

# Continuous Mortality Investigation (“CMI”) Consultation on CMI\_2023

*I am writing on behalf of Lane Clark & Peacock LLP in response to the Mortality Projection Committee’s (“the Committee”) consultation regarding the next version, CMI\_2023, of the mortality projection model as set out in Working Paper 183.*

*Lane Clark & Peacock LLP (“LCP”) is a firm of financial, actuarial, health and business consultants, specialising in the areas of pensions, investment, health, insurance and business analytics.*

We continue to be supportive of the analysis carried out by the Mortality Projection Committee and would like to thank them for their ongoing work.

We have set out answers to the questions posed below.

## 1a) Do you agree with reflecting a view on future mortality using only weights, rather than another approach?

We recognise that the CMI’s mortality projection models are data driven models that have been impacted by the exceptional nature of the pandemic data.

Our understanding is that there is no “perfect” way of calibrating the CMI model across the pandemic, and later years.

Given the above, we are supportive of a parameter that:

- Broadly achieves a shape of mortality projection that we are comfortable with;
- Is reasonably easy to explain and interpret; and

- Can be used to explicitly reflect a view of how future mortality rates may have changed since 2019.

Our view is that the weight parameters broadly meet these objectives. As such, we are supportive of their continued use.

One of our concerns is that the use of weights results in larger changes to mortality rates from several years ago when compared to alternative approaches. We would prefer a method that does not materially change mortality rates prior to the pandemic in response to new data.

That said, if a parameter were to be added that better meets these objectives in the future, we would be supportive of an alternative approach.

## 1b) Do you agree with the use of a single weight for data for 2022 onwards in the Core version of the Model?

When considering whether a single weight is beneficial over the continued addition of another weight each year, our primary objective is to remove the need to consider the weight parameters as soon as possible.

We understand the CMI’s preference to limit the number of parameters by adopting a single “2022 onwards” weight, and have a relatively simple model which is easy to describe, which we support.

On balance we are therefore comfortable with the move towards a single weight allocated to 2022 data onwards.

However, we have some concern that this approach may mean that we are having to discuss weights below 100% for more years than if there was a more flexible approach, and that the appropriate weight becomes the key focus of the next few model releases.

We would therefore find it useful if the CMI were to share some analysis of how future versions of the model would react if future mortality rates materialised under different scenarios (e.g. as per core CMI\_2022 or if they were to remain stable etc). For each scenario, it would be informative to understand what value of the single weight or what value of the latest weight is required in each future model to keep life expectancies unchanged from

the core CMI\_2022 model. For example, in order to keep life expectancies broadly in line with core CMI\_2022, it may require a single post 2022 weight of 10% in CMI\_2023, 25% in CMI\_2024, 50% in CMI\_2025 etc in a given scenario of future improvements.

### 1c) If not, what method would you prefer?

We prefer the weighting methodology put forward.

### 2a) Do you agree with the weight of 10% that we have proposed for the 2022 and 2023 data in CMI\_2023?

For the purposes of the core model, we are comfortable with the life expectancies that result from the CMI\_2023 model with a 10% weight for the 2022 and 2023 data, although this is not an endorsement for it necessarily being a best estimate.

We note that:

- Whilst we are comfortable with the life expectancies created by “10%/10%”, we could have equally supported “25%/25%” as being a reasonable parametrisation of the core model.
- We would prefer that the weight for year XXXX+1 should be greater than or equal to the weight allocated to year XXXX. This is contrary to the movement from core CMI\_2022 to the proposed core CMI\_2023.
- It appears to us that the Committee’s proposal for the single weight is subjective. Although the Working Paper refers to the proposal being between a balance (half-way) between NP1 and NP2, when commenting on the appropriateness of the proposed weight of 10% (and looking forwards, the process for how future weights will be set), we would welcome more insights into what factors the Committee considered and the rationale / criteria for choosing the weight. This would aid users deciding if the core model parameters fit their requirements.

- Whilst we are grateful for the information regarding how the Committee voted on the proposal, it would be useful if the Committee could articulate the framework for selecting the weight going forwards – we support the Committee’s aim to return to a more objective / data driven model.

### 2b) If not, what would be your preferred weights for 2022 and 2023 data? Please say why you prefer those weights?

We would be comfortable with weights between “10%/10%” and “25%/25%”.

### 3) Do you agree that only the combined weight for 2022 onwards should be an Extended parameter in CMI\_2023? If not, please say why.

On balance we agree that the weights for 2022 onwards, regardless of whether they are combined or not, should be in the extended model.

We also acknowledge an alternative view that, at least some of, the weight parameters could be raised to the core model, since:

- It could be argued that the weight parameters are currently as subjective as the long-term rate assumption and so users could be required to take their own view.
- The Committee may not wish to express a view.
- By having a core value of the weighting parameter, the Committee may (unintentionally) create a benchmark which users may default to or herd around.

We also understand the need for an easy-to-use core model that meets the needs of all users regardless of their sophistication or resources.

**4a) How likely would you be to use CMI\_2023 with a similar approach to our proposal at some point, even if not adopting it immediately? Please provide your response as an approximate probability (i.e. 100% = would definitely use it, with 2022 and 2023 weights of 10% or similar; 0% = would not use CMI\_2023 at all or would take a materially different approach to reflecting data for 2022 onwards).**

As a pensions consultancy it is inevitable that we use the CMI model in its core form at some stage, if it is within our range of comfort.

**4b) If you are unlikely to use CMI\_2023, please say why not.**

n/a

**5) Do you have any further comments on our proposals, or any other aspect of the Model?**

We would be grateful if the Committee could provide some further information and analysis:

- Detail on the rationale followed by the Committee when putting forward a proposal i.e. why was the proposal “10%/10%” rather than “25%/25%” or indeed any other number.
- Detail on how future versions of the model could materialise as we describe in our response to 2b.
- Analysis on the change of life expectancies when used in conjunction with the “S4” series of mortality tables.
- A waterfall chart showing the reasons for the change in life expectancy from the core CMI\_2022 model.

**6a) Have you used overlay parameters in CMI\_2022?**

No.

**6b) Do you expect to use overlay parameters in CMI\_2023?**

We are aware of the overlay parameters and if a situation were to arise where we needed to use them then we would do so. We do not anticipate that this would be regularly, if at all.

**7a) Do you primarily use the Excel VBA software provided by the CMI or your own implementation of the Model?**

We use the Excel VBA software provided by the CMI.

**7b) If the CMI made a version of the Model available in another language, what languages would you find useful? Please name multiple languages if applicable.**

At this stage, we do not require the CMI model in any other language.

Whilst we do not require programming in an alternative language, we note the following in relation to how the code operates when fitting the extended model. Our understanding is that the model goal-seeks an array of parameters in turn, beginning at default values. In our experience, the code could be made to run materially quicker if the goal-seek begins from values which are chosen more shrewdly (eg those of the closest pre-solved fit in the excel model).

**7c) If the CMI made a version of the Model available in another language, what language would you find most useful? Please name a single language, if any, or say “none”.**

None.

7d) If the CMI only made one version of the software available would you prefer this to be the current Excel VBA software or another language?

Excel VBA.

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