

## Adjustments to coverage units

In this article we will explore possible approaches that companies could adopt in adjusting coverage units to allow for the emergence of actual experience.

The long term nature of insurance contracts means that the entity's estimates about the future can change as experience emerges. This means that the expected future coverage units identified in previous reporting periods can be very different to the entity's revised expectations of the future coverage units from the current reporting period. As a result of this, an entity will have to choose the extent to which it wishes to reflect this revised view of coverage units and whether this revision should apply at the start of reporting period or at the end of it.

Consider a group of insurance contracts comprising of 100 policies each with a benefit payable of 1000 units. At inception, the entity expects 10 policies to die at the end of each year. The expected coverage units for each future year based on this initial view are as follows (Table 1):

Policy year	1	2	3	4	5
Benefit payable	1,000	1,000	1,000	1,000	1,000
Number of policies at start	100	90	80	70	60
Expected coverage units	100,000	90,000	80,000	70,000	60,000

Table 1: Expected coverage units at inception

Let's now explore what might happen if actual experience is different to expected experience after the first year (i.e. we assume that in year 1, actual experience is the same as expected but that there are experience variances in year 2). In year 2, it turns out that there are actually 15 deaths instead of the expected 10. Further still, the 5 additional deaths actually occur at start of year 2 instead of at the end of year 2.

The entity now needs to decide how to reflect this experience in its determination of coverage units. It considers three possible options:

- (a) Ignore the actual experience and continue to use the expected coverage units derived at the start of current reporting period without any adjustments. Note the entity still allows for changes in fulfilment cash flows as a result of actual experience in the CSM, it just doesn't update the coverage units for this.
- (b) Update its view of future coverage units from year 3 onwards to reflect the actual experience but not to update its view of the coverage units in year 2
- (c) Update both its view of future coverage units from year 3 onwards as well as the coverage units in year 2

These three options would numerically translate as follows:

Policy year	1	2	3	4	5
Option (a)	100,000	90,000	80,000	70,000	60,000
Option (b)	100,000	90,000	75,000	65,000	55,000

Policy year	1	2	3	4	5
Option (c)	100,000	85,000	75,000	65,000	55,000

As described, option (a) simply reproduces entity's view of expected coverage units based on the experience emerged until the start of period and excludes current period adjustments. This effectively means that the entity updates its coverage units with a lag of one reporting period. The convenience of this approach in terms of operational ease is evident as the entity does not need to track current period experience on real time basis and can rely on the expected coverage units at the start. However, this convenience comes at the price of not being able to accurately measure the service being provided by the company.

Under option (b), the entity's view is that the amount of service provided in year 2 has not changed (even though the 5 additional deaths have occurred at the start of the year) and service has still been provided to 90 policies that were in force as at the end of year 1. However, as there are now fewer than expected policies remaining in the future, the amount of service expected to be provided in the future needs to be revised downwards (from year 3 onwards).

With option (c), the entity takes one step further compared to option (b) and reasons that the actual coverage provided in year 2 also needs to be adjusted because of the unexpected timing of the additional deaths. Since the 5 additional deaths occurred at start of the year, the actual coverage provided during year 2 should be based on the 85 policies that are in force for the rest of the year 2 and not on the 90 policies that were in force as at the end of year 1. (This argument could also be applied to take into account, for example, the higher amount of service provided for unexpected increases to sums assured by policyholders that do not result in derecognition.) Depending on the volume of business and the complexity of the product design, option (c) has the risk of becoming an unmanageably complex method to track and implement and appears to be an overly exact attempt to measure the provision of service.

Options (a) and (c) are consequently two extreme approaches of approaching the adjustment of coverage units in the light of actual experience. The former completely ignores actual experience whilst the latter requires near real time tracking of the actual experience during the current reporting period. Ultimately an approach that falls somewhere between these two extremes, such as option (b), is expected to be a sensible approach. Other approaches are of course possible, and these are expected to be those that strike a balance between practicability and accuracy.

The operational aspect discussed in this article is one of the considerations in determining the timing of adjustments to coverage units, and the working party intends to explore more on this topic as part of the sessional paper. If you have any questions or comments on this article, please get in touch through the comments section.

On behalf of the IFRS 17 CSM Working Party

Rebecca Sardar - Chair

**Disclaimer:** The views expressed in this publication are those of invited contributors and not necessarily those of the Institute and Faculty of Actuaries. The Institute and Faculty of Actuaries do not endorse any of the views stated, nor any claims or representations made in this publication and accept no responsibility or liability to any person for loss or damage suffered as a consequence of their placing reliance upon any view, claim or representation made in this publication. The information and expressions of opinion contained in this publication are not intended to be a comprehensive study, nor to provide actuarial advice or advice of any nature and should not be treated as a substitute for specific advice concerning individual situations.

On no account may any part of this publication be reproduced without the written permission of the Institute and Faculty of Actuaries.