

Reserving for APH Liabilities under Solvency II

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Solvency II will see a fundamental change in how insurers are required to report their technical provisions. In this paper we consider the particular challenges that insurers with asbestos, pollution and health hazard (APH) liabilities are likely to face in setting provisions in accordance with the new rules.

Liabilities shall be valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction.

Article 75 1(b), Solvency II Directive

This is the rather abstract basis for valuing liabilities under Solvency II, and is meant to be consistent with the concept of market value for valuing assets.

The directive recognises that liquid markets in insurance liabilities do not exist and specifies that technical provisions should be 'equal to the sum of a best estimate and a risk margin.' 'The best estimate shall correspond to the probability-weighted average of future cash-flows, taking account of the time value of money.' The risk margin is simply defined as the amount needed, in addition to the best estimate, to bring the provisions up to a level satisfying Article 75 1(b).

The directive specifies that the best estimate and risk margin should be calculated separately (unless the 'obligations can be replicated reliably using financial instruments for which a reliable market value is observable'). The risk margin should be calculated using a cost of capital basis – the cost of holding capital (equal to the SCR) to back the liabilities until they are fully run off. The cost of capital rate will be specified (6% was used for QIS5).

In the context of APH liabilities, portfolios of claims are sometimes transferred from party to party, for example through commutations and Part VII transfers. One might therefore have thought that an analysis of past transfers might be useful in valuing either the same or a similar set of liabilities in a manner consistent with Article 75 1(b). However, each commutation or transfer involves a unique set of liabilities and a unique set of circumstances, circumstances that can change very quickly after

the transfer. It does therefore seem unlikely that one would be able to say that 'a reliable market value is observable' (unless perhaps where a transfer has been contracted to but not yet executed), and therefore the best estimate and risk margin will need to be estimated separately in accordance with the directive.

BEST ESTIMATE

As far as estimating technical provisions is concerned, insurers' main focus is therefore likely to be on setting an appropriate best estimate; the risk margin being essentially a function of the SCR. Insurers that are not modelling their liabilities for internal capital model purposes or otherwise, and are perhaps intending to use the standard formula approach to calculating the SCR, may not have given much thought to how their current reserves compare to a true best estimate. Insurers are likely to be adding margins of prudence to their existing reserves so that they are at a level greater than the mean of the distribution of the reserves. Insurers will therefore need to take measures to adjust their current reserves to a best estimate basis in order to avoid unnecessarily high technical provisions (and consequently SCR) under Solvency II. At the same time though, they need to ensure that they really are considering all possible outcomes in deriving their best estimates.

Reserving for APH liabilities can be problematic and Solvency II isn't going to make it any easier. Insurers currently use a variety of approaches, ranging from detailed ground-up exposure models to the simple application of industry benchmarks. We don't believe that the introduction of Solvency II is necessarily going to lead insurers to start looking for new reserving methods, but some consideration of the way in which they are used, in order to ensure that a best estimate is derived, is likely to be

necessary. We highlight below a number of issues we believe insurers will face:

- Many APH claims are subject to coverage issues and other legal disputes. Whilst attorneys are likely to draw insurers' attentions to possible coverage defences, and will advise their clients when there is a dispute, they won't necessarily recommend reserves that reflect the likelihoods of all the possible outcomes occurring. Even when lawyers are asked to provide estimates of the chances of prevailing in particular disputes, it can be difficult to get a truly credible assessment, with overly cautious estimates made or meaningless '50/50' assessments given. A decision diagram approach that considers all the possible outcomes and assigns reasonable probabilities to them will achieve a best estimate. This may require careful thought (especially when there are a number of issues, and interdependences between them), and cajoling of lawyers into providing credible probabilities.
- It should be remembered that when setting a best estimate reserve, whilst all possibilities must be considered, insurers must not take account of their own credit standing. Although in practice insurers with questionable solvency may be able to achieve favourable settlements, they will not be able to take account of this when setting their reserves.
- Many insurers currently rely heavily on case estimates advised by their attorneys. Where there is adequate information about the body of advised claims these often provide a reasonable estimate of the cost of settling the open inventory of claims. The insurer may then have to assess the extent of IBNR claims from the same source. Where less information is available the attorney's reserve will be, understandably, more speculative and the insurer should consider whether it truly represents a best estimate or is perhaps overly cautious (reserve to limits) or optimistic (no reserve recommended).
- Redundancy in case reserves is an issue that many insurers with APH liabilities face. This has particularly been a problem with the LMX market where reserves have been polluted by non-claims which are unlikely to be settled in full. Assessing a best estimate may result in a more thorough and frequent updating of amounts on the claims system, and where uncertainty exists as to whether claims will ever be paid, assessing the likelihood of this and reserving accordingly.
- Industry benchmarks, such as IBNR-to-outstanding or paid survival ratios, are always difficult to apply to any individual insurer given the differences between insurers' books of business. When moving to Solvency II, firms may try to adjust the benchmarks they use so that they are on a best estimate basis. This will involve making assumptions about how current industry reserves compare to a best estimate. This will be a difficult task and is likely to be highly subjective.
- When assessing the future development of particular claims a ground-up approach may be adopted. This may entail detailed modelling of the underlying insured's liabilities or, for example, a straightforward application of a simple multiplier to the current incurred claims. Either way, it will produce an estimate of the underlying exposure from which the insurer's liability can be estimated by subtracting the excess/deductible and applying the limit if appropriate. However, it should be noted that even if the underlying estimate of the insured's liability is a best estimate, the estimate it produces for the insurer may not be. As a very simple example, say the insurer's policy attaches at \$1 million and the insured's liability will be either \$0.5 million or \$1.4 million, both scenarios being equally likely. The best estimate of the insured's liability is \$0.95 million. A loss of \$0.95 million would fall below the retention of the policy, but the best estimate loss to the insurer is in fact \$0.2 million (the insurer's loss being either zero or \$0.4 million). This suggests that ground-up approaches should really have a stochastic element in order to produce true best estimates.
- On similar lines, insurers should also consider the likelihoods of new claim types emerging and known but currently non-threatening claim types becoming more active. In terms of APH-type liabilities, the chance of new claims emerging, from similar exposure periods, is diminishing all the time, although it can't be ruled out. Some types of health hazard loss, which as yet have presented no or little liability to insurers, could become more active. Where there are specific threats, the relevant policies can be identified and the potential losses and likelihoods of occurrence estimated. Where there is no particular threat things are even more difficult. For insurers with ongoing business, an analysis

of the emergence of past latent claims (i.e. the APH claims) in terms of frequency and severity might be feasible. The past is not always a good guide to the future, however, and if the insurer has been in run-off for a long time, it will need to consider a very long history of data to draw conclusions about the emergence of new latent claims many decades after exposure. This is likely to be very difficult and of highly questionable relevance. A solution may just be a loading on reserves to account for such 'binary events'. Choosing an appropriate factor will be difficult and probably highly subjective. Lloyd's has proposed a method of uplifting reserves¹, but it would be particularly difficult to apply to APH type liabilities.

- Under Solvency II, firms will be required to discount their reserves, requiring them to estimate cash flows for their liabilities. This will not be unfamiliar to many insurers with APH liabilities, many of which already discount their reserves. It is obviously important that the cash flow estimates are as accurate as possible. It may be helpful, at least for the more significant claims for which development can be estimated relatively easily, to make specific cash flow estimates over the coming few years. Where structured settlements are in place, the cash flows from these can be used explicitly in the pattern used. It should be borne in mind that, where different scenarios are considered, each is likely to produce a unique cash flow pattern.
- We also note that reserves must be calculated gross, and reinsurance recoveries calculated separately. It will not be acceptable to calculate reserves only net of reinsurance.

We believe that ensuring reserves are on a best estimate basis will be a key concern for all insurers under the Solvency II regime. This will cause insurers with APH liabilities particular difficulties, but should ultimately lead to insurers having a better handle on their claims. Our experience of working in this area (for example with an insurer exposed to mainly US APH liabilities) has been that producing a best estimate is possible by adapting existing methodologies and identifying where existing approaches may result in reserves higher than a best estimate or may not account for all outcomes. Insurers with APH liabilities may find that a discounted best estimate plus the risk margin lies below their current booked reserves.

¹ In its paper 'Technical Provisions under Solvency II – Detailed Guidance' (March 2010), p. 49.

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