Establishing a Common Language for Reinsurance and Capital Management

RGA's core messages in capital-motivated reinsurance (CMR) discussions have not changed for decades:

1. Reinsurance is a real source of capital in addition to equity and subordinated debt.
2. Reinsurance is a valuable tool for optimising an insurer's financial position.
3. CMR deserves a place in every life insurer's capital management tool kit.

This all applies regardless of the size of the insurer or whether there is an immediate need for capital.

When RGA published its first Solvency II CMR report 10 years ago the industry believed that Solvency II was just around the corner. The reality, however, was that we had to wait another nine years – until 2016 – for the launch of Europe's new capital and regulatory regime for insurance and reinsurance companies. This latest RGA report can now go into greater depth, drawing on RGA's experiences concluding CMR transactions under Solvency II.

RGA expects the next wave of new CMR transactions to occur once companies fully implement and integrate the machinery of Solvency II. By that time companies will also be more accustomed to the dynamics of the new regime. One of the key factors that will contribute to the emergence of that wave of transactions is how effectively we, together, discuss the issues that are relevant to CMR under Solvency II (and not just in Europe). In discussing and explaining CMR under Solvency II so far, we've found ourselves needing to adopt a new vocabulary, or mindset, to convey the necessary ideas.

The core of this document, therefore, presents brief commentaries on the issues that we believe are the newest, or most relevant or interesting, in enabling the fruitful pursuit of Solvency II CMR.

We hope that the comments and arguments on the following pages resonate with you and stimulate further discussion. Modern CMR is most often a journey where you and your reinsurer design (and regularly update) the solutions that meet your needs, and we hope that this document helps you to find the best path to your destination.

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1. The intimate link between risk and capital

A core concept in our new vocabulary is the recurring idea that Solvency II is founded on **an intimate link between risk and capital.** On the one hand, this simply reflects that Solvency II stuck to its original design principles and became a true risk-based capital framework. On the other hand, we use this terminology to distinguish Solvency II from the many risk-based capital (RBC) systems, which aren't actually very risk-based. A key characteristic of a truly risk-based capital system is that **the capital requirement is derived from detailed shocks to the integrated economic balance sheet** and not just from factors (no matter how many!) applied to a disconnected historical value balance sheet. Many alleged RBC systems are missing this link.

2. Optimisation means making trade-offs

Our recent CMR journeys have shown us that typical pre-Solvency II CMR transactions represented only a special subset of the full range of CMR situations. With Solvency II and the modern CMR transactions that are now needed, we see more clearly that optimisation means making trade-offs. The old situation allowed reinsurers to improve an insurer's capital amount or solvency ratio without a material or visible effect on income. Such old-style transactions should now be very rare due to Solvency II's intimate link between risk and capital. Instead, we now see that the relevant Solvency II CMR opportunities are those where "optimisation" means that insurers need to consider real trade-offs **between capital efficiency measures (e.g., return on capital) and absolute income amounts.**

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3. Solvency II is only one of many bases

We often find it helpful to point out that **Solvency II is only one of several financial measures** of relevance to a well-managed life insurer. A typical insurer and its stakeholders naturally also pay great attention to local statutory income and balance sheets, IFRS income and balance sheets, tax position, return on capital, embedded value, free cash flows, and other measures. This observation might look obvious but might also, for example, help highlight the fact that **Solvency II is not necessarily the most constraining basis** (see next section), and that optimisation efforts should focus elsewhere. Alternatively, when Solvency II optimisation does remain the

prime focus, this same observation reminds us that the cost of such optimisation is seen in trade-offs in some of the other measures. Despite these all-encompassing comments, many CMR optimisation discussions boil down to two dimensions: annual income and Solvency II solvency ratio. Even so, it is still a challenging optimisation puzzle!

4. CMR is just an algebra exercise

Building on the previous sections, one could reasonably imagine representing a life insurer and its assorted financial measures as a series of algebraic equations. Going further, a company's objectives and priorities can be considered to simply define a classic algebra exercise: solve *m* equations in *n* unknowns. **CMR simply becomes solving the algebra equations** for the relevant values that satisfy the equations. This is admittedly a playful exaggeration, but we find the metaphor to prove very helpful when we run into unexplained impasses exploring CMR paths. More simply put, if the insurer can clearly articulate its objectives (and constraints), we can define the equations and find the solution — together.

5. Give return on capital a chance!

Too often we discover that the algebra puzzle posed by an insurer's objectives and priorities has no mathematical solution — the null set! This most often happens when one measure has formal top priority (e.g., return on capital) and another measure has informal top priority (e.g., income). Though a company would rarely disclose these two conflicting objectives simultaneously, our experience is that unofficial priorities and old habits can lead to this dilemma and that these forces prove surprisingly resistant. We ask insurers to **give their return on capital objectives a real chance.** CMR transactions deliver their greatest value when such measures are truly the priority and the insurer is willing to make trade-offs with other measures. If a company is earning 9% return on capital overall and the objective is to earn 12%, then a CMR transaction on a sub-portfolio that costs the company — for example — 5% (or anything below 9%) of the capital savings is a good thing, as it pushes the resulting total return above 9% and towards 12% (or even beyond).

> CMR transactions deliver their greatest value when capital efficiency measures are truly given top priority.

6. Remote risk transactions

Prior to Solvency II many CMR transactions were built on situations where there was only a very weak link between risk and required capital, and specifically on those cases where an insurer's material Solvency I capital requirements were tied to very **remote risks**. Reinsurers could naturally cover such remote risks very cheaply, and the insurer's capital position was thereby improved materially without a large effect on its income statement. The relevance of the remote risk — and the impact of reinsuring it — was solely the result of the regulations and was not in any way a result of the insurer's or reinsurer's actuarial or commercial choices. Such transactions are now very rare under Solvency II, but we believe that understanding them is a key part of the path to reaching commercial agreement on the new generation of CMR transactions. These remote risk transactions of the past were often facilitated by an arbitrage; in insurance circles, arbitrage simply means that insurers and reinsurers can have different reserve and/or capital requirements for the same business. This occurs naturally, and a fully disclosed and audited commercial agreement whose price is improved by an arbitrage should be celebrated as a good thing. See number 10, "Enablers of commercial transactions."

7. Full risk transactions?

If remote risk transactions are mostly a thing of the past (see prior section), what should we call the new generation of CMR transactions that we face under Solvency II? In many ways they are just basic reinsurance, but somehow we still need a label for them. Perhaps it is due to the scale on which such "basic" reinsurance needs to take place for capital management purposes. In this transitional time for CMR in the early days of Solvency II we often refer to these new transactions as **full risk transactions**, or as full risk, full margin transactions. The labels aren't perfect, but we find they serve their purpose in a detailed discussion between open partners. You may occasionally hear these transactions called "expensive," but this is an oversimplification, and the full story is that, under these transactions, the insurance company is paying more for additional value and features: the difference between buying a car instead of a bicycle. Bicycles are great and should be used when possible, but sometimes one does need a car.

Under Solvency I, RGA could often achieve an insurer's capital management objectives with a bicycle; under Solvency II, an insurer generally needs a car from us to achieve its capital management objectives. A car simply costs more than a bicycle, but isn't necessarily expensive for a car (and one should indeed consider cheaper models of cars).

8. Sufficient risk transfer

Our 2011 CMR report observed that Solvency II did not have a risk transfer definition and went on to assert that one was not even needed. We stand by these statements today. We have, however, sometimes found ourselves debating **sufficiency of risk transfer** under Solvency II reinsurance transactions. (An example is a reinsurance contract on a stable portfolio that transfers the lapse risk between annual actual lapse rates of 20% and 40%.) RGA's position remains that Solvency II's best estimate scenario and Solvency Capital Requirement (SCR) shock scenarios define relevant zones of risk transfer that are used to evaluate the performance of the reinsurance contract by projecting the cash flow results under all those relevant scenarios. (For the example contract above, the only relevant observation is that the Solvency II standard formula shock for mass lapse risk [40%] completely covers the range of scenarios reinsured.) We see no need for subjective discussions of risk transfer under Solvency II. Our beliefs here are completely compatible with Solvency II's requirement for "effective risk transfer," which is about legal certainty, related transactions, credit risk and other basic issues, and not about what ranges of risk transfer are relevant.

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9. Substance over form

Our 2011 CMR report also pointed out that Solvency II did not have a definition of, or criteria for, "reinsurance" and asserted that one was not needed because of the irrelevance of the risk transfer question (see prior section), and because risk mitigation impact was reflected directly via the cash flows in the relevant scenarios of the contract, regardless of the legal form it might take (e.g., reinsurance versus derivative). Recall that **substance over form** was one of the original Solvency II guiding principles. We were, therefore, surprised to discover that there are, in fact, some material elements of the Solvency II regulations (e.g., risk margin definition) that do implicitly or explicitly distinguish between reinsurance and other risk mitigants. We believe this was an unintended drafting oversight — which is quite understandable given the thousands of pages drafted over the years — but the resulting text has been applied literally and has led to some unfortunate conclusions, putting form ahead of substance and seemingly going contrary to the original intent of Solvency II. (Please note that this point does not relate to basis risk, which is another topic.)

10. Enablers of commercial transactions

Solvency II's intimate link between risk and required capital means that a reinsurer likely needs to hold material capital for any of the risks it assumes from an insurer via modern

CMR transactions. For such a transaction to be attractive *enough* to the insurer, the price needs to be low *enough*. These two "*enoughs*" hide large and complex calculations of value and assessments of alternative actions. Nonetheless, the simple fact is that an insurer wishes for a low price for CMR. Above a certain price, the insurer will simply not transact; it will pursue other alternatives (e.g., retain the risk or reduce new business written). It is therefore in all of our interests to look for situations where the CMR price will be lower.

Since a primary driver for reinsurance prices is the incremental capital that the reinsurer will be required to hold after entering into the transaction, anything that results in the reinsurer holding relatively lower reserves or capital will help. Any sources of such differentials are potential **enablers of commercial transactions**, and they show us where it is most promising to expend our respective commercial energies exploring new CMR transactions. These commercially helpful — or rather, essential — differentials can come from a number of sources: differences in diversification, varying risk appetite, or arbitrage.

11. Explicitly identify your alternatives

The price point referred to in the prior section is partly a function of a company's alternatives. These alternatives are, however, often only implied. We find it very helpful in finding a viable commercial path (or to knowing when to abandon a path) if those **alternatives are made explicit**. Part of that exercise involves highlighting the costs or other impacts of the alternative courses of action.

A frequent alternative to CMR is to do nothing and accept the status quo; this is the winning alternative over many nice-to-have but non-critical CMR ideas. Classic alternatives are the raising of equity or subordinated debt from a parent or from investors; these alternatives to CRM have explicit costs but also other non-cost effects (e.g., inconvenience or undesirable messaging to financial markets). The cost/consequence of not using CMR skillfully could even be the failure to make an acquisition where an insurer's equity and debt facilities have been fully exhausted; CMR is for strong companies, too. Recall that an insurer's needs and alternatives will vary over time; a company should not make its CMR or

other capital management decisions based solely on its current situation. Insurers should use CMR to reduce the impact of adverse scenarios and increase their options in positive scenarios.

12. The other advantages of reinsurance

In CMR discussions we sometimes remind our partners to remember the many non-price **advantages of reinsurance** over classic capital options, and that these advantages are valuable and warrant consideration. Unlike equity or debt, reinsurance is private, flexible, quick, not counted as leverage, easily updated to changing circumstances and — don't forget — it transfers risk. Unlike decisions to forego opportunities due to lack of capital, reinsurance allows companies to keep their sales and admin channels full and happy, maintains their market presence and corresponding brand, and simply lets them maximize the value from their core strengths. Even if there isn't an urgent need to raise the solvency ratio, recall that writing more business for the same absolute amount of capital while still maintaining a nice ratio makes shareholders happy.

13. "Just in time" reinsurance

Just like it's not a good idea to learn a new language on the flight to your vacation destination, it's also not a good idea to wait until the needs or opportunities mentioned above arise before implementing any CMR. In order for CMR to fully play the role claimed in our CMR core messages, it needs to already be part of an insurer's normal behaviour and be something that is familiar and welcome to its accountants, auditors and regulators. RGA regularly uses a **"just in time" reinsurance** (JIT) structure that is flexible enough to start small and be expanded quickly when required. This structure gets the main work and analysis done at a mutually convenient time and implements — at a low cost —the framework necessary to later allow an insurer to "pull the trigger" when it needs the full capital benefits. Having access to clean experience data and complete in-force portfolio information is the key to a quick and easy process.

14. Reinsuring volatility

One of the constant themes in Solvency II CMR discussions is insurers' discomfort with the volatility of their Solvency II positions, particularly in its impact on dividend planning. We are frequently asked to directly cover or remove the volatility, or, in other words, to **"reinsure the volatility."** Almost every company would choose to operate at a lower capital level if the Solvency II measure was less volatile than they perceive it to be, but few have been willing to pay a material portion of this potential capital cost savings to actually transact the necessary reinsurance. Though we have some tailored solutions and ideas for this volatility coverage, the simple answer to this problem is generally the immediate or contingent reinsurance of the volatile portfolios.

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15. Longevity swaps

One of the main capital requirement drivers for many EU life insurers under SII is longevity risk. This results from the well-documented intimate link between risk and capital, and reminds us that Solvency I had no explicit or sensitive risk charge for longevity risk (was it in the 4% factor?). The standard Solvency II longevity solution is the **"longevity swap,"** which has been regularly executed in the UK for almost 15 years, and which has recently also made it to the Continent.

Despite the swap name, these contracts are in fact indemnity reinsurance agreements; the swap label is simply a useful analogy given the cash flow dynamics, which are different than more traditional forms of life reinsurance. Insurers across Europe are fundamentally interested in the benefits of such longevity solutions, but the perceived high cost has thus far prevented commercial alignment in some countries. Due to the very long-term nature of these contracts, differences in opinion about expected longevity can have a significant reinsurance price impact (more so than for mortality or disability business). These differences create commercial barriers, which can offset the commercial enablers present.

RGA, however, remains committed to executing longevity swaps in more European markets. Note that longevity risk is the best example to support our repeated call for insurers to transact CRM now to preserve their options later. Waiting for a regulatory table change before reinsuring longevity risk can be too late; conversely, after implementing a longevity swap insurers never need to worry about a change in regulatory tables.

16. Asset-intensive reinsurance

The largest capital requirement category for most EU life insurers is market risk, which also had no explicit or sensitive risk charge under Solvency I (what part of the 4% was for market risk?). The simplest market risk reinsurance solution is basic coinsurance, where the reinsurer takes over control of the assets and takes on all related liability payment obligations. RGA refers to such transactions as **asset-intensive reinsurance**, typically in the context of savings or annuity business.

Here again, there is no lack of interest from insurers, but commercial pricing often proves to be a barrier in some countries. Local regulations in some markets also greatly complicate or prevent asset-intensive reinsurance. There has been a small flow of such deals in the UK, but most Continental forays in this direction have thus far been aborted in the face of commercial reality.

One of the themes we see regularly in this arena is an expectation that reinsurers should be able to produce high non-market-consistent investment returns and to pass these on to the cedant in the guaranteed reinsurance price; if an insurer ever receives such a magic asset-intensive price quote from a reinsurer or other party, it must be sure to carefully check what other risks it is taking on to facilitate this (e.g., credit, operational, liquidity or reputation risk).

17. Solvency II transactions outside of the EU

As we prepare for the expected wave of modern Solvency II CMR transactions in Europe, we mustn't forget that these **deals are also relevant outside the EU**. An EU group's overseas business is also subject to Solvency II and is therefore an equally eligible vehicle for optimising the group's Solvency II position. Whether the overseas business is in an equivalent jurisdiction or not, there is still ample room to follow the CMR core messages. In non-equivalent jurisdictions the story is very much like the one portrayed throughout this document. For equivalent jurisdictions a broader solution set is available. See RGA's 2010 report *"Solvency II's Long Reach – Beyond Europe"* for a detailed explanation of the three facets of equivalence under Solvency II, especially §227, which addresses the consolidation of non-EU subsidiaries.

Being clear and explicit about the challenging issues is more important than ever for effective CMR discussions. As we develop the next wave of CMR solutions, RGA remains committed to creating innovative structures that provide an effective solution at an attractive price. Achieving this requires an open dialogue and examination of potential commercial terms from all sides and choosing the paths with sufficient commercial enablers to ensure mutual success.

We want to partner with life insurers that are motivated to take innovative new ideas to their auditors and regulator and to help shape the future of our industry.

The time to discuss CMR is now, and not wait for the need to arise. If we plan today for the CMR journey, we can make it a valuable trip.

RGA

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