Solvency II: Change Brings Opportunity

With 12 Case Studies on How Reinsurance with RGA can Help

RGA

Change Brings Opportunity

Anything that has been 15 years in the making will probably generate great anticipation and discussion about its likely impacts. Solvency II is no different.

RGA has actively followed the development of Solvency II, both to prepare our own European entities for compliance and optimization and also to design new solutions for our clients throughout Europe. Our many experiences, observations and conclusions around Solvency II can be broken down into three general principles:

1. Many things will not change from the situations that we currently know well.
2. The things that will change will bring challenges and opportunities for all of us.
3. RGA, especially as a United States-based reinsurer with a full local EU network, is ideally poised to confront those challenges and opportunities with you.

We have inserted a series of case studies within this document to present you with more concrete examples.

Case 1: Dissection of the SCR Longevity Shocks

RGA executed a longevity transaction in 2014 which is one of the first real Solvency II longevity risk mitigation solutions. That transaction covered longevity risk, but the idea is applicable throughout the other risk modules within the calculation of the SCR under Solvency II. Imagine that one divided the total SCR Longevity into 20 buckets, one for each of the 20 incremental deviations of 1% from expected mortality (i.e., the SCR Longevity shock is a total and permanent shock of -20% to annuitant mortality rates). Then consider each bucket from two perspectives: cost of capital and probability of realization. One will observe that as one goes out to the end of the shock (i.e., towards the full -20%), that each bucket costs one roughly the same in terms of real capital even though the risk gets progressively more remote. The idea is then to identify the subset of buckets (e.g., from -5% to -15% or from -10% to -20%) where the reinsurer can bear that risk with less capital and thereby at a lower cost. The insurer is then better off because the cost of reinsurance is less than the cost of the capital that it would have had to hold.

1. Many Things Will Not Change

The exact starting point on the long road to Solvency II is debatable, but it most likely began to evolve around the year 2000. Perhaps it is a coincidence, but this was shortly after another much anticipated event, which ultimately had far less impact than feared: Y2K — the Millennium Bug. It was widely thought that computers would suddenly stumble and crash when dates no longer started with 19xx, and chaos would ensue. While we do not suggest that Solvency II will also be a non-event, we believe it will be helpful to put things in context with a few calm reminders.

Our first observation is that reinsurance has been transacted and will continue to be transacted for various reasons that will not be changed by Solvency II. The clearest example of this is reinsurance which is transacted for the purpose of **accessing services or information**. This covers a broad landscape, ranging from product development and underwriting services to analytical services and process audits. When the dust settles after the introduction of Solvency II, insurers and reinsurers will see that these services and information will continue to be valued and exchanged.

A second reason companies frequently buy reinsurance is **to protect against risk and volatility** under various measurement systems. This comes from the natural desire to avoid excess volatility of income and to reduce the risk of insolvency. This desire will persist beyond the introduction of Solvency II, even as some of the measures evolve. Most companies already have a long list of accounting or economic bases about whose results and volatility they are concerned, and Solvency II will just add to this list.

Case 2: Asset-Intensive Coinsurance of Annuities in Payment

RGA executed two Asset-Intensive transactions in the UK in 2014. Under these transactions, RGA took ownership of pre-agreed assets with a total value of GBP 1.25 billion which had been on the balance sheets of the ceding insurers up until then and, in return, promised to pay all future payments owing to the surviving annuitants and pensioners. The assets remain in the EU and are held in a manner that protects the cedants from the risk of RGA's default. RGA bears all the risks — market and longevity — in this arrangement, and the cedants thereby get full capital benefit under Solvency II. These transactions contained another notable aspect, in that the assets transferred to RGA included illiquid assets whose Solvency II mark-to-model values could be argued to be understated. Such Asset-Intensive transactions could work in many EU countries and RGA is actively trying to solve the challenges present in several of those countries. One common challenge across much of continental Europe is the generous profit-sharing provisions in savings and annuity business.

A third broad reason for which insurers purchase reinsurance is **to manage their capital or financial positions**. In this case, reinsurance is simply an alternative to debt or equity; a way to manage imbalances between growth in sales and growth in balance sheet capacity. In an ideal world, Solvency II's economic balance sheet and solvency capital requirements would replace several current measurement systems and leave insurers in a simpler position. Unfortunately, the reality is far from that ideal and, for many insurers in many countries, Solvency II is merely an additional set of accounts to prepare on top of the existing ones that they already need to create and manage. Even the current local insurance accounting bases, relative to which the old solvency requirements were defined, will sometimes need to be prepared for decades to come. One reason for this is that many local life insurance products have their policy values and their very important policyholder profit participations defined with respect to the historical local accounting basis. These cannot suddenly change to a market value basis. Reinsurance will continue to be used to optimise and manage these legacy balance sheets.

2. New Challenges in the Changes

Solvency II is clearly a monumental new set of measures and it will have far-reaching fundamental effects. The business of reinsurance will not be immune to this, despite the material elements of stability outlined above for the three types of reinsurance purchases. We foresee the following changes for those same three categories.

The purchasing of **reinsurance for services and information** will probably change the least. We expect that companies will be pushed to redesign products and processes to compete and survive in their new world, but we view this as more of an incremental, evolutionary change than as a shock. Many core parts of Solvency II (e.g., market consistent, forward looking) have been agreed upon for many years now and companies have been managing 'toward' Solvency II prior to its official inception. Solvency II's introduction may still also cause some new services and information to be traded, perhaps related to Pillar II, where documentation requirements have high standards for data and where future management actions are only given credit where there is an actual strategy and pattern of behaviour. With their expertise and experience databases reinsurers can support their clients with these new challenges.

Case 3: Indemnity reinsurance versus General population-based risk mitigation

Solvency II's recognition that even imperfect risk mitigation is valuable opens the door for solutions that were previously not possible, despite their clear risk mitigating value.
The transaction described in Case 1, for example, was actually implemented as a derivative contract based on observed general population mortality results. To base the contract on the cedant's own portfolio, which contained the risk to be hedged, represented large administrative hurdles due to systems constraints and policy conditions. By basing the coverage on population data — and taking a modest "haircut" for basis risk — a valuable new contract was available to our client. RGA is very flexible in designing solutions, and this choice between reinsurance and derivative is an excellent example.

The use of **reinsurance to manage risk and volatility** must increase. Solvency II, which is fundamentally volatile, puts the measurement and management of risk in the spotlight and companies of all shapes and sizes will be compelled to update their strategies. All companies already practice risk management in some form, but it will now be pushed into the top tier of priorities and made more transparent. This will indeed change behaviour. Pillar II's ORSA — arguably the heart of Solvency II — is a key forum for demonstrating and documenting risk management, and reinsurance will earn a large role in the ORSA process due to its volatility reducing impact on the economic balance sheet.

Among the many evolutions and changes in Solvency II is a levelling of the playing field between reinsurance and other risk mitigation techniques. The preferential status that reinsurance enjoyed under the old regime will vanish on January 1, 2016, with reinsurance becoming just one of several risk mitigation techniques. Reinsurers will therefore need to compete more directly with other players in the financial services industry and the capital markets. There is, however, more than enough opportunity here, and reinsurers who are prepared to stand up to this environment of greater demand and greater competition will thrive. It is worth noting that even reinsurers themselves can paradoxically benefit from this loss of special status, as they can now provide some of their protections in derivative or other formats when it is in their client's best interest (see Case 3).

Case 4: SCR Counterparty Default is a non-issue with RGA

Some industry participants have distracted insurers with detailed explanations as to why they should have multiple reinsurers of various credit ratings, in order the minimise the SCR Counterparty Default. We expend significant effort dispelling these beliefs and showing clients that they should not be overwhelmed by the fancy formulae in the SCR Counterparty Default sub-module. Solvency II correctly recognizes that reliance on a third party introduces some risk that that party might ultimately not be there when one needs them. In practice, however, while it is an important issue, it is really just a normal issue that you and your reinsurer will deal with in the negotiation and structuring of the solutions to meet your needs. For a reinsurer with a strong credit rating, like RGA, the SCR Counterparty Default is in practice relatively low, and in addition there are enough structural and contractual elements available to make sure that the incremental SCR Counterparty Default does not undo the benefits of the reinsurance with such a highly rated reinsurer.

Reinsurance as a capital and financial management tool will undergo the most exciting changes. Given Solvency II's economic balance sheet and its intimate link between risk and capital, reinsurance and other risk mitigation techniques will take on a larger role than before. To claim that role, however, reinsurers or others will need to contend with a more complicated test of the value of their propositions. Previously, reinsurance had a clear and direct impact on a company's financial statements and the decision was relatively easy. There was little or no reflection of prospective impact and few items in the balance sheet or capital requirement were impacted. Things will now be more complicated.

For example, reinsurance will now have its very own entry in the Solvency II balance sheet: the Reinsurance Recoverable (RR). Despite this seemingly one-sided label, this balance sheet entry is actually the present value of all expected payments between the insurer and the reinsurer, netted between inflows and outflows. Curiously, there are many normal, valuable reinsurance situations where this asset would actually be negative on the insurer's economic balance sheet. While one could conceptually consider the RR to be an offset or addition to the Best Estimate Liability (BEL) or to the market value of assets (MVA), it is in fact separately defined and

those other two values are not affected by reinsurance. The further risk absorbing capacity of reinsurance gets captured in changes in this RR asset when the insurer applies the relevant Solvency II shocks to its economic balance sheet, thereby reducing the insurer's Solvency Capital Requirement (SCR).

The final piece of the Solvency II balance sheet — the Risk Margin (RM) — is where things really get complex, especially when determining the value of reinsurance and its impact on capital (see Case 6).

3. RGA Ideally Poised under Solvency II

RGA's ideal positioning to help European insurers deal with life under Solvency II is threefold.

I. The first reason for this is a direct result of the Solvency II rules themselves. Once one gets over the initial surprise, the reasoning and results are quite logical. A European reinsurer consolidates all of its business under Solvency II, with all but a few countries ultimately subject to the same detailed Solvency II requirements as their home EU country. The few exceptions are those countries deemed equivalent under §227 of the Solvency II Directive, where the consolidation picks up the local overseas requirements instead of imposing Solvency II in the exact detail of the Directive and of the EIOPA texts. Solvency II will prevent EU groups from using intra-group transactions to take unreasonable advantage of this equivalence provision, which they could do, in theory, by shifting business from the EU to somewhere outside of Solvency II (e.g., sending large parts of their EU business to a U.S. subsidiary; the U.S. is provisionally equivalent under §227).

At the same time, Solvency II also defines rules for how an EU (re)insurer can cede business to a reinsurer outside of Solvency II and how the EU (re)insurer needs to reflect that in its economic balance sheet. As a result of these rules, RGA can, for example, retrocede EU business to RGA outside of the EU and thereby outside of Solvency II. Given commercial pressures in the reinsurance business, this might be done in carefully selected situations to provide better terms and conditions to an underlying EU ceding life insurer. **RGA is not required to calculate a group-wide Solvency II position.** This is entirely compatible with Solvency II, and the interests of the ceding insurer are protected by the underpinnings of the equivalence assessments and by structural elements (e.g., collateral).

Case 5: Reinsurance can be easier than convincing your regulator

Solvency II recognizes that some items may need to be tailored to the specific circumstances of an individual company. Examples include the use of a Matching Adjustment, of a partial internal model or of an Undertaking Specific Parameter. The rules and regulations that allow for these refinements also impose various requirements on the insurer to justify that tailoring. RGA foresees cases where the burden imposed by — or limitations from those requirements — may be excessive, and where the insurer may be better off accessing the same or greater economic benefit via reinsurance. This is most likely to be the case for small and medium-sized companies, but we have such cases with very large insurers too. Interesting candidates for this include the standard formula Mass Lapse shock of 40% on high quality stable business and the Matching Adjustment impact for old savings portfolios with book value surrender options.

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Case 6: The disproportionately large benefit of underwriting risk reinsurance

RGA's daily bread is the reinsurance of mortality, longevity, disability, persistency and other "underwriting risks". We are periodically confronted by a client who regrettably informs us that they will need to greatly reduce their reinsurance for these risks because of the small benefit they get for it in their SCR. While it is true that a large part of an average life insurer's SCR comes from market risk, this should not lead one to the conclusion that reinsurance and other risk mitigants must cover that risk to be sufficiently helpful. The explanation for this apparent contradiction lies in the way EIOPA chose to define and implement the risk margin (RM) which focuses on the margins required to service future underwriting risk capital, excluding most market risk capital from the calculations. This exclusion pushes the balance back a bit towards solutions which cover underwriting risk, as they will cause a disproportionate reduction in the RM relative to what they do for the current SCR.

Case 7: Theory Meets Reality — Transfer Price

When discussing Asset-Intensive transactions (see Case 2) or longevity swap transactions (see Case 8) with European clients we frequently find ourselves explaining that a price which exceeds their own technical provisions under Solvency II is indeed a commercial reality. The theory behind Solvency II has led some careful readers to expect otherwise. EIOPA chose to define the total technical provisions as the sum of a best estimate liability (BEL) and a risk margin (RM), such that the total was – in theory – the amount of money that the insurer would need to pay to another insurer for that other insurer to accept the transfer of the associated liability obligations and to put up its own capital for the SCR. The theory implies that that other insurer would earn the appropriate return on its capital from the gradual release of the RM and from the investment earnings on its own assets backing the SCR. This all suggests that a company should be able to sell or reinsure portfolios with no net impact on their Solvency II balance sheet: the cash transferred would exactly equal the reduction in BEL and RM. In practice, however, this is rarely the case, and there is normally a net additional cost to paying another party to take on the liabilities, whether by reinsurance or by full sale. We can speculate on the exact reasons for this, but in general it is because the theory of Solvency II is too simple compared to the commercial realities in which companies operate. Leading examples for this oversimplification are the implicit assumptions that companies hold exactly 100% SCR, that 6% over risk free rates is their return on capital target, and that they don't want to remunerate capital attributable to "avoidable" market risk.

Case 8: Longevity Swaps will come to the continent

There has been a large and growing market in the UK for longevity swaps (most are actually indemnity reinsurance transactions despite the label) for well over a decade now. One of the reasons that this phenomenon has not yet crossed the Channel is that the old solvency regime had no explicit or distinct capital requirement for longevity risk; it was presumably buried somewhere in the crude 4% of reserves component. This will, of course, all change with Solvency II's SCR Longevity. We first expect a trickle of swaps on the continent, but the flood of longevity swaps on the continent will need one more development. Insurers holding the longevity risk would need to update their longevity assumptions to the point that reinsurers are at, so that the negotiation would be around costs of capital and risk appetites, and not be tainted by material differences in opinion about best estimates, including future improvement rates.

Case 9: Fungibility solutions

A significant addition in Solvency II is the focus on groups as well as their various solo entities. As part of that sensible regulatory enhancement, the authors of Solvency II ran into the need to consider the fungibility of capital in solo entities; would capital in one entity be available to meet risks and losses in another? This resulted in fungibility requirements and conditions related to subsidiaries and ring-fenced funds of various sorts. In addition to classic reinsurance structures that might help with this issue, RGA foresees the use of “reinsurance options” or “just-in-time reinsurance capital” to optimize these situations. The essence of these is to put in place the framework to allow the rapid execution of a financing agreement at some unknown time in the future. These would likely be most effective for non-EU non-equivalent subsidiaries, like in most of Asia, where RGA has already executed this “just-in-time” solution, but we are also exploring broader applications.

Case 10: Beyond reinsurance: portfolio transfers and acquisitions

Solvency II is both a new financial constraint as well as a new operational and management burden for insurers, causing them to continuously consider options for optimising their business. Solvency II might, in some cases, be the proverbial straw that breaks the camel’s back, causing some groups to decide to wind up some entities or to completely sell some portfolios. These decisions could be due to the low profitability or high capital requirements under Solvency II or due to the operational and management distraction caused by Pillars II and III. Such transactions arguably give the same Pillar I benefit as just doing reinsurance, but the extra relief from the Pillar II and Pillar III requirements can be quite appealing to a company or group struggling to deal with Solvency II on top of all their on-going challenges. Portfolios with low cross-selling value for new business are likely suspects. RGA is already seeing insurers sell such non-core business and we believe this is partly driven by Solvency II. RGA stands ready to either buy such entities or to transfer the business from them to an RGA direct licensed company. RGA became active in this area in 2011 and sees a large role for it in our future. RGA purchased a direct company in 2013 and has commenced using it to transfer runoff business onto as part of acquisition transactions.

Case 11: When is an arbitrage an arbitrage?

We occasionally have the great pleasure of explaining to a very happy client why we can offer such attractive terms on some reinsurance transactions. Some clients worry that this might be an arbitrage. We can quickly reassure them that everything is above board and that they should not worry. Arbitrage is simply the legitimate practice of taking advantage of price differentials between two markets, but it has a tainted image in (re)insurance circles because it has become associated with a few historical transactions which were inappropriate for other reasons. Solvency II will help to rehabilitate the image of the idea of arbitrage. Imagine a reinsurance contract that is concluded on the basis of a price that both parties — the insurer and the reinsurer — find attractive. Does it matter if their respective views on that price are influenced by different local regulatory capital requirements? Does it matter if their respective views on that price are influenced by different diversification effects of their total business? Does it matter if the non-EU reinsurer is allowed to put a more optimistic value on an illiquid asset than the EU insurer? Which of those is arbitrage?

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Case 12: Has EPIFP in Own Funds killed reinsurance financing?

One of the long debates in the development of Solvency II was whether Expected Profits in Future Premiums (EPIFP), sometimes also called VIF (Value in force), should count as Tier 1 Own Funds. In the end, it will count despite the argument that EPIFP is not readily available to absorb losses. One might expect that positive treatment to eliminate the need for a long-standing reinsurance offering — reinsurance financing — but don't write it off too soon. EPIFP in Own Funds will certainly reduce the need for reinsurance financing, but RGA anticipates that there will still be regular cases where there is a legitimate need for financing and where reinsurance is the best vehicle for delivery. These cases may be due to non-Solvency II issues (e.g., liquidity or other accounting bases) or to situations where Solvency II underestimates the EPIFP (e.g., short contract boundaries or severe lapse shocks). The driver may simply be the basic old-fashioned desire to avoid downside volatility in capital and solvency positions. With reinsurance financing one can lock in part of the VIF and eliminate further downside risk. A classic cash financing reinsurance transaction will pay maximum cash now by looking through any contract boundaries and by taking the future persistency risk.

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II. Second, we note that **RGA has a relatively greater appetite for market risk** than many reinsurers who have historically focused only on insurance underwriting risks and have shied away from taking on market risk. A reinsurer who sticks to this latter pattern of behaviour after the introduction of Solvency II will risk seeing their business shrink, as a typical life insurer's SCR is approximately 2/3 attributable to market risk, and reinsurers who cannot assist here will risk becoming only marginally useful. One of RGA's major lines of business is Asset-Intensive, where we are prepared for exactly this situation. RGA presently has over USD 15 billion of such transactions on our books around the globe, with our first such European transactions having been concluded in 2014, as Solvency II started to influence insurers' risk and capital management behaviour.

III. Finally, **RGA has a dedicated global unit of more than 100 experts** focused on finding innovative solutions to insurers' capital and financial management needs. Solvency II is just the latest in a long list of new regulatory environments globally where this team, **Global Financial Solutions (GFS)**, has applied its puzzle-solving skills and passion. Solvency II, being a "one size fits all" regulation across Europe, will be tailored by each individual country as implemented under local law and reflecting local practices. This will create a series of slightly different Solvency II environments. The local GFS experts in different European countries, working in combination with RGA's extensive network of local offices and staff, can help develop solutions that meet the needs of clients who are navigating the changing regulatory landscape. ■

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