

2024 CMI Mortality Projection Model

The Continuous Mortality Investigation Bureau (CMIB) of the Institute and Faculty of Actuaries has introduced the 2024 version of its mortality projection model.

A new model is released annually, based on mortality data collected by the CMIB over a forty year period. The data underlying CMI 2024 covers the period 1984 to 2024.

A new approach to Covid-19 data

During 2020 and the following years, the UK witnessed heavier mortality resulting from the Covid-19 pandemic as well as from flu. The mortality projection model projects future mortality and there has been considerable uncertainty as to how to use past data, including data from these years, to predict future trends.

Following the pandemic, the projection models from 2020 to 2023 have excluded mortality data from 2020 and 2021. They also placed less weight, and so less reliance, on data from 2022 and 2023.

For the 2024 model, the CMI have decided on a new approach whereby full weight is placed on the data from all years. The Covid-19 pandemic is instead reflected by including an 'overlay' from 2020, with the additional effect of this mortality overlay being projected to halve each year into the future.

CMI 2024 vs CMI 2023

The effect of moving from the previous model, CMI 2023, to CMI 2024 is to bring out at age 65

- an increase in life expectancies of around three months for males,
- an increase in life expectancies of around one month for females;

both now and in twenty years' time, using the core parameters and typical inputs to the model.

Long-term life expectancy trends

Over the last few years, life expectancy projections have shown a slight reduction in life expectancies, with this being more pronounced for males. As noted above, this trend has reversed this year.

The following graphs illustrate the effect over the last eight years on life expectancy projections of introducing new mortality projection models and new mortality base tables.

They show the life expectancy of a person at age 65; firstly, at the date that the new projection model or base table was introduced and secondly, 20 years into the future.





Cartwright systems and advice

We have updated our systems to work with CMI 2024 and you can expect to see CMI 2024 appearing in the advice given by our actuaries, as we update mortality assumptions in funding valuations for trustees and in accounting disclosures for employers.

If you would like to discuss the above further, please get in touch with your usual contact at Cartwright.

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