

## **Reinsurance Considerations For A Changing World**

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### **Introduction**

This paper does not address quantitative matters regarding insurance or reinsurance. The calculation of optimal retention limits, appropriate net premiums and other technical matters have been addressed elsewhere. Instead, this paper is intended to call attention to and stimulate further discussion of the business considerations of reinsurance in the early 21<sup>st</sup> century. These business considerations provide the appropriate qualitative background for the practical application of quantitative methods.

The business issues under discussion are: concentration, consolidation, digitization, globalization, and regulation. Each of these represents a trend in insurance and reinsurance and has a significant effect on the way reinsurance will be conducted and on the services that ceding companies may reasonably expect. The author contends that these trends, combined with the after-effects of the events of September 11, 2001, will lead to meaningful changes in future reinsurance relationships. It may be noted that many of the examples in this paper are drawn from the United States and Canada. Since those countries are the source of approximately 50% of the world's life reinsurance and trends there may be followed elsewhere, the reference point is valid globally. However, the manner in which some trends are followed may differ significantly due to local regulations, customs and conditions.

### **Concentration**

Concentration is the most “actuarial” of these business issues. This refers to nothing more than the ages-old concern over the concentration of risks – by geography, risk classification, product type or any other classification. Over the last two decades, the property and casualty (P&C) business – especially the property portion – has become increasingly aware of the need to know where its exposures are located. The major windstorms of the past ten years in particular have made it imperative that these insurers and reinsurers know something of their concentrations of risk.

P&C insurers and reinsurers have typically been concerned about concentrations primarily due to exposure to natural catastrophes or, in the case of workers compensation, two concentrations within a single industry. Sometimes, there has been a secondary concern about local economic conditions. Life and health insurers and reinsurers have generally not worried much about geographic concentrations, except perhaps the effects of local economic conditions on disability coverages and different medical inflation rates in different geographic locations. For most of these, the response was one of changing price, not changing the risk acceptance profile.

Concentration concerns for life insurance was typically more about reducing per life retention limits at higher and lower issue ages than any real concentration concerns. In fact, the most typical reason given for a lower retention was a lack of spread, that is, too little business rather than too much. Group insurers sometimes expressed concerns about large concentrations, but rarely modified standard risk acceptance profiles. Life insurers sometimes purchased catastrophe covers, but major group insurance concentrations were often excluded. Besides, the benefits of cat covers were normally too low to be of value to the larger companies.

Much of the complacency surrounding life insurance concentrations ended with the events of September 11, 2001. Insurers found that significant concentrations of risks that had previously been prized assets, such as executive corporate-owned-life-insurance (COLI) plans, now are viewed as potential threats to surplus. Cat covers have increased in price, if available at all. Some insurers found that cat covers were only short-term solutions to long-term risk transfer needs – a liability mismatch. The demand for non-proportional covers is at an apparent all-time high, just as the supply is at a low.

Geography, probably the least cause of concentration concern for life insurers in the past, is now a significant concern. The concerns have not been resolved, and many insurers are just beginning to consider the ramifications of geographic concentration. Insurers must face the choice of ceding more business proportionally or retaining the concentration risk. Digitized information – real time and in detail – offers the opportunity to manage risk concentrations through risk selection and reinsurance. But, the information is the key.

However, ceding more business to reinsurers is not a clearly desirable decision. First, this would mean sharing significant profits with the reinsurers in return for sharing the risks. Second, and perhaps more importantly, ceding companies should consider the concentration of risks in the reinsurers. As noted below, there are fewer major reinsurers today than a decade ago, and the risks are greater. Both prior to and subsequent to September 11, 2001, many reinsurers received downgrades from various rating agencies. Ceding companies should look to the creditworthiness of their reinsurers – will the reinsurer be able to pay its obligations when the time arrives?

The management of a ceding company must convince itself that the reinsurers selected will be around many years in the future and will have the ability to pay any claims. Do reduced ratings signal a weakness that management needs to consider? Does the increasing concentration of industry risks in reinsurers create an as-yet-unseen risk of collection? Is the reinsurer managing both its liabilities and its assets in a manner to ensure that ceding companies will be able to collect when the time comes? In short, it has never been more important to understand the capital structure and balance sheet strength of reinsurers.

### **Consolidation**

First, consider the effects of consolidation of ceding companies. These companies are getting larger and that their expertise is becoming more focused, as many choose to

withdraw from product lines and distribution systems where they see less potential for the future and instead to concentrate on fewer, larger opportunities.

Frequently, these companies decide to focus almost exclusively on asset management or expense and distribution management, ceding the majority of the mortality risk to reinsurers. This leads to large blocks of mortality risk being available to the reinsurers. In turn, the reinsurers must be experts in mortality to an extent never before considered. But, this raises a question whether the ceding companies will, in the long run, retain sufficient mortality expertise and risk acceptance to be able to wisely evaluate if continued ceding of these risks is the best course of action. The large volumes of mortality risks transferred to the reinsurers begs the question of whether the reinsurer will make enough money to stay in business and fulfill all its liabilities over a period of 30 to 50 or more years. Management of a ceding company must review the credit rating and management of its reinsurers with a very long term view.

A by-product of the ceding of significant portions of mortality risks is an imbedded option for which reinsurers may not be adequately charging. Specifically, many agreements allow the ceding company the right to recapture regardless of its future retention or any experience in the meantime. Logic would dictate that if mortality experience is good and improving, the ceding company would recapture, but if the outlook were poor, the reinsurer would remain on the risk. This one-way option is frequently underpriced. If experience is poor, the reinsurer may, in fact, suffer economic loss and not be able to fulfill all its commitments. One is left to wonder at the wisdom of placing significant blocks of business with financially weak reinsurers.

Of course, reinsurers are also enablers and partners in the primary company consolidation process. In addition to taking large portions of mortality risks, reinsurers also provide capital to assist an acquirer with a transaction, usually by providing the capital and taking the associated risks for an unwanted product line, or just to assist if the price is too high for the acquirer alone. Reinsurers also participate in the due diligence process, providing much needed expertise on products or assumptions.

Another result of consolidation is that significant buying power is becoming concentrated in the hands of fewer buyers. The types of services they need are different than that of smaller, more niche-focused companies. Some reinsurers may offer fewer services, especially to smaller or emerging companies. Larger buyers negotiate lower profit margins for the reinsurers, which means reinsurers have less expense margin with which to fund services. When faced with the opportunities to work with these larger buyers and the resulting margins, reinsurers may find it inefficient to provide a wide range of services to smaller buyers. Smaller buyers may find it more difficult to interest larger, established reinsurers in their needs, causing them to turn to smaller, niche reinsurers.

Next, consider the effects of consolidation of reinsurers. In less than a decade, at least nine life reinsurers selling some business in the United States have been purchased by other, larger reinsurers. Others have been sold to global insurers looking to enter or re-enter the United States. Several other life reinsurers are reported to be “non-core” to their

corporate parents. In one interesting development, a major reinsurer was sold to a competitor only to see the original parent acquire the new one.

To offset the reduction in the number of reinsurers, other reinsurers have been formed. But, these new players are mostly offshore, with a focus on in-force blocks. They offer limited services in traditional areas, such as underwriting manuals, facultative services or new product development assistance.

What are some implications of this trend in consolidation of reinsurers?

First is the complement of the consolidation of insurers into large buying units – potentially reduced access to services for buyers. Larger reinsurers need to fuel larger future profits, so they will, logically, be more selective in offering traditional and labor-intensive services.

Second, more non-traditional and partnership services are possible as larger, stronger reinsurers can offer more depth and expertise. In a complementary fashion, larger, stronger insurers can accept more. In fact, they may have more need for the specific expertise or assistance that a reinsurer can offer as they can gain more benefit from scale in only one component of products, such as asset management or distribution.

Third, review the benefits and risks of concentration, as described above.

### **Digitization**

After decades of investment in information technology (IT) platforms and projects, the life insurance industry is finally seeing some real benefits. And it is about time. In the United States, the investment in technology for insurance is about 3 times that of other industries. Digitization is both the intelligence driver and the expense leverage tool of the early 21<sup>st</sup> century.

Digitization involves both the use of highly efficient IT platforms, and the teaming of those platforms with tightly conceived and documented processes. IT alone is not the answer; but IT combined with an intelligent and disciplined approach to the processing of data makes an enormous difference in both expenses and the application of human intellect. Processes need to be carefully designed and documented to reduce errors and variation. That is the focus of Six Sigma, the General Electric Corporation's vision of quality. (Six Sigma is a term used to define an error rate of about 3 defects per million opportunities.) The “office of the future” will have fewer individuals performing routine tasks, and a much larger percentage of staff devoted to value-added services or analysis. This dual leverage will provide significant competitive advantage to companies that “get it.”

Concepts like “economies of scale” now have true meaning. In a recent acquisition, 800 of 800 administrative jobs were eliminated due to the ability to use better systems. Some companies have eliminated most of their policy accounting or new business issue staff, transferring the work to their agents using tightly designed systems and controls.

A company that has systems and processes that allow such efficiency has significant cost advantages over its competition, whether for making acquisitions, creating new sales from traditional distribution systems, or establishing new distribution systems. As a further note, those savings need not be passed on in price; some or all may go straight to the bottom line, resulting in significantly better shareholder performance than less efficient competitors.

The second major effect of digitization is in the added intellectual leverage given those who use it wisely. Companies who master the art of collecting and organizing information can make real-time data-driven decisions, using expertise from individuals anywhere in an organization.

One example of such benefits relates to the earlier addressed topic of concentration of risks. With robust data and readily available software, an insuring entity can quickly determine not only the volume of risks it has in a given region, but also the characteristics of those risks. For example, a group insurer can analyze both home and employment addresses for undesirable concentrations and arrange reinsurance on a specified basis. The reinsurer can examine that data and arrange its risk acceptance accordingly. Risks can be transferred to those most desirous of taking them, moving closer to a perfect market, where buyers and sellers have meaningful information and risk management techniques. Both proportional and non-proportional reinsurance may be purchased on an informed basis, not based only on high level guidelines. Reinsurance programs can vary with specific products or clients. Undesirable concentration risks can be identified and managed effectively and directly, not indirectly as most programs do today.

In addition, current technology allows companies to collect, catalog and distribute bits of knowledge in many forms such as papers, speeches, articles, reports and research. Online training tools enable just-in-time education on specific topics for employees and customers around the globe 24 hours a day. Digitization allows for just-in-time inventory management and purchasing in industrial businesses. Similarly, it allows for just-in-time training and availability of knowledge workers in the insurance and reinsurance industries.

Reinsurers will benefit greatly from digitization efforts. Many reinsurers have massive blocks of business in force, but have long since been unable to perform effective mortality or other experience analysis. (In the United States, this is largely because data that comes in electronic forms is used primarily for basic administrative purposes.) New digital information management tools now enable significant data mining capabilities. My company recently loaded data from three million sessions in 24 hours to begin analysis of a large block of business. Not only did mortality experience emerge, but significant data regarding sex, issue age distribution and duration was immediately available.

Reinsurers can use digitization to convert massive amounts of data into meaningful information, for both their use and the use of their clients. Analytical services can expand as reinsurers and clients build partnership attitudes. Reinsurers can become the information masters of the insurance world by pairing top intellectual capital with the

right software tools and processes; then value-added will become a major component of reinsurance relationships again.

A third implication of intelligent digitization is that it enables globalization.

### **Globalization**

Globalization essentially involves two major elements – (1) moving risk acceptance and/or products into new geographies quickly and (2) moving work to lower cost areas efficiently. Both are significant game-changers if well executed, and both carry great risk.

First, consider an insurer entering a new geographic location. Typically, this is the result of management's belief that the company can grow faster in the new location than in locations where it is already located, and such a company is frequently faced with buy versus build decisions. Many factors, such as local regulations, industry customs and long-standing relationships, may make it difficult to establish a foothold in a foreign country. To overcome such barriers, insurers frequently look to acquire existing players or even to partner with related organizations in the region (e.g., banks) that possess relationships with both customers and regulators.

Expanding to new regions can represent significant hard costs and opportunity costs. Deploying money and intellectual capital in a new market can take a company's focus and resources away from its primary, established market. Further, a failed attempt to enter a new market puts up an additional barrier should the company attempt expansion again in the future. Global expansion of a business is not something to be taken lightly.

Much of the risk of global expansion can be reduced if the insurer is properly organized to leverage operational efficiencies. Operational efficiencies are built by designing carefully documented processes around everything a company does, developing a common IT platform for administration, and then requiring that all functions of the business use those common processes and platforms everywhere in the world. In that manner, a company can enter a new market more quickly – the processes and systems are already in place – and with much less expense and risk. Local talent is employed as necessary, but it is not necessary to add major resources before reasonable scale is accomplished.

The next step in the logical chain is achieving global operational efficiency by sending administrative functions to wherever the cost of employment is lowest. For example, General Electric has found resources in India to be lower in cost and, in many cases, higher in quality than comparable resources elsewhere in the world. Global centers of excellence, for both intellectually challenging and basic administrative functions, have been established in India, China and Mexico.

In either situation – growing sales globally or moving work globally -- a key to success is digitization - managing the flow of information, the structure of processes and timeliness of business communications. Globalization and digitization go hand-in-hand – neither

reaches its full potential alone. Without these foundational elements, a global organization becomes a group of uncoordinated, independent operations.

Another consideration for a global organization is the decision regarding which operational components to globalize and which to localize. A successful company may take different approaches in developing markets than in an established market. A global company has to achieve a balance between operational efficiency and customer-focused local expertise. At GE ERC Life Reinsurance, we have localized customer contact points, such as sales, pricing and underwriting services, while globalizing backroom functions (e.g., billing and collections, finance, risk management, and valuation) and core process development (e.g., claims, pricing, underwriting research and manuals). The result allows us to leverage intellectual leadership broadly, introduce products or enter new territories more quickly and efficiently, and minimize costs in the long run. No longer must someone be in a central location to access expertise. Redundancies can be eliminated, allowing for a broader range of expertise to be available. Information can flow freely to the point where it is needed – another example of just-in-time inventory, but for intellectual power, not goods.

### **Regulation And Capitalization**

Regulation affects the way in which we do business and the capital needed to conduct business. This paper is not intended to address the regulatory structures and capital requirements of the insurance business globally. Suffice it to note that significant differences exist between countries, and that these differences can lead to inefficiencies and strange business decisions. The result is an uneven playing field between many countries. Tax differences also lead to an uneven playing field. The result is that many of the best minds are devoted to minimizing taxes or capital requirements, not to initial value creation.

Two ongoing developments may have a long term effect on reinsurance transactions. The first is the current phenomenon in the United States of backing the so-called XXX reserves with letters of credit. The reserve in itself is conceptualized correctly, but implemented with such conservatism as to be almost humorous. Direct writers and reinsurers have responded by ceding these blocks of business offshore using a letter of credit to secure the reserve credit. The problem is that the letters of credit are shorter in duration than the liability, and the liability rises rapidly. There is serious question whether the letter of credit solution will be available in sufficient amounts for the life of the underlying policies.

One reason for this concern is that letters of credit are a form of off-balance-sheet liability (disclosed in footnotes) that are likely to come under scrutiny in the immediate future. Why the scrutiny? There are several facets to the answer, but one word will suffice: Enron. The reaction from the accounting profession and the securities regulatory bodies is to focus on all derivative and off-balance-sheet vehicles. Banks are likely to be more cautious in extending any guarantees, such as letters of credit. Basically, the combination of the very high usage and the long term nature of the liabilities these letters of credit support will cause the regulators to be more cautious.

The author believes that regulatory change is needed, with more actuarial modeling and fewer minimum assumptions dictated. (It is also the author's belief that actuarial "guidelines" issued in some countries are the equivalent of setting minimum assumptions and in practice lead to significantly overly conservative reserve and capital requirements.) New and creative forms of non-proportional reinsurance should be allowed to take the place of financial reinsurance. If change is not rapid and relatively creative, the industry will be bypassed by other financial services in responding to customer needs. Any reformed model regarding capital and reserves will need real-time, accurate information – yet another reason for highly digitized and efficient processes.

## **Conclusion**

The trends in the early 21<sup>st</sup> century show a continuing, valuable purpose for reinsurers, well beyond the traditional transfer of mortality and morbidity risks. Intellectual capital is still a key differentiator in performance and in services. Consolidation provides opportunities for both ceding companies and reinsurers to grow efficiently and to complement each other. Concentration of risks will be a significant focus during the next decade, with digitization providing the data and analytical tools to manage those risks.

Knowledge and expertise are the keys to reinsurance success, now more than ever. Information management is the key to knowledge, and digitization is the key to information management. In many ways, globalization of talent and services is a key to cost-effective and timely information management and reinsurance services. Globalization of products and distribution allows for the optimization of investment and returns, moving both economic and intellectual capital to more attractive markets without the costs of a totally new start-up operation.

Services will evolve. An era of highly digitized information exchange could lead to a much lesser need for traditional services, such as facultative underwriting, and much more need for newer services, such as establishing data bases and benchmarking analytics or metrics for measurement. Reinsurers will be called on to assist cedants in the development of processes, just as they were once called on to explain the latest new product idea.

Regulation and the need to meet overly conservative local capital requirements will continue to be a problem. Globalized reinsurance is one of the more efficient tools to address these problems. Ceding companies are well advised to look to reinsurers with strong balance sheets and dedicated ownership.

The insurance and reinsurance industry is in the midst of going from a slow-moving deliberate industry to one working hard to catch up and keep up with technology and innovation. Still, many major players take a conservative, even old-fashioned approach to its organizational practices. There is much opportunity to make significant changes in the way insurance and reinsurance companies approach growth and globalization. New ideas, such as the view of concentrations of risks, are key; intelligent digitization and rigorous development of processes may be more important. Reinsurers have the opportunity to be the leaders, providing broader and highly value-added services.



*<sup>1</sup> John E. Tiller is President and Chief Executive Officer of GE ERC Global Life & Health. The opinions expressed herein are those of the author and do not necessarily reflect the opinions of ERC or GE.*