

2019
Annual Report

Insurance for a **better** **world**





The Geneva Association

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

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Annual Report 2019

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Insurance for a **better** **world**

With a global reputation for high-quality and forward-looking research, The Geneva Association is focused on enhancing the role of insurance in building a better world.



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Letter from the Chairman

Charles Brindamour



The complexities of the world right now transcend any we have previously experienced. Insurers are working at their limits to support their customers. The Geneva Association is an essential partner in this effort.

We're living in extraordinary times. The COVID-19 pandemic has catalysed the most challenging situation society has faced since World War II.

While writing this letter in April, we're seeing one third of the world's population in lockdown, many industries have been severely impacted and we're experiencing incredible market volatility. Though challenging, I believe this situation is temporary. Insurers have a critical role to play in helping society move forward, now and as we navigate what is next, and I am optimistic we will pull through this together.

Before the pandemic hit, I worked with Managing Director Jad Ariss to hone The Geneva Association's mission and focus. Two features of our strategy will be key to supporting insurers in addressing this and subsequent crises.

First, we shifted our research agenda to be more holistic and forward-looking, with a framework comprised of seven workstreams: climate change & emerging environmental topics, health & ageing, socio-economic resilience, new technologies & data, cyber, evolving liability and public policy & regulation. We will take a new look at these workstreams with a pandemic lens and ensure they remain relevant in a post-COVID world.

Second, The Geneva Association has aligned its work to promote insurance as a force for good. We will showcase the positive contributions of insurance to building more resilient and prosperous economies and societies. These efforts have inspired our new tagline, 'Insurance for a better world'.

With this in mind, we launched a new Geneva Association Women in Insurance Award in 2019. This award will recognise a woman who is driving the industry forward with initiatives that promote societal resilience and prosperity related to climate risk, health, innovation or inclusive insurance. By spotlighting the extraordinary achievements of women in insurance, we intend to send a message that a diverse workforce strengthens our industry and better serves society.

I am confident these are the right priorities for our times. The complexities of the world right now transcend any we have ever experienced. Insurers are working at their limits to support their customers. The Geneva Association is an essential partner in this effort – setting an agenda to better understand the risks we face now and in the future, and steering us toward actions that will make a more prosperous and resilient society.



Charles Brindamour

Message from the Managing Director

Jad Ariss



Together we will stay focused on helping insurers understand what is going on around us and what lies ahead. And when we have overcome the crisis, our objective will remain to figure out how insurance can better serve people, societies and the world.

COVID-19 has triggered a full paradigm shift across societies, economies and populations as well as in geopolitics. The full consequences are still unknown.

Will the world move towards more multilateral cooperation, recognising that global risks like pandemics and climate change require global responses? Or will COVID-19 accelerate unilateralism as people look to their own governments to take action?

Will governments do more for their citizens, strengthening the welfare state, or will they have to pull back because they are financially constrained?

Will people seek more financial protection? Where will insurers fit in, in their mission to protect people and businesses?

It is critical for insurers, as the world's risk managers, to grasp the full spectrum of change. With a refreshed research strategy and team, The Geneva Association is equipped to explore the pandemic's profound geopolitical, social and economic effects as well as to anticipate other global risks on the horizon.

From rethinking approaches to social protection to increased cyber risk in a more virtual work world, the crisis has touched every single one of the seven work streams in our new research roadmap: climate change & emerging environmental topics, health & ageing, socio-economic resilience, new technologies & data, cyber, evolving liability and public policy & regulation.

As an example, expanding the scope of our previous 'Global Ageing' programme to 'Health & Ageing' has positioned us to look at issues that are particularly pertinent in light of COVID-19, such as pandemic risk or the use of health data.

A foremost priority for me as the incoming Managing Director in 2019 was to strengthen The Geneva Association's leadership and expertise, and we have the right team in place now to undertake these needed investigations.

I have been delighted to welcome new members to the team: Kai-Uwe Schanz, previously a longstanding research consultant to The Geneva Association, is now Deputy Managing Director and Head of Research and Foresight; Adrita Bhattacharya-Craven is Director Health & Ageing; and Isabelle Flückiger is Director New Technologies & Data. In addition, existing team members were promoted to new roles: Pamela Corn to Director Communications and Dennis Noordhoek to Director Public Policy and Regulation.

Together we will stay focused on helping insurers understand what is going on around us and what lies ahead. And when we have overcome the crisis, our objective will remain to figure out how insurance can better serve people, societies and the world.



Jad Ariss

Board of Directors

as of 1 May 2020

Executive Committee



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CEO, Swiss Re



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Insurance Company of China



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Brian Duperreault
President and CEO, AIG



Philippe Donnet
CEO, Assicurazioni Generali



Antonio Huertas Mejías
Chairman and CEO, MAPFRE



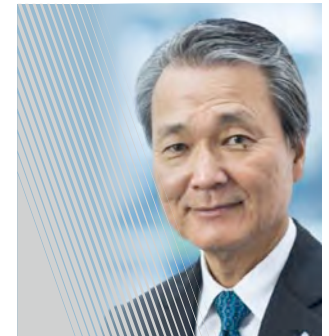
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Charles F. Lowrey
Chairman and CEO,
Prudential Financial



Alejandro Simón
CEO, Grupo Sancor Seguros



Yoshinobu Tsutsui
Chairman, Nippon Life



Joachim Wenning
Chairman of the Board of
Management, Munich Re



Alexander Wynaendts
CEO and Chairman of the
Executive Board, Aegon



Lee Yuansiong
CEO, AIA

The Geneva Association

Refreshed purpose, identity and research agenda

The Geneva Association's new, three-pillar mission statement, approved by Geneva Association members at the 2019 Statutory Assembly, captures its core focus going forward.



Geneva Association members vote at the 2019 Statutory Assembly

The Geneva Association is the only global association of insurance companies; its members are insurance and reinsurance CEOs.

In total the companies of Geneva Association members are headquartered in **25 countries** around the world; manage **USD 17.1** trillion in assets; employ **2.4 million** people; and protect **1.8 billion** people.

Based on rigorous research conducted in collaboration with its members, academic institutions and multilateral organisations, The Geneva Association

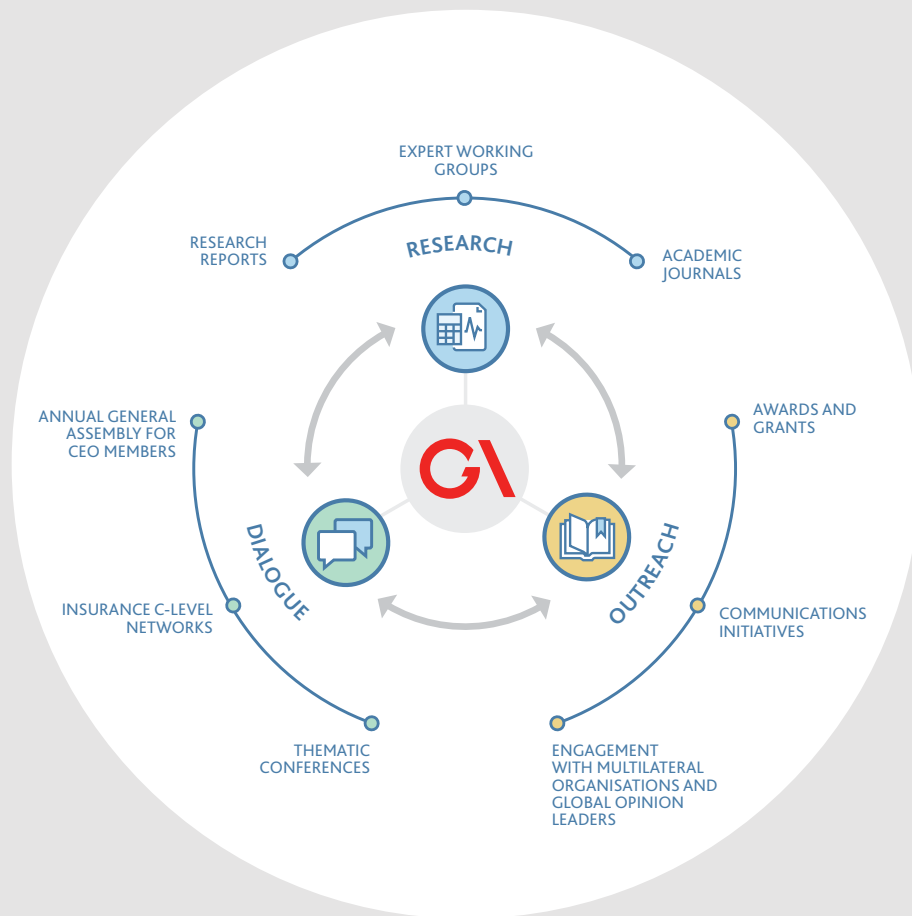
- **identifies and investigates** key trends and risk areas that are likely to shape or impact the insurance industry and develops corresponding recommendations for the industry and for policymakers;
- **provides a platform** to its members, policymakers, academics, multilateral and non-governmental organisations to discuss these trends and recommendations;
- **highlights the positive contributions** of insurance to a better understanding of risks and to building more resilient and prosperous economies and societies – in both developed and emerging countries – and thus a more sustainable world.

NEW TAGLINE

To reflect this revamped purpose, in 2019 The Geneva Association adopted a new tagline: '**Insurance for a better world**'.



INSURANCE FOR A BETTER WORLD



REVAMPED RESEARCH STREAMS

The Geneva Association's new research framework reflects the evolving needs of stakeholders, its organisational capacities and strengths and takes into account the increasing intersections among topics.

	1	2	3	4	5	
	Climate Change & Emerging Environmental Topics	Health & Ageing	Socio-economic Resilience	New Technologies & Data	Cyber	
	Flood resilience Insurers' role in climate change mitigation and adaptation Eroding biodiversity	Digital health New care models and non-communicable diseases (NCDs) Pandemic risk Financial well-being	Insurability of pandemic risk Income and wealth inequality The future of work Urban risk landscapes	Ethical insurance conduct in the digital age Internet of Things and Artificial Intelligence: Towards new business models in insurance Autonomous insurance	Cyberterrorism & warfare Economic & social importance of cyber resilience Managing accumulation risk	
6	Evolving Liability	Liability arising from climate change	Liability implications of pandemics	Social inflation	Liability in the shared economy Insurability of new technologies	Cyber liability
7	Public Policy & Regulation	Climate disclosures	Use of health data Age of retirement	Insurance development in emerging markets Financial stability	Use of data Virtual business models	Policy and regulatory barriers and incentives to developing cyber insurance market

Global reach in 2019

With a global membership base, an annual programme of international meetings and strong stakeholder engagement, The Geneva Association was active in 11 countries across four continents in 2019.

TORONTO, CANADA
Global Ageing Conference
23–25 October



WASHINGTON, DC, USA
Liability Conference
21–23 October



BUENOS AIRES, ARGENTINA
General Assembly
29 May–1 June
Participation in IAIS Global Seminar
13–14 June



ZURICH, SWITZERLAND
Geneva Association office
Programme on Regulation and Supervision (PROGRES) Seminar
28 February–1 March





LONDON, ENGLAND
Annual Circle of Chief Economists

21–22 March

Climate Change Forum

11–12 July



HELSINKI, FINLAND

Chief Investment Officers Conference

5–6 September



CHINA

Regional representative of
The Geneva Association



JAPAN

Regional representative of
The Geneva Association



ABU DHABI, UAE

**Participation in IAIS
Annual Conference**

14–15 November



HANNOVER, GERMANY

**Annual Roundtable of
Chief Risk Officers**

10–12 April





Research activities

and thematic conferences



The Geneva Association identifies and investigates key trends and risk areas that are likely to shape or impact the insurance industry and highlights the contributions of insurers to building more resilient and prosperous economies and societies.



Our new research framework, comprised of **SEVEN** workstreams, reflects the evolving needs of our stakeholders, The Geneva Association's expertise and strengths and the increasing intersections among topics.

Climate change and emerging environmental topics



The Geneva Association's updated climate research stream delves into the most pressing climate-related challenges for the insurance industry – from flooding to climate liability risk – and how insurers and other stakeholders can help mitigate and adapt to them.

2019 CLIMATE CHANGE FORUM

The Geneva Association's 2019 Climate Change Forum, co-sponsored by Tokio Marine and held in London on 11–12 July 2019, underscored the importance of raising awareness among Boards and C-level executives of the need for climate-risk integration in their governance, strategy and risk management practices.

The insurance industry, with its leadership in risk modelling, is contributing significantly to the global private-sector response to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and global sustainable finance initiatives – improving its own capacities and societal resilience at the same time. However, it would benefit significantly from integrating the latest physical and transition risk in its risk analytics tools, linking to both sides of the balance sheet. There is a need for common definitions of terms – 'resilience,' 'scenarios' and 'stress testing', for example – to enable cross-sectoral collaboration. There is also a need to scope physical and transition climate risk model-

3.5

USD trillion, estimated annual infrastructure investment needed to support socio-economic development until 2030

Global Infrastructure Hub



Masaki Nagamura, Tokio Marine



Bronwyn Clair, Cambridge Institute for Sustainability Leadership



Giorgis Hadzilacos, Bank of England



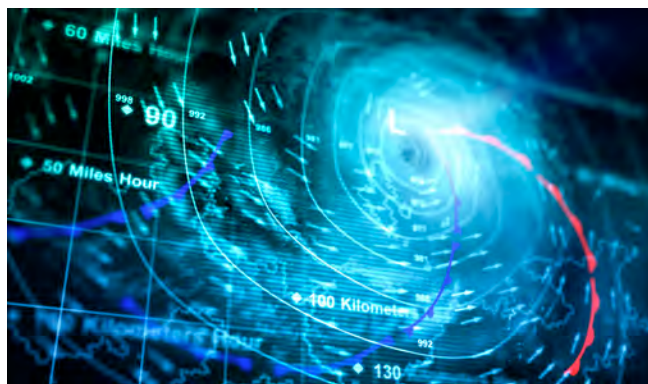
Participants in the Geneva Association Climate Change Forum 2019



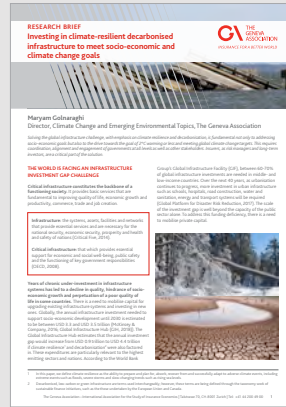
Breakout group at the Geneva Association Climate Change Forum 2019

ling initiatives and identify gaps, needs and potential areas of cooperation. Bridging the latest science and technologies with financial and core business decisions should be central to future initiatives. This Forum was an important step toward achieving consensus among leaders from 10 sectors on aligning priorities on a research and development agenda for the future.

Forum participants included leading experts from the insurance and asset management industries, associations and industry platforms; regulators and rating agencies; members of the United Nations Environment Programme-Financial Initiative (UNEP-FI), the Financial Stability Board's TCFD, the EU Technical Expert Group on Sustainable Finance and the Sustainable Insurance Forum Secretariat; climate scientists and risk modelling practitioners; and the co-chair of an Intergovernmental Panel on Climate Change (IPCC) working group.



There is a need to scope physical and transition climate risk modelling initiatives and identify gaps, needs and potential areas of cooperation



Our brief offers five recommendations to meet socio-economic and climate change goals.

INFRASTRUCTURE ISSUE BRIEF: Investing in climate-resilient decarbonised infrastructure is critical to meeting both socio-economic and climate change goals

Years of chronic under-investment in infrastructure systems have led to declining quality, hindering socio-economic growth and perpetuating poor quality of life in some countries. Solving the global infrastructure challenge, with emphasis on climate resilience and decarbonisation, is fundamental to not only addressing socio-economic goals but also putting the world on the path towards 2°C warming or less, meeting global climate change targets. This requires coordination, alignment and engagement of governments at all levels and a variety of other stakeholders to address the investment gap. The insurance industry, as risk managers, underwriters and long-term investors, is a critical part of the solution.



Lava pouring into the ocean creating a huge poisonous plume of smoke at Hawaii's Kilauea Volcano, Volcanoes National Park, Big Island of Hawaii

Based on research and consultations, The Geneva Association's issue brief offers five recommendations:

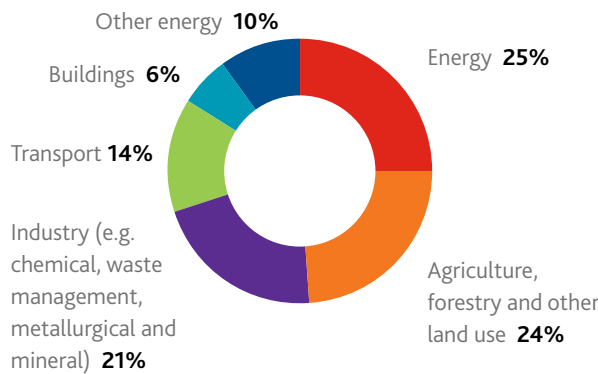
- 1) **GOVERNMENTS** need to establish clear and aligned public policies, supported by effective legislative and regulatory frameworks, to mandate climate resilience requirements as a pre-requisite for the entire infrastructure lifecycle.
- 2) **INFRASTRUCTURE DATA** policies are needed to enable access to reliable data for the entire infrastructure lifecycle.
- 3) **ADVANCED TECHNOLOGIES** should be leveraged to improve and even transform the delivery of infrastructure systems.
- 4) **COLLABORATION** between governments and (non-life) insurers from an early stage could be instrumental in assessing, pricing and allocating risks between governments and the private sector.
- 5) **LONG-TERM INSTITUTIONAL INVESTORS**, such as life insurers and pension funds, could engage with governments to make climate resilience and decarbonisation a pre-condition for their investments in infrastructure. These pre-conditions need to be integrated in their investment strategies and decision-making.



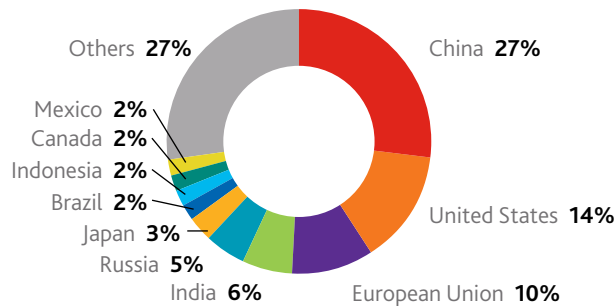
Maryam Golnaraghi, Director Climate Change and Emerging Environmental Topics | Achieving next-generation climate risk modelling (video) >>

Highest carbon-emitting sectors and countries

Highest carbon-emitting economic sectors (and related infrastructure systems) of total global greenhouse gas emissions¹



World's highest greenhouse gas-emitting countries in 2013 of total global GHG emissions²



¹ Intergovernmental Panel on Climate Change (IPCC)

² World Resources Institute, 2017

CONFERENCES

In addition to presenting at The Geneva Association's Chief Investment Officers Conference on the latest developments and trends in integrating climate risks, Maryam Golnaraghi, Director Climate Change and Emerging Environmental Topics, participated in a number of external climate risk dialogues in 2019:

- **GLOBE CAPITAL 2019** (March, Toronto): delivered a speech and moderated a panel on investing in resilient low-carbon infrastructure and the role of insurers as risk management experts and investors.
- **MANULIFE INVESTMENT MANAGEMENT'S 2019** Conference on Climate Scenario Analysis (September, Toronto): presented recommendations for institutional investors, insurers and corporations to integrate climate risk into their core business.
- **INSURANCE RISK AND CAPITAL CONFERENCE 2019** (December, London): moderated a C-level panel on 'Mainstreaming climate risk & fostering a holistic and interconnected approach to understanding and managing climate risk-strategic challenges and approaches'.



Health & ageing

Amid increasing health-related expenditures, growing elderly populations and new challenges in light of COVID-19, our programme on Health and Ageing looks at the approaches of insurers, governments and societies to healthcare and pensions, also in light of new technologies.

181%
projected increase
in people suffering
from dementia by
2050

Alzheimer's Disease International

2019 GLOBAL AGEING CONFERENCE

The 2019 Global Ageing Conference dissected the most relevant trends in mortality and longevity risk. Insurers have a role to play not only in managing these risks through risk transfer, but in promoting services that can help society mitigate them.

Mortality

The number of people living with dementia, defined as the impairment of memory and at least one other cognitive domain, is projected to increase 181% by the year 2050. From a medical perspective, the path of physiology is not well understood and there are opportunities to improve early diagnosis using biomarkers.

Genetic and environmental risk factors for dementia have been identified, and dementia risk could be reduced by staying socially active, addressing hearing loss and prioritising a healthy lifestyle – eating well, not smoking, drinking in moderation and maintaining a healthy weight.

Opioids: In the United States age-adjusted mortality rates from opioids have worsened (3 to 15 per 100,000 people) since 1999; during the same period mortality rates from cancer in the U.S. have improved (220 to 160 per 100,000 people).

Obesity: There are now more obesity-related deaths than from opioids and motor vehicles. Obesity rates doubled between 1980 and 2014, with the prevalence of obesity approaching 40% in the U.S., though there was a 36% decrease in cases of diabetes between 2006 and 2014. There are 13 types of cancer associated with obesity.

The prevalence of obesity in the U.S. is approaching

40%

World Health Organization



Adrita Bhattacharya-Craven

Director Health & Ageing

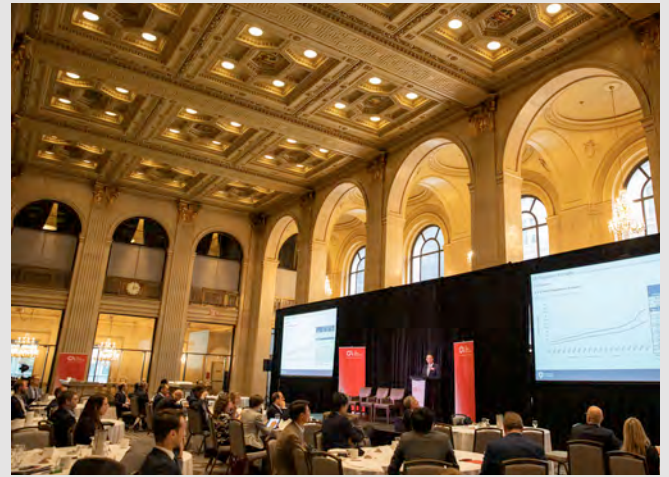
Adrita has spent her 16-year career searching for practical, private and public sector solutions to improving healthcare for people around the world. As the GA's Director Health & Ageing, effective 1 March 2020, she will apply this focus to issues like global ageing, long-term care, pandemics and disease prevention. Adrita was recently a Universal Health Coverage Specialist for KPMG Global Health Practice (London). She also previously managed a donor consortium, HANSHEP, to drive better investment decisions in public-private partnerships for healthcare service delivery.

Improvements in medical technologies are enhancing health services during all three stages of patient interaction:

- 1) **PREVENTION** – genetic and epigenetic information, wearable devices, telemedicine, vaccines
- 2) **DIAGNOSIS** – medical imaging, lab-on-a-chip, liquid biopsy, telemedicine
- 3) **TREATMENT** – robotic surgery, augmented reality, artificial organs, immuno-oncology, CAR-T cell therapy



Session on 'Dementia: Preparing for the future': Liam Kaufman, Winterlight Labs; Tim Meagher, Munich Re; and Matt Singleton, Swiss Re



Dale Hall, Society of Actuaries, presents on the opioid crisis



John P. Laughlin, RGA, gives introductory address



Tim Meagher, Medical Director, Munich Re, presents on dementia



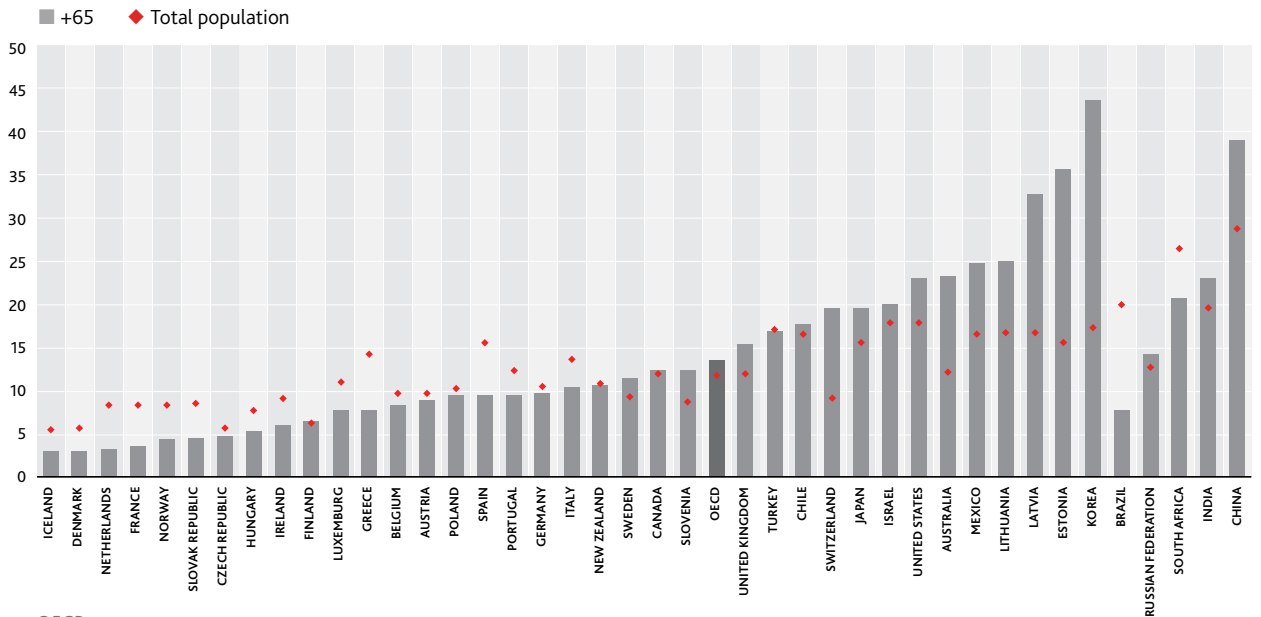
Amy Kessler, Prudential Retirement, presents on pension risk transfer and financial wellness



Timothy Caulfield, University of Alberta, presents on 'Ageing Gracefully'

Poverty rates among older age groups and the total population¹

Relative poverty rates, %, 2016



OECD

¹ Poverty is defined as having an income below half the national median household disposable income.

Liam Kaufman, CEO of Winterlight Labs, explained their developing technology that uses speech and AI to build disease-specific digital biomarkers and end-points. Analysing patterns in writing and speech, for characteristics like low idea density, makes it possible to diagnose dementia earlier and more accurately.

A presentation on Ageing Gracefully by Tim Caulfield, Professor at the University of Alberta and best-selling author on health and wellness topics, disputed the effectiveness of many health and beauty remedies. There is little scientific evidence that these trends promote health or longevity. Proven, positive correlations with health and longevity are familiar ones: maintaining a healthy weight, eating 'real food', getting sufficient exercise and sleep and following the recommended vaccine regimen.

“Old-age poverty is all-too prevalent in many countries. The effects of the COVID-19 crisis, namely eroding pension assets and surging unemployment, will only exacerbate the problem. The insurance industry can help by intervening early and supporting people in prioritising their financial well-being – a critical driver of good health outcomes.”

Adrita Bhattacharya-Craven

Director Health & Ageing

Longevity

The conference addressed longevity from the perspective of longer lifespans and in the context of changing medical care and a declining number of defined-benefit pension plans.

Jon Sabes, CEO of Life Epigenetics, Inc., explained that understanding the genetic correlation between ageing and disease can improve health predictions for the benefit of individuals and insurers alike. New methods are being developed for collecting epigenetic data that match traditional underwriting factors – an innovation that could enable life insurers to underwrite longevity products more precisely.

Defined-benefit pension plans, or employer-sponsored retirement plans, are in decline. Pension risk transfer is a way for providers to offload some or all of the plan's risk. Characteristics of pension risk transfer markets vary, with more volume in the U.K. than in the U.S. due to regulation, accounting transparency and longevity risk awareness. Reinsurers are an important part of the pension risk transfer 'deal ecosystem', enabling scale and affordability.

The shift away from defined-benefit pension plans is part of a movement to shift the burden of retirement planning to individuals, contributing to an estimated retirement savings gap of USD 70 trillion across the eight largest pension markets.²

The conference concluded with two signature sessions. 'World Café' distilled the conference's key findings and messages via breakout groups. 'View from Above', a discussion with Jacques Goulet, President, Sun Life Canada and Peter Schaefer, CEO, Hannover Re U.S., captured their executive views on topics like genetic testing, the state of the life insurance market and motivating employees.

² Wikimedia Commons. https://commons.wikimedia.org/w/index.php?title=File%3AAdult_Obesity-CDC_Vital_Signs-August_2010.pdf&page=3

Socio-economic resilience

Our Socio-economic Resilience workstream explores trends like growing income and wealth inequality, the expanding gig economy and massive urbanisation and their impact on risk to help pinpoint insurance solutions for more resilient societies.

RESEARCH REPORTS

Healthcare in Emerging Markets: Exploring the Protection Gaps

This research paper offers a comprehensive overview of the current sources of gaps in healthcare funding in emerging markets. Based on the notion of financially stressful out-of-pocket spending and using World Health Organization data, The Geneva Association estimates the annualised health protection gap for all emerging markets to be approximately 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.

Underinsurance in Mature Economies – Reasons and remedies

Based on an extensive review of available academic and non-academic references, this paper proposes a 'pentagon' of factors which underlie underinsurance, namely behaviour and perceptions, economics, institutions, socio-demographics and culture.

To test this framework, The Geneva Association commissioned a global customer survey of mature insurance markets designed at identifying the main obstacles to insurance purchases. According to the survey's results, people widely understand what insurance is about and its vital role in the economy and society. However, the research also revealed misperceptions of insurers and their products. Addressing this disconnect will be essential to encouraging a wider adoption of insurance in mature economies.

Based on these findings, the research paper proposes four recommendations to insurers:

- 1) CLARIFY AND SIMPLIFY** the presentation of insurance products
- 2) ENHANCE CUSTOMER EXPERIENCE** at significant 'moments of truth', most importantly in the claims process
- 3) BUILD AN OMNICHANNEL PROPOSITION** for distribution that capitalises on and digitally enables the agency channel rather than trying to bypass it
- 4) RESPOND TO CUSTOMERS' NEEDS** for financial education and financial literacy.

The Role of Trust in Narrowing Protection Gaps

The Geneva Association Global Customer Survey reveals that for half of the respondents, increased levels of trust in insurers and intermediaries would encourage additional insurance purchases. This research paper offers a comprehensive analysis of the role and nature of trust in insurance, with a focus on the retail segment, offering additional important insights into how to narrow protection gaps – the difference between needed and available protection – through concerted multi-stakeholder efforts.

Based on its theoretical and empirical findings the paper proposes a roadmap for the three major stakeholder groups that need to act in concert:

- 1) INSURERS** (and their intermediaries) are encouraged to facilitate claims settlement, increase product transparency and simplicity and “borrow” trust from non-insurers.
- 2) CUSTOMERS AND THEIR ORGANISATIONS** are called upon to support collective action against fraud and share personal data with trustworthy insurers.
- 3) REGULATORS AND POLICY MAKERS** are invited to effectively protect customers, adopt measures against fraud and promote industry competition.



Kai-Uwe Schanz

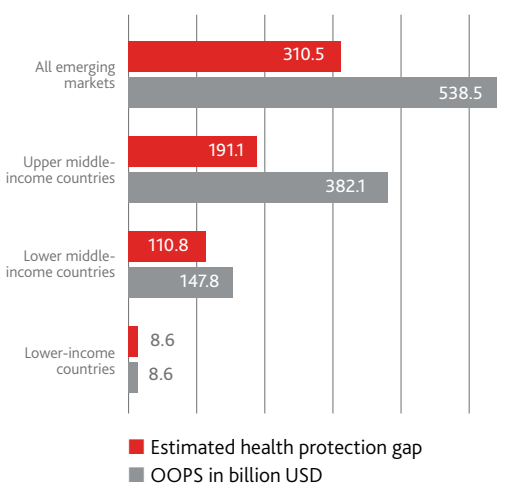
Deputy Managing Director, Head of Research & Foresight and Director Socio-economic Resilience

Before joining The Geneva Association on a permanent basis, effective 18 November 2019, Kai spent 12 years co-running Dr Schanz, Alms & Company, a research and business development consultancy, with an exclusive focus on the insurance and reinsurance industry. During those 12 years, he served as an external advisor to The Geneva Association.

Kai started his career in re/insurance in 1995, as a senior economist at Swiss Re, before moving to Hong Kong as the company’s chief economist for the Asia-Pacific region and returning to Zurich as Managing Director, Global Communications Content. In 2004, he joined Converium as Head of Corporate Development and Communications.

Absolute Out-of-Pocket Spending (OOPS) and estimated health protection gaps in emerging markets

(2015, in USD billion)



The Geneva Association, based on WHO data

CONFERENCES

In addition to presenting on the role of trust in insurance at The Geneva Association’s Annual Circle of Chief Economists in March in London, Kai-Uwe Schanz, Director Socio-economic Resilience, presented on protection gaps to the Swiss-Latin American Chamber of Commerce in Zurich (May) and gave a keynote speech on health protection gaps in emerging markets at the AXA Health in Emerging Markets Conference in Paris (October).

Geneva Association Key Finding

The annual healthcare protection gap in emerging markets is estimated at USD 310 billion based on out-of-pocket spending of USD 538 billion.

New technologies & data

Technology is fundamentally transforming business models across all industries. The Geneva Association’s programme on New Technologies & Data is taking a close look at the most impactful technologies and related opportunities, such as new kinds of risks, reimagined underwriting practices and ethical considerations.



Possible classification of AI applications and their significance (for illustration)

	Customer engagement	Underwriting / pricing	Claims
Change in logic and new data sources	<ul style="list-style-type: none"> • Robo-advice using external data sources 	<ul style="list-style-type: none"> • Price optimisation using lifestyle data • Pricing algorithms using lifestyle data 	
Change in logic of decision-making	<ul style="list-style-type: none"> • Customer segmentation and targeted advertising 	<ul style="list-style-type: none"> • Pricing algorithms using traditional data 	<ul style="list-style-type: none"> • Fraud detection • Automated claims triage
No change in logic or data	<ul style="list-style-type: none"> • Conversational agent (chatbot) 	<ul style="list-style-type: none"> • Computer vision to extract information from documents 	<ul style="list-style-type: none"> • Computer vision to extract information from documents

■ High significance
 ■ Medium significance
 ■ Low significance

RESEARCH ON ARTIFICIAL INTELLIGENCE IN INSURANCE

The use of artificial intelligence (AI) in insurance can bring economic and societal benefits by lowering insurance costs and helping insure more people.

In 2019, The Geneva Association concluded work on its 2020 publication, *Promoting Responsible Artificial Intelligence in Insurance*, authored by Benno Keller in his capacity as a Geneva Association Special Adviser on digital and innovation. For the report, The Geneva Association analysed a selection of the many ethics guidelines issued by governmental and non-governmental organisations and private companies. Of the five core principles for the responsible use of AI identified, the report takes a close look at two – 1) transparency and explainability and 2) fairness – that are particularly complex for insurers to interpret and implement. It also explores how to address the key trade-offs that arise in applying these principles.

In order to promote the responsible use of AI within their organisations, insurers should consider 1) establishing internal guidelines and policies for the use of AI; 2) developing and adopting relevant guidelines and policies that include principles for dealing with issues of transparency and explainability and of fairness; and 3) rolling out internal, comprehensive training programmes on the benefits and risks of AI and their respective internal guidelines and policies.

With this analysis and set of recommendations for insurers, the report aims to contribute to the responsible use of AI in insurance and the realisation of its benefits for society.



Isabelle Flückiger

Director New Technologies & Data

Isabelle joined The Geneva Association on 1 March 2020 as Director New Technologies & Data. Most recently, she was a partner at Accenture, leading the Financial Services Applied Intelligence Practice in Germany, Switzerland and Austria. Prior to that, Isabelle spent 12 years with PriceWaterhouseCoopers (PwC), where she was Digital Insurance Leader for Switzerland and co-led the data & analytics team. In these client-facing roles, Isabelle gained in-depth knowledge of new technologies and excellent insights into the technology challenges and opportunities before insurers.

Isabelle will lead The Geneva Association's research on the short- and long-term implications of new technologies like artificial intelligence, Internet of Things and advanced analytics for insurers and their customers.

Socio-economic benefits of AI for Insurance

Expand the scope of risk pooling

- Extend insurance cover to new and previously uninsured customer segments by facilitating access to personalised products (e.g. life insurance for individuals with preexisting conditions)
- Expand the range of risks for which insurance cover is available through improved risk insights (e.g. cyber risks)

Reduce the cost of risk pooling

- More cost-efficient insurance through the automation of specific tasks, better risk assessments and reduction of moral hazard and adverse selection

Mitigate and prevent risks

- Novel risk insights that help mitigate and prevent risks
- Early warning systems that enable the reduction of losses

Cyber

The next phase of The Geneva Association's cyber work will focus on the economic and societal importance of cyber resilience and the conditions for cyber insurability.

CYBER TERRORISM AND CYBER WARFARE (CTCW) JOINT TASK FORCE

In October 2019 The Geneva Association and International Forum of Terrorism Risk (Re)Insurance Pools (IFTRIP) launched a Cyber Terrorism and Cyber Warfare Joint Task Force at the IFTRIP Annual Conference in Brussels. This joint initiative aims to provide a platform for insurers, reinsurers and pools covering cyber terrorism risks to work collaboratively on issues related to the insurability of cyber terrorism, cyber warfare and hostile cyber activity.

The group's series of scenario analysis workshops sought to strengthen understanding of cyber terrorism and cyber warfare risks and how they may affect the insurance industry. The workshops involved cyber professionals from the legal, risk management, actuarial, exposure management and capital modelling and underwriting spaces.

The findings of the CTCW Joint Task Force will be published in 2020

CONFERENCES AND MEETINGS

The Geneva Association's Director Cyber, Rachel Carter, participated in external conferences and meetings on cyber risk and insurance throughout the year:

- **MODERATED THE PANEL, 'ADDRESSING DIGITAL RISKS — CYBER INSURANCE ON THE RISE'**, as part of the Cybersec Leaders Foresight conference in Brussels. The panel looked at cyber threats and cyber insurance within the broader context of resilience. (February 2019)
- **PARTICIPATED IN MEETINGS IN JAPAN** with the segments of the Japanese insurance market underwriting cyber insurance products, as well as with the Japanese Financial Services Agency, as part of The Geneva Association's broader regional outreach. (March 2019)
- **CONTRIBUTED TO DISCUSSIONS AT THE IAIS CYBER UNDERWRITING WORKSHOP** on promoting a sustainable cyber insurance market, in particular by fostering greater collaboration between regulatory bodies and the insurance industry. (October 2019)
- **PARTICIPATED IN THE 2019 WORLD ECONOMIC FORUM (WEF) ANNUAL MEETING ON CYBERSECURITY** as a panelist in a session on 'Cybersecurity Priorities for the Global Financial System', as the leader of a breakout group on cyber terrorism and its potential impact on the global economy and as a discussant in a special session, organised by the WEF and the Red Cross, on the potential for cybersecurity to protect societies and vulnerable communities. (November 2019)



Rachel Anne Carter, Director Cyber, participates in the 2019 WEF Annual Meeting on Cybersecurity

Evolving liability

Climate change, technology and even social change are on the rise as liability concerns. COVID-19 transmission is another emerging area. The Geneva Association's new Evolving Liability workstream is taking an in-depth look at liability trends and the limits of insurability in the liability space.



NEW DIRECTOR

Pierpaolo Marano
Director Evolving Liability

Pierpaolo is an expert on insurance law and regulation and a tenured professor of commercial law at the Catholic University of the Sacred Heart – Milan. Leading this cross-cutting issue on the GA's research agenda effective 1 January 2020, Pierpaolo will work hand-in-hand with other research programmes to drive thinking and discussion on liability trends, with a focus on opportunities and challenges presented by the digital economy. Pierpaolo will continue teaching alongside his role as a Geneva Association Collaborating Expert.

LIABILITY CONFERENCE 2019

Consumer Litigation in the Digital Age

By managing risk in areas like artificial intelligence (AI) and the sharing economy, insurers are fulfilling their role of reducing barriers to innovation and growth and allowing tools and services to come to market that benefit the public.

Insurance products should be adapted to reflect new risk profiles and appetites. Collaboration and agility will be essential for effective underwriting and claims. Insurers should build bridges internally as well as with clients to help make up for shortfalls in data and experience. Government bodies should prioritise unified insurance and legislative approaches and improve coordination across jurisdictions.

The Geneva Association's Annual Liability Conference on 'Consumer Litigation in the Digital Age', held 21–23 October 2019 and hosted by State Farm Insurance in Washington, D.C., brought together experts from insurance and other industries to discuss these topics in depth.

Session 1 on Global Litigation explored opportunities and challenges in a globalised world to knitting together different systems of liability. Organised by State Farm Insurance

Session 2 on Liability for Artificial Intelligence – the European Approach looked at the legal, ethical, cultural and insurance aspects of AI. Organised by Munich Re

Session 3 on The Sharing Economy highlighted the need for better collaboration across states and countries to harmonise regulation, as well as between insurers and platforms to make the most out of available data and strengthen digital communities. Organised by AXA

Session 4 on The U.S. Opioid Crisis offered an analysis of opioid litigation and insurance best practices for underwriting and claims going forward. Organised by Swiss Re.

Keynote by Dr Robert Reville, CEO, Praedicat

A keynote speech by Dr Robert Reville underlined that the proportion of liability losses covered by the insurance industry varies by topic because they are largely determined by policy terms and exclusions. For example, insurance losses related to asbestos totalled approximately USD 100 billion, or 90% of total incurred losses, while insurance losses linked to tobacco litigation were very low. Insurance losses from opioid cases are estimated to be similarly low at a maximum of USD 30 billion. Dr Reville also flagged the emerging liability issues of antibiotic-resistant illnesses, diesel/vehicle emissions and sugar.



USD 100

billion total insurance losses related to asbestos

A.M. Best

USD 30

billion maximum total estimated insurance losses related to opioids

Aspen Re

From top to bottom: Kevin Frederick, Counsel, State Farm Insurance; Lloyd Dixon, Senior Economist, RAND Corporation; and Ken Daly, Partner, Sidley Austin LLP

Christian Fuhrmann, Chief Executive Global Clients / North America, Munich Re; Ina Ebert, Leading Expert Liability and Insurance Law, Munich Re; Jason Engelbrecht, Chief Technology Officer, Munich Re Syndicate; and Dirk Staudenmayer, Head of Contract Law Unit DG Justice and Consumers, European Commission

Sarah Mims, U.S. Head of Legal, AXA XL; Theresa Schlageter, Head of West Region for U.S. Risk Management, AXA XL; Vikas Chhariya, Managing Director, Digital Partnerships & Platforms, AXA; and Curtis Scott, Vice President of Global Risk, Lyft

Public policy & regulation



The Public Policy and Regulation workstream goes beyond focusing on the prudential regulatory matters that have shaped the post-financial-crisis agenda to deal with the regulatory aspects of other topics addressed in The Geneva Association's research, such as technology, cyber and climate risk.

The year 2019 was marked by the end of the development of post-financial-crisis measures of the International Association of Insurance Supervisors (IAIS). In particular, this included the adoption of the Insurance Capital Standard version 2.0 (ICS) for a five-year monitoring period and the adoption of the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame). It is these two topics that have dominated the global insurance regulatory agenda in the aftermath of the Global Financial Crisis.



Consultation on revisions related to the Holistic Framework for Systemic Risk in the Insurance Sector

In summer 2019 the IAIS launched a public consultation on revisions made to existing standards in the IAIS toolkit (including the Insurance Core Principles (ICPs)) to account for the Holistic Framework for Systemic Risk (previously referred to as the Activities Based Approach).

Instead of focusing on individual insurance groups, the Holistic Framework focuses on the risk of the insurance industry (possibly together with other financial sector actors) having a systemic risk impact by similar reactions to, for example, a large drop in global stock markets. Overall, The Geneva Association supports the decision to move away from an entities-based approach to an approach that focuses on all of the activities of market players. In its response, The Geneva Association asked the IAIS to adapt its guidance on liquidity to the specific context of insurance. The response further highlighted that requirements related to the implementation of the Holistic Framework should be proportionate to the potential systemic risk that may be presented to the financial system.

Interactions with the global regulatory and standard-setting community

Ongoing dialogue was as important as ever in 2019, not least in light of the ICS and to help pave the way for future stakeholder engagement as the monitoring period progresses. The Geneva Association was regularly invited to speak at IAIS Committee meetings and workshops, an FSB meeting and OECD meetings and participated in several panel discussions at conferences.

At the May 2019 IAIS Conduct Committee meeting on big data and insurance, The Geneva Association presented an analysis of benefits and potential concerns on the use of big data, concluding with a number of scenarios for the role of insurers. The Geneva Association also assisted in facilitating a workshop initiated by the IAIS and the Sustainable Insurance Forum (SIF) on the recommendations of the FSB Task Force on Climate-related Financial Disclosures (TCFD) by engaging industry experts to share their experiences.



Dennis Noordhoek
Director Regulation

Dennis was promoted to this role, effective 15 April 2020, from Research Analyst (Regulation). During his more than eight years with The Geneva Association, Dennis helped deepen the organisation's focus on international regulatory issues – going beyond post-2008 financial reforms to explore broader regulatory topics. Dennis has also been instrumental to the success of The Geneva Association's annual Programme on Regulation and Supervision (PROGRES) Seminar, bringing together representatives of the insurance industry and regulatory and supervisory bodies to discuss issues of mutual concern.

Regulators and supervisors play a critical role in enabling insurers to promote growth and resilience.

PROGRAMME ON REGULATION AND SUPERVISION (PROGRES) SEMINAR

The Geneva Association's annual PROGRES Seminar 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.

The 2019 PROGRES Seminar, held in Zurich 28 February–1 March 2019, took place at a time when stakeholders increasingly expect insurers 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.

The Seminar started with a high-level panel that included Geneva Association CEO members and its Board Chairman and was moderated by the Chairperson of the IAIS, Victoria Saporta. Panelists discussed the trade-offs that may result from insurers acting in the best interest of customers and living up to the broadening societal demands, how regulatory frameworks incorporate these demands and the extent of insurers' social responsibilities.



In his keynote speech, Nicolas Veron, Senior Fellow at Bruegel, covered recent geopolitical developments with a focus on the U.S., China and the EU and the implications for global insurers. Jonathan Dixon, Secretary General of the IAIS, gave an introductory address outlining the IAIS's priorities as the IAIS approached the end of the development phase of post-crisis reforms.

A second session on climate change and the role of insurers explored whether there is alignment among the interests of different stakeholders in the climate debate. As risk managers with risk modelling capabilities, insurers have a role that goes beyond covering losses to helping societies better understand and deal with climate risks. Governments play a critical role in helping insurers manage the physical risks of climate change and, through regulation, enabling long-term investments.



A panel on Insurance Capital Standards (ICS), Com-Frame and the Holistic Framework for Systemic Risk looked at these major IAIS projects nearing completion and other issues to be addressed in the run up to implementation. Approaches must observe local and regional differences and consider that insurance does not create systemic risk but absorbs it.

The last session on inclusive growth and resilience emphasised the significant role of the insurance industry in supporting development. As the regulatory framework very much defines the boundaries as to what insurers can and cannot do, regulators and supervisors play a critical role in enabling insurers to promote growth and resilience.

Clockwise - Vicky Saporta, Chairperson, IAIS; Charles Brindamour, CEO, Intact Financial.

Timothy Bishop, OECD; Thomas Leonardi, AIG; Masaaki Nagamura, Tokio Marine

Miles Celic, The City UK; Nicolas Veron, Bruegel; Karel Lannoo, CEPS

Participants in the 2019 PROGRES Seminar

Jonathan Dixon, Secretary General, IAIS; Hannah Grant, Access to Insurance Initiative; Anderson Caputo Silva, World Bank; Grace Mohamed, Namibia Financial Institutions Supervisory Authority; Tom Gitogo, CIC Insurance; Ekhosuehi Iyehen, Insurance Development Forum

Denis Duverne, Chairman, AXA; Alexander Wynaendts, CEO, Aegon

Geneva Association Women in Insurance Award

“Ultimately, the role of the insurance industry is to provide individuals, businesses and communities with the tools and expertise they need to confidently address the risks they face. As we continue to push for greater diversity within our industry, it is imperative that we recognise the women leaders who are already taking the industry forward in a major way.”

Brian Duperreault
President & CEO, AIG



GENEVA ASSOCIATION
WOMEN IN
INSURANCE
AWARD

ADVANCING INSURANCE FOR A BETTER WORLD

SELECTION COMMITTEE MEMBERS



Inga Beale
Diversity and inclusion advocate and former CEO, Lloyd's of London



Brian Duperreault
President and CEO
AIG



Lucie Martel
Chief HR Officer
Intact Financial Corporation

In 2019 The Geneva Association launched an exciting new initiative: The Geneva Association Women in Insurance Award.

The insurance industry has made great strides in recent years in attracting women employees. One study finds that women comprise 60% of the workforce in insurance. However, according to McKinsey & Company, women in financial services are 24% less likely than their male peers to be promoted, partly due to unconscious bias and negative stereotypes around women's leadership abilities. As a result, only 12% of top officer positions, such as CEO, CFO and COO, are occupied by women. The vast majority of executive-level positions in insurance are held by men.

Therefore, younger women working in insurance do not see as many women as men in leadership roles. They do not see pathways to promotion and leadership positions.

To address this, The Geneva Association's first-of-its-kind international award will recognise a female insurance leader whose work has made a demonstrable contribution to societal good.

The distinguished selection committee for the first award in 2020 is comprised of Inga Beale, Diversity & Inclusion advocate and former CEO of Lloyd's of London; Brian Duperreault, CEO, AIG; and Lucie Martel, Chief Human Resources Officer, Intact Financial.

The winner will be announced in April each year and the award will be given out at The Geneva Association's General Assembly, our annual gathering of insurance CEO members.

Award priority areas



Climate risk - better integrating climate risk into underwriting methods or promoting climate-resilient investment approaches



Health - improving health outcomes for people through new services (diagnostic, treatment) or forms of insurance cover



Inclusive insurance - using new technologies or data to make insurance cover more meaningful for people or businesses



Innovation - developing new pricing or distribution models that give low-income or remote populations access to insurance cover (e.g. microinsurance)



Video: Geneva Association launches new Women in Insurance Award >>

46th General Assembly

29–31 May 2019, Buenos Aires, Argentina
hosted by Sancor Seguros



Alejandro Simón, CEO, Sancor Seguros

Discussions at The Geneva Association's 46th Annual General Assembly, held 29–31 May 2019 in Buenos Aires, pointed to abundant opportunities for the re/insurance industry to demonstrate its core purpose: to help people and businesses face the burden of unexpected risks and help economies and societies prosper.



Participants in the 2019 General Assembly

Panel session 1

CYBER TERRORISM AND CYBER WARFARE: CONVERGENCE OF TECHNOLOGICAL ADVANCEMENTS AND THE EVOLUTION OF RISKS

Cyber is a dire threat to insurers. It's a 'hot' – not 'cold' – war, where collateral damage is desired by perpetrators. It is hard to quantify its accumulation potential. It is important to distinguish between cyber terror and cyber war, as this has an impact on what is covered or not by insurance. The insurance industry can benefit society as a whole by motivating its customers to practice good cyber hygiene, protecting large segments of the economy and hence consumers.



Paweł Surówka, President of the Management Board and CEO, PZU; Michael Coden, Head of Cyber Security Practice, BCG; Ariel Levite, Carnegie Endowment for Peace; Douglas Wise, Former Deputy Director of the Defense Intelligence Agency of the U.S.; Julian Enoizi, CEO, Pool Re



Dean A. Connor, President and CEO, Sun Life Financial; Santiago Bilinkis, Founding Partner, Quasar Builders; Maurice Tulloch, CEO, Aviva

Panel session 2

ETHICS OF NEW TECHNOLOGIES

Trust in the insurance industry is increasingly about data, and companies need to be more transparent with clients about how their data are being used. As 'hyper personalised' risk pricing and assessment becomes a bigger issue, insurance companies will be asked to demonstrate that their pricing regimes are fair and reasonable for customers.

Panel session 3

NUDGING HUMAN BEHAVIOUR & THE NEW TRUST

A Geneva Association Customer Survey of 7,000 people revealed that only 21% of people trust insurance companies and only 25% trust agents. In order to build customer trust, insurers need to adopt clear and transparent communication, help educate consumers, emphasise human empathy in their interactions with consumers, deliver on their core promises and do what is just and fair, not only what is legally required.



Christian Mumenthaler, CEO, Swiss Re; Antoine Harary, Global Managing Director, Edelman Intelligence; Francesca Tamma, Behavioural Research Manager, Swiss Re; Shlomo Benartzi, Professor, UCLA; Roy Gori, CEO, Manulife



Brian Duperreault, President and CEO, AIG; Michael D. Rich, President and CEO, RAND Corporation; Mariano Turzi, Professor, University Torcuato Di Tella; J. Peter Burgess, Professor and Chair of Geopolitics, ENS Paris; Ambassador Alan Wm. Wolff, Deputy Director General, World Trade Organization (WTO)

Panel session 4
GEOPOLITICS: THE NEW DYNAMICS

Although the world is not at war today under the commonly accepted definition of war, norms and rules are being disrupted, causing uncertainty and insecurity and, in turn, heightening the risk of war. In its relentless search for more and better data, the re/insurance industry stands out as a gatekeeper of credible information. Industry leaders have a responsibility to insist that public decisions are made based on facts and the best possible evidence.

Panel session 5
CLIMATE CHANGE & INFRASTRUCTURE

Insurers and governments need to work in complementarity on climate risk mitigation. Insurers bring data knowledge, modelling capabilities, disaster response to help communities, risk-sharing solutions and more. Governments need to create robust building codes, embrace holistic risk management across government entities and ensure sound governance.



Nathaniel Bullard, Global Head of Executive Insights & Content Strategy, Bloomberg New Energy Finance; Fiona Cousins, Arup Fellow and Group Board Member, Arup; Denis Kessler, Chairman and CEO, SCOR



Tsuyoshi (Nick) Nagano, Chairman, Tokio Marine; Mario Gazitúa, CEO, BCI Seguros; Guillermo Plate, Deputy Superintendent of Insurance, Argentina

Keynote speech

AMBASSADOR ALAN WM. WOLFF

Deputy Director General, World Trade Organization (WTO)

The founders of the post-World War II international economic world order believed that integrating people into the world economy through global economic agreements helps maintain peace. This system is now under threat by three primary risks: 1) increasing trade restrictions, 2) decline of trust and 3) a lack of consensus on how best to serve WTO members' interests. There are increasing regulatory constraints on data localisation, making data storage and treatment more costly. The industry could be active in trying to limit regulatory interference and influence future WTO agreements on this.



Ambassador Alan Wm. Wolff, Deputy Director General, World Trade Organization (WTO), gives a keynote speech

Keynote speech

YOSHIHIRO KAWAI

Chair, Insurance and Private Pensions Committee, OECD

Three key areas insurance should focus on as a mission-driven industry: 1) the protection gap, including microinsurance, 2) climate-focused financial disclosures, which are key to making progress on climate change and 3) ethics – with new technologies and AI, it's more important than ever for people to understand what insurance companies are doing with data.

Watch the 46th Annual General Assembly videos >>



Behavioural economics and the protection gap **Christian Mumenthaler, CEO, Swiss Re**



Climate change and infrastructure **Tsuyoshi Nagano, Chairman, Tokio Marine**



Geopolitics: the new dynamics **Brian Duperreault, CEO, AIG**



Insurance and the ethics of new technologies **Dean Connor, CEO, Sun Life**



Shaping a path to cyber resilience **Paweł Surówka, CEO, PZU**



Insurance-customer interface in the digital age **Shlomo Benartzi, Professor, UCLA**



Obstacles to climate-resilient infrastructure **Fiona Cousins, Director, Arup Group Board**



Innovating around cyber risk **Ariel Levite, Senior Fellow, Carnegie Endowment for Peace**



New technologies and insurance **Santiago Bilinkis, General Partner, Sirius Tech**



Intersection of trade and insurance **Ambassador Alan Wm. Wolff, WTO**



The role of insurance in Argentina **Juan Pazo, National Superintendent of Insurance, Argentina**

C-level networks

The Geneva Association's high-level meetings bring together top decision makers from global insurance companies and experts to discuss priority topics.



ANNUAL ROUNDTABLE OF CHIEF RISK OFFICERS

Hosted by Hannover Re in Hannover, 11–12 April 2019

The roles of Chief Risk Officers (CROs) evolve alongside the risk landscape itself. The 2019 Annual Roundtable of Chief Risk Officers (ART of CROs) looked at the impacts of climate and cyber risks, as well as new technologies, on insurers.

Climate change puts insurance companies on the front line. On the risk side, they are exposed to extreme weather events and other effects of climate change. With its risk assessment expertise and as asset managers of approximately USD 25 trillion, insurers could accelerate the transition to a low-carbon economy through their underwriting and investment strategies. They can also play a key role in developing risk transfer instruments that support environmental policies.

The meeting looked at climate change from the perspectives of academics and insurers, with a presentation on 'Liability Risk in the Era of Climate Change' by Shivaun Moreno, Senior Legal Counsel, Hannover Re, and a panel discussion dedicated to climate change risk.

Cyber is also a growing risk for insurance companies. While insurers continue to develop cyber risk transfer solutions for clients, they must also be vigilant in protecting the vast swaths of personal and commercial information that they collect, store and manage. Simon Dejung, Senior Underwriter, Global Line Engineering, SCOR, presented on cyber risk prior to a panel discussion on 'Cyber Risk and Cyber Insurance'.

New technologies like artificial intelligence and the Internet of Things are giving rise to new liability risks. The meeting explored these implications in presentations on 'Liability Risk in the Era of New Technologies' by Gerhard Wagner, Humboldt-Universität zu Berlin, and Dirk Wisselmann, Senior Expert Automated Driving, BMW Group.



CLIMATE CHANGE



CYBER



NEW TECHNOLOGIES



From top left to bottom: William McDonnell, Chief Risk Officer, RSA Group; Shivaun Moreno, Senior Legal Counsel, Hannover Re

Participants in the 2019 ART of CROs

Hermann Lotze-Campen, Potsdam Institute for Climate Research; William McDonnell, RSA Group; Daniela Jacob, Helmholtz Institute Hamburg; Ernst Rauch, Munich Re; Andreas Maerkert (moderator), Hannover Re

CHIEF INVESTMENT OFFICERS CONFERENCE

Hosted by LocalTapiola Group in Helsinki, Finland, 5–6 September 2019

Distilling answers from complexity

Insurers have many worries in the present environment. Some are perennial concerns, such as finding reliable sources of yield, ensuring capital efficiency and managing shareholders and regulators. Other concerns are newer, such as heightened macroeconomic uncertainty and emerging risks, notably climate change.

Professor Bengt Holmström, 2016 Nobel Laureate in Economics, provided insights on key issues in the markets. He argued that debt was information insensitive, particularly when underpinned with safe collateral, and that its opacity is beneficial to its liquidity and resilience. This is not to say that risk is not hiding in the tail, but the reliance of debt on coarse – and often mechanical – ratings obviates the need for deeper price discovery and reduces the volatility that comes with greater transparency.

This is why, in a crisis, a 'bad bank' solution makes sense. It effectively reduces transparency and allows the debt time to be worked out. Professor Holmström cautioned that greater transparency – a key push today – implies less liquidity.



From top to bottom: Participants in the 2019 Geneva Association Chief Investment Officers Conference

Professor Bengt Holmström, 2016 Nobel Laureate in Economics, presents key insights on money markets

Carsten Quitter, Group CIO, Allianz; Don Guo, CIO, Asia Capital Reinsurance; Samu Anttila, Deputy Managing Director, LocalTapiola Mutual Life Insurance; Vinicius Marinho da Cruz, CFO, Bradesco Seguros

Participants in the 2019 Geneva Association Chief Investment Officers Conference



The present global shortage of safe assets or collateral is attributable to damage from the last financial crisis, hoarding of reserve assets (largely US dollar assets) by many parties, demographics, the growth of intangible assets in the form of new technologies, and large amounts of share buybacks. According to Professor Holmström, resolving this is a prerequisite to fixing the conundrum of low interest rates, low inflation, low unemployment and low investment. Central banks have a role to play given the size of their balance sheets, but it is also important to explore other avenues, such as harnessing fiscal policy for more infrastructure investments, introducing new safe assets such as the IMF's Special Drawing Rights (SDRs) and finding new private substitutes.

Insurer action on climate change and ESG

Participants expressed challenges in integrating climate change and Environmental, Social and Governance (ESG) considerations into their portfolios. A holistic approach that links both sides of the balance sheet is a stiff undertaking, particularly when historical data on climate change does not offer much insight, and anticipated outcomes – though uniform in qualitative assessment – lack precision.

The infrastructure, common standards and data sources needed to effect change are slow in coming. The Bank of England's recent climate risk scenarios aimed at insurers are a good example of attempts toward a common framework, but the industry still needs collaboration and buy-in at the top level.

There are opportunities for those willing to put in the effort. Addressing climate change does not mean reducing returns but rather opening up new investment avenues. Infrastructure is an area of fast-growing interest, given the long duration, significant scale and confluence with the interests of governments around the world. Here, the role of policymakers in supporting and de-risking long-term investments is critical, through mechanisms such as regulatory reform and growth-friendly policies.

30-40%

of mortality improvements over the past 50 years were the result of campaigns against smoking

Swiss Re Institute

ANNUAL CIRCLE OF CHIEF ECONOMISTS

Hosted by Aviva in London,
21–22 March 2019

Meeting discussions centred on the question, 'How Will Insurance Evolve to Meet Emerging Challenges?'

To provide a backdrop, Ashish Dafria, Chief Investment Officer of Aviva, and Michael Grady, Chief Economist of Aviva Investors, gave an overview of the state of the global economy and its near-term prospects, and Steven Weisbart, Chief Economist of the Insurance Information Institute, spoke about political and insurance issues in the U.S.

Sustainable investment management is very high on insurers' agenda, but is it a trend or a paradigm shift? Steve Waygood, Chief Responsible Investment Officer at Aviva Investors, and Ludovic Subran, Global Head of Macroeconomic Research at Allianz, highlighted that the insurance industry has a financial interest and a fiduciary duty to long-term shareholders and investment clients to do more to mobilise government action in this regard.

Physical risks are growing in scale and at some point will become uninsurable. Michael Menhart, Chief Economist at Munich Re, enumerated many of the emerging risks facing the global economy, focusing on the impact on the insurance industry. For the global polity, past financial recessions have increased support for extreme parties and typically led to an increase in regulation. In future, politics may dictate regulations related to, for example, carbon investments.

Dan Ryan, Head of Insurance Risk Research at Swiss Re, presented recent research on international mortality trends. Significant mortality improvements are possible by using technology to drive behaviour towards healthy targets. Over the past 50 years, 30–40% of mortality improvements were the result of campaigns against smoking.



Significant mortality improvements are possible by using technology to drive behaviour towards healthy targets.



Underinsurance in Mature Economies Reasons and remedies



Kai-Uwe Schanz presented the findings of the Geneva Association Customer Survey on underinsurance

The shift from a goods market to one producing mostly intangible assets, such as networks, data and client relationships, is affecting all aspects of economic activity. Stian Westlake, co-author of *Capitalism Without Capital: The Rise of the Intangible Economy*, explored how the intangible economy increases inequality. Intangibles are knowledge-based, so educated workers receive a wage premium, while manufacturing workers are made redundant. Also, firms with many patents often have higher profit margins than companies producing goods.

Philippe Trainar, Director of SCOR Foundation for Science, outlined a vision for the future of insurance, given the impact of the digital transformation underway. Automation of financial and risk analysis will likely increase internal financial oversight, while new risk metrics will probably generate new products and fine-tune risk assessment. The personal data explosion provides an opportunity to individualise personal insurance lines.

Kai-Uwe Schanz of The Geneva Association presented the findings of the Geneva Association Customer Survey on underinsurance: building trust is key for insurers; distribution will likely become increasingly multi-channel; and millennials, surprisingly, are the most bullish age group on insurance.



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



Kai-Uwe Schanz, Director Socio-economic Resilience, presenting on underinsurance in mature economies

Academic journal, prizes and grants

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



THE GENEVA PAPERS ON RISK AND INSURANCE—ISSUES AND PRACTICE

The Geneva Association began 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 had 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.

The following issues of The Geneva Papers were published in 2019:

Volume 44, Issue 1 (January 2019)

This issue includes articles on the role of education in life insurance purchasing, 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.

Volume 44, Issue 2 (April 2019) Special Issue on Long-term Care Financing and Insurance

Edited by Joan Costa-Font, Christophe Courbage and Joël Wagner, this special issue is devoted to the role of insurance in financing long-term care (LTC), addressing three topics in particular: reasons for the limited development of LTC insurance markets, the effect of LTC insurance purchases on the financial well-being of individuals and the major research areas, presently and in the future, in the field of LTC insurance.

*Winners of the 2019 Geneva Association
Ernst Meyer Prize: Christian Kubitzka,
Goethe University (pictured right) and
Alexis Louass, Ecole Polytechnique Paris
(not pictured)*



Volume 44, Issue 3 (July 2019) Special Issue on Microinsurance

Edited by David Dror, this special issue focuses on health microinsurance, agricultural risk, the operations of life insurance companies offering microinsurance by considering rate making, package design, risk assessment capital requirements and the business process of schemes specific to microinsurance.

Volume 44, Issue 4 (October 2019)

This issue includes articles on carbon-neutral insurance balance sheets, the role of financial structure in the linkage between the insurance and banking sectors, life insurance lapse behaviour, the role of reinsurance in enhancing insurers' competitiveness, the determinants of reinsurance usage, the impact of marketing channels on the corporate reputation and profitability of life insurers and insurance contract renewals as incentives for insurance salespersons.

GENEVA ASSOCIATION ERNST MEYER PRIZE

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

The 2019 Geneva Association Ernst Meyer Prize was awarded to Christian Kubitzka of Goethe University (Frankfurt) for his thesis, 'Essays on Financial Stability and Insurance Markets', and to Alexis Louass of Ecole Polytechnique (Paris) for his thesis, 'Insurability of Catastrophic Risks'.

Christian Kubitzka's thesis applies state-of-the-art theoretical and empirical techniques to strengthening the understanding of systemic risk and its relation to insurance companies and the regulation of financial markets. Alexis Louass' work discusses innovative mechanisms for pooling and transferring risks which can benefit those with the least access to insurance and most exposed to risks like climate change.

THE SHIN RESEARCH EXCELLENCE AWARD

The Shin Research Excellence Award promotes original research that has a direct, practical influence on the business operations of the insurance industry.

The winners of the 2019 award were Alexander Braun, Sebastain Utz and Jiahua Xu for their paper, Are Insurance Balance Sheets Carbon-Neutral? Harnessing Asset Pricing for Climate-Change Policy.

GENEVA ASSOCIATION RESEARCH GRANT

The Geneva Association awards an annual research grant of CHF 10,000 for an exceptional doctoral thesis or research paper concerned with the field of risk and insurance economics.

The winner of the 2019 Geneva Association Research Grant was Chenyuan Liu, a PhD student in 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. Chenyuan Liu uses the U.S. insurance exchanges (HealthCare.gov) to investigate some of the purchase behaviour effects of online platforms.



Jiahua Xu (center right) of the University of St. Gallen receives the 2019 Shin Research Excellence Award on behalf of her team at the 2019 Global Insurance Forum

The paper illustrates the potential impact of the insurance industry to counter climate change by redirecting major capital flows associated with its investment and underwriting businesses towards carbon-neutral activities. The study, designed to incentivise carbon-neutral activities, outlines a two-pronged approach to examining and categorising carbon exposures in investment portfolios in line with complementary regulatory reforms mandating disclosures.

The winners received USD 5,000 and their work was published in *The Geneva Papers on Risk and Insurance—Issues and Practice*, Volume 44, Issue 4, October 2019. The winners were also invited to present their work at the IIS Global Insurance Forum in Singapore on 18–21 June 2019, attended by more than 500 senior insurance leaders.



46TH SEMINAR OF THE EUROPEAN GROUP OF RISK AND INSURANCE ECONOMISTS

At the 46th Seminar of the European Group of Risk and Insurance Economists (EGRIE) Seminar, held in Rome on 19–21 September 2019, academics presented their latest research on issues such as trust and discrimination in insurance, the role of insurance in cyber risk management, the asset allocation of insurers, mergers and acquisition in the insurance industry, the welfare of index insurance, insurance market discipline and government guarantees. The 31st Geneva Risk Economics Lecture, delivered by Professor Luigi Guiso of the Einaudi Institute for Economics and Finance, addressed the insurance role of the firm.

18TH JOINT SEMINAR OF THE EUROPEAN ASSOCIATION OF LAW AND ECONOMICS AND THE GENEVA ASSOCIATION

Since 1985, The Geneva Association has closely collaborated with the European Association of Law and Economics (EALE) to promote the cross-fertilisation between law and economics in insurance. The 18th Joint Seminar, held in Milan on 13–14 June 2019 and jointly organised by the Faculty of Banking, Finance and Insurance at the Catholic University of the Sacred Heart, focused on 'Law and economic issues of Insurtech'. The seminar focused on the legal and economic implications of the use of technology innovations to the re/insurance industry.



The 18th joint seminar of the European Association of Law and Economics and The Geneva Association was held in Milan on 13–14 June 2019.

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The Geneva Association

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