NTNI from a CRO Forum perspective

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CRO FORUM

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1. Introduction

The International Association of Insurance Supervisors (IAIS) is participating in a global initiative, with the Financial Stability Board (FSB) and the G20, to identify potential global systemically important insurers (G-SIIs). As part of this initiative, the IAIS has issued a public consultation on proposed measures to identify any insurers whose distress or disorderly failure, because of their size, complexity and interconnectedness, would cause significant disruption to the global financial system and economic activity.

Proposed policy measures

On 17 October 2012 the IAIS released its proposed set of policy measures for G-SIIs. The policy measures include:

- **Enhanced Supervision**: builds among others on the IAIS ICPs (Insurance Core Principles) and the FSB's recommendations. The proposed measures include the development of a Systemic Risk Reduction Plan (SRRP), which could include the requirement to separate non-traditional, non-insurance (NTNI) activities from traditional insurance activities, and enhanced liquidity planning and management;
- **Effective Resolution**: based on the FSB's recommendations (i) the establishment of crisis management groups, (ii) the elaboration of recovery and resolution plans, (iii) the conduct of resolvability assessments, and (iv) the adoption of specific cross-border cooperation agreements are proposed;
- **Higher Loss Absorption (HLA) Capacity**: IAIS proposes a "cascading approach"; first, to the extent the G-SII has demonstrated effective separation of NTNI activities from traditional activities, targeted HLA will be applied to the separate entities; as a second step an overall assessment of group-wide HLA will be undertaken and the group supervisor will determine whether the HLA capacity held at the NTNI entities is sufficient or needs to be further increased.

This paper

On 16 December 2012 the CRO Forum responded to the IAIS draft policy measures of 17 October 2012 based on the executive summary included in this paper. This paper provides some additional background to the response provided, covering:

- NTNI criteria and definitions;
- The classification of specific activities e.g. variable annuities, trade credit insurance, alternative risk transfer (ART) and insurance linked securities (ILS), and;
- Practical implementation issues and ring-fencing.

The CRO forum welcomes further discussion with the IAIS on this topic.

2. Executive summary

The CRO Forum has responded to the IAIS draft policy measures. This paper provides an overview of the response provided. The key messages are set out below.

NTNI criteria

- The CRO Forum questions the distinction made by the IAIS between traditional and non-traditional (NT) insurance activities and does not recognise that such NT activities present a systemic risk or are relevant for the classification of G-SIIs.
- The relevant distinction is how activities which, due to their characteristics such as purpose, interconnectedness, size and complexity, might undermine the time available for recovery or orderly resolution presenting a potential contagion risk to the wider financial system.
- The CRO Forum position is that only bank or bank like (shadow banking) activities (i.e. certain non-insurance (NI) activities) operated on a broad scale within (re)insurance groups or conglomerates, poorly managed and supervised, may present a risk to the wider system.

Activity specific remarks

- Variable Annuity (VA) writers have developed dynamic and/or static hedging programs to mitigate the risks of these products. Reinsurance cover is also still widely used for the purposes of reducing exposures to financial and non-financial risks. These hedging strategies are proven to be effective. Furthermore, VA writers do not pose any form of systemic risk.
- It should be acknowledged that there are differences in credit insurance activities. More specifically, trade credit insurance is a traditional insurance business and as such not systemically risky.
- In respect of derivatives, the CRO Forum understands and supports that insurance regulators limit the risks, which can arise from large derivatives positions that are not primarily set up for hedging strategies and which can jeopardize the solvency and the going concern of an individual insurer. However, new rules implemented should consider the applicable regulatory framework and its ability to avoid a spill over of losses.
- With regards to ART we think that this should not be classified as non-insurance as the transfer of technical risks is closely linked to the traditional insurance business.

Practical implementation issues and ring-fencing

- The IAIS considers ring-fencing/separation both in an enhanced supervision and a Higher Loss Absorption (HLA) context. We understand that these measures are seen by policy-makers as tools which among others might allow them to protect traditional insurance businesses and their policyholders against adverse spill over effects (e.g. the spill over of losses or a liquidity drain) from systemically important NTNI activities.
- These ring-fencing requirements would have significant structural and management implications potentially leading to reduced fungibility of capital, reduced risk diversification and reduced economies of scale. The CRO Forum rejects the proposal for general ring-fencing of activities as this is likely to lead to disadvantages and costs for both the affected insurers, their policyholders and the society as a whole and would not come along with any benefit.
- However, ring-fencing may be appropriate for non-insurance activities within an insurance group or conglomerate, which due to their nature and size could present a risk to the wider system (e.g. large scale bank and bank-like activities).
- HLA is not the appropriate response for the insurance sector and particularly where Solvency II, Swiss Solvency Test (SST) and other national capital frameworks seek to capture the economic risks of activities and determine the appropriate level of capital needed to cover these risks. It is more appropriate to look-through the activities undertaken, to assess risk management practices and risk capital methodologies in place with regards to their appropriateness, and then to decide what to do from the supervisory point of view.

- With regards to regulatory tools and measures the CRO Forum is in favour of having the local group supervisor (and the colleges of supervisors) in the lead when assessing NTNI and when defining the respective measures. Furthermore, the CRO Forum would recommend the IAIS to analyse practical implementation issues further.

3. NTNI criteria

The CRO Forum does not consider the distinction between traditional and non-traditional activities to be relevant. The relevant distinction is between systemically relevant and non-systemically relevant activities.

The CRO Forum has the opinion that only bank and bank like activities, when poorly managed and supervised and operated on a broad scale, may be systemically important within (re)insurance groups or conglomerates. The CRO Forum encourages the IAIS and the FSB to provide evidence that other insurance activities, which they have classified as NI, pose a systemic risk.

The activities listed in the tables below have been classified by the IAIS as semi-traditional, non-traditional or non-insurance activities. However, this classification should not be seen as a proxy for systemic importance.

Semi / non-traditional/ Non insurance activities table

Categories Insurance and Financial Stability (IFS) Report, IAIS 2011	**Considered by the CRO Forum as systemically important (yes/no and reasoning)**	**Bank or bank like**	**Potential criteria to assess systemic risk**
Semi-traditional			• Objective of these operations being to leverage or transform the maturity or size of these operations in the insurer's balance sheet • Current regulatory framework in place
Trade credit insurance	• No, trade credit insurance does not impose any systemic risk, see also section 4.B.	No	
Non ALM derivatives trading	• No, the use of derivatives for yield enhancement is only part of the traditional investment activities as long as the insurer enters into these positions in the course of its normal investment process, this does not lead to a significant leverage and does not exceed certain size limits.	Yes	
Non ALM proprietary trading	• Yes, non ALM (Asset Liability Management) proprietary trading should be considered as potentially systemic.	Yes	
Non-traditional			
Alternative risk transfer (ART), notably Insurance-linked securities (ILS)	• No, using ART for risk transfer which is closely linked to traditional insurance should not be viewed as systemic important, see also section 4.D.	No	
Purely synthetic investment portfolios	• No, using derivatives for the generation of synthetic assets is simply a way of generating specific investment risk / return profiles and can be motivated by a number of reasons. Using derivatives for this purpose is part of an insurer's normal investment activities as long as the face amount of the derivatives does not exceed the face amount of the respective risk-free assets on the insurer's books, see also section 4.C.	No	
Purely synthetic investment portfolios	• As explained below (see section 4.C), CDSs can be used for different purposes. • No, not systemically relevant if CDSs are used for the generation of synthetic assets, then we would see them as part of the traditional investment activities (see above).	No	
Non-insurance			
Credit default swaps (CDS)	• As explained below (see section 4.C), CDSs can be used for different purposes. • Yes, potentially systemically relevant, when underwriting of CDSs is done as non-insurance business, if they are underwritten in a separate (non-insurance) entity and on a large scale (e.g.in the form of a credit default swap trading desk of a bank).	Yes	

4 Specific activities and NTNI

In this section the systemic relevance of specific activities of insurance groups is discussed to assess whether such activities should fall under the proposed supervisory measures.

A. Variable annuity (VA);
B. Trade credit insurance;
C. Derivatives, and;
D. Alternative Risk Transfer (ART).

4.A Variable annuity (VA)

VA products are retirement products that offer investment or income protection to the policyholders. The guarantee risks associated to these products are commonly hedged by insurance companies. This hedging practice could raise the question whether these products by nature and the use of derivatives associated to them could qualify as NTNI (please note that the references of the numbers used in this section are listed on page 15).

VA Governance and RM practices

VA products are subject to stringent risk management (RM) practices (including: pricing, reserving and hedging/reinsurance) to ensure risk is contained within tight limits of risk appetite.

VAs are positioned within insurance companies' long-term life and savings strategy to ensure a sustainable level of contribution to earnings and value. Their risk profile is supported by an adequate measure of reserves and capital, which may vary from one jurisdiction to another, even in Europe.

VAs are covered within the scope of insurance companies' internal models and as such undergo the same (capital) stress scenario assessments as other life insurance products (market, credit, life and operational risks).

Riding the storm: VAs in 2008 – 2009

Mostly concentrated in the US ($1.6 trillion assets under management at the end of 2011), Japan, Canada & South Korea and to a lesser extent in Europe as well, Variable Annuities have proven to be valuable to policyholders during the financial crisis as they offer protection to their investments, unlike traditional unit-linked products, which are more widely held.

The 401(k) retirement plans in the US have indeed seen their $6 trillion asset base depleted by circa 25% during the financial crisis of 2008-2009 for long-term tenure / large plan holders (> $200.000).

The liabilities base of large VA players increased by an amount of *circa* $232 billion (+20%) in excess of a total account value base of *circa* $1.2 trillion (in 2008) without triggering any bankruptcies or major difficulties within the insurance industry.

Some players have nonetheless incurred P&L losses as a result of hedge program breakages, costing the industry *circa* $4 billion in September / October 2008 alone according to a report by consulting firm McKinsey. This seemingly low efficiency of hedging programs can be explained by a number of reasons, all of which have lead the industry to adapt its product design, change its fund line-up and seek to further reduce tail risk.

These losses need however to be put in the context of significant and unprecedented market movements: interest rates experienced swings of up to 40bps per day in the US and Euro markets (with rates trending to absolute lows in many currencies); equity markets gapped down (S&P 500 lost 37% of its value in 2008 or 47% between October 2007 & October 2008), with annualized realized volatility in excess of 40%; finally the implied volatility index (VIX) increased to an all-time high of 80% in the fall of 2008.

In the context of this perfect storm, the VA industry at large has proven to be resilient for several key reasons[1]:

- **Not all policyholders will exercise / have exercised their guarantees at the worst possible point in time for insurance companies**: VA products usually consist of an initial accumulation phase (of generally 10 – 15 years) before a payment phase (which can last between 5 – 10 years) where policyholders reduce their account value until such point where the payments guaranteed by the insurance company are paid out. VAs in 2008 were still mostly in the accumulation phase so the cost to insurers was more marked-to-market than a real cash or capital strain. Moreover, if the VAs were mature and in the payment phase the strain would be spread over a number of years instead of a one off outflow;

- **Hedging programs in place since 2003 have proven to be on average 93% effective** in recouping capital market losses suffered by decreasing account value bases (according to a Milliman survey). Industry-wide, Milliman estimates that hedging programs in place at the time have saved the US insurance industry $40 billion over the two extreme months of September / October 2008;

- **Hedging programs were / are not designed to enhance the revenue sources of VA products**: they rather follow clearly defined hedging principles (*e.g.* daily / weekly systematic rebalancing) and use simple derivative instruments such as equity / interest rate futures contracts and plain vanilla equity / interest rate options to smooth out changes in liability reserves;

- **Capital markets on which hedging programs operate are the deepest and most liquid markets in the world** (US Treasuries, S&P 500 Futures, US & European swap markets, plain-vanilla short term over the counter (OTC) equity options). They are the most secured in terms of collateral arrangements (daily margin calls on most exchange-traded markets) and have not shown any sign of contraction during the financial turmoil. Despite heightened tensions on the credit worthiness of many financial institutions, bid-ask spreads have remained within competitive bounds.

Impact of the crisis on VA design and management

This unprecedented crisis has nonetheless revealed a number of weaknesses in product designs and fund offers. It has challenged hedging approaches and traditional risk modelling, VA players have responded:

- The VA industry has undertaken **massive changes in fund selection**: more passively managed funds have progressively replaced active funds to reduce potential sources of basis risk (stemming from the performance mismatch between the separate account fund and the replicating index used for hedging);

- **Volatility control mechanisms embedded in policyholder separate accounts** have also enabled policyholders to achieve better risk-adjusted return investment profiles in down market scenarios;

- **Hedging programs aimed at further cutting tail risks have been implemented**, in particular with respect to volatility risk. This should help the industry to better absorb the next crisis if any such one occurs (*e.g.* summer 2011 which experienced a spike in short-term

[1] Numbers are quoted again mostly based on US sources as the VA market in Europe was in its infancy at the time and has only gradually been expanding since then.

volatility and a significant drop in excess of 100bps in 10 year interest rates upon the downgrade of the US sovereign rating).

Although traditional hedging relies on sound theoretical and academically robust techniques, the risks encountered in 2008 have led many VA writers to consider extreme stress scenario testing before launching new products to ensure the risk profile can sustain various tail risks. Product design has more than ever proven to be the first line of defence.

Despite numerous examples of runs on banks during this crisis (WaMu, Northern Rock…) and even with the bankruptcy of AIG, the insurance sector and VA players in particular have not suffered a similar distrust from their clients. On the contrary, policyholders have come to realize the value of the guarantees offered to them by the industry. The guarantees offered to policyholders in VA products have in fact acted as an effective countercyclical buffer to the crisis of 2008/2009.

Other VA considerations

OTC derivatives

According to the semi-annual survey run by the Bank for International Settlements (BIS), the total outstanding notional amounts for OTC derivatives as of June 2012 were as follows (out of a total of 638trn$ total contracts):

- Interest rate swaps: $379 trillion (out of $494 trillion of interest rate related contracts), of which the following proxy can be made:
  - 36% Euro-denominated;
  - 33% US-denominated;
  - 12% JPY-denominated.
- Equity-linked contracts: $6 trillion, of which the following proxy can be made
  - 40% Euro-denominated;
  - 30% US-denominated;
  - 10% JPY-denominated.

According to a survey performed by the NAIC, US insurance activity would represent less than 1% of the total outstanding derivatives volume. It is therefore questionable why derivatives used for hedging purposes which are the most liquid instruments in the world would be included by the IAIS as NT (or qualify VA as a semi-traditional insurance activity).

On the contrary, the CRO Forum holds the view that well structured and well defined hedging programs using derivatives can help the industry weather extreme market conditions and effectively reduce the amount of risk in the financial system overall.

VA and NTNI

Given the background as set out above, the CRO Forum does not believe VAs qualify for an NT type of activity or would pose any form of systemic risk.

4.B Credit insurance

Classification of trade credit insurance as traditional insurance activity

The IAIS has listed in its document "Insurance and Financial Stability" three main criteria of traditional insurance business which are all met by trade credit insurance:[2]

- Trade credit insurance builds on the **premise of insurability**. The events, which lead to a reimbursement of the policyholder are well defined in the contract (e.g. insolvency of the policyholder's debtor), they are accidental, i.e. are not controlled by the policyholder, and the business is based on the law of large numbers (pooling risks from many different sectors and jurisdictions on a global basis is an essential element of the business);
- Trade credit insurance is **accounted for** under IFRS, under US-GAAP and to the best of our knowledge also under any other local GAAP system worldwide **as insurance business**, and not – as for example credit default swaps – as a derivative (i.e. a financial instrument). This clearly reflects that also accounting standard setters worldwide are of the view that trade credit insurance is traditional insurance business which as a consequence is also accounted for as such;
- The business **builds on the notion of insurable interest**. The insurable interest exists for trade credit insurance, as the policyholders are seeking protection against economic losses which they otherwise would have to bear.

As explained above, the CRO Forum questions the distinction made by the IAIS between traditional and non-traditional (NT) insurance activities. However, if a distinction is to be made, then the above clearly demonstrates that trade credit insurance shows all characteristics of traditional insurance business.

US monoliners

It should, however, be noted that there are certain other credit insurance activities – e.g. the financial guarantees business of the US monoliners – which rather address the capital market than the real economy and which present characteristics of non-traditional insurance activities. This is also reflected by the fact that all but one US monoliner collapsed in the course of the financial crisis, while the leading trade credit insurers came through the financial crisis without major difficulties.

Substitutability

The significant market share of the leading trade credit insurers might suggest at a first glance that there might be a lack of substitutes should one of these companies go out of business. A more detailed analysis, however, shows that this is not the case:

- It should be noted that currently only approximately 10% of all exports are covered by credit insurers. This already demonstrates that credit insurance is not vital for the global economy, as the vast majority of trades are being settled without any credit protection.
- Policyholders can draw on a number of substitutes for trade credit insurance, for example:
  - Policyholders can simply retain the respective credit risk, i.e. replace trade credit insurance by self-insurance. In that case the capacity of the trade credit insurer is replaced by the former policyholder. It is worth note in that context that the vast majority of customers, which withdraw from a trade credit insurance company, switch to self-insurance, and do not subsequently buy credit protection from another trade credit insurer;
  - Other services are available, which allow companies to reduce their losses, e.g. credit management, as a prevention to avoid commercial relationships with potentially risky clients, or collection business in order to get as much money back as possible when a customer defaults;
  - Factoring is another substitute for trade credit insurance protection. The factoring market is a deep and liquid market in many jurisdictions. Any analysis of the substitutability of a particular

[2] See IAIS (2011): Insurance and Financial Stability, par. 24-27, p. 11-12.

trade credit insurer should therefore consider not only the trade credit insurance market, but also the market for other financial services which provide customers with the same kind of risk protection.

- Trade credit insurance is a profitable business. New market entrants are therefore expected to enter the trade credit insurance market should one of the major players go out of business.[3]

The above clearly demonstrates that policyholders could easily replace the leading global trade credit insurers' products (no lack of substitutability) and that the companies are not vital for the proper functioning of the global export industry.

Credit insurance and NTNI

Based on the above the CRO Forum argues that credit insurance does not qualify for an NT type of activity and does not pose any systemic risk.

[3] This phenomenon is well known from the reinsurance market, where lost capacity is quickly replaced by new market entrants.

4.C Derivatives

Best Risk Management practices

Derivatives used in insurance positions are usually "long" positions, i.e. insurance companies buy back options implicitly sold to policyholders (e.g. an insurance company sells a policy with an interest rate guarantee, implicitly this is a short position on an interest rate derivative). Concentration and credit risks are limited through specific counterparty risk reporting and collateral arrangements.

Derivatives uses

Insurers use derivatives for two primary purposes:

- **Hedging activities**: Use of interest rate, equity and, to a limited extent, credit derivatives to hedge investment and reinvestment risks. This is a core activity for insurers, especially for life and health insurers. Insurers are liability-based investors who use derivatives to execute effective Asset Liability Management programs;
- **Yield enhancement**: These activities are speculative in nature and, without the underlying asset in the portfolio or a natural hedge, can increase the effective leverage of the firm. They are in principle not different from the trading activities of banks and are therefore usually closely monitored and limited by the respective insurance regulators.

Potential systemic impact of derivatives activities of insurers

The derivatives activities of insurers can only cause market disruption (i.e. adversely impact other financial institutions) if:

- The insurer defaults as counterparty (i.e. is not able to meet its obligations under the contract), irrespective of the purpose for which the derivative is used (also a hedge derivative can have a negative fair value), and;
- The net open derivatives positions are of such size that many market participants would suffer significant losses from the insurer's default.

The default risk arising from derivatives liabilities which can generate a spill over of significant losses to other financial institutions, should be or is addressed by the FSB by regulating the derivatives market (e.g. by requiring a centralized clearing with daily margin calls for derivatives which so far have been traded over the counter (OTC)).

We agree with the IAIS that it makes a fundamental difference whether an insurer uses derivatives for hedging or for speculation purposes:

- Speculative positions increase the risk exposure of an insurer, while hedging positions reduces it;
- Speculative positions can be entered without any limit, while hedging positions are limited by the amount of the hedged items;
- The unwinding of a derivatives market making or trading business is typically more complicated than the unwinding of hedging positions and trading and investment making are not the traditional business of insurance companies.

We therefore understand and support that insurance regulators limit the risks, which can arise from large derivatives positions for yield enhancement as these positions can jeopardize the solvency and the going concern of an individual insurer. This issue, however, should be addressed under the normal regulatory framework, as it affects primarily the individual insurer (and potentially its policyholders).

Derivatives and NTNI

Based on the above the CRO Forum argues that uses of derivatives by insurance companies are not systemically relevant when managed prudently and in accordance with normal regulatory frameworks.

4.D Alternative Risk Transfer (ART)

Alternative risk transfer (ART) instruments include instruments such as: insurance-linked securities (ILS), industry loss warranties (ILW), extreme mortality transactions (a brief description of these instruments is included in the appendix). Such instruments complement the core traditional reinsurance business providing alternative ways to hedge risks and deploy capacity e.g. Natural Catastrophe capacity or Life and Health coverage. Overall ART transactions are a small fraction of the industry's activities and the aggregate notional exposure is relatively small in comparison to the total (re)insurance market.

Best RM practices

Capacity for ART transactions is subject to internal review and approval processes, including the quantification and establishment of adequate risk capital.

Insurance Linked Securities (ILS)

Insurance linked securities (ILS) should be treated as part of the traditional investment activities and should not be classified as non-insurance activities which would be a source for systemic risk. This view is also supported by FSB in its recent consultation on shadow banking (released November 18) saying that when applying policy measures to securitizations, regulators should firstly acknowledge the difference between traditional bank-based securitization structures and those put in place by other (i.e. non-bank) entities. Potential disclosure/transparency issues on ILS could be addressed under the normal (micro prudential) regulatory framework. The application of the Own Risk and Solvency Assessment (ORSA) could for instance provide the individual (re)insurer the opportunity to demonstrate to supervisors that the ILS vehicles used by the (re)insurer are not a source nor an amplifier of systemic risk.

ART and NTNI

With regards to ART the CRO Forum is of the view that this should not be classified as non-insurance as the transfer of technical risks is closely linked to the traditional insurance business.

5. Practical implementation issues

5.A Impact of ring-fencing (separation)

An effective ring-fencing of systemically relevant activities within an insurance group would require:

- That the respective activities are run through separate legal entities which are subject to limited liability (e.g. Ltd., LLC, Inc.);
- That the contracts in place between the ring-fenced entities and the rest of the group (e.g. parental guarantees, funding arrangements, reinsurance treaties) cannot lead to a spill-over of losses and/or other adverse spill-over effects (e.g. a liquidity drain), which in terms of their size could jeopardize the going-concern of the rest of the insurance group;
- Multi-jurisdictional approvals for separation (may not be possible, if regulators do not have a common view and certainly time consuming).

The implementation of an effective ring-fencing could therefore require a (potentially far-reaching) restructuring of both the legal structure of a group and of its intra-group business relations.

CRO Forum's view on the introduction of ring-fencing

The above analysis demonstrates that ring-fencing can have a massive impact on group structures, on intra-group transactions and on the management of a group. In addition, the ring-fencing of activities can cause significant costs.

The CRO Forum is therefore of the view that ring-fencing should be considered by the regulators **exclusively** with respect to systemically important activities (e.g. large scale bank and bank-like activities) and can't see any justification of ring-fencing of activities which are not proven to be systemically relevant.

The CRO Forum therefore urges the IAIS and the FSB to consider in a first step very carefully, whether an activity is systemically relevant, and to consult on this also with the respective company, before in a second step regulatory measures are considered. In addition, the CRO Forum also recommends that the regulators should consider alternative measures, e.g. an enhancement of the risk management in place etc., before more invasive measures such as limitations, restrictions and ring-fencing are considered. In addition, the CRO Forum wants to reiterate that it is – as presented in chapter 4 – of the view that many of the activities, which have been classified by the IAIS as semi- and non-traditional, are not systemically relevant.

Besides that, the CRO Forum wants to highlight that the IAIS's proposal is currently silent on the level of separation, which should be reached (i.e. on how "self-sufficiency" is defined). The CRO Forum therefore strongly recommends that the IAIS re-considers this issue and consults on this, before it proceeds with its proposal, as the required level of separation will also drive the impact and costs of any ring-fencing.

5. B Impact of Higher Loss Absorbency

There are various ways proposed in the IAIS paper of looking at the Higher Loss Absorbency (HLA), one possibility is that HLA will be applied only to NTNI activities, the other one being to apply it to the whole group.

In that context, the CRO Forum wants to reiterate that any supervisory measures – and this holds also for HLA – should be imposed **exclusively** on systemically relevant activities. The CRO Forum therefore strongly opposes the group wide HLA approach.

In addition, it should be highlighted that any additional capital requirements on top of risk based requirements, which target at rather high confidence levels (e.g. Solvency II 99.5% or the SST with a shortfall of 99%), will be excessive.

Furthermore, companies have stress testing and scenario testing in place on top of the internal model calculations in order to estimate any adverse impact and define potential management actions. More important is to look-through the activities undertaken, asses risk management practices and risk capital methodologies in place with regards to their appropriateness, and then decide what to do from the supervisory point of view.

It also has to be taken into account that any measures taken, which are to reduce the solvency ratio communicated by companies to the public, will have an impact on the market and potentially equity prices. Care has to be taken with regards to communication and explanation of the measures.

The practical challenges for the HLA implementation depend on what basis it will be applied to (e.g. group or NTNI) as well as the way of calculation.

Another practical implementation issue for insurers revolves around the lack of consistent basis of financial reporting or capital rules among global insurers, making any consistent application of G-SII assessment and higher capital charge (HLA policy measure) a real challenge. In particular, accounting for insurance contracts varies widely among insurers even for those reporting under IFRS. While some countries operate under risk based capital regimes, many others have yet to adopt such rules.

The CRO Forum urges the IAIS to develop guidelines, for both insurers and supervisors alike, to ensure that both accounting and widely different capital standards followed by insurers are taken into account in the final calibration of both the G-SII identification and the HLA policy measure.

5.C Impact of regulatory measures

With regards to regulatory tools and measures the CRO Forum is in favour of having the group supervisor and the colleges of supervisors in the lead when assessing the activities of an insurance group and when defining the respective measures.

The existing regulatory regime has to be recognised appropriately in order to avoid ultra conservative capital requirements and too intense supervision which would be harmful to the building of a level playing field.

With regards to a level playing field the CRO Forum is concerned that companies, who have activities which are deemed to be NTNI, are treated completely differently to those insurers who are active in similar activities but due to their size not deemed systemically relevant.

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Glossary of abbreviations

ALM	Asset Liability Management
ART	Alternative Risk Transfer
CDS	Credit Default Swaps
FSB	Financial Stability Board
G-SII	Global Systemically Important Insurers
HLA	Higher Loss Absorption
IAIS	International Association of Insurance Supervisors
ICP	(IAIS) Insurance Core Principles
IFS	(IAIS) Insurance and Financial Stability paper
ILS	Insurance Linked Securities
ILW	Industry Loss Warranties
ISDA	International Swaps and Derivatives Association
NI	Non-Insurance
NT	Non-Traditional
NTNI	Non-Traditional Non-Insurance
ORSA	Own Risk and Solvency Assessment
OTC	Over The Counter
RM	Risk Management
SPV	Special Purpose Vehicle
SRRP	Systemic Risk Reduction Plan
SST	Swiss Solvency Test
VA	Variable Annuity

Appendix 1: ART

Alternative risk transfer (ART) is the use of techniques other than traditional insurance and reinsurance to provide risk bearing entities with coverage or protection. The field of alternative risk transfer grew out of a series of insurance capacity crises in the 1970s through 1990s that drove purchasers of traditional coverage to seek more robust ways to buy protection. ART includes instruments such as: insurance-linked securities (ILS), industry loss warranties (ILWs) and extreme mortality transactions some of which are described below briefly.

Insurance-linked securities (ILS)

Financial instruments whose values are driven by insurance loss events. Those instruments that are linked to property losses due to natural catastrophes represent a unique asset class, the return from which is uncorrelated with that of the general financial market.

Industry Loss Warrants

Industry Loss Warrants (ILW) are insurance linked security activities in derivative form. ILWs provide the protection buyer with a payout from the protection seller, subsequent to the occurrence of a qualifying natural catastrophe. The demand for alternative forms of natural catastrophe and insurance risks has grown significantly over the past 10 years. Similar to traditional (re)insurance, such instruments offer buyers alternate means of securing protection. These alternate solutions can provide a number of added benefits including, collateralized protection, multi-year protection, quick post-event payouts, broader capacity investor base, cheaper cost, coverage unattainable in traditional markets, etc. The typical buyers of protection are the same as in traditional ILWs: the insurers and reinsurers that are seeking to hedge portions of their risk and balance their portfolios. Typical protection sellers are again (re)insurers, but derivatives can also be used by hedge funds, money managers and other investors familiar with trading in derivative instruments to gain exposure to, or hedge, natural catastrophe risks. These derivative contracts are often preferred due to the payouts being more streamlined and standardized in accordance with International Swaps and Derivatives Association (ISDA) mechanics thus creating a standard contract so that natural catastrophe risks can be traded and assigned by any counterparty. Through the development of an ISDA-based standard derivative contract the market has the opportunity to expand further and increase liquidity.

Cat bonds

Cat bonds are bonds whose coupon and principal payments depend on the non-occurrence of: a predefined catastrophic event, the performance of an insurance portfolio or the value of an index of natural catastrophe risks. The proceeds from the cat bond are invested in high quality securities, such as US Treasury Money Market Funds, and held in a collateral trust. Cat bonds commonly have a term of one to four years. If no qualifying event or trigger occurs during the risk period, the special purpose vehicle (SPV) returns the principal or initial investment, to investors with the final coupon payment. Institutions ranging from governments to multi-national corporations, through to regional and global insurers, have used cat bonds to hedge their risks.

Cat bonds should be viewed as a complementary risk transfer product. They enable sponsors to access collateralised, multiyear risk protection from a diversified source of capacity. In a complementary role, cat bonds broaden capacity for peak perils. Where pricing is attractive relative to traditional reinsurance, cat bonds can act as a substitute layer in an existing reinsurance tower. Also, with a typical multi-year duration, the sponsor can secure protection across several renewals, partially uncoupling from the pricing cycle and decreasing earnings volatility.

Catastrophe reinsurance claims for peak perils may coincide with times of industry distress. Therefore, purchasers of catastrophe reinsurance seriously consider counterparty risk and often purchase coverage from several different companies. Cat bonds are structured to minimize counterparty risk. An added benefit is that, contrary to reinsurance, the creditworthiness of the collateral and the ability of the SPV to meet payment obligations is largely uncorrelated with the occurrence of a large natural catastrophe.

Since cat bonds can cover multiple perils over multi-year terms and can more readily replenish capital than traditional reinsurance, they are an attractive surplus alternative. Cat bonds provide a source of diversification because the risk on cat bonds is largely uncorrelated with the risk of other asset classes. During periods of economic distress, which typically produce a "flight to quality", correlation among risky financial assets increases. Consequently, benefits of portfolio diversification between financial assets can dissolve when needed most, whereas the diversification potential with cat bonds generally remains.

Life and health exposures

Life and health exposures are an additional source of risks available for transfer to the capital markets. Unlike property and casualty business, life and health contracts typically have long durations and often include financial options, such as minimum interest rate guarantees. In addition to underwriting risk, life and health insurers may be exposed to risks associated with policy holder behaviour (e.g. lapses, premium amounts and timing) and risks associated with assets set aside to support policy holder liabilities (e.g. interest rate risk, credit risk). Since life and health insurers' risk profile is fundamentally different from their property and casualty counterparts, their capital needs are distinct and they possess different motivations for accessing the ILS market. The life and health market is similar to the non-life market in the demand for the securitisation of peak risks. However, there is also a greater need for financing and capital structure optimisation. Life and health securitisations may offer ILS investors the opportunity to further diversify their risk exposure across additional perils while providing the opportunity to find relative value for corporate credit investors.

Biometric derivatives

Biometric derivatives (e.g. longevity and mortality swaps) provide customized solutions to clients for management of biometric risks. Activities to date have focused on underwriting of extreme mortality in the context of US regulatory reserves financing transactions. Typical transactions reference realized mortality associated with specific blocks of policies and provide a hedge against extreme mortality events, such as those that might be caused by a pandemic. Transaction tenors may run 5 - 15 years, though through amortization much of the risk comes off at the earlier end of this range. Changing dynamics in the life reinsurance market are such that clients are increasingly looking for bespoke solutions rather than traditional products offered by reinsurers. In addition, because of regulatory requirements and need for approved collateral solutions commercial banks are playing an increasingly large role in the life and health market. Since the banking model is to intermediate transactions rather than to take insurance risk, more often than not banks will look for hedge counterparties to take the underlying risks in the derivative format, generally consisting of derivative contracts referencing the performance of defined blocks of insurance business. These contracts will provide protection to counterparties in the event performance of the reference business significantly deviates from base case estimates. Counterparties have acquired exposure to the reference business either directly (in the event the reinsurer deals directly with primary insurers) or via structured transactions (in the event the reinsurer deals with a bank). Similar to more traditional derivatives transactions the swap entity

may be contractually required to post collateral under certain adverse events. Collateral requirements are typically not driven by changes in market value of the derivatives but rather based on fairly remote stress scenario levels, e.g. collateral requirement triggered at roughly a 1-in-150 year probability and full collateral required at a 1-in-450 year probability. Tri-party custody accounts are used to hold collateral to mitigate counterparty credit exposure.

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