Assurances

Assurances

REINSURANCE DIALOGUE

Christopher J. Robey

Volume 65, Number 4, 1998

URI: https://id.erudit.org/iderudit/1105181ar
DOI: https://doi.org/10.7202/1105181ar

See table of contents

Publisher(s)

HEC Montréal

ISSN

0004-6027 (print)
2817-3465 (digital)

Explore this journal

Cite this document

Robey, C. (1998). REINSURANCE DIALOGUE. *Assurances*, *65*(4), 615–619. https://doi.org/10.7202/1105181ar

REINSURANCE DIALOGUE

between Christopher J. Robey and David E. Wilmot

November 20, 1997

Dear Mr. Wilmot,

Annual aggregate deductibles

In your last letter, you make some interesting and valid theoretical points concerning the use of annual aggregate deductibles, but you ignore the reality of the reinsurance marketplace.

Reinsurers' pricing of any reinsurance contract is the result of a combination of mathematical calculations and commercial considerations. Why else would the "minimum" rate on line for catastrophe covers wander between 1% and 2% with no change in exposure? And reinsurers differ in the result of their mathematical pricing, even before commercial considerations come into play.

Some of the points you raise for consideration in the comparative pricing of an excess of loss cover with and without an annual aggregate deductible are really red herrings. The additional cost for accounting, systems and actuarial work is surely so small as to be lost in the lack of precision of the underlying pricing calculations.

Your discussion of the annual aggregate deductible suggests that you see it applying only in layers with some claims frequency. It is also quite commonly found in low layer catastrophe contracts, although more often referred to there as a second loss or drop down cover. In such covers, there can be no additional administration costs attached to it.

The authors:

Christopher J. Robey is Chief Operating Officer of Aon Re Canada.

David E. Wilmot is Manager and Chief Agent for Canada, Frankona Reinsurance Company.

As you suggest, an annual aggregate deductible is not really a deductible at all but part of the premium. As part of the pricing process, therefore, it is subject to the full variations of attitudes, preferences and philosophies of reinsurers in an active marketplace.

Although we agree that they are a pricing mechanism rather than a true deductible, they are generally looked at by regulators and analysts as a deductible. I recall a case several years ago when a provincial regulator objected to a ceding company having an annual aggregate deductible of $1 million. There was no certainty that the aggregate deductible would be exhausted, but the regulator nonetheless found it acceptable for the company to replace it by a reinsurance costing a fixed $1 million in premium.

I would not agree with you that annual aggregate deductibles are a lot more common in Canada than in Europe, although they probably are less common in the United States. However I think this is because of a difference in market dynamics rather than the theory of the cover itself. American companies, in my experience, carry much lower retentions than Canadian companies of similar size and portfolio, resulting in the reinsurance of predictable losses to a far greater extent than in Canada. The only reason I have been able to find for this phenomenon is the importance of rating agencies, such as Best's, which give considerable weight to the potential volatility of a company's results as measured by its retention. This would include an aggregate retention, making such a device less attractive to an American insurer.

It is interesting to compare the effect of an aggregate deductible, which you do not seem to favour, with that of a swing rate, a pricing mechanism much more popular with reinsurers but generally avoided by ceding companies. In practice, there is little difference between the two, since the swing in a swing rate is no more than an aggregate deductible disguised as an additional premium. The key difference is that the aggregate deductible is fixed, whereas the swing rate increases the premium faster than the losses which trigger it.

The predictability of catastrophes

Reinsurers seem headed for another year of good results, both in Canada and around the world, to a large extent because of the lack of major catastrophes. We know that this is not permanent profit, but rather premium paid in advance and held by reinsurers in trust for their ceding companies when the catastrophe does happen. This would be clearer if reinsurers segregated this trust fund as a

distinct part of their surplus. However, that is a subject for another day. What it does do is highlight the importance of catastrophes to the annual results of reinsurers.

It is not surprising, therefore, that reinsurers, and insurers are investing large sums looking for a better method of predicting catastrophes before they happen. They also follow closely the work of others doing the same thing. Professor William Grey at Colorado State University in the United States has developed a complex method of predicting the number and strength of Atlantic hurricane activity which is closely watched, even though it was well wide of the mark for 1997. However, although his model has had some success in predicting the frequency of hurricanes, it cannot predict the likelihood of landfall, nor the strength of those hurricanes which do reach land. Similarly, scientists know where earthquakes are likely to occur, and how serious they may be, but have only a limited idea as to when they will strike. The latest occurrence of El Niño is another example of the great interest in phenomena which could cause major disasters, although in the case of El Niño, no-one seems in agreement as to what the effects might actually be.

But what would happen if scientists could predict the location, strength and timing of a hurricane or earthquake? A few hours notice, and more, is already available for hurricanes and certainly reduces the loss of life and damage to property. A few weeks notice would reduce it further, particularly the damage to property, since property owners would have more time to take protective measures.

How would insurers react? And reinsurers? A few weeks notice would not be of much use to reinsurers, unless the contract renewal happened to fall between the announcement of a pending event and the event itself. However, insurers would certainly have time to react to reduce their loss. In positive ways, they could offer assistance to insureds in protecting their property, perhaps provide trucks to move out more valuable items, and try out similar loss mitigation initiatives. They could also apply additional deductibles or additional premiums to those insureds who fail to take protective measures, and most companies would probably apply a combination of both approaches. More negatively, they could cancel coverage in the area to be affected, although such action would probably be quickly banned by the regulatory authorities, and rightly so.

Given longer periods of notice, for example a year or more, general pricing and policy conditions could be adjusted to take the predictions into account. For example, insureds could choose between a higher annual rate with a limited surcharge for predicted

events or a lower annual rate and a full surcharge for predicted events. Regulators would certainly introduce new rules forbidding cancellations just because an event had been predicted, and no doubt other rules relating to price and conditions, trying to find a balance between the protection of insureds and the solvability of insurers. In Canada this would be further complicated by the dual jurisdictions, with the provinces making rules for coverage and price which the federal authorities could see as a threat to solvency.

Reinsurers would face similar issues in determining the price and coverage they would be willing to provide their ceding companies when there was reasonable certainty of a loss during the life of the contract being negotiated.

A somewhat similar situation exists with the "year 2000" computer software problem. The Reinsurance Research Council has recently issued a useful bulletin on this subject. For the moment, both insurers and reinsurers are approaching it mainly as an underwriting issue, however it will be interesting to see how that may change when the renewal of insurance and reinsurance contracts which will apply at the turn of the century are examined. The issue is of course not limited to those contracts, but those are the ones likely to bear the brunt of what problems arise. Since most reinsurance contracts follow the calendar year, one issue which will certainly be examined closely is which contract is actually in force as the century changes — the one expiring the 31st December 1999 or the one incepting the 1st January 2000.

Reinsurers' handling of the year 2000 issue may well give an indication of how they would handle negotiations in November for a contract which will provide coverage on an earthquake predicted to occur the following January. After collecting many years of premium for an earthquake which did not happen, can they refuse coverage because they now know it will? On the other hand, can they justify to their shareholders covering a known disaster?

Their ceding companies will certainly expect them to continue providing coverage, especially where the insurers themselves renewed coverage to their insureds before the prediction of an event was made and may be obliged by regulation to do so after the prediction has been made. And they will not willingly accept substantial increases in premium where they did not themselves have the information they needed or were not allowed to surcharge the premiums to their insureds.

It seems likely that the improvement in the predictability of disasters to the extent discussed here will result in a completely dif-

ferent approach to both insuring and reinsuring them, with such disasters being removed from normal insurance and reinsurance protections and being the subject of entirely separate contracts.

Earthquakes, because of the size of loss they can cause and the lapse of time between major events on the same fault, have always been a prime candidate for time and distance reinsurance rather than traditional annual based risk coverage. They would certainly be protected that way to-day if the regulatory and tax authorities took a more logical approach to the issue and the time and distance approach would certainly respond better to a situation where the loss would become predictable a year or so in advance.

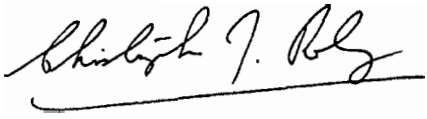
The volcanic eruption in Montserrat provides a glimpse into how insurers and reinsurers would respond to a predictable disaster. The Soufrière Hills volcano began erupting in July 1995 and some damage was caused from the very beginning. A year later, eruptions were continuing and insurers found it necessary to increase co-insurance and deductible levels in order to continue providing coverage. In July 1997, after consultations with the government, the three insurers providing coverage on the island declared the "unsafe zone" closest to the volcano as uninsurable and again increased deductibles in the "safe zone".

In August 1997, the worst eruption in this series resulted in fears that no part of the island would remain much longer in the "safe zone" and two of the three insurers canceled all coverage — in the words of a representative of one of the insurers, "the risk is no longer fortuitous".

Montserrat is unusual in that only three insurers provided coverage to the island. In addition, the total potential loss, although important to those three insurers, was not comparable to the potential from a Vancouver earthquake. However, it is remarkable, I think, that the insurers, supported by their reinsurers, continued providing coverage for more than two years after the volcano began erupting.

If major disasters become as predictable in Canada, let us hope that our insurers and reinsurers will be equally responsive.

Yours sincerely



Christopher J. Robey