the following forums and meetings:

- Keynote presentation to The Institutes (CPCU Society-European Chapter) and the Insurance Institute of Switzerland on June 2018 focused on the EU General Data Protection Regulation (GDPR) impact on purchasing decisions related to cyber insurance, as well as the evolution of the cyber insurance market.

- Moderation of the panel *Addressing Digital Risks—Cyber Insurance on the Rise* at the Cybersec Leaders' Foresight Conference in Brussels on February 2019, which addressed the cyber insurance industry's evolving role from risk transfer mechanism to also becoming part of the solution.

Protection Gap

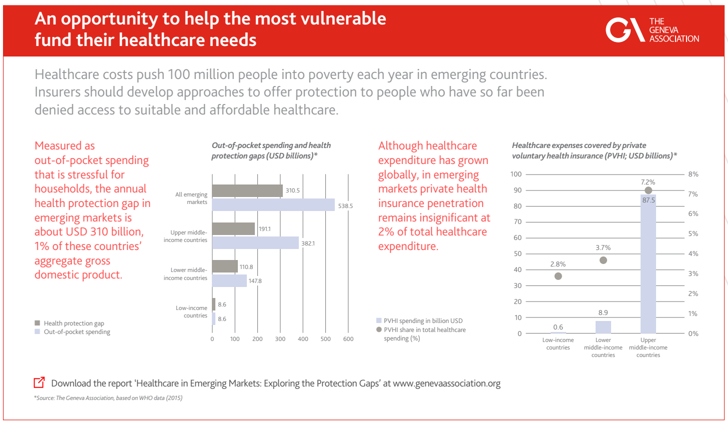
Insurance protection gaps, from natural disasters to healthcare expenses and cyber incidents, jeopardise the resilience of modern societies and exacerbate poverty in developing countries. The Geneva Association intends to develop and promote multi-stakeholder solutions by shedding light on the underlying causes of underinsurance.

READ THE REPORT ONLINE ↗

RESEARCH REPORT

Healthcare in Emerging Markets: Exploring the Protection Gaps

This research paper offers a comprehensive overview of the current sources of healthcare funding in emerging markets. A key finding is that the share of healthcare expenditure has risen globally over the last two decades from about 8% to almost 10% of aggregate gross domestic product (GDP). In emerging markets, however, the global trend of higher healthcare expenditure has not led to increased penetration of private health insurance, which remains insignificant at a 2% share of total healthcare expenditure.



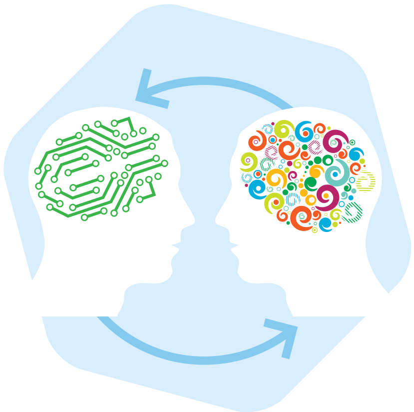
VIEW INFOGRAPHIC ONLINE ↗

Based on the notion of financially stressful out-of-pocket spending and using World Health Organization data for the year 2015, The Geneva Association estimates the annualised health protection gap for all emerging markets at around USD 310 billion, or 1% of these countries' combined GDP. This estimate assumes that 100%, 75% and 50% of out-of-pocket spending in low-income, lower-middle income and upper-middle income countries, respectively, can be considered financially stressful and, therefore, is part of the health protection gap.

There is a broad consensus that private health insurance is preferable to the out-of-pocket spending that can be financially catastrophic for households. With the right regulatory framework, private health insurance can have an important and beneficial effect on the sustainability of health schemes to which individuals, governments and employers contribute. From a public policy point of view, private health insurance can help governments in emerging countries to mitigate their population's vulnerability to catastrophic out-of-pocket spending.

VISIT THE PROTECTION GAP WEB PORTAL ↗

The role of private health insurance in narrowing healthcare funding gaps in emerging markets: Kai-Uwe Schanz



ONGOING STUDY

Why People Do Not Buy Insurance
In 2018 The Geneva Association's Global Ageing and Protection Gap research streams joined forces to delve deeper into the reasons behind underinsurance (see the Global Ageing section for a description of the project). As part of this effort, The Geneva Association commissioned a customer survey that aimed to identify the main obstacles to insurance purchases. The survey's findings revealed a remarkable discrepancy between customer knowledge and perception of the industry. Respondents understand well the basic function and potential utility of insurance, but less than a quarter of respondents reported having a positive opinion or good knowledge of the industry.

According to the survey, to overcome this disconnect it is essential for the insurance industry to build trust, primarily in insurers' willingness and ability to pay, and communicate more clearly and transparently.

CONFERENCES

The Geneva Association's Director Protection Gaps, Kai-Uwe Schanz, contributed his expertise at the following conferences and events:

- Keynote address at the 6th Polish Insurance Association Congress on May 2018 in Sopot, Poland.
- Address to the Hong Kong Insurance Authority on June 2018 on protection gaps in mature high-income environments such as Hong Kong, Special Administrative Region of China.
- Lecture at the Malaysian Insurance Institute, Kuala Lumpur on November 2018 on why most societal and economic losses remain uninsured, particularly in ASEAN (Association of Southeast Asian Nations) countries.

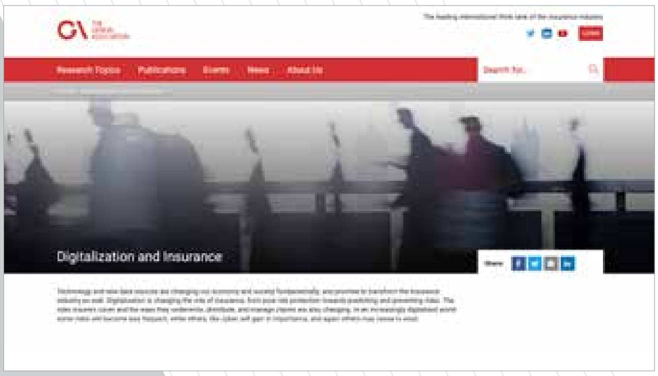
Insurance Summit on Industrial Revolution 4.0
Seoul, South Korea, October 2018
Despite technological advancements that should increase access to insurance products, a protection gap is prevalent in many major markets. The insurance industry has an opportunity to leverage technology and behavioural economics to narrow the protection gap in mature and emerging markets.

Antoine Baronnet, Deputy Secretary General, giving the international address

Participants in the Insurance Summit on Industrial Revolution 4.0

Digitalization

Digitised data and technology-enabled business models can lead to improvements and disruptions along the insurance value chain. The Geneva Association has set out to explore the effects of digitalization on insurers and their customers, and to raise awareness about the changing competitive landscape.



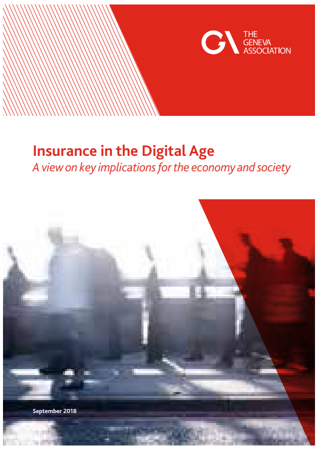
VISIT THE DIGITALIZATION WEB PORTAL ↗

RESEARCH REPORTS

Insurance in the Digital Age

The Geneva Association published its third research report on digitalization, *Insurance in the Digital Age*, in September 2018. The report reviews key socio-economic implications of the digital transformation of the economy. It indicates that the greatest source of value creation through the digitalization of insurance lies in the ability to develop new and more customer-centric products and solutions.

Digitalization and new technologies can help to improve access to insurance by making it more affordable, easing distribution, creating new markets and thus bringing the benefits of insurance to new customers. However, there are ethical and societal concerns related to digital technologies, for example in the areas of privacy and data protection, and with regard to access to insurance for high-risk individuals.



READ THE REPORT ONLINE ↗

Digital technology underpins almost every aspect of modern life. Autonomous machines increasingly feature in daily business and customers' everyday lives. In minimising the human factor, which is usually the main cause of accidents, a shift from loss frequency to loss severity might take place, and losses may accumulate in new ways.

In the face of an ever-increasing digitalization of the economy, and in spite of pervasive trends to personalise more and more aspects of our daily lives, risk pooling through insurance is likely to remain the best response of the industry to the financial consequences of risk in the digital age.

Virtual Competition: Online Platforms, Consumer Outcomes and Competition in Insurance

In November 2018, The Geneva Association published the report *Virtual Competition: Online Platforms*, *Consumer Outcomes and Competition in Insurance*, which focuses on the increasing importance of online platforms in the insurance industry and its implications for customers, competition and regulation.

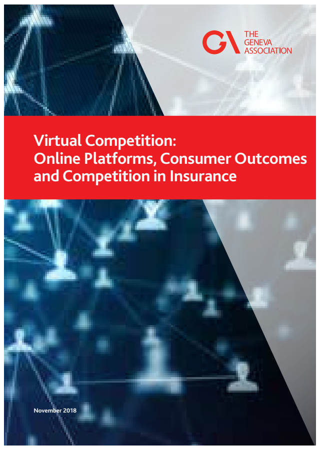
Online platforms have the potential to enhance market transparency and consumer convenience. By making information easily accessible, platforms may also help overcome consumer bias in purchasing insurance and efficiently match buyers and sellers. The use of big data analytics, artificial intelligence and cloud computing could equip insurance to go beyond its traditional role by advising clients on how to prevent, mitigate and manage risks.

However, inaccurate or biased information, search results and rankings as well as loss of privacy represent potential risks for consumers. Large platform markets could abuse their position by charging excessive prices or by extending their dominant position to other markets.

DIGITAL INTERSECTION IN THE INSURANCE VALUE CHAIN

Source: The Geneva Association

In order to ensure a thriving and competitive marketplace, policymakers should consider the role of data when assessing market power and potential anti-competitive conduct. Competition authorities should pay particular attention to practices that have the potential to create market entry barriers, such as best price regimes (often called 'MFN clauses'). Transparency and non-discrimination requirements for online platforms may play an important role in ensuring consumer trust and a competitive insurance marketplace in the long term.



READ THE REPORT ONLINE ↗

CONFERENCES

IAIS Conference on Big Data and Artificial Intelligence

The Geneva Association participated in the panel discussion, *A Brave New World of Big Data and Artificial Intelligence*, organised by the International Association of Insurance Supervisors (IAIS) in the context of its 25th annual general meeting in Luxembourg in November 2018.

As digital technologies become a transformational force in the global financial services sector, it is key for insurers and supervisors to understand the relationship between enhanced data collection and the analytic capabilities required. The response of both insurers and supervisors to these new challenges will affect industry behaviour.

China Life Insurance Qianhai Summit Shenzhen, China, October 2018

The number of Insurtech companies is expected to reach 175,000 by 2020. Insurance companies have an opportunity to leverage technology not only for underwriting, claims processing or administration—they can tap into areas along the insurance value chain where Insurtech firms do not participate, such as product development and pricing and risk acceptance.

Antoine Baronnet, *Deputy Secretary General, gave an international address at the China Life Insurance Qianhai Summit 2018.*

45th General Assembly

The 2018 General Assembly, held on 30 May–2 June in Paris, summoned leading voices of the insurance industry and thought leaders, academics, agenda setters and other key stakeholders to debate the role of insurance in finding solutions to some of the world's most pressing and complex issues.

GEOPOLITICS

Precarious international trade relations, diplomatic tensions, Brexit drama in Europe and rising populism globally—these and other threats to global security impact international trade and business. It is imperative to reinforce the rules-based world order and update the foundations upon which it was built.

Panel on geopolitics, trade and security - Thomas E. Donilon*, BlackRock Investment Institute;* Jonathan Hill*, former European Commissioner; and* Joaquim Levy*, former World Bank CFO*

INSURANCE IN THE 21ST CENTURY

Is insurance meeting societal expectations? Macroeconomic, technological and societal trends challenge the insurance industry in new ways. Insurers need innovative approaches to stay relevant and enhance their value proposition, for example by adapting their products to cater to digitally savvy generations.

Panel on societal expectations for insurance - Oliver Bäte *(chair), Allianz;* Inmaculada Martinez*, Deep Science Ventures;* Lee Howell*, World Economic Forum;* Mathilda Ström*, BIMA*

Insurance industry should change business models to prepare for carbon-free economy: Oliver Bäte

Insurance firms are set to be at the centre of future health ecosystems: Thomas Buberl

Health systems challenged by growing demand for care, ageing population and fiscal pressure: Francesca Colombo

FUTURE OF HEALTH

Increases in ageing populations and chronic diseases, as well as evolving customer needs and behaviours, are putting pressure on government-funded health systems. Insurance should leverage the potential of digitalization and big data to deliver high-quality care on a long-term basis and build relationships with customers.

Panel on the future of health - **Thomas Buberl** *(chair), AXA;* **Milena Pavlova***, Maastricht University;* **Jonathan Larsen***, Ping An;* **Francesca Colombo***, Organisation for Economic Co-operation and Development;* **Agnès Soucat,** *World Health Organization*

DATA AND TECHNOLOGY IN THE CONTEXT OF INSURANCE

Digitalization could enable insurers to improve their risk assessment, offer bespoke products and encourage policyholders to embrace more prudent risk behaviours, ultimately increasing insurability and benefiting society. It is important, however, to assess the limits of the value that data and technology can create.

Panel on data and technology in insurance - **Jonathan Larsen***, Ping An;* **Joachim Wenning** *(chair), Munich Re;* **Bernhard Kotanko***, McKinsey;* **Carlo d'Asaro Biondo***, Google*

'CLIMATONOMICS': EMBEDDING CLIMATE RISK IN ECONOMIC ANALYSIS AND DECISIONS

Understanding the relationships between climate change and economic growth is critical to developing economic policies that take climate considerations into account. The private sector, particularly the (re)insurance industry, plays a key role in mitigating climate risk and promoting action from stakeholders.

Panel on climate risk analysis - **Tsuyoshi Nagano** *(co-chair), Tokio Marine;* **Masahide Kimoto***, University of Tokyo;* **Christian Gollier***, Toulouse School of Economics;* **Thomas Sterner***, University of Gothenburg;* **Denis Kessler** *(co-chair), SCOR*

Insurance customers' expectations are greatly impacted by technology: Mathilda Ström

Main challenge for Latin American insurance markets is to develop risk awareness: Alejandro Simón

Price on carbon emissions key to ensuring businesses contribute to climate change goals: Thomas Sterner

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 unique opportunities for high-level dialogue and exchange on emerging and priority topics.

15th Annual Round Table of Chief Risk Officers

HOSTED BY ZURICH INSURANCE GROUP IN ZURICH, 12-13 APRIL 2018

The ART of CROs provides a forum to discuss the challenges and lessons learned from applying risk management frameworks within insurance companies.

The risk landscape is changing faster than ever and new developments are affecting the practice of risk management. Insurance Chief Risk Officers highlighted the challenges of 'Fintech' and the rapid evolution of technology start-up firms entering the insurance industry. At the same time, insurance companies are transforming themselves. They have always understood the data; now they are becoming data companies. What would the first 'data insurance' company look like? The effects on capital requirements would be unclear, and even the need for brand power would need to be revised.

It is key to analyse the Fintech environment from the perspective of investors in the same way they assess the impact of artificial intelligence, cyber risk accumulation and big data on insurers.

The implications of these and other major developments for risk management affect not only the evolution of the insurance industry—they also introduce an urgent need to start preparing today the risk managers of the future. Insurers should develop a shared vision for the new art of risk management and how it would affect business performance.

Jason Schupp, Zurich Insurance; Yann Ranchere, Anthemis; Francis Bouchard (moderator), Zurich Insurance; Andreas Kull, Tokio Millennium Re; Frieder Knüpling, SCOR

12th Chief Investment Officers' Meeting

HOSTED BY PRUDENTIAL CORPORATION ASIA IN HONG KONG, 3-4 SEPTEMBER 2018

The Chief Investment Officers' Meeting gathers CIOs to discuss issues and trends that impact insurance asset management and the implementation of investment strategies.

Insurance Chief Investment Officers fulfil a more critical role than ever, operating in an environment of volatile balance sheets, shifting business priorities, greater regulatory scrutiny and increased demands from shareholders. Against this backdrop of promise but also fragility, the theme of the meeting was *Brave New World*.

Professor Robert Merton, Nobel laureate for Economics in 1997, discussed the challenges of funding retirement. A suitable solution should improve retirement income and lower government financing. Markets need new types of financial instruments, which could be designed as standard-of-living indexed, forward-starting and income-only securities.

Rising asset prices give the impression that economic growth is returning. However, a decade of low interest rates has changed economies and insurers' balance sheets, creating challenges for implementing investment strategies. For policyholders, savings and risk mitigation remain crucial, and the insurance industry is uniquely positioned—in spite of the pervasive challenges—to offer peace of mind to customers.

Robert Merton, *Nobel Prize laureate for Economics, speaking at the CIOs' Meeting about the challenges of funding retirement*

14th Liability Regimes Conference

HOSTED BY AXA XL IN LONDON, 15-16 NOVEMBER 2018

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.

Under the theme *The New Liability Frontier*, participants discussed the different ways in which insurers evaluate the implications of artificial intelligence and adapt their policies to protect clients. Liability, property, automobile, health and life insurance will need to better address new exposures. In an industrial context the Internet of Things poses new challenges to liability, e.g. legal uncertainty and increased cyber risks, which call for enhanced cooperation between insurers and external experts.

The insurability of wildfire events has become an issue. The number of wildfire incidents have increased over past decades, and they trigger complex claims involving multiple lines of business. New analytics methods for evaluating exposure and claims processes can improve post-event response and better manage customer expectations.

Counterfeit goods are an evolving and growing risk that affects jobs, growth and the environment. Insurers can help mitigate profit loss and reputational damage to companies as well as health and safety risks to consumers.

21st Annual Circle of Chief Economists

HOSTED BY AVIVA IN LONDON, 21-22 MARCH 2019

The Annual Circle of Chief Economists (ACCE) provides a platform to discuss the present and future macroeconomic environment for (re)insurers and key developments, as well as challenges facing the insurance industry.

The forum addressed the umbrella topic *How Will Insurance Evolve to Meet Emerging Challenges?* Conversations focused on the global economic outlook and key developments related to the U.S. Administration, including how tariffs and domestic protection continue to affect insurers in the wider context of major shifts globalisation landscape, spurred largely by Brexit and changes to American policies.

Sustainable investment management is very high on insurers' agenda, but is it a trend or a paradigm shift? Sustainability models abound, but as society's risk managers, insurers need models that embrace an environmental, social and governance approach covering all portfolios and asset classes.

The digital transformation has turned intangible assets, such as networks, data and client relationships into a competitive advantage. Insurers need to develop innovative ways to cope with key implications for the insurance business, such as automation, enrichment of personal data, disintermediation of (re)insurance and more demanding regulation.

Kai-Uwe Schanz, *Director Protection Gaps, presenting on underinsurance in mature economies*

Michael Menhart, *Chief Economist, Munich Re, presenting on emerging risks*

Regional Developments

The Geneva Association monitors key trends and their impact on the insurance industry. These observations—whether related to economics, competition, regulation and technology, amongst others—inform our research and dialogue platforms, helping to identify emerging insurance issues and their connection to the broader socio-economic scenario.


Japan

MACROECONOMIC SNAPSHOT

Japan's GDP growth declined from 1.9% in 2017 to 0.8% in 2018, largely due to a continuous decline in external demand brought about by the ongoing U.S.-China trade conflict, which has hit Japanese companies that supply parts and components to China.

Encouraged by various government stimulus policies and the strong world economy, Japan is expected to continue growing moderately despite uncertainty stemming from the impact of a consumption tax hike planned for October 2019. Furthermore, growth is expected to be supported by increasing internal demand fuelled by the construction demands ahead of the 2020 Tokyo Olympic and Paralympic Games.

REGULATORY DEVELOPMENTS

Commitment to sustainabilty

In June 2018 the Financial Services Agency of Japan (JFSA) published its strategy for supporting the UN Sustainable Development Goals (SDGs). The JFSA is encouraging insurers and other financial services providers to take action, highlighting examples of initiatives taken by Japanese insurers, such as long-term loans to hospitals in Turkey and investments in bonds intended to finance drinking water in Ethiopia and Nigeria. In non-life insurance, the JFSA underscored the leadership of insurance firms in developing innovative weather-related protection schemes to help farmers in Southeast Asia and South Asia cope with flood and drought.

Given changes to the environment such as the ageing population, the increase in natural disasters due to the effects of climate change and the potential threat of large-scale earthquakes, the expectations for the general insurance industry to contribute to the realisation of a sustainable society are increasing. The General Insurance Association of Japan (GIAJ) has put emphasis on the industry's contribution toward the SDGs and committed to six strategic objectives relevant to SDGs: (1) contribute to assisting ageing people to stay healthy and active; (2) enhance awareness of the risks of a non-active life style; (3) contribute to preventing and mitigating natural disaster, accident and crime risks; (4) embrace innovative technologies; (5) contribute to environmental preservation; and (6) expand activities in the international insurance markets.

The Life Insurance Association of Japan (LIAJ) has also taken up measures to promote SDGs. In November 2018, the LIAJ revised its code of conduct and committed to enhancing momentum toward SDGs.

INSURANCE TOPICS

Natural catastrophes

In 2018 the Japanese islands were exposed to natural disasters such as typhoons, floods, landslides and earthquakes, and were hit by the top three most expensive events of the year—Typhoons Jebi and Trami and the Mei-Yu rains. The total insured losses for the three major non-life Japanese insurers are estimated at JPY 1 trillion[1] (USD 9 billion). However, the impact on year-end consolidated financial statements (end of March 2019) is expected to be offset by higher reinsurance covers, geographic diversification and adequate capitalisation levels.

Earthquake protection

Earthquake and fire are considered the top risks in Japan. At the residential level, the percentage of fire insurance policyholders who purchased optional earthquake riders increased from 58% in 2013 to 63% in 2017[2]. However, at the commercial level earthquake risk insurance continues to see lower levels of penetration.

This represents an opportunity for the insurance industry to promote a holistic approach to business continuity management in the event of an earthquake. Loss prevention risk management services that harness the advantages of the Internet of Things seem particularly relevant, as well as innovative products that go beyond asset-related risks and cover earnings and cash flow risks.

EMERGING TRENDS

'Society 5.0'

The Japanese government defines its Society 5.0 initiative as 'a human-centred society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space.'

[1] Nikkei Asian Review, 13 October 2018

[2] General Insurance Association of Japan Fact Book 2017-2018

Society 5.0 calls for further enhancement of the social receptivity of autonomous vehicles. The GIAJ has been conducting awareness-raising activities in cooperation with the Independent Insurance Agents of Japan and continues to study how to bear the liability of accidents involving self-driving cars and utilize in-vehicle data.

Enhanced cybersecurity is vital to the realisation of Society 5.0. The GIAJ conducted a survey of domestic corporations with the aim of obtaining an overall picture of their responses to cyber risks and awareness of cyber insurance. The results of the survey show that more than 60% of respondents fail to recognise that they may become targets of a cyber attack[3]. The GIAJ will use the results to undertake measures aimed at enhancing corporate cyber security.

Voice recognition and Artificial Intelligence

Japanese insurers introduced several new services to customers, leveraging some of the latest technologies. For example, Nippon Life started a collaboration with Amazon to leverage the voice recognition capabilities of its digital assistant Alexa to aid in preventing dementia.

Tokio Marine made a strategic investment in U.S. Insurtech company MetroMile, with the aim of improving its claims services through artificial intelligence and advanced data analytics[4]. Other insurers such as Mitsui Sumitomo and Sompo are also harnessing artificial intelligence to automate large portions of their sales and claims office tasks[5].

Society 5.0
ソサエティ

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[3] General Insurance Association of Japan, 22 March 2019
[4] Tokio Marine, 24 July 2018
[5] Insurance Business Asia, 6 June 2018

China and rest of Asia

MACROECONOMIC SNAPSHOT

China's economic growth slowed down to 6.6% in 2018 versus 6.9% the year prior, making 2018 the slowest-paced year in almost three decades.

This slowing momentum, along with the U.S.–China trade tensions, uncertainty around Brexit and strengthening of the U.S. dollar, weakened financial markets in Asia.

The environment caused currency volatility in many Asian emerging markets and affected capital flows. There were adjustments concerning materials and labour in regional supply chains, e.g. certain automobile and home appliance manufacturing activities have moved from China to Vietnam. These developments shifted the financial and insurance services required from the traditional markets in China, Korea and Japan to new markets in South East Asia. As a result, insurance markets such as Vietnam grew in 2018 at annualised rates exceeding 20%.

REGULATORY DEVELOPMENTS

Opening of the Chinese financial sector

Pursuant to its strategy to open up the financial sector to foreign investors, the China Banking and Insurance Regulatory Commission (CBIRC) is expected to issue more new licences to foreign players. The first foreign reinsurer that was granted a licence in 2018 was Korean Re. Elsewhere in the region, regulators in ASEAN (Association of Southeast Asian Nations) countries are taking steps to approve online banks and online insurance companies with much lower capitalisation requirements compared to conventional firms.

The opening up of the financial markets in China is expected to create a cascade effect on other Asian markets. Such a reaction would also be in response to the prospects of slower global economic growth in 2019 as all the economies compete for foreign direct investment.

INSURANCE MARKET TOPICS

Natural catastrophes

Although Typhoon Mangkhut was one of the largest storms in history to hit the Hong Kong, Shenzhen and Macau areas, the actual insured losses were relatively modest. Reinsurance pricing for the 2019 renewal season remained stable even though 2018 was one of the years with the highest insured catastrophic losses on a global basis. This phenomenon reaffirms the effect of robust risk modelling and the availability of alternative risk capital as well as the segregation of markets—similar to the large hurricane losses of 2016, which impacted the U.S. markets but did not drive up Asia's premiums.

Ageing population

The increase in outcome-based products and pricing has been a key development in the Chinese market. Life and health companies are shifting from critical illness optional riders to independent covers for high-risk patients with pre-conditions such as diabetes, heart disease and cancer. Alibaba's financial arm Ant Financial launched the first cover for several mutuals.

As the Chinese population ages, the third-party administrator (TPA) sector for long-term care and health management organisations is growing in relevance. However, the sector faced strong competition in 2018 from many new online services that allow customers to find doctors and treatment options and run cost comparisons—services which are now competing with conventional TPAs.

EMERGING TRENDS

Online vs offline distribution

In 2018 conventional insurance business experienced slower growth relative to online channels. According to the Insurance Association of China (IAC), premium income via online distribution channels grew by 37% year on year, which was 23% higher than all other sales channels. The IAC highlighted that 16 foreign insurance companies in China reported a 125% growth in P&C premium income via online distribution.

The biggest growth in online insurance continued to come from China and India. In China the use of mobile technology is now pervasive nationwide and utilised by most insurers. The highest growth rates were in personal lines such as life, health, travel, motor, credit, logistics and education. The life sector continued to deliver double-digit growth, whilst the non-life sector achieved single-digit growth. Most Chinese insurers are also leveraging digital technologies to increase sales and claims effectiveness, enhance connectivity and reduce operational costs. India experienced similar growth.

Online platforms, medical institutions and state enterprises have also emerged to provide a variety of insurance solutions addressing underserved market segments. In China, online offerings are more effective for products whose demand is driven by 'need' (e.g. motor and travel insurance), whilst offline channels are still more effective for products that 'need to be sold' to the customer (e.g. savings and annuities).

Competitive landscape

Thousands of mobile services continued to be deployed in China in the fields of e-payments, insurance, securities, credit, logistics, travel and many more. Disintermediation is expanding the options for providers and consumers. Almost all insurance companies are now involved in digitalization themselves through models of cooperation, outsourcing and acquisitions to increase operating efficiency and competitiveness.

From outside the industry, technology firms such as Alibaba and Tencent are entering the online insurance space through acquisitions, product innovation and their extensive ecosystems, and are competing aggressively against conventional insurers. With their larger databases, cutting-edge digital technologies and economies of scale, these technology companies pose a significant challenge to the established insurance industry.

Europe

MACROECONOMIC SNAPSHOT

The EU's GDP growth slowed in 2018—the 28 member states posted 1.9% aggregated economic growth, down from 2.4% in 2017. The European Commission has revised down the EU GDP growth forecast for 2019 to 1.5%.

The economic outlook for Europe is surrounded by a high level of uncertainty. Within the EU, the Brexit process remains a major factor affecting business sentiment. Elsewhere, trade tensions and growth expectations (particularly from China), which have been weighing on consumer and investor confidence for some time, have alleviated somewhat but remain a concern.

REGULATORY DEVELOPMENTS

European Commission's Action Plan for a Greener and Cleaner Economy
In March 2018, the European Commission (EC) released its strategy for a financial system that supports the EU's climate and sustainable development agenda. The proposals of the EC include:

i) establishing a common language for sustainable finance to define what is sustainable and identify areas where sustainable investment can make the biggest impact; ii) clarifying the duty of asset managers and institutional investors to take sustainability into account in the investment process and enhance disclosure requirements; iii) requiring insurance and investment firms to advise clients on the basis of their preferences on sustainability; iv) enhancing transparency in corporate reporting and aligning it with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD); and v) incorporating sustainability into prudential requirements, e.g. by exploring the feasibility of recalibrating capital requirements for sustainable investments.

The Geneva Association supports the broad objectives of the EC and encourages legislation that promotes sustainability and the right incentives for climate-resilient investments. At the same time, the Association considers it important that the FSB recommendations on TCFD are retained as guiding principles for voluntary reporting.

General Data Protection Regulation

In May 2018, the General Data Protection Regulation (GDPR) came into force. It grants consumers more control over their data by reinforcing their existing rights and introducing new ones. Insurance customers, for instance, have the right to transmit their data to another insurer in a machine-readable format. They are also entitled to know whether their insurer processes their personal data and, if yes, for which purposes.

Amendments to Solvency II

In March 2019 the European Commission adopted new rules to help insurers invest in equity and private debt and provide long-term capital financing. Even though the insurance industry is well-equipped to offer long-term financing, the actual share of insurers' investments in the real economy remains limited. As a result of the new rules, insurers will have to hold less capital for such investments and will therefore be incentivized to invest more in the real economy. These newly adopted rules amend Solvency II, the prudential framework for the insurance sector enacted in January 2016. They were part of a scheduled review for 2018, which precede a more fundamental review of the Solvency II directive in 2020.

INSURANCE MARKET TOPICS

Industry consolidation

The consolidation of Europe's insurance industry continued in 2017[1]. The number of insurers operating in the 34 largest markets declined by 2.5% to a total of about 3,400, with Italy and the Netherlands recording the most significant decreases of 8% and 6%, respectively. Small- and mid-sized insurers in particular remained under pressure from Solvency II and its heightened capital, risk management and disclosure requirements.

Natural catastrophes

In 2018, Europe mourned 676 victims and close to EUR 20 billion in economic losses from natural and man-made disasters, especially windstorms, flooding, cold/frost and, at the other end of the extreme, a summer heat wave[2]. The July–September period was one of the hottest and driest over the past seven decades and led to major agricultural losses across France, Benelux, Germany and Poland. Less than 40% of total catastrophe losses recorded in 2018 were insured[3]. This fact demonstrates that the natural catastrophe protection gap is a major policy and commercial challenge in Europe, too.

Brexit

The uncertainty around the modalities of the U.K. leaving the EU was one of the major priorities of U.K. and Continental European insurers writing business in each other's markets. In the meantime, a number of companies have established local subsidiaries, for instance Lloyd's in Brussels, to offer certainty to their clients under any scenario.

From the individual policyholder's point of view, a no-deal Brexit would generate a host of potential challenges such as coverage gaps in motor, health and travel insurance.

Effects of monetary policy

In 2018, the European Central Bank maintained its accommodative stance as inflation stayed within its target of 'below, but close to, 2%'. Therefore, in the EU, zero risk-free rates continued to pressurize investment income, and life insurers offering guaranteed products suffered most from the low-interest rate environment. In addition, soft underwriting markets in property & casualty kept the profitability of the industry subdued.

[1] The European insurance industry in figures, Insurance Europe March 2019
[2] Swiss Re 'sigma' February 2019
[3] Idem

EMERGING TRENDS

Pensions and health insurance

Arguably the most important trend from an insurance perspective is the challenges European governments are facing in providing pensions, health insurance and other services. From 2009 to 2018, the share of government spending in EU GDP declined from 50% to 45%[4]. At the same time, Solvency II and related regulations have made it more difficult for insurers to write long-term business with guarantees, as the underlying capital requirements hurt the commercial viability of the business. European insurers are responding with a continued shift to unit-linked products.

Insurtech

Another trend is the increasing traction gained by European Insurtech companies. Even though European investments in Insurtech continue to trail those in North America, they doubled from 2017 to 2018[5]. From 2014 to 2018, the share of global deals involving Insurtechs in Europe increased from less than a quarter to almost a third[6]. Activities mainly focus on telematics and the Internet of Things.

Cyber

As in other parts of the world, demand for cyber insurance in Europe is growing exponentially. There is an increasing awareness, including among small- and mid-size enterprises, of threats such as the loss of customer data and proprietary intellectual property or the disruption of business processes. Even though Europe accounts for about 30% of the global insurance market, its share in global cyber premiums is still marginal, making up less than 10% of the world's total, according to market practitioners. This is set to change, however, in view of increasing internal risk management and governance requirements, as well as a more rigorous legal framework (e.g. GDPR).

[4] The European economy since the start of the millennium, Eurostat June 2018
[5] Fintech Global 23 January 2019
[6] Idem

North America

MACROECONOMIC SNAPSHOT

Economic conditions in the U.S. improved in 2018, in part on the strength of the reduction in corporate taxes presented by the Trump Administration. GDP rose 2.9% in 2018 and unemployment dropped below 4.0% by the end of the year, reaching a 49-year low in November 2018. The financial services industry, although helped by increases in the interest rate, remained stressed by catastrophe losses and a weak bond market.

REGULATORY DEVELOPMENTS

UNITED STATES

Covered agreement with the EU

The Federal Insurance Office (FIO) continued negotiations with the European Commission on the implementation of the EU-U.S. covered agreement signed by the EU in 2018. Running up to the implementation, the National Association of Insurance Supervisors (NAIC) had hoped to complete by December 2018 the new model law and model regulation—eliminating reinsurance collateral requirements for qualified reinsurers—but now expects the work will be finished by June 2019. The changes will still need to be adopted by the individual states.

The FIO has also signed a covered agreement with the U.K., which replicated the terms of the EU agreement. This agreement will go into effect after the U.K. leaves the EU. Bermuda, Japan and Switzerland are hoping to use the NAIC process rather than negotiating a covered agreement with the U.S., but want to ensure the process grants their reinsurers similar access to the U.S. market. These countries and Europe are also still affected from the Base Erosion and Anti-Abuse Tax, which limits the ability of multinational corporations to shift profits from the U.S., imposed on affiliate reinsurance transactions in the 2018 tax reform act. The tax increased to 10% in 2019.

Federal flood insurance cover

In light of the numerous natural disasters that impacted the U.S. in the past two years, federal flood insurance has become a major policy debate. The traditional U.S. residential homeowners' policy does not include flood, so consumers can only purchase the coverage from the federal program. It is estimated that only 15% of U.S. homes[1] are insured for flood damage.

Recently, federal banking regulators finalised rules to make it easier for banks to accept private flood coverage for federally backed home loans. This rule will go into effect on 1 July 2019. But the push to allow more private flood insurance remains an issue in the 2019 renewals of the National Flood Insurance Program. Insurers are divided as to their support for private flood cover, although reinsurers have taken a strong stand in support of the private option and indicated that there is sufficient capacity in the market[2].

The U.S. government has been slow to respond to climate-related risks because of the debate in the U.S. regarding the causes of climate change, but the NAIC has made climate risk a high priority for 2019. As part of its action plan, the NAIC has endorsed the private flood insurance option and will develop consumer information on the role of insurance in promoting climate resiliency.

Systemic risk

The Financial Stability Oversight Council (FSOC) has rescinded the designation of Prudential Financial as one of the Global Systemically Important Insurers. The FSOC is consulting on proposed rules regarding an activities-based assessment for non-bank financial companies.

Moreover, in 2018 the NAIC expanded its approach to macroprudential issues. The NAIC's Macroprudential Initiative focuses on four areas: liquidity, resolution and recovery, counterparty exposures and capital stress testing.

Long-term care

Long-term care remains a focus of activity at both the state and federal level in the U.S. Most U.S. health insurance policies, including Medicare, only provide limited (100 days) coverage for long-term nursing care so the only option available is separate coverage. Although this product was popular 15 years ago, the market has decreased significantly over the past 10 years and earlier legacy policies appear to have been underpriced as life spans increased. On the federal level, FIO has created a task force on long-term care, the aim of which is to evaluate solutions to harmonize rate review processes across state lines. The task force has evaluated recommendations from the NAIC, identifying implications for tax policy and other regulatory matters that would address the availability and affordability of long-term care coverage.

[1] Facts and Statistics: Flood Insurance, Insurance Information Institute https://www.iii.org/fact-statistic/facts-statistics-flood-insurance

[2] The Future of Flood Insurance, PCIAA, 2018

CANADA

The Canadian insurance sector is moving towards implementation of the International Financial Reporting Standards (IFRS), including IFRS 17 for insurance contracts in 2021. In response to insurers' concerns that the new standard will cause volatility in capital position, the Office of the Superintendent of Financial Institutions (OSFI) has announced that it will maintain its current capital frameworks. This will minimize potential impacts until the OSFI can revise both the Minimum Capital Test (MCT) for non-life—and the Life Insurance Capital Test for life insurers—at least until 2022.

The OSFI issued the final MCT in late 2018, revised to incorporate provisions of IFRS 16 (Leases). The OSFI is also currently revising rules for reinsurance, including an examination of concentration limits and requirements for foreign property and casualty companies operating branches in Canada.

BERMUDA

Bermuda remains one of only two countries under the equivalent of full insurance supervision from the European Commission, and it has worked to ensure that it also meets the European standards in other financial sectors. In 2018 the EU developed new standards regarding code of conduct for taxation and requested Bermuda to change its laws and require core income-generating activities to be conducted in Bermuda. Although Bermuda had complied by the end of 2018, a technical error in the legislative process resulted in a delay in one provision, placing Bermuda on the EU list of non-cooperative jurisdictions. Bermuda has now corrected the drafting error and expects to be removed from the list by mid-2019.

INSURANCE MARKET TOPICS

Brexit

Brexit has been a concern for U.S. insurers writing business in Europe, since many used the U.K. as a base for operations in the EU. In reaction to the U.K.'s decision to leave the EU, most U.S. insurance companies have protected themselves by establishing European subsidiaries—with Ireland, Luxembourg and France being favoured locations for the new operations. Having made the commitment to establish European bases, it is likely that the companies will invest in growing their EU business, although most international growth by North American insurers remains focused on Asia. The Society of Actuaries recently released a report indicating that the potential impact of Brexit on the U.S. insurance industry appears to be minimal and readily absorbed by the market.

Natural catastrophes

In 2018 the U.S. insurance market was hit badly by a string of natural catastrophes including Hurricane Michael, the wild fires in California and flooding in the Western States and Midwest. As a result, 2018 and early 2019 losses have been significant. Insured natural catastrophe losses worldwide have been estimated by Aon at USD 90 billion in 2018, making it the fourth highest year on record by this measure[3]. Insured losses in the U.S. were estimated at USD 57 billion and rising for 2018 catastrophes[4].

Health and life insurance

The debate on national health care continues in a very divided political climate, putting pressure on the health insurance sectors. Changes to the Affordable Care Act have caused instability in the private insurance market. Both insurer acquisitions of health care providers and the entrance of large technology and pharmaceutical companies into the health care market will also have a major impact. For a start, in 2018 drug stores chain CVS merged with Aetna Insurance, and United Health Care announced it was purchasing a large urgent care provider.

Low interest rates remain an issue for life insurers, although the federal funds' target rate increased four times in 2018 bringing it to 2.25 -2.50%. New accounting standards for long-duration contracts adopted by the U.S. Financial Accounting Standards Board in 2018 will also significantly change the measurement and disclosure of insurers' cash flows. Insurers will now have to update assumptions they use to measure liabilities at least annually, rather than retain the assumptions made at contract inception.

EMERGING TRENDS

Cyber risk and innovation

The industry and regulators in the U.S. remain very focused on cyber risks as well as on the emerging risks resulting from the increasing use of technology and artificial intelligence. The FIO has formed a cybersecurity working group as part of the Treasury's Office of Critical Infrastructure and Compliance Policy. The NAIC is not only looking at the impact of technology in the market place but how it can improve NAIC and state government operations. The NAIC completed 17 large technology projects in 2018. Significant progress was made implementing initiatives for business intelligence, data analytics and governance and cloud migration.

Bermuda is also looking at the role of technology in reinsurance operations. The Bermuda Monetary Authority (BMA) has recently joined the Global Financial Innovation Network, a group of 29 organisations supporting financial innovation in the interest of consumers. The BMA also has initiated a Regulatory Sandbox and Innovation Hub, which will allow companies to test new technologies and offer innovative products, services and delivery mechanisms with a small sample set of customers—in a controlled environment and for a limited period of time.

Infrastructure

Infrastructure development is also a priority, especially in the U.S. The NAIC is very conscious of the treatment of infrastructure in its capital calculations and wants to ensure capital charges support these long-term investments. The U.S. Administration has also announced initiatives for private-public partnerships in infrastructure rebuilding, possibly using tax credits, but there has been little concrete action in this area.

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3 Julie Y. Nye, "The Potential Effect of Brexit on the U.S. Insurance Industry," February 2019, Society of Actuaries

4 Idem

Academic Journals, Prizes and Grants

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

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, Professor Raymond Barre, the journal has continued to have two objectives: 1) to help elaborate and confront key strategic issues for the insurance sector; and 2) to stimulate a constructive dialogue between the insurance sector 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. The Geneva Association's members and other registered readers enjoy access to the journals online and advance online publication (AOP) ahead of print. After three years, online articles become available to the public.

THE GENEVA PAPERS ON RISK AND INSURANCE—ISSUES AND PRACTICE

The journal strives to improve the scientific knowledge of the insurance industry. The editor-in-chief is Professor Christophe Courbage who, assisted by the editorial board, assesses the quality of submissions, determines their potential contribution to both the industry and the academic community and organises the peer-review process. The journal, published quarterly, is essential reading for academics and researchers in insurance, insurance industry executives and professionals in other spheres of business who are searching for deeper insight into 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 following issues have been published since April 2018:

Volume 43, Issue 2 (April 2018) Special Issue on Cyber Risks and Insurance
Edited by Martin Eling, this special issue reflects on the current state of research by covering numerous disciplines and industries in the field of cyber risk, ranging from cyber risk management to cyber risk insurance. It includes articles on emerging IT risks, perception of cyber risks, improving cyber risk management, corporate cyber risk and insurance decision making.

Perceptions of Corporate Cyber Risks and Insurance Decision-Making

Excerpt from the Special Issue on Cyber Risks and Insurance

Authors Guido de Smidt and Wouter Botzen present an analysis of individual perceptions of cyber risks amongst professional decision makers. Their study finds that behavioural factors—e.g. a threshold level of concern, degree of worry and trust in one's own organisation's capabilities—influence individuals to overestimate the probability of a successful cyberattack and underestimate the financial impact. This means that people perceive the expected value of losses from a cyberattack to be high relative to the cost of cyber risk insurance. Smidt and Botzen's research results indicate that professional decision makers actually deviate from a value-based decision making process by being reluctant to insure for cyber risk.

Volume 43, Issue 3 (July 2018)

This issue includes articles on the impact of digitalization on the insurability of risks, the determinants of the demand for political risk insurance, the effect of Solvency II on the asset management of insurance companies and trust in pension providers, as well as competition in South Africa's insurance market, asymmetric information in China's automobile insurance market and moral hazard in the Tunisian automobile insurance market.

Volume 43, Issue 4 (October 2018) Special Issue on Insurance and Regulation

Edited by Professor Helmut Gründl from Goethe University Frankfurt, this special issue focuses on solvency regulation and the impact of the International Financial Reporting Standard on European insurers. It also looks at the Insurance Distribution Directive—in particular, the impact of its implementation and the possibility of applying its rules beyond the European Union.

Cross-Border Insurance Groups: Towards a Comprehensive Supervision Under Solvency II

Excerpt from the Special Issue on Insurance and Regulation

This paper, prepared by Pierpaolo Marano and Michele Siri, explores the Solvency II standards for EU supervision of insurance groups operating across borders as detailed by the guidelines issued by the European Insurance and Occupational Pensions Authority (EIOPA). It analyses cooperation between supervisory authorities. Marano and Siri argue that the colleges of supervisors should, as part of their mandate, define and implement a common principle of group interest to administer the governance system of cross-border insurance groups. The authors suggest that the supervision of colleges should also encompass the distribution of insurance products.

Volume 44, Issue 1 (January 2019)

This issue includes articles on the role of education in life insurance purchase, the digitalization of the insurance industry, the institutional drivers of life insurance consumption in Europe, the consumption of life and health insurance in China, economies of scale of Ghanaian insurers and how private sector participation improves retirement preparation in China.

THE GENEVA RISK AND INSURANCE REVIEW

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

The editors-in-chief are Professor Michael Hoy of the Department of Economics and Finance, College of Management and Economics, University of Guelph and, since January 2019, Professor Alexander Mürmann of the Institute for Finance, Banking and Insurance of the Vienna University of Economics and Businesss.

The Geneva Risk and Insurance Review is also the official journal of the European Group of Risk and Insurance Economists (EGRIE).

The following issues have been published since April 2018:

Volume 43, Issue 2 (September 2018)

The articles in this issue present various insurance solutions to protect individuals against longevity risks, health risks and climatic risks. It addresses topics such as enhancing risk management for an ageing world, the design of optimal health insurance contracts under ex post moral hazard and weather index insurance for rice crops in Indonesia.

Volume 44, Issue 1 (March 2019)

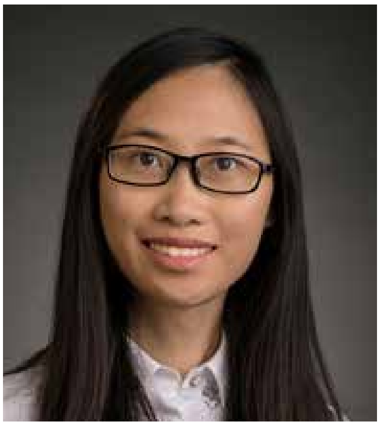
This issue includes articles on optimal taxation in non-life insurance markets, the impact of economic conditions on individual and managerial risk taking, the urbanisation of areas exposed to natural disasters, land use and insurance policies and insurer commitment and dynamic pricing patterns.

Awards and Grants

The Geneva Association Research Grant

The Geneva Association awards an annual research grant of CHF 10,000 for the winning submission—usually a doctoral thesis or research paper concerned with the field of risk and insurance economics. To date the grant has been awarded to research initiatives dealing with climate change and public health, cyber risk and factors that have influenced the structural evolution of the insurance industry, amongst other areas.

The winner of The Geneva Association Research Grant 2019 is Chenyuan Liu, a PhD student at the Risk and Insurance Department of the Wisconsin School of Business (University of Wisconsin–Madison) for her research on the design of health insurance plans in the digital market. Liu uses the U.S. insurance exchanges (HealthCare.gov) to investigate some of the purchase behaviour effects of online platforms. The online aspect of the marketplace, as well as the requirements for similarity across products, offer opportunities to uncover ways of making health insurance purchase behaviour more effective and efficient, both within the U.S and beyond.



Chenyuan Liu, winner of The Geneva Association Research Grant 2019

The Ernst Meyer Prize

The Geneva Association awards the prestigious Ernst Meyer Prize, worth CHF 5,000, for a doctoral thesis which makes a significant and original contribution to the study of risk and insurance economics.

The 2018 winner was Francisco Ceballos from Georg-August University Göttingen for his PhD dissertation *Demand and Design Considerations for Smallholder Farmers' Weather Index Insurance Products*. The dissertation (presented in 2017) discusses topics which determine the demand for product design of index insurance instruments for smallholder farmers.

Ceballos indicates that most existing index insurance products are characterised by a relatively rigid payout structure. This design issue is a one-size-fits-all structure that, although convenient, represents a standard risk profile and ignores considerable heterogeneity in agricultural risk profiles that potentially lowers the product's worth for many farmers.

The findings underscore the need to provide flexibility when implementing index-based tools for hedging agricultural risks.

Francisco Ceballos, winner of the Ernst Meyer Prize

Shin Research Excellence Award

The Shin Research Excellence Award is supported by Kyobo Life Insurance Company and jointly offered by The Geneva Association and the International Insurance Society (IIS). The award promotes original research that has a direct, practical influence on business operations and operational business issues in the insurance industry.

The winners of the 2018 award were Alexander Bohnert, Albrecht Fritzsche and Shirley Gregor for their paper *Digital Agendas in the Insurance Industry: The Importance of Comprehensive Approaches*. The winners received USD 5,000 and were invited to present their work during the IIS Global Insurance Forum in Berlin on 8–11 July 2018, which was attended by more than 500 senior insurance leaders. Their work was published in *The Geneva Papers on Risk and Insurance—Issues and Practice*, Volume 44, Issue 1, January 2019.

SCOR–EGRIE Young Economist Best Paper Award

The SCOR–EGRIE Young Economist Best Paper Award, with prize money of EUR 2,000, 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. In 2018, the scientific committee of the seminar selected Wanda Mimra, Janina Nemitz and Christian Waibel for their article *Voluntary Pooling of Genetic Risk: A Health Insurance Experiment*.

Alexander Bohnert and Albrecht Fritzsche (center) and Shirley Gregor (in absentia) receive the Shin Research Excellence Award at the IIS Global Insurance Forum, with Shin Chang-Jae, Chairman and CEO of Kyobo Life Insurance, and Mike Morrissey, President and CEO of the International Insurance Society

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 2018 award of EUR 1,000 went to Justina Klimaviciute for her paper *Long-Term Care Insurance and Intra-family Moral Hazard: Fixed vs Proportional Insurance Benefits*, published in *The Geneva Risk and Insurance Review*, Volume 42, Issue 2, September 2017.

ACADEMIC NETWORKS

45th Seminar of the European Group of Risk and Insurance Economists

The 2018 European Group of Risk and Insurance Economists (EGRIE) took place in Nuremberg on 17–19 September 2018. The topics covered included risk classification in insurance, financial literacy and insurance demand, the markets for long-term care insurance and annuities, systemic risk, cyber risk, insurance purchase and portfolio decision, life insurance investment behaviour, adverse selection and moral hazard in insurance markets. Professor Glenn Harrison of Georgia State University delivered the 30th Geneva Risk Economics Lecture, addressing the behavioural welfare economics of insurance.

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