13th Annual Round Table of Chief Risk Officers (ART of CROs)

Conference review

Copenhagen, 14-15 April 2016

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The Geneva Association

The Geneva Association is the leading international insurance think tank for strategically important insurance and risk management issues. The Geneva Association identifies fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. Through the development of research programmes, regular publications and the organisation of international meetings, The Geneva Association serves as a catalyst for progress in the understanding of risk and insurance matters and acts as an information creator and disseminator. It is the leading voice of the largest insurance groups worldwide in the dialogue with international institutions. In parallel, it advances—in economic and cultural terms—the development and application of risk management and the understanding of uncertainty in the modern economy.

The Geneva Association membership comprises a statutory maximum of 90 chief executive officers (CEOs) from the world's top insurance and reinsurance companies. It organises international expert networks and manages discussion platforms for senior insurance executives and specialists as well as policymakers, regulators and multilateral organisations.

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

THE GENEVA ASSOCIATION

Risk Management Beyond Solvency II

13TH ANNUAL ROUND TABLE OF CHIEF RISK OFFICERS
COPENHAGEN | 14–15 APRIL 2016

The Geneva Association

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Foreword

Anna Maria D'Hulster

Secretary General,
The Geneva Association

I am pleased to present the review of The Geneva Association's 13th Annual round table of Chief Risk Officers (ART of CROs) which took place on 14 and 15 April 2016 in Copenhagen. Our ART of CROs conference provides a forum for discussion on challenges and lessons learned from the practical application of a risk framework within an insurer. These discussions are very much practice-based and complementary the more macro themes tackled at the annual CRO Assembly.

This year, our dialogue moved beyond the implementation of Solvency II in Europe, to focus on the core elements of risk management. In particular, on the challenge of managing risk and adapting risk frameworks in the current changing macroeconomic, business and regulatory environment.

Attendees also debated the far-reaching consequences of emerging technologies, not least the political sensitivities around achieving the right equilibrium between consumer protection and the consumer advantages that can be provided by the wealth of—sometimes highly sensitive—personal data that is being created and available in astonishing volumes.

Our 2016 ART of CROs was a great success. It underlined how the risk management function is continuously developing and becoming increasingly important for insurers to understand and manage their evolving risks. The Geneva Association is pleased to provide a regular forum in which the challenges, lessons learned and best practices can be considered and discussed among the CRO community.

Finally, on behalf of The Geneva Association's Members and the assembled CROs, I would like to thank Nordea for their kind sponsorship of this successful meeting.

Programme

Thursday | 14 April

08.30 Welcome and Introduction
Annette Olesen, Group CRO, Nordea Life & Pensions
Michael Steel, CRO Network Manager, The Geneva Association

09.00 ***Session 1: Navigating Uncharted Waters*** (Keynote)
Daniel Hofmann, Senior Advisor Financial Stability and Insurance Economics, The Geneva Association

10.15 Coffee break

10.45 ***Session 2: The Challenges of Risk Management in the Changing Business, Economic and regulatory environment*** (Panel Session)
Moderator:
Sue Kean, Group Risk Officer, Old Mutual Plc
Panelists:
Fabrice Brossart, AIG Europe Chief Risk Officer and Head of Country Risk Operations
Andreas Maerkert, CRO, Hannover Re Group
Annette Olesen, Group CRO, Nordea Life & Pensions

12.00 Lunch

13.00 ***Session 3: Running life insurance business under market valuation and increased longevity: lessons learned from the Danish sector and looking forward*** (Keynote)
Jan Parner, Deputy Director General, Financial Supervisory Authority of Denmark

14.00 ***Session 4: EIOPA's approach to conduct of business regulation*** (Keynote)
David Cowan, Project Manager on the Insurance Distribution Directive (IDD),
Consumer Protection and Financial Innovation team, EIOPA

15.15 Coffee break

15.45 ***Session 5: Round Table discussion on the changing environment and what this means for the CRO and risk function***
Nicola O'Regan, Head of Risk Reporting and Frameworks, Nordea Life & Pensions
Michael Steel, CRO Network Manager, The Geneva Association

17.00 ***Nordea and the role of risk management***
Nils Bolmstrand, Head, Nordea Life & Pension

17.30 Adjourn

Friday 15 April

08.50 Introduction/Recap

09.00 ***Session 6: Big Data & advanced analytics—Does it matter for insurance? Opportunities and threats***
Nic Gordon, Associate Director, BCG Big Data team

10.15 Coffee break

10.45 ***Session 7: Risk vision 2020*** (Keynote)
Raj Singh, CRO, Standard Life Plc

12.00 ***Wrap up Session***
Annette Olesen, Group CRO, Nordea Life & Pensions
Michael Steel, CRO Network Manager, The Geneva Association

12.15 Lunch

13.15 End

Facing left to right: Sue Kean, Group Risk Officer, Old Mutual; Fabrice Brossart, Senior Managing Director, AIG; Andreas Maerkert, Chief Risk Officer, Hannover Re; Annette Olesen, Group Risk Officer, Nordea Life and Pensions

Nordea Headquarters

Above: Session five gets underway
Below: Raj Singh, CRO, Standard Life Plc

Left: Nils Bolmstrand, CEO Nordea Life and Pensions.
Right: Michael Steel, CRO Network Manager, The Geneva Association

Introduction

The Annual Round Table of Chief Risk Officers (ART of CROs) held its first meeting in October 2003 when the CRO role had only recently emerged within the insurance industry and many around the table did not even hold the title. Today, CROs are an established component of the executive management teams in the majority of Insurance companies around the world and the CRO community is flourishing.

The ART of CROs is a unique venue for CROs in that it is focused on facilitating a discussion between CROs about the practical challenges of managing risk within the insurance industry. The CRO plays an important role within the industry not just in marshalling the risk management activities of companies but also pushing ahead new areas of research and taking a pro-active view of the changing business conditions to assist their stakeholders in navigating through uncertain times. The agenda of the ART of CROs provide the contextual backdrop to allow CROs to 'come up for air' and engage in a lively debate around these challenges.

By Michael Steel

CRO Network Manager,
The Geneva Association

A key role of the CRO over the last few years has been in its interface with the regulatory community in the continuing implementation of risk-based regulatory environments. Solvency II has featured heavily in the minds (and budgets!) of the European insurance industry and having passed through the milestone of its successful implementation at the start of the year, the ART of CROs turned its focus beyond this regulatory agenda to get back to the core value of risk management to the businesses in which we operate. Our sincere thanks to Annette Olesen and Nordea for hosting this year's meeting.

With the backdrop of continuing low interest rates and a turbulent start to 2016 in financial markets, Daniel Hofmann set the macroeconomic scene to provide the foundations to our financial discussions and to answer the Reinhard and Rogoff question: 'Is it different this time?'. In his article, Daniel summarises the themes of the discussion and looks at the challenges to the insurance industry around his most likely paradigm of prolonged growth stagnation and low interest rates.

The question 'Is it different this time?' is a key theme across the challenging business environment not just within the macroeconomic environment. The insurance industry is also faced with challenge to its business model across the insurance journey—with new entrants using technology to disrupt the status quo relationships at the start of the insurance journey to new entrants entering the business to provide direct access to capital markets for commoditise-able risks. Is this simply a part of the regular innovation cycle which has existed within the insurance industry throughout its history or is something more fundamental happening to our business? Sue Kean provides an overview of the discussion around the risk management challenges that the changing business environment brings on the industry with some insightful examples of how risk management is helping companies better position themselves.

As the European insurance industry settles down to life under a Solvency II regime, so do our regulatory colleagues. With risk-based regulation across the world having dominated the regulatory agenda, many regulators are moving beyond this to focus on some of the key risks within the industry. The key question for CRO's is 'What is on the regulatory mind?' At our round table two of our regulatory colleagues provided some answers to this question. Jan Parner of the Danish FSA described the Danish focus on longevity risks and in particular the engagement between the Danish regulator and the insurance industry, and David Cowan addressed EIOPA's key focus on conduct of business regulation. In both cases the focus is on improving balance sheet resilience within the industry and also enhancing consumer confidence in the industry being a trusted partner.

This regulatory backdrop provided further context for a lively discussion continued across a wide range of topics including our experiences from the implementation of Solvency II, the management of emerging risks and how the risk function needs to adapt to the challenges ahead. Whilst a written summary provides a flavour of these discussions, participating in the interactions between new and seasoned CROs is the greatest value of the round table meetings.

An important emerging risk for the industry is around technology. Digital disruption, Internet of Things and Big Data are common sound bites across many articles written across the insurance industry press. Warnings of doom and disruption are challenged by comments regarding the industry being robust because it is already using technology to disrupt itself. Whilst the reality will likely play out differently to any of these headlines, it is important to understand the opportunities and threats that new innovations provide. Our colleagues at BCG provided the round table with thought-provoking insight into their work in these areas and observations on trends which were equally supported and challenged during a fascinating discussion.

A key theme in the discussions was around the role of the CRO. The consistent view throughout the meeting was that the CRO plays a key role in organisations as a strategic partner to the business and its stakeholders, but that solvency II had forced the role closer to a regulatory compliance officer in some organisations. Raj Singh talked to the round table about this challenge and his own experiences across three very different companies and provided many examples and insights into the value created when the CRO becomes the true strategic partner to the business and the company's stakeholders.

The next ART of CROs is scheduled for 10-12 May 2017 in Madrid and will be hosted by MAPFRE. I look forward to welcoming you all to this event.

Insurers will continue to see subdued demand for life and non-life products and a challenging investment environment

Navigating Uncharted Waters

An economist's take on long-term macro-financial developments

At the beginning of 2016, financial markets were in a severe funk. Share prices fell sharply, interest rates declined yet again, and market volatility was as high as in 2008, at the nadir of the financial crisis. To be sure, commentators were quick in pointing to likely culprits. Oil and commodity prices had fallen to nearly unprecedented lows. China's rebalancing act looked increasingly fragile. And there was a loss of confidence in the track record of policymakers in advanced and emerging market economies alike. All of these factors contributed to heightened uncertainty about global growth.

By Daniel Hofmann

Senior Advisor Financial Stability and Insurance Economics, The Geneva Association

How do we make sense of such developments? To answer this question, one needs to look beyond mere trends and short-term cyclical fluctuations and shed light on structural factors that are likely to affect developments for a longer time. Failure to do so leads not only to misguided economic policies (as can be observed in real time) but also to poor strategic choices in the world of business.

Unfortunately, there is no universal explanation for the current predicaments. Instead, we offer an eclectic framework built from six economic paradigms that allow us to discuss macro-financial developments and their implications for the insurance sector. The paradigms and their implications are summarised in Table 1. Some of these paradigms result—at least at first sight—in similar economic outcomes. Slow growth, for example, can be explained by the secular stagnation paradigm, which is driven by excess savings both globally (manifested by current account surpluses in Asia and parts of northern Europe) and within countries, but also as a result of continuing headwinds triggered by the global financial crisis and thus governed by the second paradigm. The latter seems to be particularly relevant in the Eurozone. In contrast to the U.S., policymakers in the EU failed to aggressively recapitalise their banks, and most European banks in turn failed to aggressively write down their toxic assets. As a result, most banks in the Eurozone are still undercapitalised, and they continue to be saddled with a growing proportion of non-performing loans. This explains to a large part why bank lending in the Eurozone has been on a downward trend until most recently and why growth in the Eurozone continues to be sluggish.

Of course, this does not rule out the importance of other factors. Policymakers in the EU seemed to display a slightly exaggerated obsession with austerity, leading to excessive savings in the public sector. This means that weak growth in Europe can also be explained with elements drawing from the first paradigm. For these reasons, a judicious analysis of current and future developments must always build on a blend of paradigms.

While most paradigms are not mutually exclusive, growth pessimism and growth optimism cannot exist simultaneously. Either low productivity and low growth prospects are here to stay because the world has run out of transformational innovations; or we are at the advent of a Golden Age with rising prosperity fuelled by what's alternatively been described as the Second Machine Age or the Fourth Industrial Revolution.

Finally, a more worrisome paradigm describes the rise of populism. It is represented by a group of PELOTs, such as Vladimir **P**utin, Recep **E**rdogan, Marine **L**e Pen, Viktor **O**rban, and Donald **T**rump. That a Russian president and likely presidential candidates in the U.S. and France can be mentioned in the same breath, indicates that we are faced with a global issue (the list could easily be lengthened). These politicians are driving on confrontation and polarisation. They are mobilizing the electoral base by exploiting sentiments of distrust and widespread feelings of having been cheated out of the fruits of economic growth. And they embody Lenin's belief that 'politics must take precedence over economics'. The issue is not so much the power they consolidate or may yet achieve. The concern is rather about the weak political centre and the loss in constructive problem-solving capacity associated with it, a weakness that has been observed in the wake of large financial crises throughout history.

Table 1: Six economic paradigms and their implications

Paradigms	Key drivers	Economic impact	Relevance	Impact on insurance
Secular stagnation	Excess savings	Stagnation	Many AMEs	Subdued demand for life and non-life; declining investment income; erosion of profitability
Wake of the global financial crisis	Weak banks, deleveraging	Stagnation; banking crisis	Europe	Subdued demand for life and non-life; declining investment income; erosion of profitability
Financial market fragility	High monetary stimulus, lack of debt consolidation	Market turbulence; Eurozone crisis; EME crises	Eurozone; many EMEs	Challenge for investment management; risk of financial market-induced regulation
Growth pessimism	Low productivity	Anaemic growth	Most AMEs	Subdued demand for life and non-life; declining investment income; erosion of profitability
The Second Machine Age or the 4th Industrial Revolution	Digital transformation	Growth acceleration	Global	Pressure on traditional lines of business; new competitors; global strategies at risk; costly IT investments; growth opportunities
The rise of populism	Weak political centre	Growth retarding	Global	Growth retarding; global strategies at risk

The six economic paradigms developed in Table 1 give raise to four medium-term scenarios describing the likely developments over a five-year time horizon (Table 2).

Like the six governing paradigms, the four scenarios summarised in Table 2 below are not mutually exclusive (that's why the probabilities assigned to them add up to more than 100 per cent). The most likely outcome is weak growth and low interest rates for the foreseeable future. It means that insurers will continue to see subdued demand for life and non-life products, a challenging investment environment, declining profitability, and—over the long run—a steady erosion of solvency.

It is an old adage that one tends to overestimate the impact of IT in the short run, but underestimate its long-term consequences

Table 2: Medium-term scenarios describing likely developments over five-year time horizon

Medium-term scenarios (5-year horizon)	Nature / governed by	Occurrence
Prolonged stagnation and low interest rates	Structural and long cycle; Paradigms 1 + 4	Highly likely 80%
Market turbulence and new financial crisis	Long cycle; Paradigms 2 + 3	Likely 20%
Globalisation setback	Very long cycle; Paradigms 5 + 6	Possible 10%
Onset of a Golden Age fuelled by IT	Structural (medium term); Paradigm 5	Possible 5%

That said, one shouldn't entirely neglect the potential of the digital transformation. It is an old adage that one tends to overestimate the impact of IT in the short run, but underestimate its long-term consequences. For that reason, the likelihood of a new Golden Age enabled by IT descending on us may be much bigger than the 5 per cent assigned for the medium term. Insurers had better prepare for a disruptive transformation and the growth potential it may entail.

The complex regulatory landscape was highlighted as a key challenge across the business formats

The Challenges of Risk Management in the Changing Business, Economic and Regulatory Environment

The session was designed to review the challenges of risk management in the changing environment across four very different business models. Each panellist began with an overview of their business and the unique aspects of risk management within their business model.

Three core topics were chosen as a backdrop to the discussion:

(1) Changing business models;
(2) The impact of changing technology and,
(3) What really has changed in practise and how much of this is just a continuing evolution?

The complex regulatory landscape was highlighted as a key challenge across the business formats. In some cases, organisational structures have been changed and companies merged to simplify the regulatory map. With many regulators, the importance of the regulatory colleges was emphasized but whilst these were seen as valuable and working well, the approach taken by different local regulators, often to the same underlying regulatory principles, was viewed as creating unnecessary complexity. Own Risk and Solvency Assessments (ORSAs) were viewed as one of the key attributes of the risk-based regulatory regime which has provided a lot of internal value to companies.

Different accounting regimes in different countries were proving a challenge from a risk management and performance metrics point of view. The challenges of accounting valuations and economic valuations have been with the industry for many years but with the greater use of metrics derived from these basis, the panel discussed the need for clarity in their use. Rank ordering of the metrics was viewed by the panel as a simple way to achieve this, but in areas such as asset-liability matching the solution was not as simple. Regulatory based metrics were adding to these challenges with additional resources needing to be hired to provide all of these metrics and assist in the interpretation of the output across a broad and complex audience of stakeholders.

The differences in the approach taken by banks and insurance companies to managing risks was discussed. This was particularly relevant where the insurance entity sits alongside or is a part of the banking group. Understanding the difference in measuring and monitoring risks such as those around liquidity was highlighted as a key challenge. In addition, the key differences between banking regulation and insurance regulation were adding to the regulatory complexity debate.

All the panelists agreed that risk management forms an integral component of business planning within their organisations but most have moved beyond the one-year view and tend to look at key risk and plans over a three to five-year horizon. Stress and scenario testing were proving to be as important a feature of planning as statistical based metrics particularly where 'creeping' risks were being observed such as those of a political or economic variety.

Sue Kean

Group Risk Officer,
Old Mutual

Moderated by:
Sue Kean

Panelists:

- Fabrice Brossart, AIG Europe Chief Risk Officer and Head of Country Risk Operations
- Andreas Maerkert, CRO, HannoverRe Group
- Annette Olesen, Group CRO, Nordea Life & Pensions

Many insurance companies are exploring the greater use of technology within their business processes leading to a change in operational risks which need to be monitored. Interconnectivity risk was also seen to be increasing and business relationships needing to be monitored on a more active basis. Many of the companies are also embracing the disruptive side of technology by setting up innovation centres within their organisations and making an intelligent set of investments to explore new areas. Adaptive risk management around these centres was discussed as an example of where risk management is providing companies with the flexibility to innovate within a safe risk and regulatory environment to provide comfort to all stakeholders.

Many insurance companies are exploring the greater use of technology within their business processes leading to a change in operational risks which need to be monitored

The panel concluded with the question 'Is this really any different from the past'? Here there were mixed views but on the whole the panel and audience felt that the key difference from previous insurance cycles related to the increased systemic risk (both real and perceived) due to issues such as interconnectivity, speed of change, lower barriers to entry and increased regulatory complexity which may limit the ability of incumbents to leverage diversification benefits.

The 13th ART of CROs brought together 29 CROs to discuss risk management beyond Solvency II.

Above: Daniel Hofmann, Senior Advisor Financial Stability and Insurance Economics, The Geneva Association, opens with keynote one

Above: David Cowan, Project Manager, Insurance Distribution Directive, EIOPA. Right: Mark Buisseret, Planning and Business Development Officer, Trust Re

Left: Andreas Maerkert, Managing Director, Group Risk Management, Hannover Rück SE. Right: Frieder Knupling, CRO, SCOR SE

Left: Lionel Calvez, CRO, COVEA. Right: Filip Coremans, CRO, Ageas Insurance International

Proportionality, the minimum harmonisation nature of IDD and consistency with MiFID II were keen overarching themes

EIOPA's Approach to the Conduct of Business Regulation and Supervision

David Cowan from EIOPA's Consumer Protection and Financial Innovation team provided an overview of EIOPA's activities in the area of conduct of business regulation and supervision.

The presentation considered four main aspects:

(1) What more generally needs to be done in the area of consumer protection?
(2) EIOPA's mandate in the area of consumer protection
(3) Some key regulatory issues such as Product Oversight & Governance (POG) and the Insurance Distribution Directive (IDD)
(4) EIOPA's Change in Focus: 'From Regulation to Supervision'

On the first issue, David highlighted the importance of restoring consumer confidence by learning the lessons of mis-selling. This could only be achieved by ensuring: good governance arrangements within firms; customer needs at the centre of sales; better transparency in the sale of products and a culture built on integrity/board responsibility. In that respect, product intervention was seen more as a last resort measure.

On the second issue, David emphasised EIOPA's leading role under its founding regulation to promote transparency, simplicity and fairness in consumer products and services. EIOPA had certain powers such as issuing warnings where a product posed a serious threat, but there was always a balance to strike with promoting equal conditions of competition and not stifling financial innovation. David also field questions around how to address 'simplicity', particularly as regards the potential trend towards more standardisation/commoditisation of insurance products.

On the third issue, David emphasised that POG arrangements were about designing and bringing products to market, reviewing those products over the whole life cycle and ensuring those products meet the needs of the target market to prevent or mitigate the effects of mis-selling of unsuitable products. EIOPA had just recently adopted Preparatory Guidelines on POG for both insurers and intermediaries. These would help to provide a smooth transition to the POG provisions envisaged under the IDD.

As regards IDD, David said that the Directive had come about due to the current fragmentation of the European insurance market and the perceived need to promote a true internal market for insurance products and services. EIOPA had a key role to play over the coming years in working on legislative empowerments such as delegated acts, technical standards and guidelines in the Directive, not least in relation to ensuring greater protection for consumers in the sale of insurance-based investment products and better disclosure as regards non-life products. Proportionality, the minimum harmonisation nature of IDD and consistency with MiFID II were keen overarching themes.

By David Cowan

Project Manager on the Insurance Distribution Directive (IDD), EIOPA Consumer Protection and Financial Innovation team

There is a need for stability in regulation and consistency in interpretation across the European landscape to foster trust amongst all of the various stakeholders

Round Table Discussion on the Changing Environment and What This Means for the CRO and Risk Function

By Michael Steel

CRO Network Manager,
The Geneva Association

By Nicola O'Regan

Head of Risk Reporting and Frameworks,
Nordea Life & Pensions

Four topics were chosen by participants to discuss and debate some of the industries key risk management learnings and challenges.

The European insurance industry has been through a significant change with ***the implementation of Solvency II*** and the ART of CROs gave a good opportunity to 'pause for breath' and discuss the key learnings. The organisational governance framework was already in progress for many companies and whilst the regulatory timeline accelerated some of this, for many companies the demarcation lines between first and second line functions and the roles within these still remain blurred. There was a general agreement that as an industry we have focused very heavily on data, models and reporting and we now need to move this to valuable insight – in line with the best practices within risk functions. In order to do this, there is a need for stability in regulation and consistency in interpretation across the European landscape to foster trust amongst all of the various stakeholders. There were also concerns around Solvency II related to the cost to get through the implementation, the costs of the ongoing work and because of this, a risk of over-reliance on what has been implemented

Emerging risks were split into four categories in the discussions around this topic - strategic risk, liability risk, asset risk and systemic issues. There was a view that we should try to move away from the theoretical aspects of emerging risk and into the practical side to allow these to 'live' within organisations. There was a concern that the assessment of emerging risks has been too opinion-based but recognition that the lack of data makes quantification difficult. Many companies now use scenarios and agile, iterative development to make the assessment more practical. This still requires judgement in looking ahead - the timeframe for these scenarios has moved away from an annual bias to multi-year (3-5 years or longer) to allow greater value to be extracted from the work. Disclosure around emerging risks was discussed and all agreed that the education around the topic was key to avoid misinterpretations.

The required skillset for the risk function a number of years ago would have mainly been quantitative as many in the industry saw risk management as principally about models and reporting. Along with the CRO role the risk functions of today have grown to be that of a business partner and the skillset has moved to emphasize qualitative skills such as communication and empathy. The role requires the CRO to be a generalist rather than a specialist as in the past and the difficulties of this transition was discussed. The risk function should assist the CRO in the challenge and support role and the importance of relationships with the 1st and 3rd line functions was seen as key to the success of both the CRO and risk function. Going forward the skillset within the risk function will need to develop further as the businesses develop into new products and new areas of risk and it will be increasingly important for risk to be part of the start of the decision-making process.

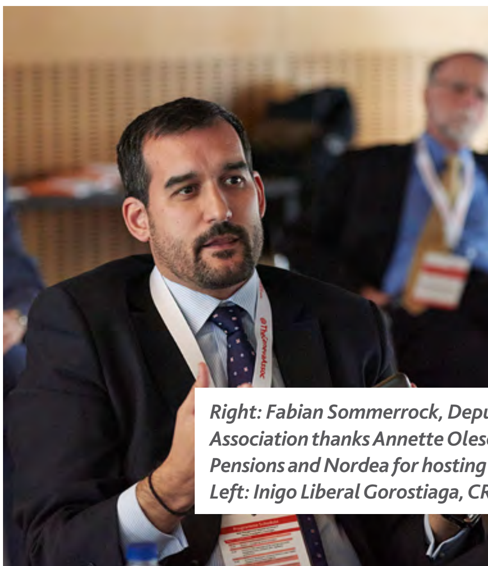
The role of the CRO was covered in presentation by Raj Singh and the group discussed the organisational aspects of the role. It was felt that the CRO should have such sufficient seniority to be viewed as an equal partner to their business peers on the executive committee. This would ensure that the CRO role is recognised as a true business partner and strategic partner across all of the stakeholders. Usually this would imply that the CRO should report to the CEO but this depends on how the Chairman and CEO of the company ranked the importance of risk management relative to the company's goals. There should be a good balance between being influential and independent and for this, it was key that the CRO should ensure that risk management is pre-emptive and should support, not control the business. It was recognised that, unlike other C-suite functions, there is no common definition of the role of the CRO, nor of the skillset that are required for the role going forward and that the role is constantly evolving. Additional work is planned by a number of audiences to assist in providing this clarity.

The CRO should have such sufficient seniority to be viewed as an equal partner to their business peers on the executive committee

Above: Markku Miettinen, CRO, LocalTapiola Group talking to Ramon Carrasco Bahamonde, Risk Director, MAPFRE
Below: Matteo Campaner, CRO, Vittoria Assicurazioni SpA

Above: Jan Parner, Deputy Director General, The Financial Supervisory Authority of Denmark

Left: Samuel Monteiro dos Santos Junior, Director, Bradesco Seguros S.A.
Right: Raj Singh, CRO, Standard Life Plc engages Daniel Hoffman, Senior Advisor Financial Stability and Regulation, The Geneva Association and Michael Steel, CRO Network Manager, The Geneva Association



Right: Fabian Sommerrock, Deputy Director General, The Geneva Association thanks Annette Olesen, Group CRO, Nordea Life and Pensions and Nordea for hosting the meeting
Left: Inigo Liberal Gorostiaga, CRO, BBVA Seguros Bancomer

Informal session and break-out groups. CROs heard expert insights and discussed key risk issues.

Big Data is disruptive across the insurance value chain and insurers who master the use of Big Data will gain a significant competitive advantage

Big Data, Big Impact

What are the trends in Big Data and analytics in the insurance industry? What are the threats and opportunities for insurers? What is the impact on insurers' risk management? This session addressed these questions in an analysis of how Big Data and ecosystems are a disruptive force that could threaten insurance incumbents throughout the value chain. It underlined that Big Data is disruptive across the insurance value chain and insurers who master the use of Big Data will gain a significant competitive advantage through, for example, better client understanding, contact, risk profiling and claims management. As a result the risk profile of insurers is changing dramatically. Other industries such as technology players, car manufacturers and utilities providers, profit from deeper client relationships and better control of the ecosystems, mainly through client understanding and contact, whilst incumbent insurers are marginalized as providers of capital to shrinking risk pools.

By Nic Gordon

Associate Director, BCG Big Data team

Multiple Catalysts for Big Data and Ecosystem Growth

Despite some key hurdles such as privacy concerns and the required high investments in technology, there are four main catalysts that will accelerate the trend towards Big Data and ecosystem growth according to BCG.

- Technology adoption: smartphone adoption is growing 46 per cent annually to an expected 2.3 billion by 2018. Device connectivity is growing at an exponential rate – by 2020, expect that 80-100 per cent of all shipped cars will have embedded connectivity
- Internet of Things: nearly everything in our cars, homes and bodies (health related) could potentially be monitored, stored, analysed and reviewed online. Many technology giants have launched B2C platforms that can manage these connected devices
- Consumer expectations: ~50 per cent of consumers would definitely switch or consider switching to new innovative insurance models, based on consumer research.
- Regulation: safety regulation will further accelerate the adoption of connected devices. A clear example is the eCall EU initiative that requires all cars from 2017 to be equipped with a system that automatically generates an emergency call

By Ofir Eyal

Principal, BCG Big Data team

Threat for insurers across the value chain

There is no doubt that Big Data is having a profound impact on the insurance industry – the Internet of Things and the rise of digital ecosystems are enabling new insurance models and disruptive propositions that challenge the status quo.

- Distribution: ecosystem models will trigger a shift to non-traditional channels with deeper levels of customer understanding and engagement. What's more, the 'Mobile-first' design of new entrants offers a superior customer experience.

- Underwriting and pricing: underwriting to become a data-driven game as ecosystem models will increasingly leverage their insight from novel data sources, such as social media and connected devices. The sharing economy is creating demand for new forms of insurance and is enabling peer-to-peer insurance
- Administration and claims management: ecosystem models to have an advantaged position to control and minimize their risk exposure. Focus will shift from re-active management of a claim to the provision of services that monitor and manage risks in real time
- Disintermediation: players with access to customers, devices and data can position themselves as an aggregator. For insurers that would mean further loss of the customer relationship and data ownership / control

Data alliances will grow rapidly, the customer journey will change dramatically and consumer trust becomes a key competitive weapon in data usage

Key actions for insurers wishing to gain a competitive advantage

Data alliances will grow rapidly, the customer journey will change dramatically and consumer trust becomes a key competitive weapon in data usage. How should insurers be responding right now?

- Understand the economic opportunity and threat – what is the potential for new revenue streams, customer segments, and better cross- and up-selling of existing products?
- Prioritize offerings based on company strength – what data does the company have, where can they leverage external data and add real value to the ecosystem and produce the highest returns?
- Transform the operating model to foster innovation – does the current organisational structure have the right capabilities and structure to leverage Big Data tools and infrastructure?
- Data alliances will grow rapidly in the next three years along. So, what are the key strategic partnerships needed and how to ensure they will deliver value five years from now?
- Test ideas in the market and scale up quickly – Can ideas be taken to market quickly in a small scale, and how to determine as soon as possible whether they are worth further investment?
- Understand and embrace the customer journey changes that offer new opportunities for customer engagement and risk profiling
- What internal data stewardship is in place and is the organisation engaging the consumer with ongoing communication to track trust over time?

Impact on insurers' risk management

The insurance risk profile is rapidly changing due to the availability of new technologies and data but there is a significant opportunity for the risk management function within this evolution. By tipping the focus to risk-based strategic reporting, the function becomes a more invaluable strategic business partner offering strengthened advisory capabilities.

- Strategic: what is the risk my business will be disrupted? Are we investing in the right technological developments? What are the changes to customer preferences and needs?
- Technical: is all available and relevant data in pricing and claims being adequately used? What are the client mix changes resulting from new rating capabilities and omni-channel? How is all of this being incorporated into our risk models?
- Operational: what is the correct transformational programme required? How sound is our technological infrastructure? What is the vulnerability of the new digital platforms when it comes to internal / external fraud?
- Compliance: how to ensure data protection and privacy across multiple legal jurisdictions? How do we continue to deliver on AML and restricted entity requirements? How do we use data to identify compliance hot-spots?

Big Data provides opportunities to drive value and competitive advantage. However, many insurers have not made significant progress when compared to how far forward players from other industries have moved to date. As competition intensifies from inside and outside the insurance industry, inevitably rates will continue to lower in key lines of business, squeezing profitability. Put simply: insurers who take advantage of the opportunity in data and analytics will outperform those who do not. The greatest paradigm shift will depend on how different data ecosystems develop and the threat of adjacent entries. Insurers should take note of how technology providers approach data and radically remodel their approach to innovation with the aim of shaping data asset markets and strategic partnerships with other data providers.

The 2020 CRO needs to get their business living in the future

Risk Vision 2020

By Raj Singh

Standard Life plc

Evolving and Increasing Regulation

The environment is becoming more demanding and intense. There is a need to balance time spent on regulatory activity and supporting business performance and growth.

Cyber and Developing Technology

Data security and fast paced technology developments need to be met with: risk assessment; appetite needs to be articulated; and external diagnostics and testing.

Emerging Risks and Being Competitive

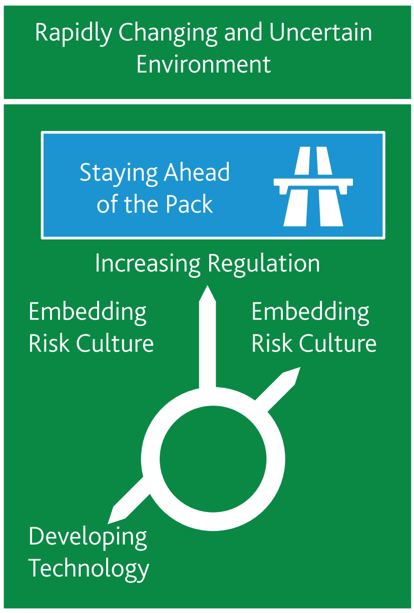
Business disruption and emerging risks can render a business uncompetitive. Invest in forward horizon scanning and create ethos of thinking outward to get out in front of change.

Risk Management in Unchartered Economic Waters

The challenges of low yields, guarantee levels and market volatility will likely persist. Risk need to ensure additional stretch for yield is within appetite and ensure the business can flex its business model to meet the challenges.

Risk Culture and Conduct

Risk culture needs to be embedded to ensure it is having positive impact on business performance, risk culture needs 'to be lived' and the customer is needed at the heart of all decisions.



- ***The CRO's influence needs to be present in all parts of the journey***
- ***With independence***
- ***Guide, challenge and support***

Speaker Biographies

Welcome and Introduction

Annette Olesen | Group Chief Risk Officer, Nordea Life & Pensions

Annette Olesen is the Group CRO for Nordea Life & Pensions, the largest life & pension company in the Nordics. She is overall responsible for risk management across the Nordea Life & Pensions group as well as capital management insofar as modelling, assessments and monitoring at the NLP Group level. Annette previously worked as partner with one of the big 4 accounting firms and has international experience from working in London 1998-2009. Since 2004 Annette has been involved in the political debate relating to Solvency II, and she is today a member of the Insurance & Reinsurance Stakeholder Group of EIOPA.

Michael Steel | Manager CRO Network Manager, The Geneva Association

Michael Steel is the Founding Partner of Oxbow Partners which advises the insurance industry on Strategy, Innovation, M&A and Risk Management.

Michael has over 25 years' experience in risk and capital management and prior to founding Oxbow Partners in 2015 was the Group Chief Risk Officer at AXIS Capital. Michael joined AXIS Capital in 2008 following 12 years at Benfield. He had been a Director with Benfield Ltd and Benfield Advisory, where he was the Global Head of the Capital Markets Group, Chairman of the ReMetrics team and the Head of Structured Products. Prior to his tenure at Benfield, Michael had been a leading member of Instrat, Sedgwick Group's Analytics and Structured Products Team.

Michael was an appointed Director of the Casualty Actuarial Society from 2011–2014 and holds a BSc (Hons) in Statistics and Mathematics from Brunel University.

Session 1—Navigating uncharted waters

Daniel Hofmann* | *Senior Advisor Financial Stability and Insurance Economics, The Geneva Association

Daniel serves currently as The Geneva Association's Senior Advisor Financial Stability and Insurance Economics. Between 2013 and 2014 he was Advisor to the Chairman of the Board of Directors of the Zurich Insurance Group (Zurich). Prior to this he was Economic Counsellor at the International Association of Insurance Supervisors (IAIS), which he joined in 2011. At the IAIS, he worked on issues relating to insurance and financial stability, directed the development of a framework for macroprudential surveillance in insurance, and lead the production of the first Global Insurance Market Report. Between 2001 and 2011, Daniel was Zurich's Chief Economist, where he contributed to risk management and developed a prize-winning PC platform for the analysis of country risks. Prior to working for Zurich, Daniel was financial editor at the Swiss daily Neue Zürcher Zeitung, which included a nine-year assignment as White House Correspondent in Washington.

Session 2—The challenges of risk management in the changing business, economic and regulatory environment

Moderator: Sue Kean* | *Group Risk Officer, Old Mutual Plc

Sue Kean was appointed to the Executive Committee of Old Mutual Group Plc, in January 2012 as the Chief Risk Officer for the Group. Old Mutual is a FTSE 100 financial conglomerate, operating in South Africa, Europe, the US and a growing emerging markets business, with particular focus on Africa.

Sue is a Chartered Accountant, with nearly 30 years experience in insurance and financial services. After several years with PwC in a variety of audit and consultancy roles, she worked for the regulator (FSA) shortly after it was first established. She then held a series of senior risk and capital management roles in Aviva, Insurance Australia Group and Friends Provident before joining Old Mutual. Throughout her career Sue has also been active in a number of industry bodies most notably the European CRO Forum and the European insurance trade bodies. She also maintains close links to her former regulatory colleagues through the various European and international regulatory bodies. She regularly speaks at seminars and conferences on risk management or regulatory affairs.

Panelists: Fabrice Brossart* | *AIG Europe Chief Risk Officer and Head of Country Risk Operations

Fabrice Brossart is the Chief Risk Officer for AIG Europe Limited and oversees AIG's risk function in entities outside of the US and Japan, ensuring these operations have a risk management system proportionate to their exposures and in line with local regulatory and corporate governance requirements.

Fabrice leads the Internal Model Approval Process of AIG Europe which operates via branches in 26 European countries and is the second largest U.K. non-life company by capital. Fabrice joined AIG in February 2011 as Chief Actuary for the European region, subsequently taking additional responsibilities for risk management and leading the Solvency II programme. Between 2014 and 2015 Fabrice worked in a number of risk management roles at the AIG head office in New York.

A French national, Fabrice qualified as an actuary in France in 1997 and in the U.K. in 2001. Previous employers include AXA Insurance UK and Willis Towers Watson.

***Andreas Maerkert** | CRO, Hannover Re Group*

Andreas took over the role as Managing Director of 'Group Risk Management' for the Hannover Re Group on 1 January, 2016. He has been with Hannover Re since 2004. Previous to his new role he was responsible for Hannover Re's economic capital model. Andreas holds a PHD in Mathematics.

***Annette Olesen** | Group CRO, Nordea Life & Pensions*

Annette Olesen is the Group CRO for Nordea Life & Pensions, the largest life & pension company in the Nordics. She is overall responsible for risk management across the Nordea Life & Pensions group as well as capital management insofar as modelling, assessments and monitoring at the NLP Group level. Annette previously worked as partner with one of the big 4 accounting firms and has international experience from working in London 1998-2009. Since 2004 Annette has been involved in the political debate relating to Solvency II, and she is today a member of the Insurance & Reinsurance Stakeholder Group of EIOPA.

Session 3 (Keynote)—Running life insurance business under market valuation and increased longevity: lessons learned from the Danish sector and looking forward

Jan Parner* | *Deputy Director General, Financial Supervisory Authority of Denmark

Jan studied actuarial science at University of Copenhagen and has achieved a Ph.D. in biostatistics.

From 2001 to 2008 he worked in different roles, lastly as chief actuary, in the Scandinavian part of Royal Sun Alliance. He joined the Danish Financial Supervisory Authority in 2008 in the role as Deputy Director General and is responsible for supervision and regulation of the areas of insurance, pensions, financial reporting and auditing.

Jan has chaired the EIOPA Pilar II+III working group from 2009 to 2012 and is the Danish member of the Board of Supervisors of EIOPA. He has also been a member of the Management Board of EIOPA from January 2011 to December 2015 and served in other committees within EIOPA.

Session 4—EIOPA's approach to conduct of business regulation

David Cowan* | *Project Manager on the Insurance Distribution Directive (IDD), Consumer Protection and Financial Innovation team, EIOPA

David Cowan has been working as a Principal Expert in EIOPA since its establishment on 1 January 2011. Prior to this date, he was working in the Secretariat of EIOPA's predecessor body, CEIOPS from April 2009 to end of December 2010 as a secondee from the UK Financial Services Authority (FSA)'s EU/International division. David's current responsibilities at EIOPA cover ensuring, as a project manager, that EIOPA delivers effectively on the different empowerments/tasks envisaged in the Insurance Distribution Directive (IDD). However, he has also worked previously on a variety of consumer protection issues as co-ordinator of EIOPA's consumer protection and financial innovation team.
David first joined the FSA in November 2004, working initially in its Retail Policy Division on the implementation of MiFID into the FSA's Conduct of Business Sourcebook before being seconded to the Investment Funds division of the German Financial Supervisor, BaFin from end of March 2008 to end of March 2009.
Prior to joining the FSA, David worked for seven years for the U.K. law firm, DAC Beachcroft LLP, including a period of four years spent in the firm's Brussels office working in the field of EU financial services law, competition law and public procurement law.

Session 5—Round table discussion on the changing environment and what this means for the CRO and risk function

Nicola O'Regan | *Head of Risk Reporting and Frameworks, Nordea Life & Pensions*

Nicola O'Regan is the Head of Risk Reporting and Frameworks at Nordea Life & Pensions and is responsible for implementing risk management frameworks across NLP and reporting on risk and capital. Prior to joining Nordea Life & Pensions, Nicola has worked in risk management, life insurance and non-life insurance for over 20 years. Nicola is a Fellow of the Institute of Actuaries in the U.K. and an International member of the Danish Aktuarforeningen.

Michael Steel | *Manager CRO Network Manager, The Geneva Association*

Michael Steel is the Founding Partner of Oxbow Partners which advises the insurance industry on Strategy, Innovation, M&A and Risk Management.

Michael has over 25 years' experience in risk and capital management and prior to founding Oxbow Partners in 2015 was the Group Chief Risk Officer at AXIS Capital. Michael joined AXIS Capital in 2008 following 12 years at Benfield. He had been a Director with Benfield Ltd and Benfield Advisory, where he was the Global Head of the Capital Markets Group, Chairman of the ReMetrics team and the Head of Structured Products. Prior to his tenure at Benfield, Michael had been a leading member of Instrat, Sedgwick Group's Analytics and Structured Products Team.

Michael was an appointed Director of the Casualty Actuarial Society from 2011–2014 and holds a BSc (Hons) in Statistics and Mathematics from Brunel University.

Nordea and the role of risk management

Nils Bolmstrand* | *Head , Nordea Life & Pension

Head of Nordea Life & Pension, and member of Wealth Management Executive Management, since January 2015. As Head of Nordea Life & Pension Nils chairs Life & Pensions subsidiaries in Norway, Sweden, Denmark, Finland, Estonia and Latvia as well the real estate company Nordea Ejendomme. Besides this he is also member of the Board of Nordea Investment Funds Ltd as well as Nordea Investment Funds S.A. in Luxembourg.
Prior to joining Nordea in 2012, Nils held several senior positions with Old Mutual and Skandia, Head of Products at Skandia AB and a member of the Skandia Nordic management team , CEO of Skandia Investment Group and member of Old Mutual Wealth Management executive team.
Nils has studied Law at Lund University.
He has also completed an executive program at London Business School.

Session 6—Big Data & Advanced analytics—does it matter for insurance? Opportunities and threats

Nic Gordon* | *Associate Director, BCG Big Data team

Nic is former Chief Data Officer for top 4 U.K. bank, and is currently BCG data governance expert in BCG. Nic has 25 years' experience in Financial Services with a focus on Data Governance and Analytics.

Nic has led complex, multi-million pound data strategy and architecture programmes from inception to completion. He plays a leading role in BCG in driving Big Data and Advanced Analytics thought leadership and project delivery in financial services including Insurance industry.

Session 7 (Keynote)—Risk Vision 2020

Raj Singh* | *Group Chief Risk Officer, Standard Life plc

Appointed Group Chief Risk Officer in January 2013, Raj Singh is responsible for developing strategies to manage financial, strategic and operational risk across the Standard Life group.

Before joining Standard Life, Raj had acquired extensive experience in financial services worldwide. In 2011 he established advisory firm Accredere AG in Switzerland, advising financial institutions on capital, risk, and reinsurance issues, and remains a non-Executive Board member. From 2007 to 2011, Raj was Group Chief Risk Officer at Swiss Re Insurance Company Ltd in Switzerland, where he was also a member of the Executive Board and Committee. Before this, he was Group Chief Risk Officer at Allianz SE in Germany, a position he held from 2002. Prior to this he held various senior positions at Citibank from 1988 to 2002.

He is a member of the Advisory Board at the International Center for Insurance Regulation at Goethe University in Frankfurt, Germany.

The Geneva Association Managing Team

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

Anna Maria was appointed Secretary General of The Geneva Association by the membership on 2 June 2014.

Before joining The Geneva Association, she was responsible for the insurance practice at swissQuant Group, a technology company specialising in the development and implementation of mathematical algorithms and software for risk management and big data purposes.

From 2002 to 2012, she had different roles with the Baloise Group in Switzerland and Europe. She acted as Head of Group Risk Management from 2002 to 2004, and Head of Group Performance Management while also representing the Holding on the boards of various subsidiaries (from 2004 to 2008). She subsequently established and developed the life insurance company Baloise Life of which she became the CEO (2008 to 2012). Anna Maria was a member of the Executive Committee of the European Insurance Association (CEA/Insurance Europe) from 2009 to 2012.

Before her career in the insurance industry, Anna Maria was a Principal at the Boston Consulting Group, leading banking and insurance projects in Germany and the United States. She started her career as a corporate finance analyst at Deutsche Bank.

Anna Maria holds an INSEAD MBA (1993) and a business-engineering degree from the Free University of Brussels, Belgium. She is a Belgian citizen.
In 2014 Anna Maria was appointed as non-executive Director to the Board of Hardy (Underwriting Agencies) Ltd., London.

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

Dr Fabian Sommerrock is Deputy Secretary General and Head of Insight at The Geneva Association—the leading international insurance think tank for strategically important insurance and risk management issues.

His responsibilities include the management of the research programmes on Financial Stability and Regulation, Extreme Events and Climate Risk, Global Ageing, Liability Regimes, the Protection Gap and Cyber with regular publications and international meetings. In addition, Dr Sommerrock manages the C-level networks (CROs, CIOs and Chief Economists) and academic relations (incl. *The Geneva Papers on Risk and Insurance*). Since 2010 he has held a visiting lectureship at the University of St. Gallen in the field of Marketing.

Prior to joining The Geneva Association, Dr Sommerrock was a Member of the Management Team at Roland Berger Strategy Consultants Switzerland, leading their insurance practice. He joined Roland Berger Strategy Consultants in 2005 and focused on the financial services industry and public services. He is an expert in strategy development, transformation, post-merger integration and reorganisation as well as efficiency improvements and change management. He has managed important projects for clients in the private and public insurance sectors over the past ten years.

Dr Sommerrock holds a Master's degree in Business Administration from University of Mannheim (Dipl.-Kaufmann) and studied Economic Policy at American University in Washington D.C. as a scholar of the Friedrich Naumann Foundation. He received his Ph.D. (Dr. rer. pol.) in Economics and Social Science from Kassel University (dissertation: successful post-merger integration in public institutions). Before his studies Dr Sommerrock served a two-year apprenticeship in banking and insurance at Landesbank Baden-Wüttemberg.

Our Host

Nordea is the largest financial services group in Northern Europe with a market capitalisation of approximately EUR 41.3bn, total assets of EUR 646,9bn and a Common Equity Tier 1 capital ratio of 16.5.

Nordea has leading positions within corporate and institutional banking as well as retail banking and private banking. It is also the leading provider of life and pensions products in the Nordic countries. With approximately 650 branches, call centres in all Nordic countries and highly competitive online and mobile banking platforms, Nordea has the largest distribution network in the Nordic and Baltic Sea region.

Nordea has the largest customer base of any financial services group in the Nordic region with approximately 10 million household customers and around 0.6 million corporate customers. Nordea is one of few European banks with an AA-rating and is also among the ten largest full-service banks in Europe, based on market capitalisation. Nordea's vision is to be a Great European bank, acknowledged for its people, creating superior value for customers and shareholders.

Nordea Life & Pensions (NLP) is a subsidiary to Nordea and provides life insurance, pension products and services for both individuals and corporate segments with traditional as well as unit-linked products. NLP operates in Denmark, Norway, Finland, Sweden, Poland, Estonia, and Latvia. In total 1.2 million customers are served through Nordic Banking's branches, our own sales force and external distribution. Asset under management is EUR 61bn. NLP's vision is to improve quality of life for our customers and thereby creating value for money for both our customers and owners.

Forthcoming Conferences of The Geneva Association

2016 | June

8-11 ***Rome*** **43rd General Assembly of The Geneva Association**
Hosted by Generali Assicurazioni and Vittoria Assicurazioni (Members only)

September

6-7 ***New York*** **10th Meeting of The Geneva Association's Chief Investment Officers**,
Hosted by Prudential

19-21 ***Nicosia*** **43rd Seminar of the European Group of Risk and Insurance Economists (EGRIE)**

October

7 ***London*** **12th Symposium on Insurance Strategies**
Hosted by Lloyds

November

3-4 ***Hannover*** **13th Health and Ageing Conference, 'Underserved consumers—Insurance solutions to close the health and longevity protection gap'**
Hosted by Hannover Re

17-18 ***Munich*** **12th Annual Liability Conference of The Geneva Association**
Hosted by Munich Re

28-29 ***Munich*** **12th Chief Risk Officer Assembly**
Hosted by Munich Re

2017 | March

9-10 **Paris** **Extreme Events and Climate Risk Conference**
Hosted by SCOR

22-23 **Zeist** **19th Meeting of The Geneva Association's Annual Circle of Chief Economists**
Hosted by ACHMEA

May

11-12 **Madrid** **14th Annual Round Table of Chief Risk Officers (ART of CROs)**, hosted by MAPFRE

June

14-17 **San Francisco** **44th General Assembly of The Geneva Association**
Hosted by U.S. Members (Members only)

The Annual Round Table of Chief Risk Officers (ART of CROs) is held to debate the practical challenges in the implementation of a risk framework and to discuss the emerging role of the CRO within the insurance industry. It complements the more macro perspectives of the annual CRO Assembly.

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