LIFE REINSURANCE
CAPACITY AND CONCENTRATION OF RISK SURVEY

SPONSORED BY THE REINSURANCE SECTION OF THE SOCIETY OF ACTUARIES

SUMMARY OF ANALYSIS

As Reported By:

William J. Briggs
Gaetano Geretto
Bob Lau (Survey Chair)

February 9, 2009

Life Reinsurance
Capacity and Concentration of Risk Survey Analysis

Executive Summary

This survey was initiated by the Research sub-team of the Society of Actuaries Reinsurance Section Council. The purpose of this survey was to solicit and analyze the extent to which the buyers of reinsurance are concerned about reinsurance capacity and the concentration of risk on their own books and on the books of reinsurers.

In early November 2008, this survey was sent to the chief actuaries of approximately 190 life insurers. There were 28 responses. This paper analyzes the survey results.

Most respondents to the survey were other than the chief actuary, although the chief actuary group was the largest of all respondents. Half of the responding companies had inforce of over $100 billion (USD). In this report, company inforce amounts are measured by total face amounts of individual life insurance business.

In terms of utilization of reinsurance, the average percentage of inforce which has been placed in the reinsurance market is 48%. The average percentage of new business which is placed in the reinsurance market is 51%. A significant percentage of respondents (73%) anticipate sending a lower percentage of new business to reinsurers in 2009.

Between 2002 and 2007, there was a significant (over 60%) increase in the level of concern about the number of acceptable reinsurers in the market. The same holds true regarding the quality of reinsurers in the market as measured by credit quality. In contrast, there were smaller (less than 20%) increases in the level of concern about the quality of reinsurers in terms of services available or knowledge and expertise.

68% of respondents use a formal set of risk criteria to determine the acceptability of a reinsurer. In terms of the ranking of the importance of criteria in evaluating a reinsurer, reinsurer creditworthiness, competitive rates, and facultative underwriting services rank very high in descending order of importance. Knowledge and expertise, capacity, and having a local license are next important, while reinsurers own concentration of risk, capital solutions, and having a presence in multiple jurisdictions are less important. It is important to note that, contrary to the past where competitive reinsurance rates ranked number one, these respondents ranked reinsurer creditworthiness as the current most important criteria.

The Chief Actuary is the most common decision maker on reinsurer creditworthiness, closely followed by the Risk Committee.

74% of respondents reported that their company measures its own reinsurer concentration of risk. However, while concentration of risk is becoming an important topic, only 36% of respondents affirmed that their company has a formal policy regarding reinsurer concentration of risk. Face Amount Ceded and Reserves Ceded are the most common ways of measuring reinsurer concentration of risk. Concentration measures vary more by reinsurer rating rather than reinsurer size. Many respondents indicated that over-concentration was best defined as the maximum ceded amount being exceeded.

In regards to concentration of risk by individual assuming reinsurer, the 1st chosen reinsurer receives on average a share of 37%, the 2nd chosen reinsurer receives on average a share of 22%, and the 3rd chosen reinsurance receives on average a share of 14%. Based on the respondents' companies' concentration criteria, 80% of respondents felt that they have no over-concentration of risk with one or more reinsurers.

In light of the current financial crisis, 89% of respondents expect to be re-evaluating the creditworthiness of their reinsurers. At the same time, respondents were about equally divided on whether they would or would not be re-evaluating their parameters to assess creditworthiness.

In terms of which selection criteria insurers would place more emphasis upon in light of the current financial situation, credit ratings ranked number one.

Finally, 64% of respondents anticipate re-evaluating whether they have concentration of risk with any of their reinsurers.

Company Characteristics and Utilization of Reinsurance

In light of the current economic environment, this survey was directed and sent primarily to the Chief Actuary at various insurance companies. In turn, the responses were provided by the following:

Chief Actuary		**43%**
Other		**57%**
Reinsurance / Product Actuary	36%	
Actuary / Corporate Actuary	7%	
CFO / Financial Actuary	7%	
Other	7%	

In these first two sections of the survey, volumes inforce are broken down into four size bands as follows:

$100 billion and higher
$50 billion to $99 billion
$15 billion to $49 billion
Less than $15 billion.

The number of companies in each category are 14, 4, 6, and 4 respectively. In order to make the analysis more meaningful, the last three size bands will be combined in what follows and referred to as "small" companies. Thus, there are 14 large companies and 14 small companies.

The large companies have an average of 50% of inforce and 47% of new business reinsured. The results for the small companies are, respectively, 45% and 54%. This result—large companies having reinsured more of their inforce than small companies—is not surprising to those who lived through the many first-dollar quota-share deals in the 1990s. The results for new business reflect the new reality that the large companies have been moving away from first-dollar quota-share deals for several years as pricing has tightened (47% versus 50%). On the other hand, small companies are becoming more dependent on reinsurance (54% versus 45%).

73% of reporting companies anticipate reinsuring a lower percentage of new business in 2009 and 2010 versus 2008. 27% of companies anticipate ceding a higher percentage of new business.

Of ominous note to reinsurers, all but one of the large companies expect to reinsure a lower percentage of new business in 2009 and 2010 compared to 2008. For small companies, 57% expect lower ceding percentages and 43% anticipate higher ceding percentages.

Reinsurance Capacity and Reinsurer Criteria

The first question of this section asks for the level of concern regarding available reinsurance outlets, expressed as a number from 1 to 10 with 1 indicating “no concern” and 10 indicating “very concerned”. The level of concern for both the year 2002 and 2007 was requested. Twenty companies responded for both years.

“How concerned are you about the number of acceptable reinsurers in the market?” For the large companies responding for both years, the average level of concern increased from 3.8 to 6.5 between 2002 and 2007. This is a 71 % increase (6.5/3.8-1). The responding small companies went from a 3.6 level of concern to 5.6, a 56% increase.

“How concerned are you about the quality of the reinsurer as measured by credit quality?” Here the large companies’ average level rose from 4.4 to 6.8 between 2002 and 2007, an increase of 55%. For small companies, the average level rose from 3.25 to 5.6, an increase of 73%.

“How concerned are you about the quality of reinsurers as measured by services available?” and “How concerned are you about quality as measured by knowledge and expertise?” The overall levels of concern rose 20% and 12% respectively for the companies answering for both years 2002 and 2007.

The second question of this section asks whether a company uses a formal set of risk criteria to determine the acceptability of a reinsurer.   All but one of the large companies do use a formal set of risk criteria; only half for the small companies. 88% of those companies that do not have a formal set of criteria in place do not intend to implement a formal standard. Once again, this would appear to be related to size and consequent resources available to small companies.

The next question asks for the relative order of importance of various criteria used to evaluate a reinsurer. Unlike the past, this survey indicates a shift from “competitive rates” being the number one driver to “Reinsurer creditworthiness” being number one. Rankings shown below are based on averages of rankings for all companies, large companies only and small companies only.

	All	Large	Small
Reinsurer creditworthiness	**1**	**1**	**1**
Competitive rates	**2**	**2**	**2**
Facultative underwriting service	**3**	**3**	**3**
Knowledge and expertise	**4**	**5**	**4**
Capacity	**5**	**6**	**5**
Local license	**6**	**4**	**6**
Reinsurer's own concentration risk	**7**		
Capital solutions	**8**		
Worldwide presence	**9**		

The catch-all criterion "Other" garnered only six responses, so the sample size is too small for any significant analysis.

There doesn't appear to be significant variance between Large and Small companies with regard to the top three criteria. Criteria 4-6 include the same items albeit in slightly different order of importance.

If the financial markets stabilize, it will be interesting to see if creditworthiness concerns still outweigh the desire for competitive rates.

The chief actuary is the final decision maker regarding the creditworthiness of a reinsurer for 36% of the companies, while a risk committee decides for 32% of the companies. By size, the risk committee approach is favored by responding large companies over the chief actuary approach (36% versus 21%). The opposite result holds for responding small companies which favor the chief actuary by 50% to 29%.

Concentration of risk—reinsurance ceded

All but one of the large companies measures its own exposure to reinsurer concentration of risk, that is, how much of its business is reinsured with each of its reinsurers. About half of the smaller companies also do this. The survey was not extended to include how companies' measurement of exposure considers retrocession or other forms of risk transfer, nor the effect that these structures have on concentration of risk or counterparty risk.

Ten companies (36%) have a formal policy regarding reinsurer concentration of risk, including 64% of the large companies. Only 7% of the small companies have a formal policy. Most likely resource and prioritization issues cause this result.

Ceding companies measure reinsurer concentration of risk primarily by face amount ceded (59% of responding companies) and reserves ceded (64% of responding companies). The large companies favor the reserves ceded basis, while the small companies favor the face amount basis. Only 9% of responding companies measure by premium ceded. Note that companies may use more than one measure; one company (a large one) uses all three, the third being by premium ceded.

Concentration measures vary by reinsurer size for 50% of responding companies, almost evenly split between large and small companies. 79% of responding companies vary by reinsurer rating; large companies favor this approach by a 2 to 1 margin over small companies.

75% of responding companies define over-concentration as a maximum ceded amount being exceeded, while 29% define it in terms of a maximum percentage of business being exceeded. Since only four small companies reported (as opposed to twelve of the large companies), an analysis by company size was deemed inappropriate.

The next section asks survey participants for the percentage (of total business ceded) that was ceded to each of their top three reinsurers. Two approaches were used to analyze the responses.

The first approach was to add the three percentage shares reported by each direct writer to get the percentage ceded to the top three reinsurers. The table below shows the results by number of companies.

	Size of responding company		
% ceded	**Large**	**Small**	**Total**
80% or more	**1**	**7**	**8**
60% to 79%	**8**	**4**	**12**
Less than 60%	**3**	**1**	**4**
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Total for respondents	**12**	**12**	**24**
Non-responding Companies	**2**	**2**	**4**

(Three small companies ceded 100% of their reinsurance ceded to just three reinsurers.)

The second approach focused on the percentage ceded to the primary (#1) reinsurer. For large companies, the percentage ceded to the primary reinsurer averaged 27%. The percentage ceded ranged from 19% to 35%. For small companies, the average was 46% and the range of responses was from 26% to 95%.

20% of responding companies report having an over-concentration of risk for one or more of their reinsurers.

Re-evaluation—in light of current global financial/credit crisis

89% of reporting companies will be re-evaluating the creditworthiness of their reinsurers. However, only 46% will be re-evaluating the parameters by which they assess creditworthiness. Of these 46%, about half are large companies and half are small companies.

The next survey question asked if a company anticipates placing less, the same, or more emphasis on each of various criteria used in selecting a reinsurer. Significant (greater than 15%) changes are shown below.

	Percentage of Respondents Saying	
Criterion	**More**	**Less**
Ratings	**50%**	**0%**
Reinsurer Concentration of Risk	**43**	**0**
RBC Ratios	**32**	**4**
Quality of Assets	**25**	**0**
Capacity	**18**	**4**
Reinsurer's own Concentration of Risk	**19**	**0**

The increased emphasis on Ratings is interesting in light of the recent spectacular failings of the rating systems in the matter of securities composed of sub-prime mortgages.

Finally, 64% of respondents will be re-evaluating whether their company now has over-concentrations of risk with any of their reinsurers.

This summary report purposely presented the responses received without attempting to provide commentary thus allowing the reader to form their own initial interpretation. Future article(s) appearing in the Reinsurance Section's newsletter, *Reinsurance News*, will include the authors' interpretations of the study results and the possible implications to the life insurance direct and reinsurance industries.