



## Continuous Mortality Investigation

Institute and Faculty of Actuaries

### CMI Annuities Committee:

## Results of survey of data contributors

### Background

We released [Working Paper 101](#), which describes the “all offices” experience of pension annuities in payment in the years 2011-2014, in July 2017. Section 7 of the paper set out our thinking on future work and we were keen to receive the views of data contributors to help guide our approach and prioritisation. Consequently we asked 16 insurers to complete a short survey.

The Secretariat received ten responses and an anonymised summary has now been considered by the Committee. This document summarises the responses and sets out our updated plans regarding future work.

The Committee was pleased with the level of responses, which provides us with valuable input into our future direction. **We would like to thank the individuals and firms that completed this survey.**

### Current use of the “08” tables

We released the “08” Series annuitant mortality tables alongside [Working Paper 81](#) in June 2015. We were interested to understand their use; in particular as we no longer have visibility of this for statutory financial reporting via published PRA Returns. We asked:

**Q1a: Are you using the “08” tables for calculating best estimate liabilities under Solvency II?**

*Five respondents are using the tables and the other five are not.*

**Q1b: If “Yes”, please list which of the tables you are using and describe briefly the nature of any adjustments you are applying to the tables.**

*The tables used were for pension annuities in payment, both lives- and amounts-weighted, and life annuities. No respondents referred to the use of the deferred annuities tables (but we recognise this could be a function of the sample of insurers).*

*All of the respondents apply a percentage to a table; with most explicitly stating this to be a fixed percentage.*

**Q1c: If “No”, please let us know which tables you do use and provide a brief explanation of the key reason(s) that you are not using the “08” Series tables.**

*Comments received included:*

- Three respondents continue to use “00” tables; principally because these are considered to provide a reasonable shape, by age. One respondent noted concern over the shape of the “08” tables at older ages (an area discussed further, below).*
- Two respondents referred to the use of tables based on own data. This reflects the tendency for offices with sufficiently large datasets to analyse their own experience in detail. Subsequent discussion with one of these insurers confirmed that CMI tables were valued nonetheless, in relation to methodology and as a benchmark; in particular, the governance committee had taken comfort from comparisons of the internal tables with CMI tables.*

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## Further analysis of pension annuities in payment data

In Working Paper 101, we described our intention to undertake further analysis of the pension annuities in payment dataset. We were keen to receive views on the relative value and prioritisation of:

- a) Socio-economic analysis of the 2007-2014 dataset;
- b) Producing a new set of tables that may differentiate by product type (and possibly duration) using the 2011-2014 dataset; and
- c) Collecting and processing data for 2015 and 2016 to allow us to analyse recent mortality.

In the survey, we asked:

**Q2a: Please provide your prioritisation of a) to c) with a brief explanation of your rationale.**

*b) and c) attracted similar levels of support, with a slight preference for c). Only one respondent ranked a) as their preferred option.*

*The comments provided were helpful to the Committee; in particular:*

- *Those expressing a preference for updated tables all referred to the need for tables to reflect the differences in experience by product type, demonstrated in Working Paper 101.*
- *Most respondents favouring c) noted the recent slowdown in improvements observed in population data and a desire to understand the corresponding pattern for annuitants. However one respondent noted the importance of first getting the analysis up-to-date, then producing new tables.*

*Our plans, in the light of these responses, are discussed under “Future work” at the end of this document.*

**Q2b: Are there other areas of analysis, not listed above, that you consider would be of greater value?**

*A few areas were suggested in response to this question; including segmentation into DC and DB (rather than Individual and Group) and further analysis of the impact of pension size on mortality. We will take account of these suggestions in our future work plans.*

## High age mortality rates

We had discussed whether there is merit in us updating the “08” Series annuitant mortality tables in the light of the findings of the High Age Mortality Working Party, set out in [Working Paper 100](#), using 2007-2010 data. Our view was that there would be limited value in re-issuing the “08” tables, given the lack of product differentiation within those tables and the differences in experience by product (evidenced in Working Paper 101). However we were keen to check the views of data contributors and asked:

**Q3a: Do you agree with our view that we should NOT re-issue the “08” tables?**

*Eight respondents said “Yes” and only one “No” (the other was blank, but provided a comment under Q3b, from which we inferred they were also a “No”).*

*Whilst the verdict appears conclusive, we recognise that insurers not using the “08” tables are less likely to see a need for their re-issue.*

**Q3b: If “No”, please provide a brief explanation of your interest in, and potential use of, such tables.**

*The two responses noted that the work of the High Age Mortality Working Party cast doubt on the appropriateness of the “08” tables at advanced ages and that insurers wanting to make allowance for this would need to try to replicate the Working Party’s work, which carries risks of misinterpretation and inconsistency of approach, as well as duplicating the work across firms.*

*We understand these concerns and are pleased that the Working Party has now released the mortality rates underlying the two case studies in Working Paper 100; including the “08” annuities tables. We hope that these rates will ease respondents’ concerns.*

*As noted in the supplementary note that accompanies these extensions, some aspects of the framework require further consideration before this is used in practice – in particular, the derivation of the population reference table – so we retain our original view, not to re-issue the “08” tables.*

**NOTE:** During the work on the illustrative high age extensions, we noted that the “08” Series tables were not rounded to six decimal places, as is conventional CMI practice. The impact of this should be insignificant and the Committee has decided not to re-issue the rates, as this could create confusion.

## Future data collection

We are keen to resume regular reporting of experience and propose:

- Annual reporting for pension annuities in payment; and
- Quadrennial reporting for enhanced annuities, life annuities and deferred pension annuities.

We asked data contributors a number of specific questions on these proposals:

**Q4a: Do you agree in principle between the more regular reporting of experience for pension annuities in payment from the other categories of annuities? If “No”, please give brief reasons**

*All ten respondents agreed with our view that regular reporting of experience for pension annuities in payment should be prioritised. As noted under Q1b, this could reflect the sample of insurers that responded, but we think the responses, in combination with the financial materiality of the various products, gives us a mandate to prioritise pension annuities in payment going forward.*

**Q4b: Would you expect to be able to submit pension annuities in payment by our proposed target date for data submissions of 31 May each year? If “No”, please indicate the date by which you would expect to be able to regularly submit data**

*Four insurers responded “Yes” and five “No” (one respondent only submits deferred annuity data).*

*Of those responding “No”, one indicated they should be able to submit data by 30 June, two by 31 July and one by 31 December (noting that their tracing processes for unreported deaths and internal review are only completed by that date); one respondent answered “No”, but did not provide a date.*

*In order to produce future sets of annual results as promptly as we can, we propose asking insurers to submit data by the dates they have indicated. This should enable the Secretariat to start processing the “31 May” data whilst other data submissions are outstanding; thereby reducing the volume of processing to be completed after the “31 July” data is received. We will also:*

- *Ask the “31 December” insurer if it is feasible for them to submit an earlier cut of their data.*
- *Engage with other insurers to seek their data by 30 June.*

*We recognise that this creates a potential difference in the degree of under-reporting, between insurers, but anticipate this will be small. We will aim to ensure we collect late-processed deaths for the preceding year so that we can also issue updated results for that year alongside the (initial) results for the latest year. The updated results can also incorporate insurers that were not able to submit data by our target date.*

*If insurers are able to submit data at consistent times from year-to-year, it should become feasible to estimate the overall impact of late-reporting.*

**Q4c: For the other categories of annuities, would you prefer to submit data annually (knowing that we will not prioritise its submission) or quadrennially (to an agreed target date)?**

*Most insurers to whom this question was relevant preferred annual data submission.*

*We will be very happy to receive data for these other categories of annuities annually; however – as noted above – our focus will be on processing pension annuities in payment data, and producing “all offices” results as promptly as we can. Consequently collecting data for the other categories will not be prioritised and processing of data may be delayed.*

## Future work

As noted under question 2a, above, there was a (slight) preference for us to produce up-to-date results over other analyses. Realistically, we consider it would be difficult to achieve this in the very short term because:

- As yet, we have no additional data to that received prior to Working Paper 101. (We have some data for 2015, but we judged this insufficient to warrant extending the scope of that set of results at the time, as the 2015 results would not have been sufficiently consistent with the preceding years.)
- We do not anticipate we would receive a substantial proportion of the “missing” data in a short timescale.
- As noted earlier, the preference for c), under question 2a, stemmed from interest in recent improvements. We consider that robust analysis of improvements within the annuities dataset needs continuity of data submissions; hence would require a near-complete dataset.
- The CMI is committed to improving the efficiency of our handling of insurer’s data; in particular to provide feedback to insurers sooner after they submit data and then to produce “all offices” results and other analyses more promptly. This requires greater coordination of plans between the three investigations,

and communicating these plans to key data contributors. Our current focus is on assurances data, with the processing of more recent annuities data scheduled later.

Consequently, we concluded that it would be unrealistic to accelerate the data submission targets from those set out above for enough insurers to achieve a meaningful update to the analysis issued in Working Paper 101 in the short term. Instead, alongside issuing this update, the Secretariat will be asking insurers to submit data for the years to 2017 no later than 31 July 2018 (and preferably sooner, as discussed above). If we receive data to this timetable, then our aim would be to report on experience in 2011-2016, and on improvements for pension annuitants, in quarter 4 of 2018. (Note: we would also issue an initial set of results for 2017 but recognise these would contain a degree of under-reporting and we would be unlikely to infer improvements for that year.)

In the meantime, we have a “window” in which to pursue further analysis. Planning is at an early stage but our intention is to form two sub-groups, to consider both of the areas noted in Working Paper 101:

- One group will review Generalised Linear Modelling (GLM) of the extended 2007-2014 dataset. The analysis itself will be undertaken by the Secretariat to enable us to consider “office” as a factor whilst ensuring confidentiality. We will also include the socio-economic indicator within the dataset (where this is available).
- The other group will consider graduations of the 2011-2014 dataset; in particular incorporating product type and durational effects. At this stage, we are not committing to publishing new tables based on this dataset; in particular:
  - We could find that the “08” tables provide a sufficiently good fit to the latest data, even when we consider experience by product type; or
  - We might wait for the dataset to 2016 to be available, in which case we expect our initial work will speed up the subsequent production of tables.

We hope that one or both strands will make sufficient progress to enable us to issue a working paper, summarising our findings in Spring 2018; ahead of the “push” for data discussed above.

We would welcome further feedback on any aspect of our work – please email [annuities@cmilimited.co.uk](mailto:annuities@cmilimited.co.uk).

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