The Geneva Association

The General Assembly
review
2011

The Geneva Association

(The International Association for the Study of Insurance Economics)

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. The Geneva Association's annual General Assembly is the most prestigious gathering of leading insurance CEOs worldwide.

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

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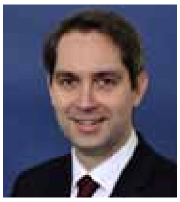


Patrick M. Liedtke, Secretary General and Managing Director, The Geneva Association

Foreword from the Secretary General

Last year, The Geneva Association embarked upon a new initiative following our General Assembly: the publication of a concise review that would deal with the key items under discussion by the assembled CEOs and share these with a larger readership. The hope was to extend the impact of the discussions and to carry some of the central insights to additional interested parties. Given the very positive feedback that so many readers cared to share with us in 2010, we decided this year to repeat the exercise and hope it will receive as many encouraging comments as it did 12 months ago.

At the end of May 2011, for the very first time, The Geneva Association held a General Assembly in Latin America and convened the CEOs of the world's leading insurance companies in Rio de Janeiro. Following almost four decades of annual gatherings in Europe, North America and Asia, this was breaking new ground and we are grateful to our Brazilian hosts for their generous welcome and excellent organisation. Brazil is a very dynamic country with a fast growing economy that showed remarkable robustness and flexibility during the financial crisis. Its entrepreneurial spirit was present also at our General Assembly and much admired by all participants.

Insurance activities, of course, play an active role as enablers and facilitators of many economic activities and it is often the international community of insurers and reinsurers that brings further specialist knowledge and additional risk capacity into the market, allowing for broader risk sharing than would otherwise be possible. As many works published by The Geneva Association show, the role of insurance is fundamental for the performance of a modern economy, especially one as energetic as the Brazilian one.

This also became apparent at the press conference that was held immediately prior to the General Assembly, where the assembled Latin American and international press were very interested in specifically the economic and social aspects linked to insurance activities. In particular, The Geneva Association's work on climate risk and its impact on developed and developing countries caught the attention of the journalists and sparked many questions.

During the General Assembly discussion sessions, regulation and financial stability were the dominating themes, reflecting the immediate key challenge that the industry faces on the global level and a top priority of The Geneva Association's work. Besides the complex technical matters, one larger issue stood out: the transparency and accessibility of current regulatory debates among policymakers and their international institutions. Our survey of member CEOs prior to the assembly showed that more than 95 per cent rated themselves concerned or very concerned about the transparency of the current regulatory processes. While the industry has highlighted its worries, commented extensively on regulatory proposals and constructively provided additional input in the form of effective alternative methodologies, it felt at times that the echo on the regulators' and supervisors' side was weaker than hoped for.

While one year ago, it was still quite an issue for the industry to speak with

Introduction

Foreword from the Secretary General (continued)...

one voice on financial stability, in the course of the past twelve months, the coordination and cooperation on the global level worked much better thanks to the collaborative initiatives of many insurance companies, the trade bodies involved and, we hope, the efforts of The Geneva Association. We are grateful to the many partners that we had and have in this process, not least the global regulators and supervisors that have provided many opportunities to the industry to make its views known.

Now that key decisions as to the new global financial architecture are being taken, it will be important for everybody to ensure that insurance markets can continue to function effectively, that they can retain the resilience they have shown throughout the past decades (and including the financial crisis), that they can facilitate the risk transfer so vital for a modern economy, and that they can continue to contribute to the economic development. As an industry with an especially long-term horizon and great experience in dealing with large, uncommon and exceptional risks, the insurance sector is greatly interested in a sustainable and safe framework to carry out its operations. It hopes for regulatory initiatives that will be based on a thorough analysis of all aspects of financial services (and, of course, especially those directly relevant to insurance) and that carefully balance the political desire for speedy reform with prudence and judiciousness.

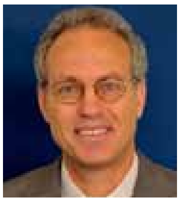
The Geneva Association will continue its special efforts on financial stability and the global regulation of insurance. It will continue to support the international discussion process, hoping to add further insights and engaging with relevant institutions in a constructive and cooperative manner.

Patrick M. Liedtke (Secretary General and Managing Director, The Geneva Association) and Eric Lombard (CEO, BNP Paribas Assurances) at the 38th General Assembly.

The Liability Challenge Discussion Session at the 38th General Assembly

Section 1 Financial Stability in Insurance

Systemic Risk in Insurance in 2011



Daniel Haefeli
Head,
Insurance and
Finance

The issue of systemic risk in insurance is much more than discussing new capital rules for risky entities or new regulations with regard to governance or legal structures. Depending on the outcome, it could be about whether the insurance industry will be in a position to continue with its business model as it has existed for decades. It is the issue of clearly explaining and strongly emphasising the position of the insurance sector in a worldwide economy. The main questions for all standard-setters must be whether they want to keep a strong risk management sector and what insurance in essence is. Answering these questions would enable us to be in a position to face the new challenges, such as ageing populations and the linked pension issues, or the climate risks with expected larger and more frequent natural catastrophes. As some experts argue, it could be far more damaging for the financial system if insurers stepped away from their current business model, which has proved to be reliable and highly resistant to past crises, because new Systemically Important Financial Institution (SIFI) rules are to be imposed upon them with additional requirements that could lead to negative consequences.

> “Standard-setters must be aware of the potential wider impact if the insurance sector were to depart from its current role as risk taker and distributor of risk, or as a long-term, stable investor in different asset classes.”

Standard-setters must be aware of the potential wider impact if the insurance sector were to depart from its current role as risk taker and distributor of risk, or as a long-term, stable investor in different asset classes. The current insurance model is a priceless service to the stability of the financial services industry and beyond it, expanding its influence to socio-economic stability.

The industry is aware that new rules must not be designed for the currently known potential risks only, but should instead be designed for potential future developments. However the future builds upon past experience and this is, with regards to the insurance sector, a track record of long-term prosperity and stability even in times of heavy interruption of the ordinary flow of services of the financial services industry. A look into the past shows clearly that no insurer has ever been at the source of a systemic financial crisis, nor has an insurer ever amplified an existing crisis to systemic proportions.

The last crisis has been weathered well by the insurance industry, despite significant write-downs of their asset base, leading to lower results and thus reduced solvency positions. Other indirect costs like slowdown of the economy, or imposed low-interest rate policies by national banks have to be borne by the insurers as well. These costs are consequences of the latest crisis, with the banking sector at the source. While an artificially low interest rate regime is helping banks to repair their balance sheets by borrowing funds at all-time low rates and lending out with attractive margins, insurers cannot benefit in the same manner. On the contrary, insurers’ assets yields are lowering significantly, which makes meeting expected earnings on promised returns in the future much more challenging.

> “A look into the past shows clearly that no insurer has ever been at the source of a systemic financial crisis, nor has an insurer ever amplified an existing crisis to systemic proportions.”

As far as SIFI designations are concerned, The Geneva Association continues to propose an activity-based methodology. This means that it is not entities or institutions

Systemic Risk in Insurance in 2011

"As far as SIFI designations are concerned, The Geneva Association continues to propose an activity-based methodology."

that are pinpointed as the source of systemic risk, but that the focus should be put on certain systemically risky activities they might carry out. The comprehensive analysis carried out over the past 18 months demonstrated that core insurance activities do not lead to systemic risk. This was confirmed, again, by all speakers during the systemic risk panel organised at the latest official IAIS Hearing in May 2011. Despite this clear statement, some financial services regulators—not always with profound experience in insurance—are still of the opinion that certain activities, such as reinsurance transactions and investments in banks, have to be looked at more carefully, as they might contain a risk due to interconnectedness. The Geneva Association addressed both areas in detail in its recent reports and came to the conclusion that neither activity was systemically threatening.

Further, the size of institutions is still perceived by some regulators as an important criterion in itself (and independent of risky or non risky activities) for systemic risk. The Geneva Association methodology proposes to be more precise and target the critical activities of an institution. There needs to be a difference between inherently stable large institutions and those that are not. The industry wants to avoid unnecessarily designating companies as SIFIs, or that others, who are involved in critical transactions, be overlooked because of imprecise criteria. Having a well targeted methodology is a prerequisite for a well functioning market.

Core insurance is not systemically risky. The characteristics of core insurance activities are a business model which is based on a pre-financed service by premiums, where contracts have a predetermined duration and liabilities are not readily callable by policyholders. The insurance business model generally does not rely on duration transformation where very liquid and short-term liabilities are backing illiquid and long-term assets. The insurance model follows the Asset Liability Management (ALM) concept, combined with diversification of risks in terms of business lines and geographic or asset class and counterparty. We need a comprehensive, universally accepted definition of core insurance, as this will enable regulators to focus on activities outside the scope of core business.

Even though the message that insurance is not banking may be repetitive, it is important that everybody involved in this process acknowledge this tenet, and more importantly, understand where the differences lie. That we still have to stress this fundamental fact demonstrates how much communication and education on all levels remains to be done. It reveals, unfortunately, a central weakness of the insurance sector: knowledge about its business is not universal. Indeed, insurance as a whole has a rather lower profile compared to some other financial services activities. Just saying "we are not systemically risky" is not sufficient; the reasons need to be clearly laid out, which The Geneva Association and other bodies have done.

All regulatory legislation, especially the new, must have the objective to encourage market discipline and promote stability and soundness in all different types of financial transactions and institutions. In an analysis made by the U.S. Federal Insurance Office (FIO), it was determined that the U.S. insurance market was characterised by strong market discipline and thus a relatively modest risk of insolvency.

Introducing a widespread "too-big-to-fail" or SIFI policy, both being initiatives of the same level, has the potential to reduce market discipline by creating the moral hazard of implicit governmental guarantees. The very narrow system of State guarantee funds as is the case, e.g. in the U.S. has proven to be very efficient. The key to regaining financial stability and trust in the system is to have a well devised system with regards to group supervision between different jurisdictions. The coordination between the European Solvency II regime and the U.S. system as designed by Dodd-Frank will be a very relevant guideline for the worldwide insurance supervision system.

Too often, there is a confusion between monumental shocks to an economy and financial systemic risk. One can question whether an insurance company, which might

"We need a comprehensive, universally accepted definition of core insurance, as this will enable regulators to focus on activities outside the scope of core business."

Section 1 Financial Stability in Insurance (continued)...

Systemic Risk in Insurance in 2011

fail due to extreme events such as massive pandemics, repeated war-like terrorist attacks, huge earthquakes or a series of outsized hurricanes, poses a systemic risk to the economy. As much as such an (principally insurable) event might affect an economy, it does not automatically confer the status of SIFI to any insurer covering it (respective parts of its consequences). As soon as certain events outgrow a particular size, they acquire a new characteristic. While they could result in the failure of several insurers as well, their main damage is not through a potential systemic crisis via failed insurance companies but very directly through their immediate impact on the economic fabric. To give an example: an outsized asteroid hitting New York and sinking Manhattan would most likely result in a series of insurance insolvencies but the consequences of that pale in comparison to what such a scenario would do to the American and world economy directly.

"The key to regaining financial stability and trust in the system is to have a well devised system with regards to group supervision between different jurisdictions."

What needs to be addressed now is the issue of regulatory and supervisory gaps in the system that would allow potentially systemically risky activites to avoid the kind of scrutiny that they should deserve. One basic principle should be that group supervisors have to guarantee that no unit is left without proper supervision. Any room for regulatory arbitrage must be closed, otherwise no level playground will be created and the envisaged market discipline will remain an illusion. International cooperation between regulators and supervisors becomes a central aspect.

There are a myriad of issues and specific factors that relate to the insurance sector and its recent inclusion by regulators into discussions on systemic risk, notwithstanding its long-held role as a stabiliser of economies. It is no surprise, therefore, that insurers are very concerned about the timeline for making decisions and implementing new supervisory concepts. The industry believes that regulators should take the time necessary to develop a well designed methodology for an industry which is not known to pose systemic risk in the first place. As pointed out earlier, insurance activities have never created a systemic financial crisis so there is no need to rush and potentially compromise on the quality of the work carried out.

Furthermore, it would be wise to coordinate and consider other ongoing regulatory initiatives, such as the Solvency II regime in Europe, in any financial stability project to avoid adding potential inconsistency and confusion to the existing national and international patchwork of regulatory and reporting requirements. Currently, there are many different initiatives underway that all postulate to reduce the risk to the financial system but that among themselves remain largely uncoordinated.

We hope that the relevant regulatory and political institutions will take note of the insurance industry's concerns, and will apply research and analytical work conducted so far to build strong, safe and efficient measures that will help our economies to develop properly.

"...there is no need to rush and potentially compromise on the quality of the work carried out."

The Dodd-Frank Act, Systemic Risk, and U.S. Insurance Regulation

Scott E. Harrington, Alan B. Miller Professor, The Wharton School, University of Pennsylvania, Philadelphia

"Insurance markets have much lower potential for systemic risk and much stronger market discipline than banking. Those fundamental differences favour regulatory and guaranty systems that reflect the distinctive features of each sector."

The Dodd-Frank Wall Street Reform and Consumer Protection Act could have far-reaching effects on U.S. insurance regulation. Paralleling in many respects global initiatives of the G-20 and the Financial Stability Board, the Dodd-Frank Act created the Financial Stability Oversight Council (FSOC) to oversee systemic risk, with the authority to identify systemically significant "non-bank financial companies", including insurance companies, which will be subject to heightened supervision by the Federal Reserve Board. It also created the Federal Insurance Office (FIO) within the Department of Treasury to monitor all aspects of the U.S. insurance industry and negotiate and enter into international agreements concerning prudential matters for insurance and reinsurance. The FIO must study and report to Congress on a wide variety of insurance regulatory issues, including capital standards and possible federal regulation of insurance and capital standards. As the implementation of the Act evolves, the National Association of Insurance Commissioners (NAIC) is exploring key issues in solvency regulation and supervision through its Solvency Modernization Initiative, including core principles, group solvency, capital requirements, corporate governance, international reinsurance transactions, and international accounting and regulatory standards.

Despite some convergence, U.S. financial institutions can be expected to specialise predominantly in either banking (and/or securities) or insurance for the foreseeable future. As stressed by numerous researchers and analysts, there exist fundamental differences between insurance and banking. Insurance markets have much lower potential for systemic risk and much stronger market discipline than banking. Those fundamental differences favour regulatory and guaranty systems that reflect the distinctive features of each sector.

The history of federal deposit insurance and "too-big-to-fail" policy creates some risk that mandatory or optional federal regulation of insurance could expand government guarantees of U.S. insurers' obligations, undermining market discipline and incentives for safety and soundness, and increasing the likelihood of future federal bailouts of insurance companies. It is not clear how the financial crisis has fundamentally altered the potential benefits and costs of federal regulation. AIG's problems cannot be primarily attributed to any insurance

Yoshihiro Kawai (Secretary General, IAIS), Marcos Lisboa (CEO, Itaú Unibanco), Denis Kessler (Chairman and CEO, SCOR), Donald A. Guloien (President and CEO, Manulife Financial Corporation), David Fried (Group General Manager and Group Head of Insurance, HSBC) and Scott E. Harrington (Alan B. Miller Professor, The Wharton School) at the Financial Stability Discussion Session of the 38th General Assembly.

The Dodd-Frank Act, Systemic Risk, and U.S. Insurance Regulation

> "...any significant increase in the overall level of risk-based capital could lead to undesirable distortions in decisions of many financially sound insurers."

regulatory failure. A strong case for federal regulation in response to the crisis would need to explain how federal insurance regulation before the crisis would have prevented or mitigated AIG's problems.

Given the importance and scope of existing market discipline, the FIO should recognise the fundamental importance of avoiding any significant expansion of government guarantees of insurers' obligations and carefully consider the potential effects of possible federal regulation on the state guaranty system. In contrast to "too-big-to-fail" policy, and consistent with lower systemic risk in insurance than in banking, protection provided by state guaranty funds is relatively narrow, which reduces moral hazard and preserves market discipline.

The FIO's analysis of capital requirements will likely evaluate the adequacy and effectiveness of the NAIC risk-based capital system and possible alternatives, such as capital standards under the Solvency II regime that will be implemented in the E.U. in 2012. The FIO will likely consider whether such an approach is desirable in the United States. As part of its Solvency Modernization Initiative, the NAIC is considering changes to its risk-based capital system that currently appear likely to retain the same basic structure. The NAIC risk-based capital standards have been criticized on a variety of dimensions, including that the types of risk reflected, the risk-weights and the aggregation methods are *ad hoc* and unnecessarily crude, especially compared with more sophisticated quantitative risk models. Those criticisms will likely be considered by the FIO.

It is not clear, however, that more sophisticated quantitative models to derive "Value-at-Risk" (or "Tail Value-at-Risk") are more appropriate for achieving the objectives of insurance capital regulation. It almost always can be argued that capital standards, even those based on relatively complex formulas, are not rigorous enough and that additional refinements and sophistication are warranted. While seemingly precise, the results of mathematically sophisticated risk models need not be accurate. Their potential value in analysing a firm's risk need not imply that they should provide the foundation for regulatory capital.

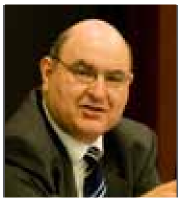
Some observers suggest that the relatively low levels of total risk-based capital compared to total insurance industry capital indicate that the NAIC risk-based capital formulas do not require sufficient capital. The FIO should consider, however, that relatively low levels of risk-based capital in relation to actual capital for the bulk of insurers are advantageous given the degree of market discipline in insurance. No matter how sophisticated, regulatory capital standards can produce undesirable distortions in the decisions of financially sound insurers. Current risk-based capital standards in the U.S. have relatively little effect on the operating and financial decisions of financially strong insurers, which hold far more capital than required by the standards. Even with refinements of risk measures or changes in the basic modeling framework to improve accuracy, any significant increase in the overall level of risk-based capital could lead to undesirable distortions in decisions of many financially sound insurers. The effects could include reduced willingness to provide coverage, less efficient investment strategies and/or higher prices, especially following any large, negative shocks to insurer capital.

Overall, the financial crisis, bank capital models, and Solvency II do not imply the need for fundamental changes in U.S. insurance company capital requirements. Insurance capital requirements in the U.S. should continue to recognise the distinctive nature of U.S. insurance markets. Systemic risk in banking has encouraged relatively broad guarantees and capital requirements that constrain risk-taking by many institutions, in part to reduce moral hazard. Binding capital requirements generate pressure from banks to relax requirements and/or to make the requirements more accurate, including by allowing the use of internal models. Insurance is different, especially property/casualty insurance. There is much less systemic risk and thus need for stringent capital requirements combined with relatively broad guarantees of firm's obligations. Relatively strong market discipline favours capital requirements that generally are easily met by the bulk of insurance companies, reducing potential undesirable distortions of sound companies' operating decisions and incentives for evading the requirements. Less constraining capital requirements make attempts at precision less important.

> "Relatively strong market discipline favours capital requirements that generally are easily met by the bulk of insurance companies..."

Section 1 Financial Stability in Insurance (continued)...

Regulation and Supervision



Gabriel Bernardino,
Chair, EIOPA

Group supervision

Under the current regulatory framework of Solvency I the group aspects of supervision are of a supplementary nature. The move towards group structures that took place in the last decade with circa 100 insurance groups having activities in more than one Member State will need to be also reflected in the legal and supervisory environment. Under the forthcoming Solvency II regime the focus of supervision of those insurance groups will be on group aspects. This should also minimise the supervisory burden on insurance groups by taking account of their organisational form.

The European Insurance and Occupational Pensions Authority (EIOPA) considers that to ensure a proper understanding of a group and the potential sources of risks within that group, all necessary parts of the group will have to be included within the scope of group for the purpose of assessing group solvency.

Given the changing focus towards group supervision, the role of the Colleges of Supervisors also needs to be strengthened under Solvency II. The duties and rights of the group supervisors and, therefore, of the other College members will be enhanced in specific areas. For example, the decision to give permission to an insurance group to calculate the consolidated group Solvency Capital Requirement will have to be reached jointly by the College of Supervisors. In order to meet this challenge, Colleges of Supervisors are currently preparing to be compliant by the entry into force date of 1 January 2013. In 2010, EIOPA's predecessor put in motion the transformation process for Coordination Committees into the Colleges of Supervisors under the Solvency II framework and an action plan for Colleges of Supervisors was put into place for 2010 as well as 2011 driving the agenda for Colleges.

As of 1 January 2011, EIOPA's role in Colleges is distinctively different from the more supporting role CEIOPS adopted in the past.

According to the new regulation, EIOPA shall contribute to promoting and monitoring the efficient, effective and consistent functioning of the Colleges of Supervisors referred to in Directive 2009/138/EC and foster the coherence of the application of Union law among the Colleges. With the objective of converging supervisory best practices, staff from the Authority shall be able to participate in the activities of the Colleges of Supervisors, including on-site examinations, carried out jointly by two or more competent authorities.

Starting from the second quarter of 2011 EIOPA staff have begun to actively participate as members in College meetings. The participation will also feed into Solvency II work streams on supervisory Colleges by clarifying, strengthening and streamlining the role and functioning of the current Colleges.

“As of 1 January 2011, EIOPA's role in Colleges is distinctively different from the more supporting role CEIOPS adopted in the past.”

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eiopa
EUROPEAN INSURANCE AND OCCUPATIONAL PENSIONS AUTHORITY

Section 1 Financial Stability in Insurance (continued)...

Regulation and Supervision

The Regulation and Supervision panel at the 38th General Assembly : Yoshihiro Kawai (Secretary General, IAIS), Andrej Klesyk (President and CEO, PZU), Henri de Castries (CEO, AXA), Gabriel Bernardino (Chairman, EIOPA), Ryan Workman (International Insurance Program Counsel, NAIC), and Wu Gaolian (Chairman, China Reinsurance (Group) Company).

Equivalence

The overarching aim of the equivalence assessment is to guarantee that the third country supervisory regime ensures a similar level of policyholder and beneficiary protection as the one provided under Solvency II. Since Solvency II adopts an economic risk-based approach to insurance regulation, the focus of equivalence assessments should be on the substantive issue of whether the third country (re) insurance undertakings are subject to a risk-based supervisory regime. Nevertheless, it is certainly conceivable that similar levels of protection of policyholders and beneficiaries could be achieved using approaches which are not risk-based in the same way as Solvency II is.

In order to prioritise the countries to be assessed some criteria were taken, namely:

- Currently the third country has a supervisory regime that is fully risk-based or has taken measures to move towards such a system.
- How material an equivalence finding is to the EU insurance and reinsurance undertakings and their policyholders?
- What is the number of related undertakings situated in the third country held by EU insurance and reinsurance undertakings and what is the significance of the business conducted through the related undertakings?
- What is the importance to the insurance market in the third country of the equivalence finding?
- Is there mutual recognition or equivalent arrangements between third countries and EU Member States?

There are a number of overarching principles that will underpin EIOPA's equivalence assessments.

Supervisory cooperation and professional secrecy is a key, determinative element of a positive equivalence finding. Professional secrecy is the basis for all supervisory cooperation among EU and third country supervisors. EIOPA will aim to ensure that appropriate professional secrecy and confidentiality requirements are in place.

Furthermore, equivalence is a flexible process based on principles and objectives and incorporates the proportionality principle.

Naturally, an equivalence judgment can only be made in respect of the regime in existence and applied by a third country supervisory authority at the time of the assessment. Nevertheless, plans and ongoing initiatives for changing the national supervisory regime should be taken into account when performing the assessment.

Finally, it is important to mention that equivalence assessments will be kept under review in order to take into account any developments that might lead to relevant changes in the third country supervisory regime. EIOPA intends to review its advice at least every three years or upon learning of significant developments within jurisdictions already found equivalent.

International Association of Insurance Supervisors (IAIS)'s Position Statement on Key Financial Stability Issues

Yoshihiro Kawai,
Secretary General,
IAIS

"It is important also to note the stabilisation role that the insurance sector typically plays in the economy that may help to limit systemic risk."

Introduction

The insurance industry is an important part of the global financial system and economy. As the international standard setter for insurance, the IAIS has been analysing the potential for financial instability in this sector to determine what, if any, regulatory and supervisory action might be appropriate. We have examined many risks and circumstances where systemic risk might apply to the insurance sector, regardless of whether these circumstances emanate from the insurance sector or are merely transmitted to the insurance sector from another financial sector.

The purpose of this note is to outline the IAIS position on key financial stability issues in insurance. To set the stage for the analysis, the basic insurance business model is described. Following this, the potential systemic risk of the insurance sector is discussed. We then consider the applicability to insurance of recognised systemic characteristics and insurance resolution, respectively, and conclude with some supervisory enhancements for insurance proposed by the IAIS.

Insurance business model

Traditionally the primary purpose of insurance is to indemnify policyholders (both individuals and corporations) from claims associated with adverse events (e.g., property damage, premature death, liability claims, etc.) and to provide stable long-term savings during the lifetime of a person. Diversification of risk is the main tool used in this process; diversification takes place by pooling policyholders' risks, by insuring a wide variety of policyholder pools, by underwriting in different geographic areas and by diversifying across different types of risks (such as underwriting and investment risk).

To the extent that risk remains after diversification, further mitigation techniques are used by insurers, including reinsurance, hedging, insurance-linked securities and the use of separate accounts for certain

"Insurers and banks share some common characteristics and risks because they are both financial intermediaries; however, the roles of banks and insurers in the economy differ substantially."

life insurance products (whereby policyholders take most or all investment risk). Generally, insurers incorporate strong risk management practices, including asset-liability management, to mitigate asset and liability mismatches. In addition, supervisory processes and regulatory requirements (such as capital and claim provisioning requirements) help to maintain solvency in the industry.

In spite of this, insurers sometimes become financially distressed and, in a competitive market, financial distress and insolvencies may occur from time to time. The financial distress of an insurer usually plays out over a long time horizon. That is, assets of the insurer do not need to be liquidated until claims or benefits under the policies need to be paid, and this will not occur until months or even years in the future. Accordingly, regulators usually have the time to intervene to reduce potential losses to policyholders from the insolvency.

Insurers and banks share some common characteristics and risks because they are both financial intermediaries (for example, financial

International Association of Insurance Supervisors (IAIS)'s Position Statement on Key Financial Stability Issues

guarantee insurance bears some similarity to banking type products); however, the roles of banks and insurers in the economy differ substantially. That is, banks are part of the payment and settlement system and are involved in the transmission of monetary policy, while insurers are not. Banks tend to rely to a larger extent on short-term borrowed money, and hence are exposed to liquidity risk; on the other hand, insurers receive premium payments in advance of claims so that liquidity risk is not usually an issue.

Systemic relevance and systemic risk

The insurance sector is susceptible to systemic risks generated in other parts of the financial sector. For most classes of insurance, however, there is little evidence of insurance either generating or amplifying systemic risk, within the financial system itself or in the real economy. This is because of the fundamentally different role of insurers in the economy as compared to banks. It is important also to note the stabilisation role that the insurance sector typically plays in the economy that may help to limit systemic risk.

The G-20, IMF, FSB and BIS focus on three characteristics of systemically important financial institutions: size, interconnectedness and substitutability. This article analyses the applicability of these characteristics to insurance.

By itself, size is not a particularly good measure for assessing the potential for systemic risk in insurance. In fact, size has a beneficial effect for most insurers by allowing for greater diversification of risk (via the law of large numbers). Also, because premiums are funded in advance of claims, insurers typically are required by operation of the business model and regulatory requirements to have a large amount of assets on hand relative to liabilities in comparison to banks, which can be critical in the event of an insolvency.

Reinsurance activities help redistribute risks among insurers, but also contribute to interconnectedness within the insurance sector. Hypothetical systemic events of failure of a large reinsurer and/or a reinsurance spiral (neither of which have occurred to date) could conceivably have a significant impact on capacity among primary insurers and cause disruption to the real economy. IAIS monitors this with its Global Reinsurance Market Report, which suggests that reinsurance risk exposures have so far been well managed and diversified.

> "...size has a beneficial effect for most insurers by allowing for greater diversification of risk..."

Insurers are certainly interconnected with other financial and non-financial firms through equity shareholdings, corporate debt holdings, other investments, treasury operations, securities lending, etc. However, whether these interconnections are of systemic importance would depend on how much the total exposure of insurers' investments account for in the overall economy. Further, as already indicated, immediate liquidation of an insurer's investments does not occur when an insurer becomes insolvent. Hence, a fire-sale of large blocks of investments which might depress asset prices does not typically occur in an insurer insolvency.

Lack of substitutability in the insurance sector may lead to market disruptions, especially when insurance coverage is necessary to conduct business. For example, a market disruption can occur when compulsory insurance products become unavailable. Also, insurance against catastrophes can become unavailable or extremely costly after a catastrophic event. There is also a possibility that a market failure will occur where insurance capacity disappears in a particular segment of the insurance market such that parts of the real economy are disrupted and government intervention is required.

Market disruptions or failures of this nature are typically relatively short-term, as new insurers and/or reinsurers can usually move into the affected region to create capacity for the product(s) in question, although this is not always the case. An effective regime of regulation and supervision can mitigate this possibility.

An important part of the IAIS analysis has been exploring ways in which insurers may amplify systemic risk under certain circumstances. For example, the participation of life insurers in capital markets can contribute to selling pressure, if the insurers collectively hold significant positions in equities or hedging instruments and need to liquidate their positions simultaneously in a falling market.

Of course, as conditions change in the future, in theory the possibility exists that insurers may become systemically important. Some cases where insurers might generate systemic risk include: (1) widespread distribution of financial products that contain a minimum guarantee and/or distribution of other types of banking-like products; (2) widespread (naked) derivatives trading, especially extensive distribution of credit default swaps (CDSs); (3) expansive offering of financial guarantee insurance; and, (4) insurers using regulatory arbitrage to offer products or services that end up being systemically important.

Indeed, the nature of the insurance industry has already been changing. Some parts of the industry have been growing in complexity, diversity and global reach. Financial innovation and the rapidly changing financial environment have contributed to the formation of some insurance entities and groups spanning jurisdictional borders and/or sectors. In light of

Section 1 Financial Stability in Insurance (continued)...

International Association of Insurance Supervisors (IAIS)'s Position Statement on Key Financial Stability Issues

continuing financial instability since 2007, there has been an increased focus, by many parties, on issues of financial stability and the risks associated with large and complex financial organisations operating on a crossborder and/or cross-sector basis.

Non-regulated entities of financial conglomerates (as in the case of AIG) and some insurance activities (such as financial guarantee insurance) can generate or amplify systemic risk and may be instrumental to contagion within conglomerates or between sectors. Further, contagion effects might also occur if a member of a group exhibits financial distress.

Resolvability

The ease with which the case of an insolvent insurer can be resolved depends on many factors, including the role of insurance guarantee schemes, where they exist. For insurers (unlike banks), there can be "life after death". That is, failed insurers often can be managed through orderly run-off, and sometimes even brought back to life with new capital.

All insurers are regulated at the solo entity (company) level. However, there is widespread recognition that the resolvability of internationally operating financial entities, groups, or conglomerates poses remarkable legal challenges. Enhanced supervisory oversight for such entities is underway and cooperation with other sectors will be required.

Proposed supervisory enhancements

The IAIS agrees that it is necessary for insurers and insurance groups to be supervised on a solo entity basis and on a group-wide basis. Group supervision should include consideration of non-regulated entities and/or non-operating holding companies within a group. Other supervisory enhancements are under consideration and/or development (particularly in cooperation with the Joint Forum) to reduce the potential for regulatory arbitrage. These enhancements should reduce the probability and potential impact of future insolvencies and insurance market failures. The enhancements should increase the role of insurers as stabilisers and decrease their potential susceptibility to systemic risk or their roles as potential transmitters or amplifiers of systemic risk. The enhanced insurance supervisory framework should contribute to financial stability and should also improve microprudential supervision and policyholder protection.

Since interdependencies between the sectors may increase in the future through products, markets and conglomerates, the IAIS is promoting enhancements to supervision and supervisory processes, combined with stronger risk management and enhanced approaches to resolvability to minimise adverse externalities. These enhancements include group-wide supervision and the development of a Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame). The IAIS is also promoting cross-sectoral macro-prudential monitoring of potential build-up of systemic risk and planning to develop measures for national authorities to assess degrees of systemic risk.

"The enhanced insurance supervisory framework should contribute to financial stability and should also improve microprudential supervision and policyholder protection."

Section 2 Risk Management and Liability

Property and Casualty Insurance and Applications of New Technologies

Walter Stahel,
Vice Secretary General, Head of Risk Management Research Programme, The Geneva Association

The following text is a short synopsis of the discussions that took place amongst members in the break-out session on insurance technology. The sessions aimed to discuss opinions on the importance and impact of technology advances on the business of insurance.

"...transformational changes are driven by technology, and new technologies empower people and enable innovations."

The objective of technology applications is to create new business processes and new business models to create value for customers. Studies on this have concluded that people are interactive across boundaries—witness the cellular phone use. Ideas in terms of technological developments are flowing at the speed of light and complexity is sometimes overwhelming.

However, some questions on technological developments and use remain, such as the consequences if all objects were to be intelligent and interconnected, what the characteristics and intelligence of these interconnected processes are, and what are the boundaries and thresholds necessary to capture, process and analyse data.

The topic is that transformational changes are driven by technology, and new technologies empower people and enable innovations. Indeed, one third of the world population is on the World Wide Web, half of the world population has mobile phones and technology can predict detailed weather information, including early warning systems for heavy rain and mudslides.

The challenge is to transform data into knowledge, wisdom and innovation. The new normal will be that power shifts to individuals, to people, boundaries are blurring, young people trust friends, not publications, and the trend to bigger cities means a trend to bigger consumer markets.

The insurance sector and new technologies

Insurance's focus is on employees and customers. The future will shift to a new granularity, new business models, empowered customers, so leaders must create a culture of change to create a competitive advantage through agility, innovation, and customer services.

But, customers still do not trust insurance, customers want change, new products, and, in emerging markets, finding the clients remains the big challenge.

"The challenge is to transform data into knowledge, wisdom and innovation."

Customer loyalty has become obsolete and is replaced by multi-option and multi-insurer choices. The one-size-fits-all measure no longer works and, therefore, needs a replacement system. With regards to customer contact and dealership, first contact will most probably be made through the Internet, but closure will remain through human contact.

Conclusions of studies in the matter of new technology use and the incidence on business relations are that "the faster one runs, the better one's chances of surviving the day", which contradicts popular belief that taking time to achieve objectives is optimal, as epitomised in the fable of "The Tortoise and the Hare".

In the light of global changes, risk management will increasingly have to deal with mega catastrophes, political risks (especially relating to Directors & Officers) and sophisticated risk aggregation.

As for insurance as a whole, getting the price of a product right needs ever increasing amounts of data and underwriting will increasingly take place through predictive modelling and using multi-channel distribution strategies with standard products.

Customers will increasingly seek advice from neighbours and social networks. Insurance thus has to penetrate social networks, especially within focused customer groups such as retired people, former military professionals, and volunteer organisations (i.e. fire department volunteers).

Section 2 Risk Management and Liability (continued)...

Property and Casualty Insurance and Applications of New Technologies

"Insurance...has to penetrate social networks, especially within focused customer groups..."

There will be new key capabilities required, such as data mobility, attracting and retaining talent, and establishing virtual headquarters and profit centres worldwide.

Process organisation, administrative costs and multi-channel structures

However, these new technologies and the new ways of attracting and retaining business that comes from them will necessitate new process organisation, high administrative costs, as well as higher costs coming from new multi-channel structures.

In this respect, here are the issues identified:

- A potential clash between virtual structures and legacy infrastructures;
- A shift from owning a process to virtual companies;
- The need to control the front end, but outsourcing everything behind the front;
- A new challenge in the form of quality control which cannot be outsourced.

By comparison with banking, it is clear that outsourcing can be very expensive, that customers have to supply the (correct) information, that insurance needs decisions of higher quality and that insurance as an industry has to reduce its distribution costs.

When changing technological systems, speed is key, but changing systems takes years, costs millions and carries no guarantee. Implementing new information technology (IT) solutions without guarantees means placing one's bets and controlling the costs. Common sense is needed in decision-making processes. IT is but a tool, where customised solutions need to be compared to standardised ones; actuaries are tools as well, and they should not design scenarios. Furthermore, for many products there may be a choice between commoditising products, for example, motor insurance sold over the Internet or delivering real insurance solutions where bespoke policies are created for customers. Whereas with commoditised insurance, the policy can be sold in volume by third parties, real insurance offers the prospect of lower volumes but far higher margins.

Competitive insurance in a new technological world

Competitive advantage in insurance comes from greater knowledge, technology and efficiency. Issues in the evolving world of insurance also include technological problem-solving skills; for example, regarding Solvency II, software solutions need to be adapted and new IT power needs to be found. There also is a conflict between the speed of change of technology, compared to the speed of change in everyday life. Social networking is today's segmentation challenge—how can insurance penetrate it? This is an open question which insurance professionals must seriously ponder.

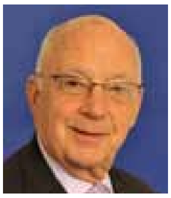
All of these thoughts and considerations bring us to the conclusion that there may be exponential technological change and growth to come. Customers are better informed through the Internet, but personal contacts will still be important. We are to see a shift from the attitude of necessity or desire to purchase commodities/services, to a wariness to sales/salespeople. Insurance professionals will need to develop tools to gain customer insight, and will also need to develop more precise pricing strategies. One must not forget that technology is a tool, with an unforeseeable outcome, and that its evolution is much more rapid than that of insurance.

We must also ask ourselves what capabilities the next generation of experts will need in the future, so as to anticipate technological needs in insurance.

"...technology is a tool, with an unforeseeable outcome, and its evolution is much more rapid than that of insurance."

Section 2 Risk Management and Liability (continued)...

The Approaching Intersection of Climate Risk and Liability Law



Richard H. Murray,
Special Advisor,
The Geneva Association

Lindene Patton,
Chief Climate Product Officer,
Zurich Financial Services

"For its part, climate liability risk is emerging at a stunning pace... the prospects for serious claims and losses in the near future cannot be safely ignored by insurers."

As a priority topic for The Geneva Association, Climate Risk and Insurance (CR+I) was one of the Plenary Session topics at the 2011 General Assembly in Rio de Janeiro. The session was devoted to the rapid growth of liability risks for insurers arising out of weather-related extreme events, a condition recognised by the Association's Board of Directors by its decision early in 2011 to augment the CR+I programme with a Liability Sub-Committee (LSC).

The session was led and opened by the CR+I Co-Chairmen, Kunio Ishihara and Michael Butt, each of whom declared the issue of climate risk liability to be a present and growing threat to insurers that requires members to develop an understanding of the newly emerging challenges and to consider the responses necessary to contain the risks by staying ahead of the waves of change.

Mike McGavick and Richard Ward led the presentations, emphasising and illustrating with recent events that climate-related extreme events are growing in frequency and severity, that they are due in part to the greenhouse gas (GHG) emissions of post-industrial human activity and that the use of liability claims as a means of distributing the burden of these events has evolved in the U.S. but is rapidly becoming a European and global phenomenon. Both strongly warned of the dangers to insurers of failing to anticipate and respond to these challenges.

Additional presentations were made by Richard Murray, Special Advisor to The Geneva Association and Lindene Patton, of Zurich Financial Services, who are respectively the Chair and Vice-Chair of the LSC. They provided a summary of the context of events and forces which cause climate-related liability risks to be both uniquely hazardous and a source of new revenue and reputation enhancement for the industry.

A consistent picture emerged from the presentations, beginning with reflections on how similar the climate risk position is today to the early warning signs of trouble with asbestos, tobacco and environmental degradation, all of which were too long ignored by insurers on the assumption that those warnings were false signals and that no serious problems would develop. Yet each of those episodes, which started with several failures of liability claims before gaining momentum, evolved over decades into major loss events—about US$150 billion for asbestos and US$750 billion for tobacco by the time they fully mature—much of which has been borne by insurers. It was noted that the decades of denial by insurers and insured alike multiplied the insurers' losses by overlooking meritorious defences, optimising coverage positions and by overlooking the new waves of legal precedent that allowed changing standards of liability to be applied retrospectively to pending claims. The insurance industry ultimately adjusted its practices to contain future losses, but not before incurring losses that contributed to all of the industry crises since 1985 and reporting losses in a manner that increased industry-wide volatility and added to the depression of P/E ratios.

The asbestos and tobacco litigation had other consequences relevant to us today. They allowed the formation of a specialty sector of legal practices that obtains huge returns by aggregating claims into class actions and mass torts. They demonstrated that the power of such claims makes the exercise of legitimate defences too dangerous to pursue and they contributed to the development of a compensation culture that assumes every injury must have a remedy in damages that is expected to be supported by insurance. And they demonstrated to leaders of the public sector that compensation at the levels needed was not affordable out of tax revenues and needed to be imposed exclusively on the private sector and its insurers. These forces are becoming global conditions and churning forward toward their intersection with climate risk.

Section 2 Risk Management and Liability (continued)...

The Approaching Intersection of Climate Risk and Liability Law

For its part, climate liability risk is emerging at a stunning pace. The first such claim was filed in 2003, predictably in the U.S. But while it took 39 years between the first tobacco claim and the first paid tobacco loss, the first paid climate loss occurred after only four years, a US$350 million settlement. In 2010, there were 132 climate suits filed, up from 43 in 2009 and with two thirds of them occurring outside the U.S. A leading U.S. State Insurance Commissioner declared earlier this year that the floodgates of climate liability suits are ready to open. That may be too dire a prediction, but the prospects for serious claims and losses in the near future cannot be safely ignored by insurers.

Climate liability claims have much in common with tobacco and asbestos, with many valuable lessons from those experiences being studied by The Geneva Association to assist in dealing with climate risk. But the latter has characteristics, dimensions and dynamics that are new and just now becoming visible subjects of study. It is these characteristics that Michael Butt and Kunio Ishihara believe we must understand and address if the industry is to protect itself and gain advantage by being ahead of the wave.

- Climate risk liability is a truly global phenomenon. One currently pending action has been brought by the nation of Micronesia, seeking to prevent the Czech Republic from starting up a very large new coal fired power plant on the grounds which would speed the destruction of Micronesia by sea level rise. Micronesia is arguing that the Czech Republic failed to conduct a transborder liability impact study.
- The scale of the problem is unprecedented. A recent study released by the UNEP FI declares that the annual global cost of human contribution to climate-generated damage is over US$6 trillion.
- Geo-political influences are growing in support of new liability-based theories of recovery for the cost of human-caused damage. The UNEP FI study suggests that companies cause such losses, and notes that the profits of the world's 3,000 largest companies was over US$2 trillion in 2009 and could be a source of compensation for those suffering from extreme weather events. The many theories now being advanced for the use of liability principles in climate risk combine with the maturing compensation culture to produce the socialisation of risk and loss through liability-based dynamics.

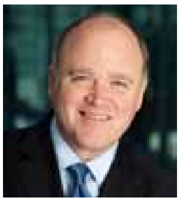
Climate risk is only one of the many ways in which the capacity and characteristics of insurance are poorly understood by those responsible for setting public policy. It is too often assumed that insurers have a nearly endless capacity to generate premium resources capable of being used to fund a vast array of human suffering. There is also a very limited appreciation for the expertise of our industry to offer products that aid adaptive behaviours that can significantly reduce the toll and suffering from climate-related events, especially when deployed in collaboration with the public sectors duty to strengthen the resilience of structures, locations and behaviours in anticipation of the consequences of climate change.

The LSC is expected to continue monitoring and assessing the converging forces of climate risk and liability dynamics, and to provide The Geneva Association and its members with reports and recommendations on these matters. It is also intended that the LSC should be available to facilitate discussion of these unprecedented challenges and opportunities by members as requested.

Lindene Patton (Chief Climate Product Officer, Zurich Financial Services), Walter R. Stahel (Vice Secretary General, Head of Risk Management Research Programme, The Geneva Association) and Masaaki Nagamura (Manager Corporate Planning Department, Tokio Marine & Nichido Fire Insurance Company Ltd.) meet at the 38th General Assembly.

Section 2 Risk Management and Liability (continued)...

Liability Challenges and the Influence on Insurance



Mike McGavick,
CEO,
XL Group

"Perhaps the most immediate risk, change, and developments for insurers will come through natural catastrophe, environmental developments, climate change and the way litigation, liability, and policy create intersections with the global insurance industry."

The current state of play in the world is ever-escalating change and risk. Inherent in these changes is the liability challenge. Events of only the recent past demonstrate this: a global credit crisis, resulting in a fragile recovery. Political disruptions and change spurred and encouraged through the dispersion of technology and ease of communication—advances that we know will only escalate. There are man-made disruptions, such as the Gulf Oil Spill, and the resulting economic and environmental impact. And then, most recently vivid, there have been environmental catastrophes including the earthquakes in New Zealand and Japan, the tsunami, and the resulting impact inflicted on man.

Add to this list that in the next generation, millions of people are likely to be lifted out of poverty by the growing economies of their nations. They will add their own unique contributions to progress, while increasing demands for energy, education and other goods and services. In that transition, others will question their status and be impatient for progress, yet spurring other further change.

These issues and their resultants intersect in so numerous occasions that, indeed, they oftentimes become hard to separate. These all will undoubtedly impact liability practices, the formation of law, regulation and policy, filing of new and novel legal claims, and in turn, the global insurance industry.

Perhaps the most immediate risk, change and developments for insurers will come through natural catastrophe, environmental developments, climate change and the way litigation, liability, and policy create intersections with the global insurance industry.

Using the U.S. as example, in the past decade, plaintiffs have filed a number of lawsuits against energy companies for damages allegedly caused by global warming. While some of these cases seek significant money damages for harm the plaintiffs claim to have experienced from global warming caused or contributed to by the defendants, other cases seek to impose in addition caps and limitations on the defendants' greenhouse gas (GHG) emissions.

The Supreme Court's recent decision in American Electric, which denied environmentalist's claims for an abatement of GHGs, may slow the pace of litigation for a brief time. However, cases with alternative theories of liability could potentially lead to large damage awards and extensive liability claims. Furthermore, if plaintiffs succeed in getting courts to establish caps and limits on GHGs, a wide swath of industries that regularly emit greenhouse gases in the course of their normal operations will be significantly affected.

In another American court case, Native Village of Kivalina vs. ExxonMobil, an Alaskan Eskimo village sued 24 oil, energy and utility companies seeking damages for erosion of their coastline allegedly caused by global warming said to have been caused by the defendants. The Kivalina case seeks damages estimated somewhere between US$95 and US$400 million to relocate an entire Eskimo village. Kivalina was dismissed by the trial court and is now staying on appeal to the Ninth Circuit Court of Appeals pending the Supreme Court's ruling in American Electric.

These examples, like others in the system across Europe, occur within the scope of evolving, yet established tort systems and liability frameworks. In emerging markets, where there is a craving for activity combined with less established legal infrastructure and liability law, alongside rapid economic development, there is the potential for rapidly advancing theories of liability. The opportunity for the worst of litigation characteristics to take hold as the models of choice may be too much for these young systems to reject. Particularly as the claims brought in those countries concern foreign

Liability Challenges and the Influence on Insurance

> "The industry will need to respond to the challenge of litigation and the potential for increased liability."

Mike McGavick (CEO, XL Group), Liam McGee (Chairman, President and CEO, The Hartford) and Costas Miranthis (President and CEO, PartnerRe Ltd.) at the 38th General Assembly.

defendants based in the U.S. and elsewhere.

When one begins to consider the potential for large numbers of plaintiffs to claim impact and the type of impact from which they request to be made whole by liable parties, the ramifications grow and multiply very, very quickly.

Industry and trade associations have vigorously defended against these global warming claims, arguing that the plaintiffs do not have standing, that the claims are political and should not properly be in the courts at all, and that there is no legal basis to hold an individual company responsible for the effects of global warming.

While the fundamental issue may be whether such claims belong in the court system at all, or whether global warming and climate change issues are political concerns that should be dealt with by the President, Congress, and other national governments, we know insurers are sure to be impacted.

The industry will need to respond to the challenge of litigation and the potential for increased liability. If unchecked, we may be faced with scenarios similar to other mass tort liabilities of the past decades. And piecemeal setting of climate change policy by courts may significantly affect the U.S. economy and indeed the world, as it tries to come to terms with these issues.

Though, regardless of political or court developments—the actions of mankind—we know that Mother Nature knows no concerns. We should, at a minimum, be preparing for the underlying issues of climate change and increases in natural catastrophes.

The emphasis should be on creating innovative insurance products during this period to respond to these challenges. Without waiting for political disputes to be settled, the proper adaptations, innovations and advancements in the insurance industry may do more to negate the effects of change and with greater effect, than any liability or legislative action.

> "...innovations and advancements in the insurance industry may do more to negate the effects of change and with greater effect, than any liability or legislative action."

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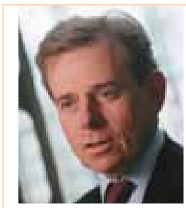

Richard Ward,
CEO,
Lloyd's

> "Insurers have a responsibility to engage with policymakers and provide support to their customers in mitigating and adapting to climate change."

Overview: climate change and insurers

As the Chairman of the Intergovernmental Panel on Climate Change (IPCC) said, *"It is no longer a question of whether the Earth's climate will change, but rather when, where and by how much"*. This changing climate, caused in the main by human activity, has changed the risk landscape for insurers. Between 1970 and 2010 the number of natural catastrophes has increased by over 300 per cent and the insured losses have increased nearly ten times.[1] Although this increase is in part due to rising inflation and augmentations in wealth and property, the underlying risk from extreme weather is also climbing. More extreme weather events and rising sea levels will lead to property damage, economic hardship, loss of lives and will, of course, ultimately affect the insurance industry in the form of more costly insurance claims. This was made starkly clear in 2005, the worst year ever for property insurers, with insured losses of US$110 billion dollars, of which 86 per cent related to U.S. hurricanes alone.[2]

Current CO^2 emissions have exceeded the IPCC scenarios and we need rapid action to reduce carbon emissions in order to meet the United Nations Framework Convention on Climate Change (UNFCC) targets of 2°C maximum temperature rise. Businesses must understand that a business as usual attitude to climate change will lead to a 4°C temperature rise which will have a devastating impact on people's lives and the global economy. The call expressed in ClimateWise's letter to the Cancun negotiators in December 2010, for a 40 per cent reduction of CO^2 levels by 2020 over 1990 levels for developed countries, still stands and Lloyd's sees it as a responsibility of all insurers to support this target.

Lloyd's was one of the founding members of ClimateWise, an initiative that aims to drive change within the insurance industry so that we can prepare and manage the risks of climate change and help to meet international mitigation targets. ClimateWise also provides a stronger voice from which to call for action on climate change. Insurers have a responsibility to engage with policymakers and provide support to their customers in mitigating and adapting to climate change. Lloyd's, therefore, strongly supports actions such as the Kyoto Statement by The Geneva Association in 2009, which also showed the strength of the insurance industry when we agreed to collective action on climate change.

The role of insurers in tackling climate change

Easing the flow of private capital financing

The COP16 conference at Cancun set the challenge of mobilising US$100 billion of public and private investment by 2020 to help emerging economies meet the challenges presented by climate change. The current rate and scale of private sector investment in low carbon development in emerging economies is weak and is hindered by a number of perceived barriers including poor financial return, regulatory uncertainty and political and economic instability. However, insurance is in a unique position to help remove some of these obstacles: either through existing products, such as political risk insurance, or through opening up dialogue with relevant stakeholders to develop products that would better manage some of these risks.

Facilitating adaptation

Regardless of the actions we take to reduce greenhouse gas emissions we have at least a generation of climate change to come. This will lead to a change in the risk landscape and will require society to adapt. Insurers have a key role in helping businesses and society to achieve this. A key condition for adaptation is

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1 Swiss Re sigma study No 1/2011, *Natural catastrophes and man-made disasters in 2010: a year of devastating and costly events*, March 2011.

2 Munich Re, *Natural catastrophes 2010 Analyses, assessments, positions*, 2010.

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appropriate risk pricing and the use of proper risk differentiation in an area. Pricing that does not adequately reflect the risk to a property from the growing frequency of extreme weather events reduces risk awareness and removes the incentive to put in adaptation measures.

Insurers can also support governments in protecting economies and individual people in the most vulnerable regions from some of the more extreme effects of climate change. Insurers can support developing countries in several ways including providing their expertise in risk management, incentivising loss reduction, developing new products and raising awareness of the role of insurance and the support it can provide to an economy.

"Pricing that does not adequately reflect the risk to a property from the growing frequency of extreme weather events reduces risk awareness and removes the incentive to put in adaptation measures."

Furthermore, Lloyd's supports the development of insurance for low income populations (typically referred to as microinsurance). Often the people most exposed to the risks of climate change have the least money to protect themselves from any losses. By offering products with a low premium, they have the opportunity to protect themselves and their business and develop increased resilience to a changing climate. Microinsurance can also form a complimentary part of microcredit offered by financial institutions (often a compulsory requirement) with the finance facilitating the purchase of products that enable adaptation, such as drought resistant seeds or flood resilience improvements to business premises.

Sustainable claims management

Although insurance claim payments should reflect the level of cover purchased, they should also be undertaken in a sustainable manner so as reduce their environmental cost. Lloyd's has worked with ClimateWise on researching sustainable claims management to highlight how adaptation and mitigation are actually a more economic solution in the long term and should therefore be integrated into insurer's risk management strategies. In appropriate cases, the insurance industry needs to be prepared to consider alternative methods of settling claims than the "new for old" method of settlement. Replacement following a claim can actually be more expensive and less sustainable in the long term. In contrast, "repair" rather than "replace" allows a business to return to normal production much quicker, therefore reducing business interruption and waste disposal requirements, and lowering energy and material usage. Unfortunately, the true cost of sustainable claims is difficult to quantify, meaning some insurers prefer to remain with traditional methods. This partly results from a lack of transparency between those completing the repairs and insurers, but also within the insurance industry itself due to the prevalence of information silos. Clear communication and collaboration between insurers is necessary to take sustainable claims forward. The development of sustainable claims management guidelines is being taken forward in a U.K. context by the ClimateWise sustainable claims working group. However, the lessons learnt through the work of ClimateWise can equally be applied on an international scale and The Geneva Association has a potential role in encouraging the wider uptake of sustainable claims management as part of its work to reduce the economic impact of climate change.

Liability and compensation culture

Insurers are at risk from climate change impacts on both sides, in that they both insure those who are at the forefront of the causes of climate change (i.e. industry, transport), as well as providing cover for those that would suffer losses as a result of climate impacts. Growing scientific evidence has reduced the uncertainties surrounding climate change. This increases the possibility of litigation against insureds who contribute to climate change and consequently raises the possibly of a dramatic increase in liability claims.

However, the potential rise in liability claims associated with climate change should be considered within the context of the current liability environment.

Many businesses in Europe are concerned about what they see as a spreading U.S. style compensation culture. Class action, common in the U.S., is now being seen in European justice systems. Class action, although allowing easier access to justice by spreading the costs of litigation across many claimants, can lead to potential damages that run into the millions of pounds. The size of these actions can encourage defendants to simply settle the case out of court even if the case has no legal merit. We can expect such actions to increase in Europe, though it is important to consider the legal framework of each individual country, how easily class actions can be sought, and the potential costs. In March of this year, the U.K. Justice Secretary Kenneth Clarke announced that the recommendations of the 2010 Jackson Review into Access to Justice would be implemented in full. This is seen as a positive step towards reining in the compensation culture, as Clarke seeks to abolish the recovery of success fees and

Section 2 Risk Management and Liability (continued)...

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After the Event insurance premiums from losing defendants which has contributed to higher premiums for policyholders.

A considerable proportion of Lloyd's business is in the US. In 2010, 43 per cent of our total business was written in the U.S. and Canada. The growing trend known as forum shopping or jurisdiction picking will therefore have a bearing on our casualty portfolio. In order to benefit from a more favourable local legal climate, claimants attempting litigation are increasingly seeking to move cases to a different jurisdiction using the pretext of a slight company connection to that area. Some jurisdictions, for instance, have become known for awarding, on average, higher damages. Other jurisdictions have no financial limits on damages, whilst others base damages on an economic test by which whoever has the money pays the claim, even if they were only partially at fault. By choosing the legal forum for their case, a claimant can increase his/her potential award. However, this leaves business at risk of litigation in places where they might not actually operate. Insurers need to understand this complicated legal environment, so that they can best advise policyholders and avoid unnecessary accumulations of risk. As claims of liability for climate change damage become increasingly possible, understanding the general risk of litigation has become ever more critical. The risk is also increased by the growth of globalised supply chains, which has made forum shopping easier and left defendants more vulnerable to multiple claims across several jurisdictions.

Michael A. Butt (Chairman, AXIS Capital Holdings Limited), Richard Ward (CEO, Lloyd's of London) and Mike McGavick (CEO, XL Group plc.) at the panel on "The Liability Challenge" at the 38th General Assembly.

> "Many businesses in Europe are concerned about what they see as a spreading U.S. style compensation culture."

Climate change and liability

To date, no comprehensive climate change legislation has been enacted in the U.S. Uncertainty over regulation leaves insurers open to unexpected decisions and changes in the law. Furthermore, as the science over climate change becomes clearer, the risk of climate change litigation grows.

Environmental Impairment Liability

General liability policies traditionally contain pollution exclusion clauses. Environmental impairment liability was therefore developed to fill this gap in liability cover. Pollution caused by CO^2 emission has not, so far, been considered a valid claim by most insurers under an Environment Impairment Liability (EIL) policy. However, there is a risk that courts may decide that the policy wording for the definition of pollution could be considered to incorporate CO^2 emissions in the future. In addition, gradual pollution cover has begun to be incorporated into policy wording alongside traditional "sudden and accidental" pollution conditions, which could also be used to cover the liability of CO^2 emitters over a prolonged period of time.

In 2009, The Environment Protection Agency in the U.S. ruled that greenhouse gases are pollutants and a danger to public health and announced its intention to require major greenhouse gas (GHG) emitters to publicly publish their emissions. Such regulatory action is a radical step towards apportioning clearer responsibilities for the causes of climate change. However, currently the Environemntal Protection Agency (EPA) ruling and its legal standing to make such decisions is being challenged by a number of states and individual senators. Notably the Energy Tax Prevention Act is being used to try to repeal the EPA ruling by preventing the EPA from regulating on GHG emissions and removing GHG emissions from the Clean Air Act. This Bill has so far been heard by the House Committee on Energy and Commerce in March 2011, which has recommended that the Bill be heard by the House of Representatives as a whole.

A number of separate legal cases are progressing through the U.S. court system that may also have a bearing on climate change liability. In Connecticut *et al.* vs. AEP *et al.*, eight states, along with New York City and several environmental non-profit organisations have claimed that the defendants' GHG emissions have contributed to climate change, damaged state property and negatively impacted upon the local

The Liability Challenge

economy. Currently, the Supreme Court is due to determine whether the claimants can invoke the powers of the Federal Court to regulate GHGs as public nuisances under federal common law. The decision of this case, expected around June of this year, would have a bearing on a similar case involving the native village of Kivalina and a group of energy and power companies. If the Supreme Court vote is split, the earlier ruling to allow Connecticut *et al.* to pursue their private and public nuisance claim would still stand, meaning that the claimants in Kivalina *et al.* vs. ExxonMobil *et al.* would be allowed to pursue with their claim for damages caused by a reduction in the Arctic Sea ice.

An earlier interesting case that sought compensation from a large group of coal, oil, utility and chemical companies for emissions that contributed to changes to sea levels and temperatures that added to the destructive power of Hurricane Katrina, has failed to make it through the 5th Circuit of the Court of Appeal due to a procedural technicality.

Directors and Officers Liability

Corporate executives could potentially find themselves exposed to litigation action if they fail to recognise important environmental issues and take action to prevent negative impacts upon their company. Common concerns expressed by shareholders and investors of companies producing and emitting large volumes of greenhouse gases (GHGs) include the cost of regulatory compliance and the potential for damage to a company's reputation. Last year's annual shareholder voting season was a record for shareholder engagement in the energy sector, with investors filing 66 climate- and energy-related shareholder resolutions with 41 coal, electric and oil companies in the U.S. and Canada. Companies are also facing increasing disclosure requirements from various bodies, including the U.S. Securities and Exchange Commission which issued interpretative guidance in February 2010 addressing disclosure requirements on several topics, including climate change risks to the company.

Similarly, one can imagine a potential scenario where the share price of a company falls following damage caused by extreme weather. If it was found that the directors failed to incorporate resilience into their company, despite warnings about potential climate change impacts, they could be open to litigation action.

> ***Lloyd's research***
>
> Lloyd's has produced several research reports on many of the issues discussed in this article. These include:
>
> - Lloyd's 360 Risk Insight report *Globalisation and Risks for Business*
> - Lloyd's 360 Risk Insight report *Sustainable Energy Security*
> - Lloyd's 360 Risk Insight report *Climate Change and Security*
> - Lloyd's 360 Risk Insight report *Catastrophe Trends: Rapid Climate Change*
> - Lloyd's Emerging Risks report *Coastal Communities and Climate Change: Maintaining Future Insurability*
> - Lloyd's Emerging Risks report *East London: Extreme Rainfall*

Environmental damage

Within the context of climate change liability, companies need to increasingly consider their wider responsibilities to the local environment and communities living in the areas where they operate. The EU Environmental Liability Directive (ELD) came into force in 2009 and seeks to prevent and remedy environmental damage. It is based on the principle of the polluter pays, and also includes an element of strict liability for certain operations, such as waste management and transportation of dangerous substances. Although the ELD does not currently cover damage caused following natural disasters, it is interesting to note the growing trend of apportioning responsibility and costs to companies following catastrophes. The Japanese Government, for instance, has recently announced that it will force the Tokyo electric power company (Tepco) that runs the damaged Fukushima nuclear plant to compensate farmers in the region for loss of business due to the ban on the sale of agricultural goods. As climate change increases the frequency and severity of extreme weather events, companies may find themselves bearing higher litigation costs as communities seek to recover the clean-up costs from those they see as both increasing the potential risk and ultimate cost of damage by their operational activities, as well as directly contributing to the causes of climate change.

Summary

We are already experiencing the effects of climate change, with the insurance industry observing a rise in the number of catastrophes connected to extreme weather events. The insurance industry should be taking a leading role in encouraging action against climate change, such as facilitating adaptation through the use of sustainable claims practices, product innovation and appropriate risk-based pricing.

Whilst there are still uncertainties around climate change litigation and the role of GHGs as pollutants, it is important to remember the regulatory environment is continuingly changing. The arguments currently being debated in the U.S. court system over the powers of the Environment Protection Agency to regulate GHG emissions shows how volatile this issue can become. Insurers therefore need to consider how they price environmental liability risks allowing for the possibility that the legal environment may change. Calls for greater corporate action on climate change from shareholders is also increasing, exposing insurers to the possibility of growing Directors and Officers claims.

Section 3 Health, Life and Pensions

The Global Life Insurance Industry—Evolution of Growth Opportunities

John Strangfeld,
Chairman and CEO, Prudential Financial Inc.

On the surface, the life insurance industry has the appearance of being mature. Today, traditional protection products in developed markets have relatively low growth prospects—probably low to mid single-digit growth rates at best. However, if one takes a more expansive view of products and geography, there are promising prospects for growth in the life insurance industry. With successful realisation of these opportunities, the life insurance industry could gain share and relevance relative to other sectors of financial services.

"...the life insurance industry could gain share and relevance relative to other sectors of financial services."

Potential sources of growth

We can think about sources of growth in terms of both geographic regions and products. In "Emerging Markets", there are growth opportunities related to traditional life insurance products; these markets are typically characterised by low penetration of life insurance products, rapid GDP growth, and a growing middle class. In "Developed Markets", there are growth opportunities related to meeting the retirement needs of rapidly ageing populations; this paper focuses on those opportunities.

"While annuities are still a relatively small component of the overall retirement marketplace, acceptance of annuities is slowly growing."

Forces at work in developed markets

In developed markets, converging forces are shaping retirement opportunities. Demographic trends—including ageing populations and longer life spans, are perhaps the most powerful force. Other factors that are defining retirement market opportunities are relatively high levels of household financial assets, strains on government programmes, underfunded pension plans, and greater individual responsibility for retirement security, especially as many employers are shifting from traditional pension plans (that guarantee a stream of retirement income that cannot be outlived) to workplace savings plans (that put the onus on the individual to save enough, invest appropriately and make assets last through retirement).

The U.S. and Japan markets are highly representative of the broader retirement market opportunity. Both countries will experience significant growth in older population segments over the next few decades; these demographics are driving the need for retirement products. The U.S. and Japan are also among the largest markets in the world in terms of household financial assets; when demographic trends combine with financial capacity, the retirement market opportunities become even more powerful. These factors apply to many other developed markets as well.

The forces at work in developed markets create opportunities for insurance companies to meet individuals' and institutions' increasing needs to transfer risks to trustworthy counterparties—institutions that they know can keep long-term promises. Insurance companies are well positioned to offer guaranteed retirement income products that produce secure and reliable income streams during a customer's retirement years; these products are offered to individual consumers in the retail marketplace as well as to participants in workplace retirement plans. Insurance companies are also well-positioned to provide a range

The Global Life Insurance Industry —Evolution of Growth Opportunities

John Strangfeld (Chairman and CEO, Prudential Financial Inc.) and Donald Stewart (CEO, Sun Life Financial Inc.) at the 38th General Assembly.

of solutions to "de-risk" traditional pension plans, ranging from liability-driven investing to buy-out annuities.

Challenges to converting potential to reality

There are some challenges, of course, in realising these opportunities.

Historically, there has been a market aversion to annuities—the product that can provide guaranteed lifetime income. Underutilisation of annuities as a retirement solution has been driven by product complexity, cost (vs. perceived value) and reluctance to cede control over assets to the insurer. While annuities are still a relatively small component of the overall retirement marketplace, acceptance of annuities is slowly growing. The new generation of variable annuities has optional guaranteed income features that do not require individuals to lose control of their assets. These features are elected on nearly 90 per cent of variable annuity contracts sold today.

In most countries, institutional forms of risk transfer, such as pension risk transfer, are not yet of age. However, there is a growing understanding of pension risk transfer solutions among plan sponsors and new solutions have already taken hold in the U.K.

Conclusion

Market forces are ushering in a new era of opportunities for life insurers in developed markets. Many of these opportunities relate to serving the retirement needs of an ageing population, and helping employers help their employees along this path.

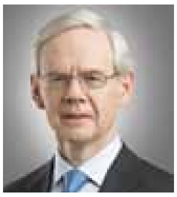
The firms that had the "upper hand" when the market focus was primarily on asset accumulation—banks and classical fund managers—are less well-equipped to deal with "decumulation" issues like creating secure retirement income. Life insurers have the set of skills required to meet retirement needs, and know how to manage the key risks consumers face in retirement, including longevity, investment, morbidity and mortality risks.

While traditional life insurance markets in developed regions are relatively mature, the skills, brand and financial strength of life insurers have highly promising application to growing retirement markets.

"Market forces are ushering in a new era of opportunities for life insurers in developed markets."

Section 3 Health, Life and Pensions (continued)...

Life Insurance Opportunities in Emerging Markets



Donald Stewart,
CEO, Sun Life
Financial Inc.

> "A key challenge for companies operating outside their home market is the extent to which future growth will accrue to the well informed fast moving local players or to the major international players."

Overview

For many life insurance companies the business of "life insurance" covers a full range of protection, investment and retirement products. Likewise potential customers range from individuals to many different types of institutions. The life industry faces a wide array of opportunities across these principal constituencies and nowhere is this more true than in emerging markets.

During the period 2000 to 2009 world life insurance premiums grew at an average rate of 5 per cent per annum. However, in several emerging markets growth over the same period was much higher, ranging from 25 per cent in India to almost 33 per cent in Brazil.

Emerging market growth has been fuelled by expanding populations, favourable demographics and significant wealth creation. As well, technological change has been pervasive with the early lead of developed markets in more mature technologies being superseded by other parts of the world in the use of mobile devices.

Some macro forces have universal application, including government downshifting, the drive for uniform accounting and regulatory standards and the inexorable march of demographics.

Emerging markets

The increasing relevance of emerging markets to world life insurance is indisputable. In 2001 Brazil, China and India ranked #36, #15 and #19 respectively by total premiums whereas by 2009 their rankings had risen to #20, #7 and #9. Additional evidence of the increased presence of emerging market players arises from the fact that, when measured by market cap, two of the largest life insurers in the world are Chinese.

Ratios of life premium volume relative to GDP portray a promising future. Brazil and China have ratios of 1.6 per cent and 2.2 per cent respectively, which contrasts strongly with the 5 per cent to 10 per cent ranges prevalent in Europe.

The pace of change in some markets can be nothing short of astounding. For example, over a period of less than 12 months India has implemented regulatory reform similar to what has taken a decade to play out in some developed markets. Likewise product life cycle times are much shorter and the high pace of change creates opportunities for faster growth.

> "The persistent ability for healthcare demand to outpace all forms of supply will be as characteristic of emerging markets as is currently the case in more developed economies."

A key challenge for companies operating outside their home market is the extent to which future growth will accrue to the well informed fast moving local players or to the major international players.

Product/market opportunities

There seems little doubt that traditional segments of life, health and retirement will have widely different growth potential with higher rates being associated with the latter two. The persistent ability for healthcare demand to outpace all forms of supply will be as characteristic of emerging markets

Life Insurance Opportunities in Emerging Markets

as is currently the case in more developed economies. There is significant potential associated with non traditional product forms, such as *takaful*. And, of course, all forms of asset management align well with the pace of wealth creation.

Institutional relationships are key in many emerging markets, whether these be customer, partnership or active joint venture. Some of these aspects arise because of cultural reasons whereas others derive from local legislative requirements.

Demographic forces

Demographic forces are favourable in emerging markets.

Populations are generally younger overall, and therefore drive strong growth in markets for younger people. Distribution efficiency is key in reaching smaller policies, and there is heavy emphasis on bancassurance and technology as solutions. As well, micro insurance is being developed in some markets. Emerging middle class markets are huge and growing at double digits. Affluent and high net worth markets are already large. For example China has more millionaires than the U.S. Retirement and health opportunities are not necessarily far away; while China is younger today than the U.S. by median age, it is projected to be older than the U.S. by 2035.

Technology

Although the industrial world leads in desktop technology, it has been overtaken by the developing world in mobile technology use. This has significant potential implications for the way insurance growth will emerge in developing markets and may be unlike what we have seen in mature markets. For example much of Asia is already using mobile phone for commerce. Tablets and related real time video conference could bring face to face retail advisor experience to larger groups with efficiency of institutional costs. Heretofore it has been too expensive to bring intense retail advice to mass markets and there is definite potential for this conundrum to be solved in the future.

Global forces

Enduring and emerging global macro forces will continue to drive future insurance growth.

Over multiple decades there has been a sustained long-term secular trend to rising living standards around the globe. Wealthier people drive higher demand for insurance in part because they are more risk averse and have more complicated financial needs. Perpetuation of this trend will drive above average demand for insurance protection.

Post the financial crisis, government budgets are more stressed and therefore we expect to see ongoing cost shifting of health and retirement costs from governments to employers to employees, which will drive increased demand for private sector insurance solutions.

> “Enduring and emerging global macro forces will continue to drive future insurance growth.”

Markets and regulators are becoming more globally connected and this is driving global convergence towards higher insurance regulatory standards (Solvency II, IFRS-4 Phase II). Higher and converging standards will force insurers to find growth and competitive advantage in business solutions that scale across multiple countries, and will further promote consolidation.

All figures and rankings are based on Swiss Re sigma *reports, most recently 2/2010.*

> “Markets, and regulators are becoming more globally connected and this is driving global convergence towards higher insurance regulatory standards...”

Section 4 Publications

The Geneva Association publications take six different forms in addressing its various audiences:

- two journals, *The Geneva Papers on Risk and Insurance—Issues and Practice* and *The Geneva Risk and Insurance Review* (formerly *The Geneva Papers on Risk and Insurance Theory*);
- reports on major themes discussed throughout a part of the year, otherwise known as *The Geneva Reports*;
- eight newsletters;
- *Etudes et Dossiers*, or working papers from conferences and meetings; and,
- books and monographs written by The Geneva Association staff and/or external collaborators.

In 2010/2011 the profile-raising drive undertaken the year before to increase the profile of The Geneva Association, part of which has been an effort to make each publication more available and widely known to its target audiences, which include academia, the insurance industry, and the general public has been reinforced. This has strengthened the position of The Geneva Association as a worldwide leader in insurance economics research and thinking.

Journals

The Geneva Association main publication, *The Geneva Papers on Risk and Insurance Theory,* was founded in January 1976, under the auspices of the first President of The Geneva Association, Mr Raymond Barre. As stated by Mr Barre, the goals of *The Geneva Papers on Risk and Insurance Theory* were first and foremost to become the voice of insurance at the highest world level to help elaborate and confront key strategic views of the sector; and second, to stimulate a constructive dialogue between insurance and its social and economic partners. In 1990, with the development of more theoretical studies on risk and insurance, *The Geneva Papers on Risk and Insurance Theory* were separated into two series: *The Geneva Papers on Risk and Insurance—Issues and Practice* and *The Geneva Papers on Risk and Insurance Theory;* the latter became *The Geneva Risk and Insurance Review*. These two publications are examined in more detail below. Both journals publish peer-reviewed articles and are issued by Palgrave Macmillan. The archives less than three years old are available via the Palgrave Macmillan (Palgrave) website (*www.palgrave-journals.com*). Archives are also now fully digitised and online on The Geneva Association website and in the archives section of the Palgrave website.

Both journals now utilise Palgrave Macmillan's industry-leading Advance Online Publication (AOP) service. These AOP articles are fully citeable, as Palgrave publishes only the final versions of papers, and they can be referenced as soon as they appear on the AOP site, using the digital object identifier (DOI).

The Geneva Papers on Risk and Insurance—Issues and Practice

The Geneva Papers on Risk and Insurance—Issues and Practice publish papers which both improve the scientific knowledge of the insurance industry and stimulate constructive dialogue between the industry and its economic and social partners. It is essential reading for academics and researchers in insurance, insurance industry executives and other professionals who are searching for a deeper insight into the strategic options for their sector. It bridges the gap between these groups, highlighting overlapping areas of interest and providing mutually beneficial research and dialogue.

The Geneva Risk and Insurance Review

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

The Geneva Reports

The Geneva Reports Series tackles issues of strategic importance to the insurance industry that warrant special attention and particular analysis. The series is published on an "as appropriate basis" and is available both in printed and electronic versions.

Newsletters

Seven newsletters on the main research activities, as well as on World Fire Statistics, are published throughout the year. They are published biannually, except for *Insurance and Finance* and the *World Fire Statistics*. They are disseminated in hard copy and in the form of e-newsletters.

Insurance Economics

This newsletter for risk and insurance economists serves as an information and liaison bulletin to promote contacts between economists at universities and in insurance and financial services companies with an interest in risk and insurance economics.

Risk Management

The Risk Management newsletter summarises The Geneva Association initiatives in the field. It is open to contributions from any institution or company wishing to exchange information on the subject.

Four Pillars

The newsletter of the Research Programme on Social Security, Insurance, Savings and Employment was initiated in 1985, and provides information on research and publications in this area. It also covers themes linked to the life insurance sector.

Section 4 Publications

PROGRES

The aim of this newsletter is to contribute to the exchange of information on studies and initiatives aimed at better understanding the challenges arising in the fields of insurance regulation, supervision as well as other legal aspects.

Health and Ageing

It seeks to bring together facts and figures linked to health issues, and to try to find solutions for the future financing of health and the role that insurance solutions can play.

Insurance and Finance

The research programme on insurance and finance comprises academic and professional research activities in the fields of finance where they are relevant to the insurance and risk management sector.

World Fire Statistics

Published annually, this newsletter presents statistics on national fire costs from over 20 leading countries in an effort to persuade governments to adopt strategies aimed at reducing the cost of fire.

Etudes et Dossiers

Etudes et Dossiers are the working paper series of The Geneva Association. These documents present intermediary or final results of conference proceedings, special reports and research done by The Geneva Association. Most of these documents are available freely on The Geneva Association's virtual library, except for those in restricted use, which are only accessible in the private area of the Association website.

All documents to be published in an *Etudes et Dossiers* are available in the private area of The Geneva Association website within the week following the conference. This ensures swift dissemination of information among conference attendees and has received much positive feedback.

The Geneva Association Working Paper Series *Etudes et Dossiers* appear at irregular intervals about 10-12 times per year. Distribution is limited. Hard copies are automatically sent to all members of The Geneva Association.

Special reports, monographs, books and co-publications

Key financial Stability Issues in Insurance—An account of The Geneva Association's ongoing dialogue on systemic risk with regulators and policy-makers

July 2010

This report is based on a series of background papers and special presentations on systemic risk in insurance created between March and June 2010. It summarises the insurance industry's thinking—as advanced and crystallised by The Geneva Association—on these areas which include both corporate activities (e.g. asset management) and regulatory measures (e.g. crisis resolution mechanisms).

The Geneva Association General Assembly Review 2010

July 2010

This review is a retrospective on some of the key discussions at The Geneva Association's 37th annual General Assembly, the most prestigious gathering of insurance CEOs worldwide. Comprising essays by CEOs, Chief Regulators and leading commentators, it is intended to provide an insight into the General Assembly and some of the strategic issues discussed by this key forum for insurance leadership. Subjects include systemic risk regulation, climate change, developments in liability and law, demographics, as well as opportunities open to the industry.

Compendium of Publications of The Geneva Association

April 2011

This compendium, which has each and every publication that The Geneva Association has developed over the past 35 years, is regularly updated. It provides information by type and date of publication.

The Geneva Association's Climate Change and Insurance Project—International Contacts and Links

November 2010

This document, updated annually, contains information on special international insurance industry initiatives, intergovernmental organisations (IGOs), non-governmental organisations (NGOs), academic centres and research institutions working on climate change issues from the economic or multi-disciplinary perspective. They are mostly observer organisations from the sessions of the United Nations Climate Change Conferences and organisations with which The Geneva Association has ongoing relations, but the list also includes contributors to The Geneva Report No. 2, *The insurance industry and climate change—contribution to the global debate*.

Considerations for Identifying Systemically Important Financial Institutions in Insurance—A contribution to the Financial Stability Board and International Association of Insurance Supervisors' discussions

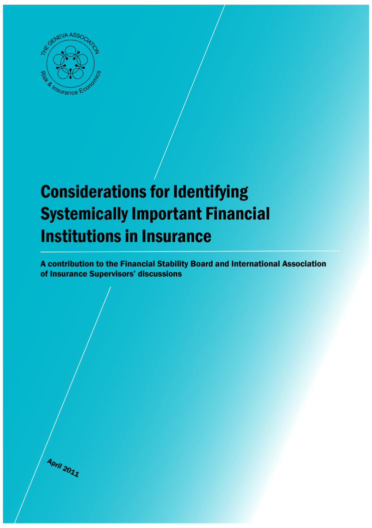
April 2011

Edited by Daniel Haefeli, Head Insurance and Finance, and Patrick M. Liedtke, Secretary General and Managing Director, The Geneva Association.

The Geneva Association's efforts in the field of Financial Stability in Insurance continue with this report which addresses two fundamental areas that are currently occupying policymakers' and regulators' agenda: in Part I "A Methodology to Identify Systemically Important Financial Institutions (SIFIs) in Insurance", and in Part II "An Analysis of the AIG Collapse: understanding systemic risk and its relation to insurance".

Section 4 Publications

The methodology presented in Part I is a logical further development of the earlier work carried out by The Geneva Association. It is inspired by the need to develop a comprehensive



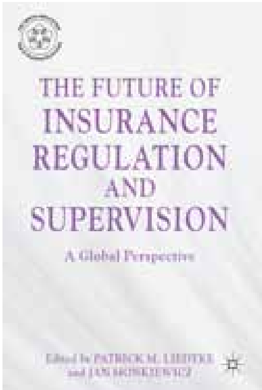
approach to identifying potentially systemically risky activities and the entities that carry them out.

Part II provides an analysis of the AIG case, which regularly features prominently in discussions about systemic risk and insurance and which is often misunderstood. The analysis aims to provide more clarity on this oft cited example and sets it in the wider context of systemic risk issues and their relationship to insurance.

The Future of Insurance Regulation and Supervision—A Global Perspective

Edited by Patrick M. Liedtke and Jan Monkiewicz, Palgrave Macmillan (April 2011)

The recent financial crisis has provoked a broad spectrum of regulatory observations and possible responses. Currently most of these proposals have been quick solutions to politically pressing questions and often only address parts of regulatory systems, but not the whole. At times, the result has been more confusion than clarity. Although historically wide-ranging reshaping has been a common phenomenon after the



severe failure of an existing financial infrastructure, there is an important difference this time—the global reach of today's markets and enterprises. Moreover, never before have so many reforms following a banking crisis not only affected the banking sector but also other parts of the financial services sector, such as insurance, the social systems and, of course, our real economy. Written by leading academics, researchers and insurance industry experts, this book offers a diversified perspective on how the regulatory and supervisory framework for the insurance sector will develop over the coming years.

Insurance in Corporate Risk Management

Although neglected in the past, insurance has acquired growing importance for the Polish economy. The insurance industry represents over 1 per cent of GDP and provides employment for almost 150,000 people.

Insurance. Academic manual

(Ubezpieczenia. Podręcznik akademicki)

Co-edited by Jerzy Handschke and Jan Monkiewicz, Poltext, Warsaw, 2010

In recent years the insurance business has undergone numerous changes. New products, new risks and new methods of risk management have emerged. The relations between insurance, banks and capital markets have become much closer. All these changes have made it necessary to discuss the following issues: risk, its quantification and classification; insurance as a financial instrument, insurance regulation, insurance products, risk management, insurance companies, financial management, controlling, budgeting, financial analysis and reinsurance, insurance in financial markets, globalisation of the insurance system, insurance supervision, insurance coverage guarantee, as well as insurance in the social security system.

This handbook was prepared by outstanding specialists from major Polish academic centres and is recommended by the Polish Finance Committee of the Polish Academy of Science for use in higher education institutions. The book is also addressed to the wide range of insurance professionals, providing comprehensive theoretical and practical knowledge.

Insurance in corporate risk management

This is a series of publications coordinated by the Technical University of Warsaw and was launched to provide knowledge in the use insurance as an effective business management instrument. It was written by leading Polish industry experts.

The series is addressed to people working in risk management as well as to students in finance, insurance and management.

Insurance in corporate risk management. Basic Issues, Vol. I

(Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa. Podstawy)

Co-edited by Bogusława Hadyniaka and Jana Monkiewicza, Poltext, Warsaw, 2010

The book is the first of a series entitled *Insurance in corporate risk management*. It provides a contemporary framework for the management of corporate insurance from a policy-holder perspective. It describes the nature of risks, types of risks faced by companies and measures to be taken to effectively manage risks. It is a source of information on insurance products offered to entrepreneurs, specifics of insurance contracts as well as a guide to choosing the right insurance broker. The book also describes the process of insurance claims investigation and the role of captive insurance companies.

Insurance in corporate risk management. Practice, Vol. II
(Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa. Zastosowania)
Co-edited by Lecha Gąsiorkiewicza and Jana Monkiewicza, Poltext, Warsaw, 2010

The book focuses on the application of corporate insurance in diverse activities from production undertakings to commercial companies, as well as banks, health care centres, local government units and non-profit organisations or various service providers.

Upcoming Events

2011 and 2012

2011

12-13 July
Bermuda
M.O.R.E. 25 on Mapping and Modelling Risks and Opportunities (MMR+O 2), hosted by the Bermuda Underwater Exploration Institute (BUEI), Bermuda

The goal of the conference is to provide a platform between the insurance community, the specialist and academic communities and policymakers to discuss issues on balancing risks and opportunities. It is useful to decision-makers with risk responsibilities, economists, insurance experts and risk modelers.

19-21 September
Vienna
38th Seminar of the European Group of Risk and Insurance Economists (EGRIE)

This is the annual meeting of the leading European risk and insurance academics, where they discuss their latest research, therefore promoting theoretical work on risk and insurance. Academics, economists, risk and insurance researchers benefit greatly from it.

4 October
Rome
Italian AXA Forum, organised by AXA/MPS, ANIA and The Geneva Association

This forum will discuss and point out a "scenario" of major emerging social and economic trends deeply affecting the very structure of our society and the role financial operators have within it. In second place, it is going to focus more specifically on one trend, immigration, considered as a challenging opportunity for banks and insurances. Leading financial executives from the insurance sector and the wider financial community, government officials with a close interest in insurance will benefit from it.

7 October
Trieste
9th Geneva Association Associates Meeting, hosted by Generali Group

Associates only.

18-19 October
Singapore
3rd CR+I Seminar on "Climate Risk: Opportunities for South-East Asian Insurers?", hosted by the Institute of Catastrophe Risk Management (ICRM) of NTU, organised in collaboration with the Disaster Risk Financing and Insurance (GFDRR) Programme of the World Bank, the National Climate Change Secretariat of the Singapore Prime Minister's, and The Geneva Association

The objective of the CR+I Seminars is to deepen the knowledge pool on the impacts of climate risk in different regions. Experts involved in analysing the impacts on climate risk reap benefits of discussions and presentations at this seminar.

27-28 October
Munich
8th Annual Liability Regimes Conference, hosted by Munich Re

The Liability Regimes conferences are annual conferences dedicated to the challenges insurers and reinsurers face in coping with emerging conditions in the world's liability regimes. Decision-makers with underwriting, product, claims and general management responsibilities come to these series.

14-15 November
Toronto
8th Health & Ageing Conference of The Geneva Association on "Insurance and Dementia", hosted by Sun Life Financial

The conference will focus on dementia, its current and future cost and the role of insurance in covering this risk. Participants come from insurance and reinsurance companies, universities and related institutions.

16-17 November
Rüschlikon
7th CRO Assembly on "The Path to Future Growth-Focusing on New Risk Horizons", jointly organised with Swiss Re and the CRO Forum

The CRO Assemblies aim to foster best market practice and to develop the insurance and reinsurance industry's risk culture. Chief Risk Officers or equivalent functions in insurance are welcome to attend.

6 December
London
1st Bancassurance CEO Roundtable of The Geneva Association, hosted by HSBC

CEOs only.

7-8 December
London
8th International Insurance and Finance Seminar of The Geneva Association, hosted by Aviva

Top CFOs and leading financial executives from the insurance sector and the wider financial community, government officials with close interest in insurance discuss key strategic issues facing insurance in the financial arena at this seminar.

2012

22 March
Geneva
The Geneva Association/IAIS Executive Committee High-Level Meeting, hosted by The Geneva Association

Board members only.

22-23 March
Geneva
28th PROGRES Seminar on Insurance Regulation and Supervision, hosted by The Geneva Association

The subjects of the seminar will include solvency, international supervisory cooperation, IFRS and current regulatory issues. Decision-makers with regulation responsibilities, leading government officials, top insurance regulators and supervisors are welcome at the seminar.

6-9 June
Washington D.C.
39th General Assembly of The Geneva Association

The Geneva Association General Assembly is arguably the most prestigious annual gathering of insurance CEOs world-wide. The Assembly provides a platform for the leaders of the insurance industry to meet and discuss key strategic issues.

Members only.

This review is a retrospective on some of the key discussions at The Geneva Association's 38th annual General Assembly in Rio de Janeiro. Comprising essays by CEOs, Chief Regulators and leading commentators it is intended to provide an insight into the General Assembly, the most prestigious gathering of insurance CEOs worldwide, and some of the strategic issues discussed by the insurance leadership. Subjects include, financial stability in insurance, climate risks, developments in liability and law, demographics as well as opportunities open to the industry.

The Geneva Association is the leading international insurance think tank for strategically important insurance and risk management issues. Its members are the CEOs of the world's 90 leading insurers and reinsurers.

www.genevaassociation.org

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