

TAXATION, RESERVING AND ACTUARIES

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1. Introduction

- 1.1 This paper is the product of a difference of opinion between the two authors during the discussion of a paper on Financial Reinsurance at the GISG convention at Llandrindod Wells in October 1991.
- 1.2 Further discussion showed that the differences were mainly matters of presentation rather than substance but some topics were identified on which there seems to be no consensus view and we believe that there is need for a debate.
- 1.3 Our intention is to produce a paper which would promote a discussion among actuaries about issues which we consider the profession (or that part of it involved with General Insurance) needs to resolve. Where we suggest solutions, they are intended to provide a basis for debate and we are quite prepared to be argued into something better. In all cases the views we express are personal opinions and do not necessarily represent the views of our respective employers.
- 1.4 We believe that what we say is of general application but it will be obvious to any reader that it is written from a London Market background.

2. Reserving Philosophy

- 2.1 We would suggest that an insurer's reserves should make provision for not only:-
 - a) the best estimate of the present value of future claims outgo, including such things as the costs of handling claims which have already occurred and an allowance for failure to recover from currently apparently sound reinsurers,

but also,

- b) a provision to allow for the fact that the eventual costs may be considerably greater than current best estimates.

(For the avoidance of doubt, we assume that suitable provisions for non-recovery from known doubtful reinsurers on notified outstanding and IBNR claims will have already been established before the actuary commences his reserving exercise.)

- 2.2 So far as the provision for claims exceeding the best estimate is concerned, we would point out that current practice and theory is not suited to dealing with contingent claims. We would be interested to know how the accounts of a widget-manufacturing company would reflect a pending legal suit the loss of which would materially affect - possibly render insolvent - the company. Would the answer be different if:-

- a) legal advice were to the effect that the company had a 50-50 chance of winning, or
- b) that the company was very likely to win but the uncertainty inherent in a court case meant that there was assessed to be a 20% chance of losing?

- 2.3 In our opinion, an insurer whose provisions were equal only to the best estimate of the present value of claims would be seriously under-reserved in that there would be an unduly large probability that the provisions would not be sufficient to meet the cost of claims and other relevant outgoings. We would also point out that in most cases the graph of amount of ultimate loss against probability is heavily skewed with possible redundancies in reserves of much smaller magnitude than possible deficiencies (ie. small up side but large down side).

We do not intend to define "best estimate" in this context but actuaries will be aware that a reserve at the median future claims cost (with an equal probability of being under or over reserved) will be smaller than a mean reserve (expected value of under reserve equal to expected value of over reserve).

- 2.4 We understand that the industry has obtained legal advice that undiscounted provisions are allowable against tax. Under that regime it will usually be sensible for an insurer to present his provisions as one undiscounted (or partially discounted) amount rather than to identify any margin separately. We would suggest, however, that the insurer should be able to demonstrate that the amount of the provisions is not less than if they had been calculated in the manner proposed above.
- 2.5 It has, in fact, been generally accepted that a margin in the reserves is required and the normal way to provide it is by not discounting for the time value of money. This has a number of advantages, particularly in practice, but we doubt whether this would be the first choice if we were today given a clean sheet of paper to design the accounting and taxation regime for general insurance.

We perceive the advantages of not discounting to be:-

- (a) A margin, which we consider to be essential, is automatically included in provisions. Given the recent history of underestimating ultimate claims costs, many insurers would have been most embarrassed had the margin not been there.
- (b) This method of providing a margin is understood and accepted by the accounting profession and, therefore, does not involve arguments between accountants and actuaries.

- (c) Undiscounted reserves have been allowed in tax computations. In theory, reserving policy should be independent of the charge to taxation, but in the real world there is considerable resistance to establishing provisions which will not be allowable for tax.
- (d) Insofar as future inflation and investment earnings are linked, there will be some automatic offset to any underestimation of the rate of future claims inflation.
- (e) The implicit margin will be relatively greater for the claims which will be subject to the longest delay before settlement, which are probably the claims which are most likely to be seriously underestimated.

The disadvantages of relying on not discounting to provide suitable reserves are as follows:-

- (a) Despite (d) and (e) above, the margin is fairly arbitrary and does not necessarily bear a relation to what is required to give a reasonable probability that the insurer will be able to meet its obligations.
- (b) Like most implicit, unquantified margins, it is very easily eroded by being assumed concurrently to meet a variety of liabilities; it may even be regarded as matching specific liabilities which aggregate to an amount greater than itself, thus effectively leaving a negative fluctuation loading!
- (i) Insurers have been known to fail to reserve for such things as claims inflation, claims handling expenses and the failure of currently sound reinsurers (despite the historical evidence that such reinsurers do fail) because "we have ignored future investment income", without even attempting to quantify any of these items.

- (ii) There is a considerable temptation to gloss over reserve inadequacy by citing investment earnings, especially when times are hard at the bottom of the cycle.
- (iii) Somewhat similarly but perhaps for different motives, reserves for long tail business are often less than they should be on an undiscounted basis because management does not appreciate the extent to which premiums already discount future income, and does not believe (or will not accept) the apparent losses produced by undiscounted reserves. Underwriters may claim that they write for an underwriting profit and may believe what they claim, but the market mechanism has a tendency to push rates below undiscounted levels.
- (c) Because the insurer takes credit for a corresponding margin in its reinsurances, it may be left with very little at the net level.

An extreme example would be the geared situation in which a claim is reserved at \$1M, covered by reinsurance up to \$1M; there is no net liability and hence no margin but the insurer is at risk for the whole of any increase in the gross claim.

Time and Distance policies, and possibly other types of financial reinsurance, are intended to achieve the same effect.

- (d) The management of the insurer is more difficult because it is not clear which classes of business are profitable.

- (e) In the insurer's accounts the technical reserves are a mixture of a best estimate of future claims outgo with a margin. If the future is as it is currently predicted to be, then the margin will eventually fall into surplus - it is effectively a completely illiquid free asset but is not identified as such. It is, therefore, difficult for outsiders - perhaps buyers and sellers of a company's shares - to assess the true position.

With regard to (b) and (c) above it is the cynical opinion of one of the authors that some of the strongest proponents of not discounting are in fact discounting implicitly and the weakness of their reserves would be exposed by a regime of discounting plus explicit margins.

3. Fluctuation Margins

- 3.1 So far as we know, very little thought has been given to the margins which should be contained within general insurance reserves. We consider that the differences between general insurance and life insurance are such that it is difficult to draw conclusions from the extensive actuarial experience of life assurance companies. The homogeneity of life assurance policies and the heterogeneity of many non-life risks make comparisons invalid.
- 3.2 While it might be possible to obtain agreement on a value of x such that an insurer whose provisions had an $x\%$ chance of being sufficient to meet the figure outgo would be regarded as adequately reserved, for many classes of business we see little prospect of knowing whether any particular level of reserves would meet that standard.

- 3.3 To put things in colloquial terms, there is a level of future experience which, while worse than a best estimate, would not be a source of surprise if it happened. We think that insurers should at least be reserved sufficiently strongly to be able to meet that level of claims. On the other hand we are unhappy with anything quite so indefinite and subjective.
- 3.4 We think that this is an area which needs consideration in the near future. It is an area for which their training makes actuaries particularly suitable and it is unlikely that any other profession will do it as well (least badly?) as we would.
- 3.5 Looking to the future, it is clearly desirable that insurers should be able to show that they have sufficient funds to meet a future experience which is somewhat worse than the best estimate. To do so they are going to need actuarial advice and possibly there should be a requirement for a formal actuarial opinion. As well as being desirable for the insurance industry, this ought to represent a major opportunity for our profession.

4. Tax

- 4.1 We referred above to our understanding that in English law, an undiscounted reserve is allowed against tax. The Inland Revenue has reserved its position on this but has not so far (to the best of our knowledge) taken the steps which would lead to a judicial determination.
- 4.2 Unless and until the House of Lords has considered the matter and expressed its view, no-one can be absolutely certain as to what the law actually is. Additionally, it is, of course, open to Parliament to legislate to make the law whatever it wishes, perhaps subject to overriding European Community legislation.

- 4.3 Against that background, we believe that actuaries should be giving some thought to what would be an appropriate tax regime for the insurance industry. On a practical level, it will be better to have our own proposals rather than have to respond, without prior homework, to someone else's ideas.
- 4.4 As taxpayers ourselves, we consider that the insurance industry should pay tax on its true profits in just the same way as any other industry.
- 4.5 On the other hand, we believe that insurers are different from the great majority of other businesses in that there is considerable doubt as to what the profits actually are for some time after the insurance policy has been effected. To put it in manufacturing terms, insurers do not know what their "cost of goods sold" is until long after the sale.
- 4.6 We would suggest that it is undesirable for all parties for there to be incentives for insurers to under-reserve and the taxation system should recognise that it is necessary to hold provisions that exceed the current best estimate of claims. Given the scope for abuse of such a system, with insurers deferring payment of tax until all concerned (and probably their grandchildren, as well!) are dead, buried and forgotten, there is an obvious need for safeguards to protect the Treasury. To our eyes, this is a further argument for mandatory professional reporting, with the actuary preparing a report to the Inland Revenue stating the amount that he considers should qualify for tax relief.

The work would be similar to that outlined above in the comments on margins to cater for experience worse than expected, but the actuary would have to think of the obligation of the insurer to pay tax now rather than the obligation to pay policyholders in the future.

- 4.7 It needs to be accepted still that assessments of future claims outgo may be wrong and that provisions may turn out to need strengthening. It seems to us to be wrong that, if an insurer pays tax on an erroneous assumption of the future, the tax cannot be recovered when the error becomes apparent. We would, therefore, suggest that if provisions previously allowed for tax turn out to be inadequate the extra amount can be carried back and set against any taxed profit in the year of the under-provision or later. This should also mean that an insurer who disagrees with the amount of reserve allowed for tax purposes will be encouraged to set up an extra amount on an effective net of tax basis, knowing that, if the extra reserve is required to pay claims, it will qualify for a refund of tax already paid, assuming that it is still solvent at that time.
- 4.8 For this last provision to work, it is necessary to carry the loss back to the earlier year when the tax had been paid so that the system is not defeated by a change of tax rate.
- 4.9 We would also like to see this principle of being able to set current losses against past profits extended even when it is not the consequence of a mis-assessment of the reserve required for a past loss. The extreme example is a catastrophe insurer who makes reasonable profits in most years and large losses infrequently. There seems to us to be a strong case for allowing the loss in a bad year to be matched against the profits which have already been taxed. We suggest that the nature of insurance makes this entirely appropriate.
- 4.10 We have mixed opinions about the ability to set up equalisation reserves, which we note are permitted in some foreign countries. An argument for making equalisation reserves tax allowable in the UK rests more upon the competitive need to match other countries' arrangements which

lower the cost of capital employed in their insurance industries, rather than on the intrinsic merits of tax-deductible equalisation reserves. Another opinion is that the Revenue should encourage good management of a company and permit tax allowance on a justifiable reserve (as certified by an actuary) to enable the company to contribute to the economy (and pay tax) in the future.

5. Lloyd's (and other underwriting agencies)

- 5.1 It will be obvious to everyone that the provisions which might be required to demonstrate solvency may be different from the provisions which should be incorporated in a transfer of liabilities of the Reinsurance to Close type.
- 5.2 On the other hand, it is not always obvious what, if any, risk premium there should be in RITC provisions. It ought to depend upon the risk-averseness of the names but, no doubt, if there are clearly understood "Rules of the Game", which are generally accepted by the players, the situation is a little different. With a specific recommendation in the recently published Task Force report on Lloyd's this is likely to become a live issue.
- 5.3 It is manifestly something with which actuaries should be involved, since our training gives us some specific skills relevant to the problem. We ought to be able to arrive at something better than the existing system where there is the implicit and unquantified margin from using undiscounted reserves, but reduced by the effect of any Time and Distance policies the underwriter has bought.

6. The involvement of the Actuary

- 6.1 The authors' intentions, in writing this paper, are to put on the agenda some issues which we believe the profession should be considering. We feel that there could be a danger that the pressures of a current workload might lead to insufficient thought about the principles which will need to be applied in the future.
- 6.2 At several points in the paper we suggest that there are issues which will be treated better if actuaries are involved, and in some cases may not be tackled at all without actuarial involvement. It is, however, unlikely that our profession will be approached by others and asked to provide proposals for solutions to the problems. It will be necessary for us to develop our ideas and then promote them to those who are not actuaries. In the current jargon, we will have to be "pro-active".
- 6.3 Some of the issues we raise in practice, demand the involvement of actuaries so that getting them on the agenda of a wider world will inevitably mean that insurers consult actuaries to a great extent than in the past. We see this as a beneficial side effect rather than the purpose in raising the issues. If this paper were meant to be an advertisement for our profession we would have addressed it to a different audience and used different words!
- 6.4 Lest the last paragraph should have caused any misunderstanding, we should say that, whatever future developments maybe, we are firmly of the view that actuarial reporting on the reserves of general insurance companies would be beneficial to the industry. We accept, however, that although support for such a requirement is growing among those managing insurance companies, it is not yet universal.

Possibly failure to receive reinsurance recoveries from insurer who have not employed actuaries may add to the support!

7. Conclusion

7.1 In this paper we have outlined some theoretical issues which we think should be the subject of consideration and debate within our profession. The main issues are:-

- (a) What is an appropriate level of margin to be included in reserves?
- (b) How is it to be determined?
- (c) Can we be sure that adequate margins are contained in undiscounted reserves?
- (d) What basis of taxation would strike the correct balance between the interests of insurance companies and other taxpayers?

7.2 In some cases the potential amount of ultimate claims is of far greater importance than the exact calculation of the best estimate.

7.3 Benjamin Franklin told us that only death and taxes are certain. The tax regime is important for several reasons and we think that actuaries have something to contribute. Our contribution needs to be made soon, however, or it will remain a marginal embellishment to someone else's ideas.

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