

Key Financial Stability Issues in Insurance

**An account of The Geneva Association's ongoing dialogue
on systemic risk with regulators and policy-makers**

**Follow-up report on *Systemic Risk in Insurance—An analysis
of insurance and financial stability*,
Special Report of The Geneva Association Systemic Risk Working Group,
March 2010**

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Acknowledgements

This report is an extension of the major research project on the credit crisis and financial stability that The Geneva Association launched in February 2008. A special Systemic Risk Working Group was set up in December 2009 to analyse specifically the effects of systemic risk on insurance and the potential for insurance to create systemic risk in view of the regulatory debates surrounding this issue. The Working Group released a seminal report on *Systemic Risk in Insurance—An analysis of insurance and financial stability* (download from www.genevaassociation.org) on 26 February 2010 which since has become required reading for anybody interested in the relation of insurance and systemic risk.

After the publication of the report a number of follow-up questions and issues were identified and brought up to The Geneva Association by national and international regulatory, supervisory, policy-making and other special bodies concerned either specifically with insurance or the wider domain of financial services. The Geneva Association participated in several official hearings and organised joint information and discussion meetings to further develop the analysis and understanding of systemic risk in and for insurance. A series of prominent questions emanated from these activities that we felt would benefit from further investigation.

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Foreword

In March 2010, The Geneva Association released a major research report, *Systemic Risk in Insurance—An analysis of insurance and financial stability* (http://www.genevaassociation.org/PDF/BookandMonographs/Geneva_Association_Systemic_Risk_in_Insurance_Report_March2010.pdf). This in-depth report was prompted by the ongoing regulatory and policy discussions on potential systemic risks to the financial system and the real economy posed by the insurance sector. The study helps to objectively situate systemic risk issues and concerns about systemic financial stability with regards to the insurance industry. It also provides a constructive industry contribution, identifying potential systemic risk drivers and putting forward some specific recommendations on how to deal with them. The main findings of this research report are the following:

- Banks and insurers played markedly different roles in the financial crisis.
- The insurance business model has specific features that make it a source of stability, and not instability, in the financial system.
- The few insurers who experienced serious difficulties were brought down by quasi-banking activities, not their core insurance business.
- Only two, non-core activities of insurers have the potential for systemic relevance: derivatives trading on non-insurance balance sheets and mismanagement of short-term funding from commercial paper or securities lending.
- Principle-based group supervision, supported by sound industry risk management practices, will mitigate potential risk related to these activities.
- Insolvencies need not be avoided at any price. In contrast to what we have seen in the banking sector, winding-up an insurer is an orderly process that does not generate systemic risk.
- The analyses lead to five specific recommendations for corporate and public-policy decision-makers: (1) Implement comprehensive, integrated and principle-based supervision for insurance groups; (2) Strengthen liquidity risk management; (3) Enhance regulation of financial guarantee insurance; (4) Establish macro-prudential monitoring with appropriate insurance representation; and (5) Strengthen risk management practices.

After the publication of the report a number of follow-up questions and issues were identified and brought up to The Geneva Association by national and international regulatory, supervisory and other special bodies concerned with insurance. This includes on the global level most notably the International Association of Insurance Supervisors (IAIS) and its Financial Stability Committee (FSC) where The Geneva Association participated in several hearings and organised joint information and discussion meetings. It also includes expert organisations beyond the specific realm of insurance such as the Financial Stability Board (FSB) and finance ministries and central banks in various countries of the G-20.

The following 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 respective research was conducted by member companies of The Geneva Association's Systemic Risk Working Group: Allianz, Aviva, AXA, MetLife, Munich Re, and Swiss Re, as well as The Geneva Association itself. As such, the following report constitutes a further development of the analysis of the role of insurance for financial stability and represents an integral part of the industry's position on systemic risk in insurance as originally laid out in the March 2010 report.

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Executive summary

Investment management in insurance does not give rise to systemic risk when managing policy-holders' assets insurers aim at building well-diversified investment portfolios. Banking assets which are particularly vulnerable to financial crises are only a fraction of total assets held by insurers. Therefore, insurers would be able to absorb shocks from single banks, even big ones. However, as with most sectors of the real economy, insurers would be severely affected by a wholesale failure of the global banking system. As such the insurance sector is susceptible to systemic risks generated in other parts of the financial sector. Massive declines in asset prices would erode shareholders' funds, the difference between insurers' assets and their liabilities. Even then, however, there would be only limited effects on insurers' ability to meet their obligations and to pay claims as these have been reserved for and are held in assets matching the expected payout pattern.

Also, the scope for liquidity risk in insurance is very limited. Its business model does not rely on short-term funding. Insurers are funded up-front by advance premium payments. Product design typically does not allow policy-holders to make cash demands at will. However, systemically relevant liquidity risks may emanate from the non-core activity of short-term funding via securities lending and commercial paper and mismanaging the proceeds. The most promising approach to tackle this risk is through enhanced, integrated corporate risk management, in line with the principles of modern capital adequacy regimes such as Solvency II, including liquidity stress tests. Besides, liquidity risk does not lend itself to being effectively mitigated via increased capital requirements. In summary, there is little evidence of insurance either generating or amplifying systemic risk, within the financial system itself or in the real economy.

Against this backdrop, the notion of an "insurance run" is a misconception. In addition to pursuing a highly specific and resilient approach to funding, insurers align their investment activities very closely with expected payout patterns and do not face the asset-liability mismatch and instability of fractional-reserve banking which is inherent to deposit-taking institutions. The frequently cited case of the Belgian insurer Ethias does not exemplify an "insurance run". The redemptions the company suffered occurred in one specific segment of its products universe only, (pseudo-)“life insurance” products which, as a matter of fact, were not life insurance policies in the commonly understood sense but bank-type savings deposits, redeemable at any time, at no penalty. The case thus proves only the vulnerability of banking products to a bank run.

Looking at specific products, none of the insurance solutions typically offered by life insurance companies provide for liquidity in sufficient volume as to be a contributor to any systemic risk affecting global markets. Products are usually designed in a way that effectively eliminates any exposure to systemic risk: policy-holders bear a significant portion, if not all, of the investment risk. Also, many products have no contractual cash value features. Any cash payouts are made over a long period of time and assets are managed accordingly. As a rule, products also come with large surrender penalties, making premature withdrawals very expensive. In addition, sales and marketing expenses are deducted from the premium or contribution before crediting the remainder

to the investment or policy, a practice known as front-loading, which adds to the policy-holders cost of cancellation. In view of these product features, it is highly unlikely that, in times of crises, policy-holders would resort to massive policy cancellations as other sources of liquidity such as bank deposits, general savings accounts, sales of readily fungible assets such as stocks and bonds, and higher charges to credit cards are more accessible, faster and less expensive. This has been the experience of the industry during previous crises.

Besides corporate product design, regulation of insurance companies offers an effective shield against systemic risk. Regulation is well established and regulatory reserve and capital requirements have been effective in ensuring that reserve and capital margins are adequate to enable insurance companies to meet their obligations in even the most stressful environments.

Some people argue that a lack of insurance cover may also pose systemic risk. It is important though to recognise that certain risks defy insurability. Any insurer covering such exposures would jeopardise its existence and, ultimately, the claims payments owed to its policy-holders. Uninsurability is not a systemic risk but a reflection of the insurance business model which is about accepting calculable risks against a premium which is commensurate with exposure and economically viable. Regulators should tread carefully when trying to address gaps in insurability: On the one hand, market forces tend to fill such gaps over time, weakening the case for regulatory intervention. On the other hand, ill-designed regulatory measures might even artificially generate systemic risk by forcing insurers to take on risks of ruinous proportions.

Also, when thinking about ways of guaranteeing financial stability, there is no need for adopting “living will”-type resolution mechanisms inspired by experience from the banking sector, for insurers. The added benefit would be negligible, whilst the risk arising from moral hazard and information deficits is significant. Generally, existing regulatory systems applying to the insurance industry effectively protect consumers. Under conditions of normal business, they ensure that assets are matched to liabilities and require insurers to hold surplus assets as a risk buffer. In times of crisis and corporate failure, existing regulations provide for an orderly winding-up over an extended period of time, protecting consumers’ interests through technical provisions covering their claims.

Another major area of regulatory and political discussion is the use of the taxation tool to influence risk-taking and financial stability. From the insurance industry’s perspective, an across-the-board levy on all financial institutions would not only be ineffective but also unjust. Such a tax, besides giving rise to moral hazard, would do nothing to specifically address those activities that have proven to be systematically risky during the crisis. In addition, it would not only punish the offenders but also those who were the victims of reckless risk taking and excessive leverage: insurers, reinsurers, but also a large number of other financial services companies who never deviated from the traditional virtues of prudence and who operate inherently stable business models. Their activities have acted as effective stabilisers during the financial crisis and it would be a capital policy mistake to weaken their resilience through additional levies, thus undermining a sound strategy.

Part I: Corporate topics

Investment management—risk mitigation through diversification

Insurers can withstand temporary impairments of bank assets

During the *annus horribilis* of 2008, the Top 5 European insurance companies made net investments in securities (mainly for their policy-holders) of around US\$50 billion. The dependability of insurers' cash-flows from large portfolios of reliable institutional and retail customers allowed to make net investments at a time when banks were forced to sell securities, sometimes even as fire-sales. In the first half of 2009, the Top 5's net investments surged to close to US\$150 billion.¹ When looking at total invested assets of European insurers, the lion's share of more than 70 per cent is accounted for by fixed-income instruments. The remainder is invested in equities, real estate and other instruments.²

Since risk diversification is a key principle underlying investment management in insurance, the fixed-income instruments are usually widely spread across different risk categories, especially in terms of duration, region, counterparty risk and type of instrument. A significant portion of corporate bond holdings relates to direct bank financing (e.g. bonds issued by banks) or instruments indirectly relying on banks. Examples for the latter are asset-backed securities or covered bonds with a bank providing backstop (not to be confused with German "*Pfandbriefe*" where issuing banks are only liable in addition to the very strict provisions on liability coverage by first tier real estate mortgages). In the Euro zone the share of bank debt securities in total insurance investments is around 10 per cent,³ reflecting the weight of the banking sector in modern economies.

Against this backdrop, any meltdown of the banking sector would lead to losses on the asset side of insurers in a magnitude which is dependent on the recovery rates of the exposure to the defaulted banks. A worst case scenario would be as dangerous for individual insurers and the insurance sector as a whole as it is for the "real" economy which relies on an efficient banking sector as its "life blood".

However, in contrast to the banking sector, the impact of just temporary impairments of banking assets would not cause immediate failures in the insurance sector: due to longer term claims payout patterns from insurance products, insurers have more flexibility and time to deal with a crisis than banks which might face an immediate withdrawal of deposits. If future rules would require an immediate recognition of temporary asset price declines including long-term fixed-income instruments held until maturity, as currently contemplated under the IFRS (International Financial Reporting Standards), extreme and inappropriate earnings volatility would result from temporary impairments in times of crisis.

1 *Systemic Risk in Insurance—An analysis of insurance and financial stability, Special Report of The Geneva Association Systemic Risk Working Group*, The Geneva Association, Geneva, March 2010, p. 21.

2 *Ibid.*, p. 37.

3 Stated by ECB president Jean-Claude Trichet on 18 November 2009 in Frankfurt.

Single bank failures do not pose a systemic risk to the insurance sector

In case of individual bank failures (even including very large institutions) the impact on insurers' investment portfolios would remain manageable.

Under the forthcoming Solvency II framework, and already today under best practice in insurance risk management and insurance supervisors' existing remit, counterparty risks to banks are continuously monitored in order to avoid any excessive exposure to a few single counterparties. In this sense, from the insurance industry's perspective, no single counterparty bank would have to be considered "too big to fail".

In the insurance industry, any single non-sovereign counterparty risk is usually limited to 1 per cent of assets, which would correspond to less than 25 per cent of capital. For example, under German law, the exposure towards one group must not exceed 5 per cent of the value of technical provisions.

Hence, single bank failures cannot cause a systemic threat to the insurance sector.

ALM and risk sharing with policy-holders limit insurers' exposure to asset declines

Insurers have US\$18.7 trillion of assets under management, which is roughly 11 per cent of the world's total financial assets.⁴ It is natural, therefore, that declines in asset prices adversely affect the capital base and solvency level of insurers. However, a massive asset devaluation would not just affect insurers but also negatively impact on pension funds, retirement and private savings as well as bank assets held by non-financial services companies.

Current internal models and the envisaged Solvency II guidelines aim at market or at least model-based asset valuations. Investments in "risky" assets like stocks carry high solvency capital charges and are limited to the extent that worst case declines can be absorbed. As such, insurers using advanced risk management approaches align their investment strategy with the overall risk bearing capacity of the company. This approach is usually complemented by internal risk guidelines which define procedures when investing in special asset classes.

Insurers' assets are usually most sensitive to declines in the value of fixed-income or stock investments. Both are triggered by market risks (e.g. changes in interest rates or stock market fluctuations) and to a much lower extent by credit risks (like defaults or rating downgrades). In the context of market risk it is important to note that changes in risk free interest rates impact the asset and liability sides of an economic balance sheet at the same time and tend to offset each other. As a result, the effects on available funds are limited, particularly if advanced methods of Asset Liability Management (ALM) are applied.

In case of traditional life insurance policies with minimum guaranteed yields, the most serious threat would not be a decline in asset prices but a sustained low interest rate environment. This is a scenario banks are usually less exposed to as their asset duration tends to exceed the liability duration. However, in insurance, even long periods of very low interest rates can be sustained without financial instability occurring, as the example of Switzerland shows.

In addition, in life insurance the investment risk is, to varying degrees, shared with policy-holders. This approach limits the severity of shocks and stabilises the capital levels of insurers. Prudential measures like market wide limitations of the guaranteed yield level which can be

⁴ *Systemic Risk in Insurance, op cit.*, p. 7.

offered for new life insurance products or insurers' ability to establish buffers (like surplus funds) further strengthen the resilience of the sector.

Furthermore, one has to bear in mind the various levels of policy-holder protection: a massive asset devaluation would first hit insurers' shareholders' funds. Even if these shrank to zero, policy-holders would not suffer any damage since the insurer's technical provisions would still be sufficiently covered by eligible assets reserved to policy-holders.

In conclusion, a massive decline in asset prices would not only erode shareholders' funds but, in the case of life insurance, reduce policy-holders' profit participation as well. However, it is important to emphasise that most recent regulatory developments such as the proposed Solvency II framework are expected to ensure that the specific risk characteristics of individual asset classes are properly taken into account, limiting the overall risk exposure, arising from the asset side of the insurance balance-sheet, to the available capital.

Summary

Investment management in insurance does not give rise to systemic risk. When managing policy-holders' assets insurers aim at building well-diversified investment portfolios. Banking assets which are particularly vulnerable to financial crises are only a fraction of total assets held by insurers. Therefore, insurers would be able to absorb shocks from single banks, even big ones. However, as with most sectors of the real economy, insurers would be severely affected by a whole-sale failure of the global banking system. As such the insurance sector is susceptible to systemic risks generated in other parts of the financial sector. Massive declines in asset prices would erode shareholders' funds, the difference between insurers' assets and their liabilities. Even then, however, there would be no material effects on insurers' ability to meet their obligations and to pay claims as the appropriate level of capital would be held for both credit and market risk

Liquidity management—No risks from core insurance activities

Upfront funding shields insurers from liquidity risk

The March 2010 report of The Geneva Association, *Systemic Risk in Insurance—An analysis of insurance and financial stability* (“the Report”) notes the fundamental difference between the banking and insurance models with respect to liquidity risk. Similar comments were made by the CRO Forum in a publication⁵ in response to the financial crisis, where they explain this difference as follows:

“The insurance business model makes insurance companies inherently less exposed to liquidity risk than are banks. Insurers do not rely on short-term funding. Their production cycle works inversely to the banking cycle, since they are funded through up-front advance premium payments—rather than in arrears through debt interest payments—and typically do not use leverage to enhance expected investment returns. Moreover, policy-holders usually cannot withdraw money from insurance companies at will or only at high cost. For insurers, the critical measure is the ability to pay claims and meet policy-holders withdrawals when they are due. It is therefore important that the regulatory regimes for insurance and banking remain differentiated in their approach to liquidity risk to reflect the essential, structural difference in their business models.”

The question of whether insurance products pose any systemic risk is discussed in some detail in the Report.⁶ The conclusion reached for all cases considered is that these products were “not systemically relevant”.⁷

The Report identified two non-core activities of insurers and reinsurers that have the potential to be systemically relevant if conducted on a massive scale and without appropriate risk management. One of these non-core activities does have a liquidity-risk angle, namely, the mismanagement of short-term funding raised through securities lending and commercial paper.⁸

5 Insurance Risk Management Response to the Financial Crisis, CRO Forum, April 2009. http://www.croforum.org/publication/insurance_risk_management/

6 See section 3.2.

7 Further detailed explanation is to be found in this paper's section on product development (pp. 17 ff).

8 See section 3.4.1 of the Report.

Integrated Risk Management effectively mitigates liquidity risk in insurance

As pointed out by the Report⁹, liquidity risk is not a risk that lends itself to being effectively mitigated by a capital charge, in contrast to other risks such as market, credit and insurance risks. Rather, the most effective approach to managing liquidity risk is an integrated approach that aligns a firm's business activities, product pricing, terms and conditions, and its investment strategy with its liquidity risk management. Such an integrated approach would address the range of liquidity pressures that can hit the firm, as well as any potential contribution of the firm to systemic risk via its mis-management of the non-core activity described earlier.

In October 2008, the CRO Forum published a paper entitled *Liquidity Risk Management—Best Risk Management Practices*.¹⁰ The paper set out a number of principles with respect to liquidity risk management. These include:

- a. The identification of, amongst others, the liquidity risks faced by the firm and the articulation of management's tolerance for liquidity risk.
- b. The inclusion of liquidity considerations in product design, pricing and valuation, thereby ensuring that a firm's products are sustainable from a liquidity perspective.
- c. The need for a firm's strategic asset allocation and contingent liquidity planning to directly reflect the expected and contingent liquidity needs of its liabilities, as well as the potential for sudden and extreme shifts of the liquidity situation in the financial markets.
- d. The requirement that firms keep their fingers on the pulse of the various funding channels that they use to meet their liquidity needs so as to be alerted to any changes in the liquidity situation. These liquidity funding channels include not only the sale of assets, but would also include channels such as funding via securities lending and commercial paper where relevant to the firm.

In order for a firm to get insights into its potential liquidity needs in situations of stress, the CRO Forum paper set out the need for a firm to perform a comprehensive range of stress tests and scenarios, tailored to its specific exposures and vulnerabilities. It is not sufficient for a firm to focus only on its "expected" liquidity needs, in particular not for companies with significant exposures to funding via securities lending and commercial paper. Those firms would be expected to construct tests that appropriately stress these features. The aforementioned stress tests would recognise that assets that are otherwise encumbered would not be available to meet liquidity needs, and that increased collateral requirements also contribute to the overall liquidity spike.

- e. The requirement for a firm to maintain an up to date Liquidity Policy, approved by senior management. The policy would set out the firm's approach to the management of its liquidity risk.
- f. The need for a firm to maintain a written liquidity stress management plan, also approved by senior management. These plans should be regularly reviewed. The stress management plans would guide a firm in managing its way out of a crisis were one to occur. This forethought could prove invaluable in the event of a liquidity crisis.

It is measures such that as those mentioned above that the authors of the Report had in mind when suggesting that a strengthening of insurers' and reinsurers' liquidity risk management processes would serve to adequately mitigate any potential systemic risk posed by a firm entering into the non-core activity of raising short-term funding through securities lending and commercial paper and then investing the proceeds so as to generate additional yield.

Within the European Union, moves are already well afoot to ensure that firms have adequate risk management processes, including for liquidity risk. Article 44 of the Solvency II Directive,

⁹ See section 5.2.2.

¹⁰ http://www.croforum.org/publication/liquidity_risk_management_practices/

which deals with a firm's governance of risk management, specifically lists liquidity risk as one of the risks to be included, and for which a written risk-management policy is hence required. In addition, CEIOPS' (Committee of European Insurance and Occupational Pensions Supervisors) final Level 2 advice on Systems of Governance¹¹ states, inter alia, that:

- a. It is a firm's responsibility to have sound liquidity management practices that cover both short- and long-term considerations, including stress tests and scenario analyses. In addition, the firm is required to have a liquidity contingency plan in place.
- b. A firm's ALM Policy should consider the interaction with (amongst others) liquidity risk.
- c. A firm's Investment Policy should include a specification as to how the firm plans to manage liquidity risk, in the short, medium and long term.

Summary

The scope for liquidity risk in insurance is very limited. Its business model does not rely on short-term funding. Insurers are funded up-front by advance premium payments. Product design typically does not allow policy-holders to make cash demands at will. However, systemically relevant liquidity risks may emanate from the non-core activity of short-term funding via securities lending and commercial paper and mismanaging the proceeds. The most promising approach to tackle this risk is through enhanced, integrated corporate risk management, in line with the principles of Solvency II, particularly in the area of liquidity stress testing. Liquidity risk does not lend itself to being effectively mitigated via increased capital requirements.

¹¹ CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: Systems of Governance, October 2009.

The insurance run—A fallacy

The Belgian mutual company Ethias has been quoted as an example of an “insurance run” occurring during the financial crisis. The March 2010 Geneva Association report on Systemic Risk in Insurance spells out clearly why the bank-inspired concept of “run” does not apply to insurance companies. The following section sets out the characteristics of a bank run in more detail, based on which the non-applicability of the concept to the insurance industry is demonstrated. Finally, some light is shed on the very specifics of the Ethias case and why it cannot be regarded as a proxy for “run” in the insurance sector.

The risk of a bank run is inherent to modern commercial banking

A run on the bank occurs when a large number of customers withdraw their deposits, prompted by the belief that their bank is at financial risk. A bank run can lead to collective panic, spreading to other banks as well, and ultimately put the entire banking system at risk.

Such a scenario is a logical consequence of the banking system’s inherent instability. Under the usual practice of fractional-reserve banking, banks keep only a fraction of their deposits as cash and other highly liquid assets. The remainder is used for granting loans. At the same time, banks remain committed to redeeming all these deposits upon demand—even though just a fraction of its obligations is covered by reserves.

By its very nature, fractional reserve banking expands the money supply beyond the amount of base money created by central banks. In order to manage the in-built risks associated with modern commercial banking central banks generally impose reserve requirements that require banks to keep a minimum fraction of their demand deposits as cash reserves. Severe problems can arise, however, when a large number of depositors seek withdrawal of their deposits. Under such conditions, a bank run may occur which could ultimately lead to a systemic crisis. Unless central banks intervene, commercial banks may simply and rapidly implode as deposits bleed.

What are the key preconditions for a systemically relevant run on a bank and how do they compare to the world of insurance?

- a. A collapse of confidence in an individual bank’s financial stability: customers start withdrawing their deposits.
- b. A significant asset-liability mismatch (the bank holds only a fraction of demand deposits in cash and customers are entitled to withdraw any amount at any time, at no additional cost).
- c. An in-built momentum (self-fulfilling prophesy): as more customers withdraw their money, the probability of the bank’s default increases, prompting further withdrawals and ultimately leading to bankruptcy. There are no obstacles to all customers withdrawing their deposits at the same time.

- d. Financial stability concerns spreading to other banks: a bank panic may occur when additional banks are faced with runs. At this point in time, at the very latest, forceful regulatory responses are needed.

An “insurance run” is inconceivable as assets are matched to liabilities

Judging by the four criteria mentioned above, an “insurance run” is a misconception because:

- a. It is unlikely that confidence in an individual insurance company would evaporate as abruptly and dramatically as compared with a bank. Liabilities (in their entirety, not just as a fraction) towards policy-holders are covered by technical reserves which are invested on the basis of the expected payout pattern. Even if confidence in an insurer wanes, the scope for customer withdrawals of liquid assets is limited.
- b. Insurance companies usually match their assets very closely with underlying liabilities. Such an approach reflects state-of-the art enterprise risk management as well as regulatory and rating agency requirements.
- c. A vicious cycle of accelerating withdrawals is unlikely in insurance due to the design features of most (life) insurance policies (high cancellation fees or contractual exclusion of contract termination). In case of urgent cash needs, other, more fungible and less expensive sources of liquidity will be tapped first, e.g. deposit and savings accounts and credit cards.
- d. Due to the limited interconnectedness of insurance companies a contagion scenario is very difficult to conceive. Actually, there is no historical precedent.

“Ethias” cannot be considered an “insurance run”

At the end of 2003 Ethias became the new brand of the former SMAP (Société Mutuelle des Administrations Publiques) whose former Managing Director, Leon Lewalle, had been given a few years suspended sentence in May 2004 for embezzlement. Until 2000 the company only operated in the public sector on State and regional level.

Ethias is the third largest insurance company in Belgium. Until very recently, it was organised as a mutual. It is now a limited company (“SA”), with the Belgian Federal State, and the Flemish and Walloon Regions owning 75 per cent. Ethias’s core customer base was Belgian municipalities and local public authorities which, as a consequence of Ethias’s mutual status, played a dominant role in its governance. Former company Chairmen Steve Stevaerts and Jean Pierre Graffé are still Board Members and used to be pre-eminent figures of Belgian politics. The current Chairman Erik de Lembre, elected in 2009, was the first, in Ethias’s history, to be a professional with no specific political background.

Ethias used to be a non-life company, focusing solely on local public authorities. Over time, it diversified its operations into life, and its customer base into retail. In 2008 Ethias collected €2.24 bn of life insurance premium and €1.20 bn of non-life premium representing a market share of about 15 per cent and 12 per cent, respectively. Ethias’ liabilities amount to €25.6 bn. The flagship product from the Life range had been, for a long time, a long-term pension plan (“First”) with a guarantee on capital and minimum return (“branche 21”). Its main feature was, contrary to life insurance industry practice, the lack of any lapse/surrender penalty and very low fees (or even total absence of fees for older generation products). Ethias’s profits were based on profit participation only.

The market had been complaining for a very long time with the Belgian Supervision Authority (CBFA) about the risk presented by the “First” account of which the features were closer to a liquid banking savings account than an insurance product.

The financial turmoil hit Ethias while it had not yet reformed its governance according to CBFA audits and recommendations to introduce more transparency within the company processes.

From September to mid October 2008 Ethias had to face the consequences of a major Asset & Liability mismatch, namely:

- Significant unrealised capital losses on large corporate and structured bonds portfolios.
- In addition large unrealised capital losses due to large equity exposure to Dexia (of which Ethias owned 5 per cent), booked at €9.9 per share in Ethias' books, even when the share price had dropped to below €3. The stake in Dexia was admitted to cover technical liabilities of Ethias although being fully illiquid as a result of a shareholding agreement with Dexia.
- Ethias was well known for paying high guaranteed returns of up to 7 per cent on First products.
- Ethias also suffered reputational damage originating from the marketing of Lehman products to local city councils. The company's own exposure to Lehman amounted to 7 per cent of its shareholders' funds.

Fitch downgraded Ethias's financial strength rating twice, in July 2008 and September 2009 (A –, with a negative outlook).

Ethias's situation deteriorated substantially during the financial crisis, and spiralled out of control from September 2008.

Two weeks into October, CBFA asked Ethias, on a confidential basis, to submit a recovery plan to remedy the solvency problems resulting from eroding asset values.

On Friday 17 October 2008, Guy Burton, Ethias's Managing Director, surprisingly made a public announcement in the French economic daily newspaper *La Tribune* disclosing that the company was in need of raising €1.5 bn in new capital before Tuesday 21 October following a CBFA request:

"One point five billion is the minimum to be able to continue to exist without being put under trusteeship. But to continue our growth we need 3 billion."

This untimely, unexpected, and largely unexplained¹² statement on the real financial condition of the company triggered significant redemptions from policy-holders. This "run", however, was limited to the "first" range of products. It amounted to €110 million within three days. During this period of time, Ethias's liquidity position remained strong enough to meet all immediate cash demands. There was no queuing in front of Dexias's counters as it occurred with Fortis, for example.

Redemptions quickly stopped, further to:

- The immediate dismissal of Guy Burton and his replacement by the International Director of the Company, Bernard Thiry,
- A statement from the CBFA denying any deadline for Ethias's effective restructuring but confirming the need of additional own funds to restore the company's solvency,
- The confirmation of the €100,000 State guarantee on individual deposits being applied to Ethias.

Later, and after the now so-called "run" had stopped, the Belgian Authorities (Federal State, Flemish and Walloon Regions) injected €1,5 bn in capital to restore the company's solvency margin and imposed radical changes to the company's governance.

Why is the Ethias case irrelevant to any attempts to substantiate the possibility of a banking-type "run" on an insurance company?

¹² Widespread and long lasting rumours circulated in the market that Burton's statement was aimed at making an overhaul of Ethias's control and consequently a change in Dexia's holding easier.

- The Ethias “run” was limited to a very small portion of the company’s product range, the “First” product which was basically a bank savings deposit, redeemable at any time, at no penalty, with hardly any insurance features. Ethias’s P&C (Property & Casualty) business remained profitable, and business volumes did not suffer substantially.
- The First product offered high guaranteed returns (often the highest in the Belgian market), with no administration fees charged. Besides, it appeared that bonus payments to Ethias’s management were linked to revenue growth targets. This encouraged sub-optimal risk management practices.
- Redemption amounts were rather small compared to Ethias’s liabilities (€110 million versus €25.6 bn), and immediately available cash. Ethias clearly took advantage of the stability of its insurance operations to absorb withdrawals related to liquid “First” savings product, i.e. quasi-banking liabilities.
- Ethias had to face a solvency gap, not a liquidity stress. The solvency gap was caused by unrealised capital losses on corporate and structured bonds and the Dexia stake. Bonds by nature were to be held to maturity with no need of immediate selling. The Dexia stake, although being admitted for the calculation of the solvency margin, was never available for sale due to a shareholding agreement with Dexia.
- Proper insurance guarantee schemes proved to be effective tools to prevent large-scale and spiralling redemption moves from policy-holders.
- The redemptions were triggered by a very unusual type of behaviour from a senior executive.
- Ethias’s difficulties at the time of the financial turmoil were compounded by company-specific severe long-standing, well known and unaddressed governance and operational deficiencies.

Summary

The notion of an insurance “run” is a misconception. Insurers align their investment activities very closely with expected payout patterns and do not face the asset-liability mismatch and instability of fractional-reserve banking which is inherent to deposit-taking institutions.

Insurers are not affected in the same way by liquidity risks as other financial institutions. They generally do not rely on short-term market funding and, therefore, are not subjected to the kind of liquidity risk affecting banks. They receive premiums up-front and pay out claims later. In general, payouts do not depend on the will of the policy-holder but are driven by fortuitous events such as death, disability or a natural disaster. An exception is life insurance where, however, most companies impose high cancellation fees which discourage early redemption. In addition, the case of the Belgian insurer Ethias does not lend itself to exemplify an insurance “run”. The redemptions the Company suffered occurred in one specific segment of its products universe only, “life insurance” products which, as a matter of fact, were bank savings deposits, redeemable at any time, at no penalty.

Product development—Moderate sensitivity to capital markets

Insurers are major asset managers and, therefore, naturally exposed to capital market fluctuations

The purpose of this section is to expand on the predominant life insurance products in order to demonstrate how carefully designed products, risk management practices, and regulatory requirements and controls serve to effectively eliminate the potential contribution of insurance companies to systemic capital markets risks. The section focuses on life insurance products which, due to return guarantees and very long contract periods, are very closely linked with the capital markets. Non-life insurance products are not covered by the following section as contract periods are usually limited to one year and claims payments are fortuitous and not related to specific capital market developments.

The insurance industry manages huge amounts of assets. It is the world's third-largest institutional investor with close to US\$19 trillion under management. As such, it is natural that insurers are always subject to the effects of unexpected asset defaults within the general account. Accordingly, regulatory capital is required for credit risk, which varies by risk category (e.g., rating of securities). This section will not focus on the default risk of assets backing liabilities, but rather will focus on the benefit obligations associated with the life insurance product design, as well as an insurance company's exposure to asset value fluctuations that are caused by stresses other than defaults.

Insurance products are heavily regulated, and require conservative reserve and statutory capital including margin for extreme stress scenarios. These requirements drive insurance companies to ensure that assets are invested in durations that match liabilities and ensure that companies hedge capital markets risks.

Systemic risk in life insurance can be mitigated through product design

This section reviews the following life insurance products in the context of the potential systemic risk events, within several broad categories:

(A) Savings and Retirement Products

- (i) Fixed rate deferred annuities
- (ii) Variable deferred annuities with Living Benefit guarantees
 - (a) No Living Benefit Guarantees
 - (b) Return of Premium guarantee
 - (c) Guaranteed Minimum Withdrawal Benefit (GMWB) guarantee
 - (d) Guaranteed Minimum Income Benefit (GMIB) guarantee

- (iii) Single Premium immediate annuities
- (B) Retail Insurance products
 - (i) Level premium life insurance
 - (ii) Fixed Universal Life insurance
 - (iii) Variable Universal Life insurance
 - (iv) Annually renewable property (including auto) insurance
 - (v) Disability insurance
- (C) Institutional and Capital Markets Products
 - (i) Funding Agreements
 - (ii) Guaranteed Investment Contracts (GICs)
 - (iii) Stable Value Wrappers

(A) Savings and Retirement Products

(A)(i) Fixed rate deferred annuities

Fixed rate deferred annuities are comparable to and compete with bank Certificates of Deposit. However, these insurance products are many years in duration (typically three to ten) to the date of being available for withdrawal with no surrender penalty. Assets are invested to match the duration of the liabilities, so fluctuations in asset values due to factors other than default are not important to the risks of the product. This product has large surrender charges and market value adjustments for premature surrender, which grade down as the product reaches maturity. The surrender provisions act as a deterrent and protect the insurance company from loss due to unexpected redemptions.

(A)(ii)(a) Variable deferred annuities with no living benefit guarantees

The asset risk in these products is borne entirely by the policy-holder and not by the insurance company. Assets are managed in a separate account. These products often provide a death benefit for which general account reserves are required to be held, the level of which depends on the net amount at risk.

(A)(ii)(b) Variable deferred annuities with return of premium guarantees

Guaranteed Minimum Account Balance (GMAB) products provide an insurance company guarantee that asset values will not depreciate below the original deposit, by the end of a specified period. This risk can be and is entirely hedged by the purchase of put options on the separate account investments. The policy-holder options for investing in the separate account are restricted to widely traded securities, including stocks and bonds. This restriction applies to any living benefits product.

These products are highly regulated. Regulatory cash flow testing using extreme scenarios ensures that substantial reserve margins and capital are dedicated to these guarantees. The regulatory reserve and capital requirements drive companies to employ effective hedging techniques to mitigate the risks in order to optimally reduce capital and reserve requirements.

(A)(ii)(c) Variable annuities with GMWB guarantees

The Guaranteed Minimum Withdrawal Benefit (GMWB) feature guarantees that the policyholder will be able to withdraw a minimum amount (typically around 5 per cent of the original deposit, depending on the age of the policyholder at initial withdrawal) each year for as long as the policyholder lives. There are no risks of large unexpected benefit cash flows, as a premature withdrawal of the separate account balance (reflecting actual separate account asset values) voids the guarantees. The risk of the guarantee is two-fold: (a) that the assets will perform below an annual return that will support the minimum withdrawal, and (b) that the person will live long enough to drive his account balance to zero through minimum annual withdrawals. This risk can be hedged through put options and through pooling of longevity and mortality risks, the latter for which insurance companies are particularly well suited. While some companies may choose not to hedge and accept the risk, regulatory reserve and capital requirements would reflect the degree of hedging, with a substantial increase in required margins for unhedged risks.

(A)(ii)(d) Variable annuities with GMIB guarantees

These involve a guarantee that the account balance can be used to purchase a life annuity (specific annual payments for as long as the participant lives) after the deposit has been invested for a minimum period of years. Again, there is virtually no risk to the insurer of premature withdrawal since such a withdrawal would be completely met by the market value of the separate account assets, and all guarantees are void upon such a withdrawal. Similar to the GMWB, the risk is that asset values significantly depreciate so that amounts are not sufficient to meet the purchase price of the annuity, or that the value of the annuity will increase dramatically (potentially caused by interest rates decreasing). Both regulators and rating agencies are focused on these risks, ensuring that risk management programmes are in place to actively hedge the risks through the purchase of equity and interest rate derivatives. Companies that choose not to hedge these risks are subject to substantially increased regulatory reserve and capital requirements, which may be prohibitive to the offering of a product without a hedging program.

(A)(iii) Single Premium Immediate Annuities

The insurance company's obligations are guaranteed annual payments to individuals, for as long as the individuals live. The individual has no right to surrender the annuity prematurely, and the benefit cash flows are therefore very predictable. The primary risk of this product is longevity (medical advances, for example, that cause people to live longer) and longevity risk is clearly not related to capital markets stresses and, as previously discussed, is not systemic.

(B) Retail Insurance Products

(B)(i) Level Premium Life Insurance

Level premium term life insurance has no cash value, so it cannot be surrendered prematurely. Other than mortality risk, benefit payments are very predictable. The primary risk of this product is that of a pandemic, with higher mortality rates. A pandemic is unlikely to be related to capital market stress. Moreover, higher mortality causes gains in life annuities within insurance companies. Longevity risks and mortality risks tend to act as natural hedges to one another, with the result being that neither is an especially large risk within insurance companies.

Level premium whole life insurance has a cash value, but it is generally substantially below the value of the assets that are backing both the payment of future benefits and the payment of future policyholder dividends. The whole life dividend mechanism provides significant asset margins to ensure that insurance companies will not be adversely impacted by early surrender of whole life insurance.

(B)(ii) Fixed Universal Life

Fixed Universal Life insurance provides an accumulation fund that is used to pay annual premiums for the age-related cost of life insurance. During the first few years of the policy, the cash values are very low because the surrender charges are very large. The cash value risk grows as the policy matures and the fund receives annual declared fixed interest credits. As the fund becomes more substantial, the policies' cash values can be cashed out at full value by the policy-holders. Therefore, this product might appear to be subject to some of the triggering events that could result in the systemic risks associated with unexpected benefit cash flows, including the need to sell assets at depressed values to meet benefit cash flows.

However, Fixed Universal Life is a very small part of the insurance industries' total life insurance liabilities, and an even smaller part of the total liabilities of an insurance company. In addition, regulatory reserve and capital requirements ensure that assets are sufficiently adequate to meet benefit obligations, even in stressed environments. Finally, policy-holders who do cash out after several years would find the cost of replacement insurance to be much higher due to their older age, discouraging cash-outs for the purpose of replacement insurance. Therefore premature cash value calls by Fixed Universal Life policy-holders would have a very small impact on the industry.

(B)(iii) Variable Universal Life

The side fund for this product is invested in a separate account, and all asset risk is borne by the policy-holder. Therefore, there is no systemic risk of cash value withdrawal for this product.

(B)(iv) Annually renewable property (including auto) insurance

The primary risk of this product is that of a weather-related catastrophe, producing unexpectedly large claims. Geographic dispersion of the locations of covered property diversifies this risk, and is a part of good risk management practices of property and casualty companies. There are no cash values for these products which have no systemic relevance whatsoever.

(B)(v) Disability insurance

Disability insurance claims are thought to be related to unemployment rates, and therefore this product could do poorly in times of capital markets stress. While sudden poor experience could lead to a sudden need for greater reserves, the actual benefit cash flows tend to be paid over a longer period of time. The policy is not surrenderable for cash value and therefore does not create systemic risk.

(C) Institutional and Capital Markets Products

(C)(i) Funding Agreements

Funding agreements are potentially the riskiest product an insurance company produces. These products are generally very short-term (less than three years) in duration. In addition, more recent stress tests required by the regulators ensure that companies will have sufficient liquidity to meet their liquid funding agreement obligations. This issue was also addressed in the recommendations of the March 2010 Geneva Association Report.

(C)(ii) Guaranteed Investment Contracts (GICs)

GICs (including Global GICs) are products where a deposit is guaranteed an interest rate for a fixed period of time (usually three-seven years). The assets purchased to back the products are generally high grade corporate bonds of the same duration. The policy-holder generally has

no right to call the product early, and therefore there is very little liquidity risk or systemic risk associated with this product. Some companies may provide for withdrawals at fair market value. However, this product is usually a very small part of the company balance sheet, and should be effectively addressed by liquidity stress test requirements.

(C)(iii) Stable Value Wrappers

A stable value wrapper product is an insurance company guarantee regarding the book value performance of a medium term bond fund. The guarantee is effectively that the market value of the bond fund will not decrease to levels that would be inadequate to fund the payout of the bond principal, over a long period crediting very little interest. Because the book value payment period is generally as long or longer than the term of the bond fund, there is virtually no interest rate risk nor liquidity risk associated with this product.

Summary

None of the insurance products typically offered by life insurance companies provide for liquidity in sufficient volume as to be a contributor to any systemic risk affecting global markets. Products are usually designed in a way that effectively eliminates any exposure to systemic risk: policy-holders bear some portion, and sometimes all, of the investment risk. Also, many products have no contractual cash value features. Any cash payouts are made over a long period of time and assets are managed accordingly. As a rule, products also come with large surrender penalties, making premature withdrawals prohibitively expensive. In addition, sales and marketing expenses are deducted from the premium or contribution before crediting the remainder to the investment or policy, a practice known as front-loading which adds to the policy-holders cost of cancellation. In view of these product features, it is highly unlikely that, in times of crises, policy-holders would resort to massive policy cancellations as other sources of liquidity such as bank deposits and credit cards are more fungible and less expensive. Before life insurance policies assume any systemic relevance, all other sources of liquidity would probably be fully exhausted. By then, the underlying financial crisis would probably near its end anyway.

Besides corporate product design, regulation of insurance companies offers an effective shield against systemic risk. Regulation is well established and regulatory reserve and capital requirements have been effective in ensuring that reserve and capital margins are adequate to enable insurance companies to meet their obligations in even the most stressful environments.

Extreme insurance events and the limits of insurability— The fine line of government intervention

The insurance industry has proven its mettle in times of crises

In the discussion on systemic risk in insurance, repeated reference is made to the economically harmful effects of a shortage of insurance cover. It is important, however, to be clear on whether the insurance industry causes or amplifies a systemic risk or whether a risk is simply uninsurable and can therefore not be mitigated by the insurance industry.

In general, private insurance provides an efficient tool to cover losses from extreme events, thus enabling economic participants to operate in a more stable and predictable financial environment. As such, insurance is a stabilising mechanism and enabler to the economy. The resilience of the insurance industry has been demonstrated over the last decade with several very severe events (9/11, Katrina/Rita/Wilma) absorbed by the industry. All legitimate claims were paid. Furthermore, through advanced enterprise risk management and experienced risk modelling, global insurers have demonstrated their ability to underwrite large risks.

The primary role of governments is to set a regulatory framework which allows for effective private risk transfer. Direct government interventions into the markets should be the exception. Such government actions may hamper private risk transfer and reduce private insurance capacity, potentially burdening private and corporate policy-holders with higher premium rates. Therefore, the benefits of government intervention must clearly outweigh its costs. Judging by past experience, the benefits could be highly uncertain whilst the costs are almost certain to arise.

Distinguish between economic and systemic reasons for a lack of insurance coverage

This section focuses on property and liability insurance. It is a fact that the lack of insurance cover can have drastic effects on a given sector of the economy. If, for example, a law were to be introduced stipulating unreasonable legal liability for nuclear power plants, the insurance sector could not assume these risks on its own, without any liability being assumed by the State, or only by charging horrendous premiums. As a result, the power plants would have to shut down, which—no doubt—would have severe economic consequences. This example shows that insurance supply oscillates between what is socially desirable and what is commercially possible in two ways: on the one hand, insurance cover for a given risk may be very desirable, but not offered because the risk is not insurable; on the other hand, there may be a large discrepancy between the willingness of the insured to pay and the premium set by the insurer.

There are risks against which no insurance is possible and for which the market consequently offers no insurance cover. A risk is only insurable if:

1. the loss is accidental;
2. the maximum claim is limited;

3. the law of large numbers applies (or the risk is not material to a company's capital);
4. the insurance premium is commensurate with risk;
5. the insured cannot cause the loss himself (no moral hazard);
6. the cover is allowed by law.

These criteria are not independent of one another and present both objective and subjective aspects. The criteria are often only met to a certain degree. Basically, an insurance contract is concluded only if the premium is substantially less than the sum insured. Furthermore, an insurable risk may become uninsurable as a result of legislative changes, e.g. the transformation of a limited liability into an unlimited one.

A range of strategies can be developed however to explore market solutions which move the limits of insurability, such as the transfer of insurance risks to the capital markets via securitisation, risk pooling and adequate public-private partnership.

Government interventions could prompt systemic risk rather than mitigate it

Uninsurability is a fact that the economic system has to cope with. If there are overriding reasons making the cover of an uninsurable risk nevertheless desirable, the State must directly or indirectly—via subsidies, guarantees and/or other regulatory action—provide for an appropriate supply of cover. Governments may compensate victims for uninsurable losses, but should not do so for insurable risks which are deliberately not insured.

Government intervention may lead to reduced private insurance capacity through:

- questionable regulations for insurance conditions, prices, reserves (for example, artificially low premiums can lead to private insurers exiting the market),
- reduced mitigation efforts by individuals and firms due to mandatory insurance that is perceived as a tax,
- intervention in claims-handling or compensation rules (for example, when juries hand out unpredictable compensatory and punitive awards), and
- trade barriers that protect national companies and limit available cover.

The costs and benefits of government intervention must therefore be weighed carefully. If insurers were forced to assume uninsurable risks, the uncontrollable claims potential could result in systemic risk in the insurance sector.

Limits to insurability reflect economic reality

In the history of insurance, there have always been periods in which cover for certain risks was either hard to get or altogether unobtainable. After 11 September 2001, terrorism cover for airlines was practically unobtainable because the potential claims—as regards both extent and probability of occurrence—arising out of terrorist attacks became incalculable. If a previously existing type of cover is no longer offered, the consequence for the insured is that he/she must either carry the risk himself/herself or, under certain circumstances, discontinue his activities, especially if insurance cover is a necessary precondition for doing business as prescribed by the law. Examples of certain types of cover being withdrawn tend, however, to be rare and are caused by radical changes in circumstances such as the shock-like realisation of terrorism risk on 11 September. Apart from such rare political, economic or social disruptions past experience has shown that it is mainly changes in the legal sphere that lead to serious cover shortages and higher premiums.

The fact that certain risks are uninsurable or economic agents are not willing to pay the premium set by the insurer does not mean that insurers are a source of systemic risk. On the contrary, in

general, insurers mitigate the economic impact from extreme events. Uninsurability of certain risks is a fact that the economic system has to cope with. It cannot and should not be addressed by additional layers of supervision or new regulations, given the threat that well-intentioned regulatory changes might end up creating systemic risk, for example by forcing insurers to run potentially crippling exposures.

Example of a large insurance failure: HIH Insurance in Australia

HIH Insurance was the second largest insurance company in Australia before it failed in 2001. The reasons for the spectacular bankruptcy were manifold: mis-management, under-reserving, poor decision making and hiding, filtering or sanitising of unpleasant information. In fact, part of the top management was sentenced and imprisoned in the wake of the bankruptcy of HIH.

For many policy-holders, the liquidation of HIH resulted in a disaster. Many customers found themselves with virtually worthless policies. Hardship was probably most severe for those permanently disabled, who lost their insurance income. But also non-life claims remained unpaid. Besides the financial loss, public confidence in the insurance industry at large was severely damaged.

Many warning signs were ignored and action from the Australian Prudential Regulation Authority (APRA) was perceived as indecisive and too slow. It must, however, be mentioned that supervision in Australia was in transition during this critical period of time. APRA was a merger of the former insurance regulator ISC and that part of the Reserve Bank responsible for bank supervision. APRA was created in 1998 and the integration took time and absorbed significant internal resources. For example, with its dislocation from Canberra to Sydney, key staff were lost. APRA could hardly have avoided the insolvency of HIH, but it could have contributed to limiting the collateral damage and hardship in the wake of HIH's collapse.

The demise of HIH was the largest corporate failure in Australia's history, with losses amounting to around 0.5 per cent of Australia's 2001 GDP. This was certainly an extreme case of an insurance insolvency, with proportions unseen prior to and after this event. The failure caused hardship for many policy-holders, but did not pose a threat to the overall economy. Its impact was not systemic in nature. New insurance capacity filled the void left by HIH. The economy and the financial system as a whole were not destabilised. A bank collapse of HIH's proportions would certainly have plunged Australia into a severe economic crisis.

Summary

Certain risks defy insurability. Any insurer covering such exposures would jeopardise its existence and, ultimately, the claims payments owed to its policy-holders. Uninsurability is not a systemic risk but a reflection of the insurance business model which is about accepting calculable risks against a premium which is commensurate with exposure and economically viable.

Regulators should tread carefully when trying to address gaps in insurability: on the one hand, market forces tend to fill such gaps over time, weakening the case for regulatory intervention; on the other, ill-designed regulatory measures might even prompt systemic risk by forcing insurers to take on risks of ruinous proportions.

Part II:

Public policy topics

Crisis resolution mechanisms in insurance—High risk and little return associated with “living wills”

In their report in justification of their recommendations, paragraph 76, the Cross-border Bank Resolution Group of the Basel Committee on Banking Supervision notes that

“As systemically important credit and broader financial intermediation has spread across a variety of different types of firms and formerly distinct business sectors, previous distinctions between the perceived greater public interest in resolving banking institutions compared to other financial firms have broken down. Accordingly, a resilient crisis management and resolution framework should incorporate such other financial firms, in particular whose collapse could have systemic consequences.”

This suggests that the recommendations of the report should be applied to insurers as well as banks, particularly if the failure of an insurer could have “systemic consequences”. However, this suggestion is flawed as it ignores the distinct characteristics of the role and business model of insurers, the well-proven procedures for winding down failed insurance companies and the specific regulatory framework that already exists for insurers. More fundamentally, this suggestion is simply not applicable to insurers and reinsurers as their core business does not pose any material systematic risk.

Insurance wind-ups are orderly multi-year processes

It cannot be emphasized too often: the business model and role of insurers are fundamentally different to banks. Insurers provide their customers with protection against the financial consequences of the occurrence of a specific risk. Insurers accept a payment in return for this protection and seek to invest this payment in assets that match against the likely maturity of the liability. Insurers manage their risks through diversification.

Generally, the regulatory system that applies to the insurance industry protects consumers by monitoring and analysing the way that insurers match their assets against liabilities. It also requires them to hold surplus assets to meet requirements based on the risk that the value of these assets and liabilities may change.

These surplus assets provide a buffer to protect insurers and their customers against fluctuations in the market or changes in magnitude of liabilities. It also allows the supervisors time to take mitigating action where the actions of the insurer themselves have proved ineffective. When discussing crisis resolution schemes it is of crucial importance to note that an insurance failure evolves over a much longer time frame as compared with a bank collapse.¹³ The experience of the insurance industry in wind-up cases contrasts starkly with the banking sector. Insurance company wind-ups and exits from markets are traditionally conducted in an orderly manner and are not comparable with the frequently abrupt, chaotic and disruptive demise of banks as they are driven by different business models with different unfolding mechanisms and consequences.

13 See section 2.6. of the March 2010 Geneva Association Report.

The time constraint for action is a common theme in the Basel Committee report. In the most recent crisis as well as in economic history situations in the banking sector developed rapidly and necessitated immediate and decisive government intervention to limit their spread and to shield the real economy from severe damage. The need for rapid action in resolving financial institutions in crisis is a specific issue for the banking industry given their maturity transformation activities and interconnectedness. The short-term nature of their liabilities backed by long-term, often illiquid assets can result in a potentially devastating liquidity stress once there is concern about the financial position of a bank. This is not a relevant factor in the resolution of insurance companies where assets are matched against liabilities. Whilst AIG as a financial conglomerate with significant insurance activities got into difficulties the company's calamities resulted from the activities of an unregulated financial products subsidiary rather than its insurance business.¹⁴

Insurance company failures extend over many years, often long before formal wind up proceedings are started, since technical provisions are held for liabilities that mature over an extended period of time. The long maturity of liabilities allows for the recovery of market values of tied assets which cannot be accessed by any creditors other than the policy-holders. The following exemplifies typical common elements of regulatory approaches (details depend on local law):

- Regulation prescribes that reserves are held to cover liabilities, and there are requirements to hold reserves against claims "incurred but not yet reported".
- Policy-holders' claims generally receive privileged treatment in insurers' insolvencies.
- Supervisors have far reaching powers ahead of an actual insolvency. These include retraction of the license, forced run-off, and transfer of books of policies to more stable peers or into new separate entities.
- During insolvency proceedings supervisors can act as liquidators or order deconsolidation of entities.

An example of the resolution of an insurance company that got into difficulties that illustrates the times spans involved is the Equitable Life Assurance Society in the United Kingdom. This company was closed to new business after a court ruling concerning its approach to guaranteed annuity (GAR) policy options left the company with an immediate increase of £1.5 billion in its long-term liabilities that it had not reserved for.

Following its closure the Society reached a compromise agreement with policy-holders to waive their rights to the GAR policy option and any legal claims in exchange for an uplift in policy values. The Society has since sold off operational assets, business units and business books over a number of years to bolster its With Profits fund and has been in an orderly run off for nine years to date. Despite the size of the Society and their large customer base there has been no systemic impact to the wider financial system. This smooth pattern emphasises the orderly process of winding-down an insurer and the limited risk of contagion. Banks, however, are in need of fundamentally different crisis mechanisms, based on immediate and decisive government intervention which is essential to limit the spread of risk given the interconnectedness of banks.¹⁵

Historically the insurance regulatory framework has focused on legal entities rather than a consolidated group approach favoured for banks. This tends to provide a better balance of capital protection between the group and the solo entities as each solo entity has to maintain reserves for their liabilities that cannot be used for any other purpose. This serves to prevent contagion to insurers within a group should the group or another entity within it get into difficulties. Again, AIG serves as an example of this "ring-fencing". The nature of the regulation of insurance groups

¹⁴ The source of AIG's troubles was not its insurance activities but its unregulated Financial Products Division (AIG FP) that was highly leveraged with total exposures greater than its asset base. Such leverage is not possible in a regulated business. The collapse was also triggered by a collateral call, not an actual credit event. Again this is generally not possible in insurance contracts, which only pay out when an insured event has happened. See section 1.2.3 of the Geneva Association Report.

¹⁵ Further analysis is contained as Case study D1, in Appendix D on page 97 of the March 2010 Geneva Association Report.

therefore contrasts to that of banking groups such as Lehman’s. As regulation did not protect capital at a solo level some of Lehman’s subsidiaries collapsed.

In terms of specific crisis management measures, within the European Union there is already a regime for the reorganisation and winding up of cross border insurance undertakings as set out in the European Directive 2001/17/EC. This provides that only the supervisor in the home country for a cross border group should be empowered to take decisions on reorganisation measures throughout the community and be recognised by all Member States. The reorganisation measures are governed by the laws, regulations and procedures applicable in the home Member State.

Insurance failures do not give rise to systemic risk

As noted in the March 2010 Geneva Association Report, insurance activities are not systemic for the following reasons:

- Interconnectedness is only relevant if risks are transmitted to other institutions and an institution or activity present a risk to the system. Insurers have low interconnectedness as a proportion of their balance sheet and insurance risks are independent from the financial system and therefore limit the scope for contagion.
- Insurance is substitutable. No insurer has a monopoly on a business line and history has shown that capacity is substitutable even after catastrophes.
- Insurance risks do not typically generate immediate shock effects, but play out over a longer time horizon. Accelerated wind-up processes are avoided because insurers are required to hold reserves against policy-holder claims, including claims incurred but not yet reported (whereas banks by contrast collapse very quickly where funding dries up).

This analysis is supported by ample evidence that the failure or winding up of a large insurer will have implications but these are not systemic for the reasons set out above. Loss of cover can have cost implications for customers as they must find alternative providers and these costs may be significant. However, whilst failure of an insurer can have a social cost in this way, by itself it would not cause a loss of confidence in the financial system, given that insurance is highly substitutable and the failure of an insurer often presents opportunities for other insurers to fill the gap and replace the failed company’s capacity.

“Living wills”—a flawed proposition in the insurance context

Imposing “living wills” on insurers would not provide any immediate benefit to customers. It would rather create inherent problems in terms of moral hazard affecting management’s behaviour. In addition, “living wills” are bound to be inaccurate or even inappropriate at the time when they would be needed, given the fact that their design features necessarily reflect historical information.

In banking, speed is of the essence when crisis strikes, given their rapid implosion and the scarcity of time for supervisors to act and difficulty in obtaining and processing information as rapidly as required by the markets. As outlined above, the situation for insurers is different. Therefore, there is no need for hasty reactions by insurance supervisors.

The recommendations of the Basel Committee: limited relevance to insurance

How do the recommendations of the Basel Committee relate to insurance?

- *“Recommendation 1: National authorities should have appropriate tools to deal with all types of financial institutions in difficulties so that an orderly resolution can be achieved*

that helps maintain financial stability, minimise systemic risk, protect customers, limit moral hazard and promote market efficiency. Such frameworks should minimise the impact of a crisis or resolution on the financial system and promote the continuity of systemically important functions. Examples of tools that will improve national resolution frameworks are powers, applied to create bridge financial institutions, transfer assets, liabilities, and business operations to other institutions, and resolve claims.

- **Recommendation 2:** *Each jurisdiction should establish a national framework to coordinate the resolution of the legal entities of financial groups and financial conglomerates within its jurisdiction.*
- **Recommendation 3:** *National authorities should seek convergence of national resolution tools and measures toward those identified in Recommendations 1 and 2 in order to facilitate the coordinated resolution of financial institutions active in multiple jurisdictions.*
- **Recommendation 4:** *To promote better coordination among national authorities in cross-border resolutions, national authorities should consider the development of procedures to facilitate the mutual recognition of crisis management and resolution proceedings and/or measures.*

Insurance perspective: in respect of recommendations 1, 2, 3 and 4 there are already adequate arrangements in place for insurers within the EU. Any wider development of arrangements for reorganisation and winding up of cross border insurance undertakings should be based on an extension of existing practice. The IAIS is undertaking a project “ComFrame” to develop a common framework for the supervision of internationally active insurance groups, which includes elements on crisis management and resolution mechanisms. Therefore, it would be inappropriate to impose a framework designed to resolve banking problems on insurers; a framework for supervising the resolution of insurance failures and a life guarantee association are in place in the U.S.

- **Recommendation 5:** *Supervisors should work closely with relevant home and host resolution authorities in order to understand how group structures and their individual components would be resolved in a crisis. If national authorities believe that financial institutions’ group structures are too complex to permit orderly and cost-effective resolution, they should consider imposing regulatory incentives on the institutions, through capital or other prudential requirements, designed to encourage simplification of the structures in a manner that facilitates effective resolution.*
- **Recommendation 7:** *Effective crisis management and resolution of cross-border financial institutions require a clear understanding by different national authorities of their respective responsibilities for regulation, supervision, liquidity provision, crisis management and resolution. Key home and host authorities should agree, consistent with national law and policy, on arrangements that ensure the timely production and sharing of the needed information, both for purposes of contingency planning during normal times and for crisis management and resolution during times of stress.*

Insurance perspective: with regards to recommendations 5 and 7, we are in favour of comprehensive, integrated and principles-based supervision for insurance groups and are supportive of these recommendations that seek to improve the quality of supervision.

- **Recommendation 6:** *The contingency plans of all systemically important cross-border financial institutions and groups should address as a contingency a period of severe financial distress or financial instability and provide a plan, proportionate to the size and complexity of the institution’s and/or group’s structure and business, to preserve the firm as a going concern, promote the resilience of key functions and facilitate the rapid resolution or wind down should that prove necessary. Such resiliency and wind down contingency planning should be a regular component of supervisory oversight and take into account*

cross border dependencies, implications of legal separateness of entities for resolution and the possible exercise of intervention and resolution powers.

Insurance perspective: given that insurers are required to hold reserves against their liabilities enabling an orderly wind down, it is not necessary for insurers to have a separate contingency plan or “living will”.

- **Recommendation 8:** *Jurisdictions should promote the use of risk mitigation techniques that reduce systemic risk and enhance the resiliency of critical financial or market functions during a crisis or resolution of financial institutions. These risk mitigation techniques include enforceable netting agreements, collateralisation, and segregation of client positions. Additional risk reduction benefits can be achieved by encouraging greater standardisation of derivatives contracts, migration of standardised contracts onto regulated exchanges and the clearing and settlement of such contracts through regulated central counterparties, and greater transparency in reporting for OTC contracts through trade repositories. Such risk mitigation techniques should not hamper the effective implementation of resolution measures (cf. Recommendation 9).*
- **Recommendation 9:** *National resolution authorities should have the legal authority to temporarily delay immediate operation of contractual early termination clauses in order to complete a transfer of certain financial market contracts to another sound financial institution, a bridge financial institution or other public entity. Where a transfer is not available, authorities should ensure that contractual rights to terminate, net, and apply pledged collateral are preserved. Relevant laws should be amended, where necessary, to allow a short delay in the operation of such termination clauses in order to promote the continuity of market functions. Such legal authority should be implemented so as to avoid compromising the safe and orderly operations of regulated exchanges, CCPs and central market infrastructures. Authorities should also encourage industry groups, such as ISDA, to explore development of standardised contract provisions that support such transfers as a way to reduce the risk of contagion in a crisis.*

Insurance perspective: these recommendations are not immediately applicable to insurers given the established risk management requirements in place under the current regulatory framework.

- **Recommendation 10:** *In order to restore market discipline and promote the efficient operation of financial markets, the national authorities should consider, and incorporate into their planning, clear options or principles for the exit from public intervention.*

Insurance perspective: this recommendation seems sensible but has little relevance to the insurance sector given that where supervision is adequate public intervention should not be necessary.

Summary

Generally, existing regulatory systems applying to the insurance industry effectively protect consumers. Under conditions of normal business, they ensure that assets are matched to liabilities and require insurers to hold surplus assets as a risk buffer. In times of crisis and corporate failure, existing regulations provide for an orderly winding-up over an extended period of time, protecting consumers' interests through technical provisions covering their claims.

Therefore, there is no need for adopting “living will”-type of resolution mechanisms inspired by experience from the banking sector. In insurance, such measures would provide no positive benefit, whilst the risk arising from moral hazard and information deficits is significant.

Taxation as a regulatory response to the financial crisis— Beware of unintended consequences

Indiscriminate taxes do not tackle systemic risk at its root

In the run-up to the June 2010 G-20 meeting in Toronto the International Monetary Fund (IMF) has proposed that the world's leading economies should impose specific additional taxes on the balance sheets of all financial institutions, including insurance companies, to pay for future bail-outs. The IMF also recommends that the G-20 countries consider an additional levy on the profits of those institutions.¹⁶

The report suggests that a “financial stability contribution” would be most effective if it were levied on balance sheets, specifically liabilities. The IMF advises that each country would want to raise between 2 per cent to 4 per cent of its gross domestic product over the long term. If additional taxation is deemed desirable, the Fund recommends a “financial activities tax” on profits above “normal” levels as well as high compensation.

This approach is flawed. Ex-ante systematic levies applied in a rather crude way across the board are not likely to curb irresponsible and excessive risk-taking. On the contrary, they may even encourage the reckless assumption of risk, as traditionally implicit government guarantees would be perceived to be “upgraded” to a more explicit level, based on a dedicated “bail-out fund” fund. Even though the IMF acknowledges the need to link any levy to an effective resolution regime to avoid the perception that the receipts would be used to support failing institutions, it should be expected that any resolution scheme drafted pre-crisis will be superseded by political considerations (such as keeping “national champions” afloat) as soon as the crisis hits.

A systemic risk levy on insurers is ineffective

The IMF's interim proposals to levy a financial stability tax on all financial institutions ignores the fundamental differences between the business models of insurers and banks. In exchange for the payment of a premium, insurers commit to financially compensate the customer for losses suffered on the occurrence of an insured event set out in a contract. The insurer must use the premiums to invest in assets that match to the expected amount of compensation payable under protection provided and the duration of the risks covered. Consequently, insurers have relatively stable asset portfolios. This explains the limited impact or need for government support for the overwhelming majority of insurers during the financial crisis. Conversely, banks are subject to short-term liquid deposit demands and have credit risks related to lending activities and liquidity risks due to the mismatch arising from borrowing short and lending long.

As the March 2010 Geneva Association research report shows core insurance activities do not create systemic risks. It also identifies a very limited number of activities that could give rise to systemic risks. But these activities are not core to insurance, are incidental and present a risk only if conducted on a massive scale, as in the case of AIG Holding Co., without due risk

¹⁶ A Fair and Substantial Contribution by the Financial Sector—Final Report for the G20, IMF, April 2010.

management or effective regulatory oversight. Aside from a small number of well publicised examples, the insurance industry weathered the financial storm in relatively good health. Pensions were paid, policies were underwritten and honoured and customers were able to take personal and entrepreneurial risks.

It is important that the initiatives in response to the crisis address the activities (not the companies as such) that could pose a risk to the system by encouraging more transparency as well as better governance and risk management. The report identifies measures to address the non-core insurance activities that can in theory cause systemic risks within the existing and proposed supervisory framework. The proposals avoid the need for additional costs being placed on customers, a reduction in the capacity for protection and a distraction of supervisory focus that could occur with the inappropriate and arbitrary application of proposals such as that presented by the IMF.

At this time of crucial economic policy decisions, what is needed is proportionate and appropriately targeted solutions that strengthen the financial system and enable governments to address the challenges of the future. It is therefore important that the different roles and risks faced by financial institutions in the system are clearly identified and addressed. This needs to be recognised in the discussions on any potential solution proposed to protect the system.

Summary

An across-the-board levy on all financial institutions is not only ineffective but also unjust. Such a tax, besides giving rise to moral hazard, would do nothing to specifically address those activities that have proven systematically relevant during the crisis. In addition, it would not only punish the offenders but also those who were the victims of reckless risk taking and excessive leverage: insurers, reinsurers, but also a large number of banks who never deviated from the traditional virtues of prudence. Those institutions have acted as effective stabilisers during the financial crisis and it would be a capital policy mistake to weaken their resilience through additional levies.

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Glossary

ALM	Asset Liability Management
APRA	Australian Prudential Regulation Authority
CBFA	Commission bancaire, financière et des assurances
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
FSB	Financial Stability Board
FSC	Financial Stability Committee (of the IAIS)
GAR	Guaranteed Annuity
GIC	Guaranteed Investment Contracts
GMIB	Guaranteed Minimum Income Benefit
GMAB	Guaranteed Minimum Account Balance
GMWB	Guaranteed Minimum Withdrawal Benefit
IAIS	International Association of Insurance Supervisors
IFIS	International Federation of Insurance Supervisors
IFRS	International Financing Reporting Standards
IMF	International Monetary Fund
P&C	Property & Casualty
SMAP	Société Mutuelle des Administrations Publiques
UL	Universal Life

The Geneva Association

The Geneva Association:

a. provides a platform for insurance CEOs:

The Geneva Association acts as a forum for its members, providing a worldwide unique platform for the top insurance CEOs. It organises the framework for its members to exchange ideas and discuss key strategic issues, especially at the General Assembly where once per year over 50 of the top insurance CEOs gather.

b. conducts research:

The Geneva Association investigates the growing importance of worldwide insurance activities in all sectors of the economy. It tries to identify fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. In parallel, The Geneva Association develops and encourages various initiatives concerning the evolution—in economic and cultural terms—of risk management and the notion of uncertainty in the modern economy.

c. organises expert networks:

The Geneva Association organises global networks for experts in various fields linked to insurance: finance, regulation, risk management, pension provision, health, etc. It also manages several extra-company networks of specialists from its members' companies: chief financial officers, chief risk officers, chief investment officers, chief communication officers, the Amsterdam Circle of Chief Economists (ACCE), as well as the Liability Regimes Planning Board with leading underwriters and claims-handlers and the *PROGRES*. *Net* initiative for chief regulation officers and top regulatory experts in insurance.

d. maintains dialogue with international institutions:

The Geneva Association uses its special risk and insurance expertise and in-depth knowledge to raise subjects of relevance to the insurance sector in global forums. The Geneva Association is the leading interface of the insurance industry with relevant international institutions and advocates the role of insurance and its relevance to the modern economy.

e. publishes leading insurance journals, newsletters, books and monographs:

- **journals:** *The Geneva Papers on Risk and Insurance Issues and Practice* (4 issues per year) and *The Geneva Risk and Insurance Review* (2 issues per year);
- **special reports:** Geneva Association reports tackles issues of strategic importance to the insurance industry that warrant special attention and particular analysis;
- **The Geneva Association newsletters**, published usually twice a year, on Insurance and Finance, Risk Management, PROGRES (regulation and supervision), Insurance Economics, Four Pillars (life insurance, pension and retirement), Health and Ageing, General Information and World Fire Statistics;
- **working paper series (Etudes & Dossiers):** conference proceedings, special reports, etc;
- **books and monographs.**

f. organises conferences and seminars:

Throughout the year, The Geneva Association organises or supports about 20 conferences and seminars on topics which are of high relevance to the insurance industry, gathering experts from all sectors and backgrounds to combine their knowledge. The events are topics—and issues—oriented and aim at developing new knowledge and insights as well as providing platforms for expert opinion interchange.

g. stimulates and sponsors research in insurance and risk management:

The Geneva Association has several ways of stimulating and sponsoring research work in risk management and insurance-related fields through the availability of research grants, scholarships, prizes and support for publishing.

The Geneva Association membership is limited to a maximum of 90 people, the CEOs of the most prominent insurance companies in the world. It is a non-profit organisation based in Geneva, Switzerland.

Publications of The Geneva Association

*For a complete list of our publications and how to get them,
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The Geneva Reports—Risk and Insurance Research

- *No. 3: Anatomy of the credit crisis—An insurance reader from The Geneva Association*, edited by Patrick M. Liedtke, January 2010
- *No. 2: The insurance industry and climate change—Contribution to the global debate*, by The Geneva Association, July 2009
- *No. 1: Regulation and intervention in the insurance industry—fundamental issues*, by E. Baltensperger, P. Buomberger, A.A. Iuppa, B. Keller and A. Wicki, February 2008

Newsletters (also available as e-newsletters)

- **Insurance and Finance** deals with research activities in the fields of finance where they are relevant to the insurance and risk management sector.
 - **Special Issue on G-20 London Summit**, April 2009
- **Insurance and Finance special contributions:**
 - **SC9** *The Global Financial Crisis and the Insurance Industry—Frequently Asked Questions*, by Patrick M. Liedtke and Kai-Uwe Schanz
 - **SC8** *Parallax: Striving for a More Resilient International Financial Architecture*, by Patrick M. Liedtke
 - **SC7** *The Geneva Association Letter to the Finance Ministers and Central Bank Governors of the G-20*, 5 November 2009
 - **SC6** *Everything you wanted to know about the crisis ...but were afraid to ask*, by Denis Kessler
 - **SC5** *G20 Falls Short on Insurance*, by Patrick M. Liedtke, published in the *Financial Times*, 7 April 2009
 - **SC4** *Insurance Comments to the G-20 London Summit Leaders' Statement of 2 April 2009*, by Patrick M. Liedtke, 6 April 2009
 - **SC3** *Lessons from the Credit Crisis: An Investment Practitioner's Point of View*, by Guido Fürer and Jérôme Haegeli, 20 February 2009
 - **SC2** *The Credit Crisis and the Insurance Industry—10 Frequently Asked Questions*, November 2008
 - **SC1** *Credit Crisis and Insurance—A Comment on the Role of the Industry*, by Patrick M. Liedtke, November 2008
- **PROGRES** contributes to the exchange of information on studies and initiatives aimed at better understanding the challenges in the fields of insurance regulation, supervision as well as other legal aspects.
- **Risk Management** summarises The Geneva Association's initiatives in the field of risk management and is open to contributions from any institution or company wishing to exchange information.
- **Insurance Economics** which 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.
- **Four Pillars** provides information on research and publications in the field of social security, insurance, savings and employment.
- **Health and Ageing** brings together facts and figures linked to health issues for people aged 50-80 and productive ageing, to try to find solutions for the future financing of health.

- *World Fire Statistics.*
- *General Information.*

Journals

(published by Palgrave Macmillan for The Geneva Association)

- *The Geneva Papers on Risk and Insurance—Issues and Practice*
This prestigious journal, published quarterly, leads its field, publishing papers which both improve the scientific knowledge of the insurance industry and stimulate constructive dialogue between the industry and its economic and social partners.
- *The Geneva Risk and Insurance Review* is an international journal published 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.

Working Papers “Etudes et Dossiers”

These working documents present intermediary or final results of conference proceedings, special reports and research done by The Geneva Association and its partners. Among the last issues:

- *The 8th ART of CROS, Annual Round Table of Chief Risk Officers*, No. 361, June 2010
- *26th PROGRES International Seminar, Global Regulatory and Supervisory Repair: Aligning National Interests and International Necessities*, No. 360, May 2010
- *13th Joint Seminar of the European Association of Law and Economics (EALE) and The Geneva Association, Insuring Corporate Liability Risks*, No. 359, April 2010
- *Sessions organised by The Geneva Association and Silver Workers Institute at the XIXth IAGG World Congress of Gerontology and Geriatrics, & World Ageing & Generations Congress*, No. 358, February 2010
- *6th Geneva Association Health and Ageing Conference*, No. 357, January 2010
- *M.O.R.E. 23/1st CC+I—Seminar of The Geneva Association and XXXII Hemispheric Insurance Conference FIDES 2009 (Selection)*, No. 356, January 2010
- *9th CEO Insurance Summit in Asia*, No. 355, November 2009
- *7th ART of CROs, 2009*, No. 354, October 2009
- *4th Chief Risk Officer Assembly, “Risk Management as Business Enabler”*, No. 353, October 2009
- *The 25th PROGRES International Seminar “Towards Efficient Regulatory Regimes: Balancing Regulations and Market Forces”*, No. 352, August 2009
- *The AXA MPS Annual Forum 2008—11th Meeting of The Geneva Association’s Amsterdam Circle of Chief Economists—Special Geneva Association Documents on the Credit Crisis*, No. 351, March 2009
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