

TM1 - Mortality improvement assumption

In our consultation paper on TM1, we considered two possible approaches to mortality improvements. The first was to specify medium cohort improvement rates (published by the CMI) subject to a minimum annual improvement of 1.25% for males and 1% for females, applying from the year 2000. The second was to require the use of CMI's mortality projection model which allows recent experience to be blended with projected improvements.

In the exposure draft, we proposed the use of the first approach but with a minimum annual improvement of 1% for both males and females, in light of the ECJ ruling on gender equality. The proposal was consistent with the PPF's assumptions for Section 179 valuations and we felt it would be straightforward for providers to move from the assumption of medium cohort improvements to the assumption of medium cohort with a specified minimum.

Following our analysis of responses to the consultation and further feedback, we are considering whether TM1 should specify the use of the CMI's mortality projection model. The CMI projection model:

- is based on more up to date data than the cohort projections;
- is a better proxy for the assumptions actually used by insurers to price annuities; and
- will be updated annually so if TM1 specifies the use of the current table the assumption will be based on the most relevant data available.

The CMI model

If TM1 specifies the CMI model we would propose that the Core model would be used rather than the Advanced model. Under the Core model the user needs to input two parameter values:

- a long term rate of mortality improvements; and
- a constant addition to the rate of mortality improvements which serves to add a degree of prudence to the results.

If this model was used, TM1 would need to specify both these parameter values. We would be inclined to set the parameter for the constant addition as nil.

We are inclined to adopt a long term rate of mortality improvement in line with the minimum rate of improvement that was proposed for use with the medium cohort improvements which was 1%. However, several respondents to the consultation commented that the 1% minimum was slightly low.

What long term rate of mortality improvement do you think should be specified?
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Practicalities of providers using the CMI model

The CMI model is in the form of a spreadsheet which the CMI says should be "easy to understand, intuitive to use and capable of widespread application by users with varying

degrees of expertise". We therefore believe that providers should be able to use the model for TM1 purposes but we would welcome feedback.

How easy would the CMI model be to use? (For example, the table which is described as CMI_2010_M[1.0%])

Updating the assumptions

The CMI first published its projection model in November 2009, denoting it as "CMI_2009". It updated the model in November 2010 by publishing a new model denoted as "CMI_2010". It is the CMI's intention to update the model annually producing a new model each time but maintaining access to models from previous years on its website.

TM1 could specify that for an SMPI with illustration date¹ after 5 April 20YY, the mortality improvement should be based on the CMI model denoted CMI_(20YY-1). This approach would ensure that the latest information is used in projections. Alternatively, the mortality improvement assumption could be specified as a specific model and updated less frequently, say every 3 years.

If TM1 specifies the use of the CMI model, should it specify a specific model, or should it specify how to determine the most recent relevant model?

¹ As defined in exposure draft of TM1 dated March 2011. The date specified by the provider as the date by reference to which amounts are calculated for the purposes of the statutory illustration.