

Mortality improvement models and implications for the longevity market in Europe

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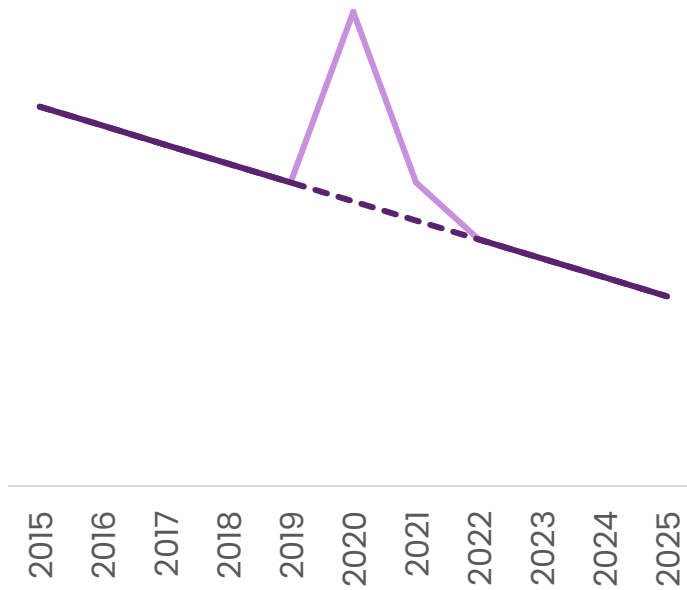
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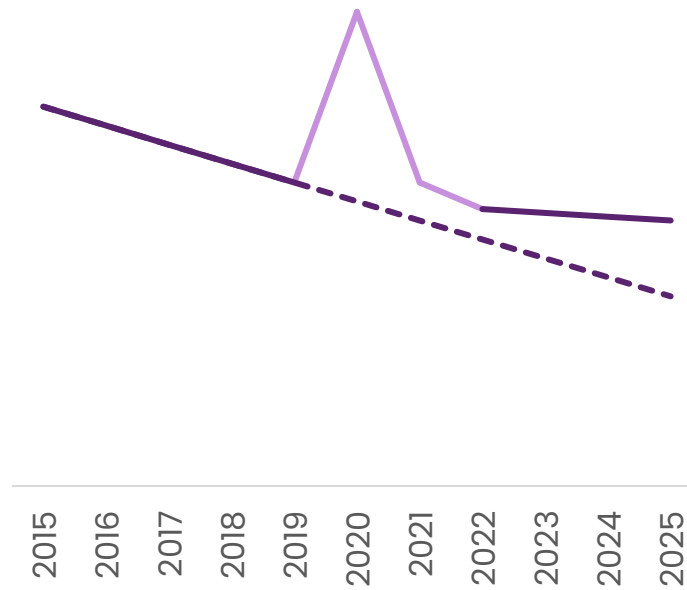
The outlook in 2020

The anticipated impact of the COVID-19 pandemic

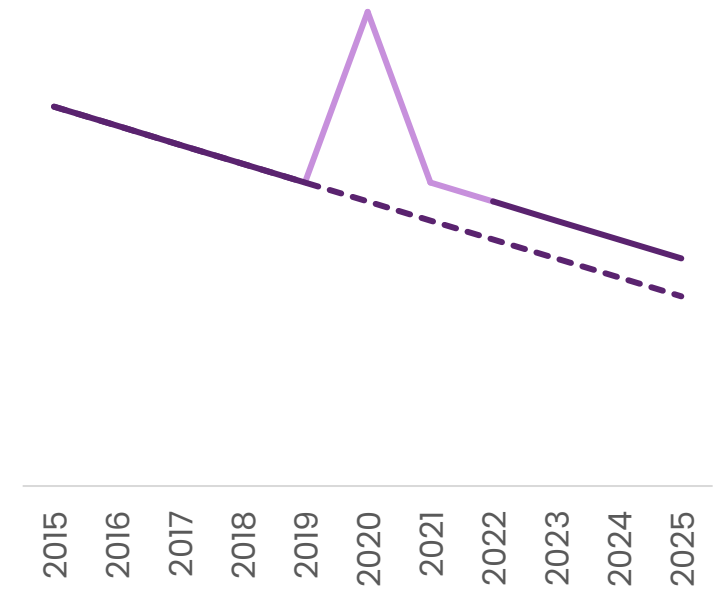
A bump in the road



A change in direction

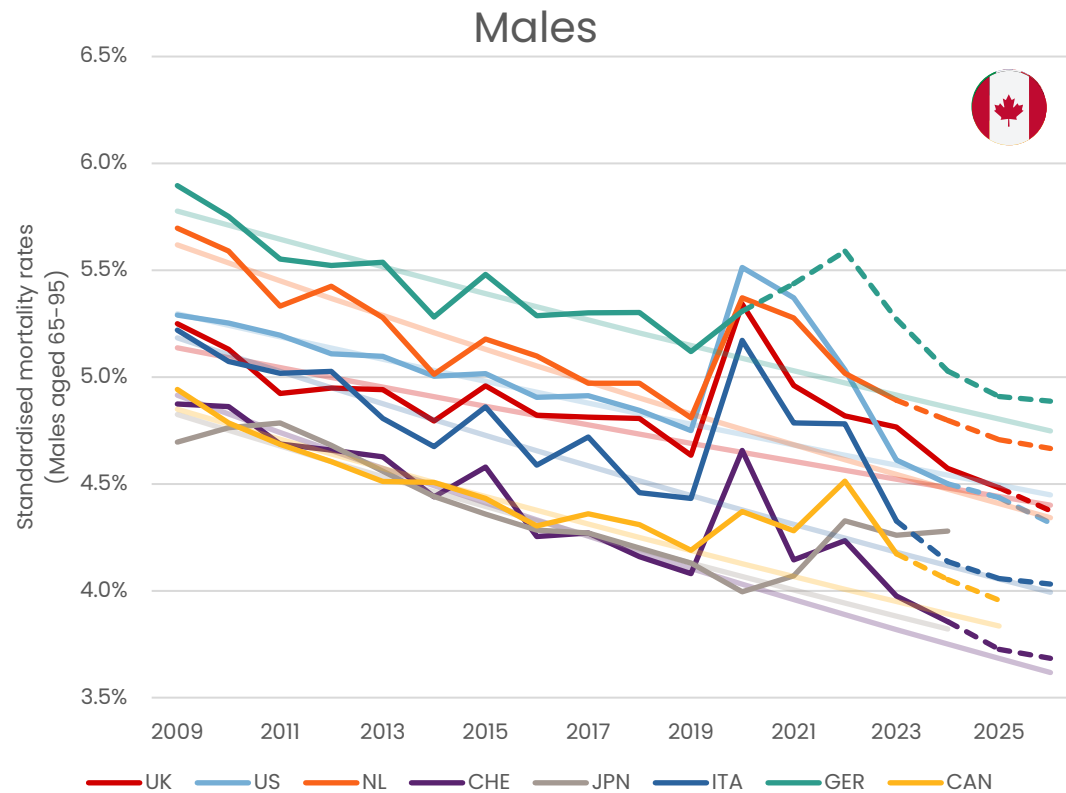
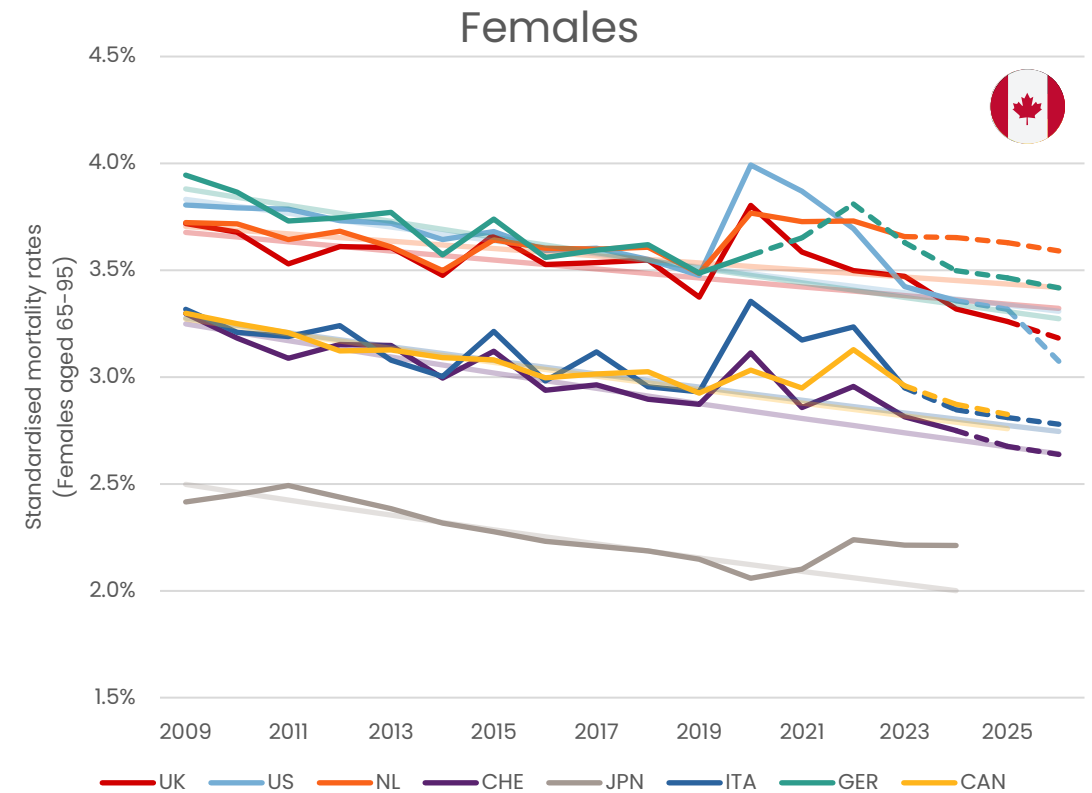


A parallel shift



Experience since 2020

How mortality rates changed in select countries

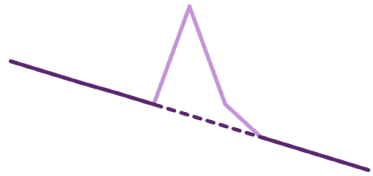


RGA calculations based on data from HMD and Short-Term Mortality Fluctuations data series (STMF), Human Mortality Database (non-UK); and from the Continuous Mortality Investigation (CMI) (UK).

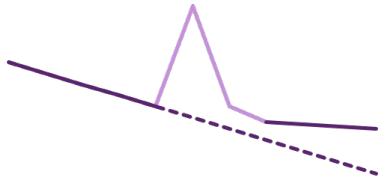
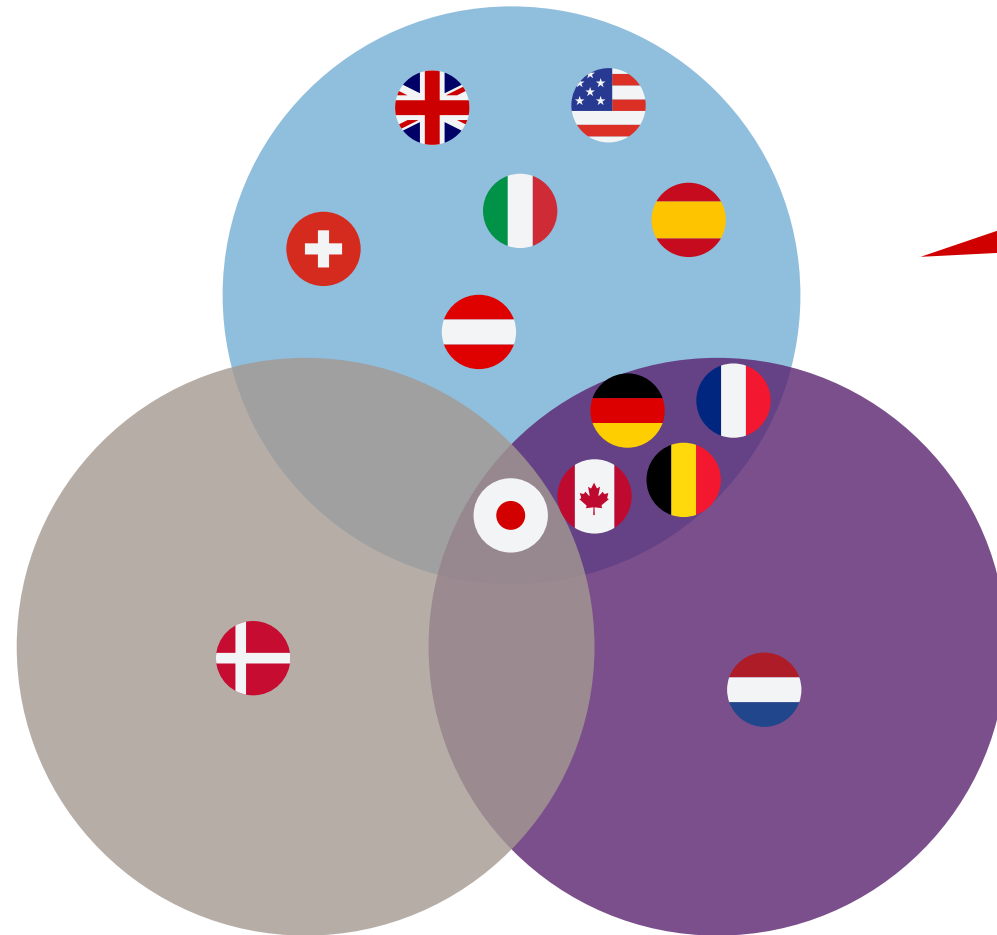
Global assessment

Does recent experience tell us which view is correct?

A bump in the road

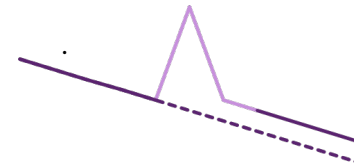


A change in direction



A reversion to trend appears to be the most likely outcome

A parallel shift



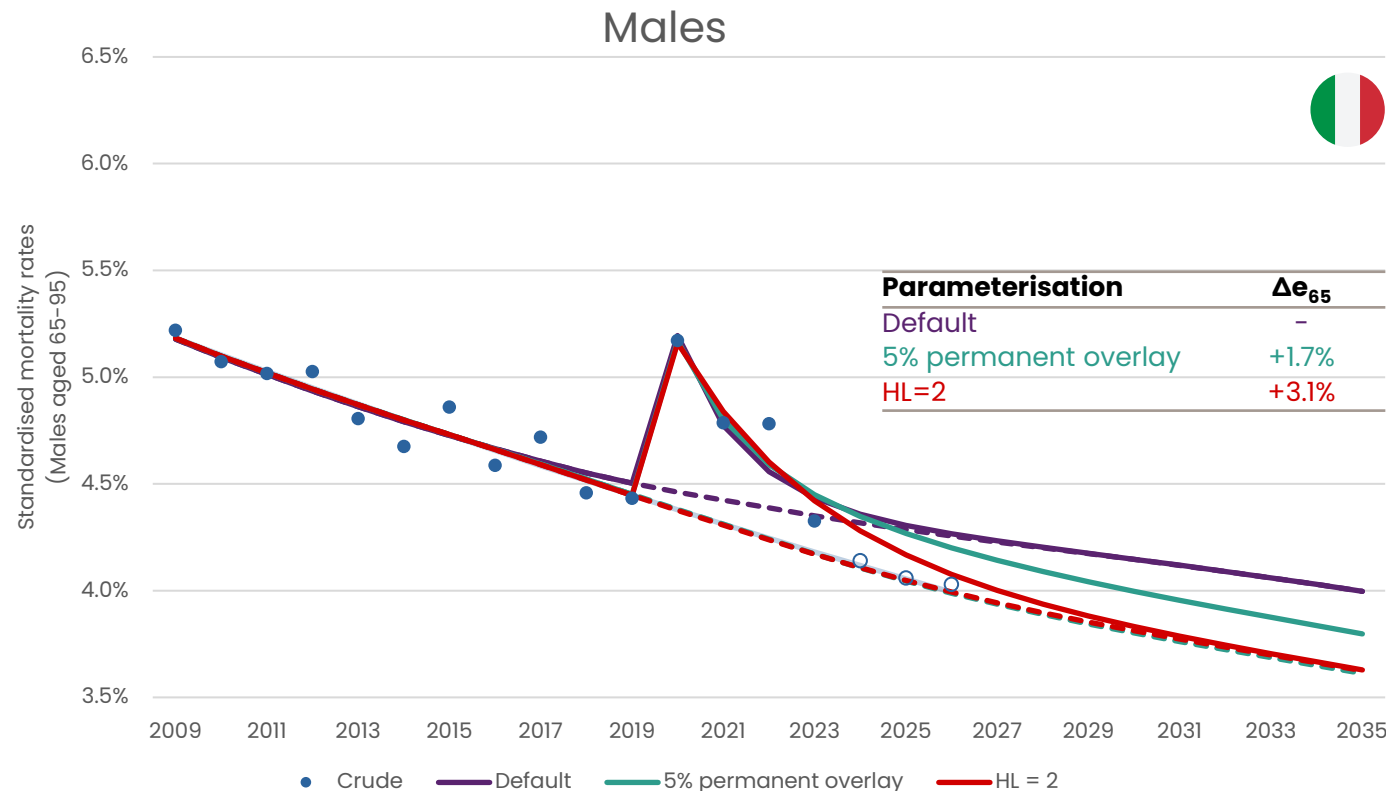
Modelling mortality improvements

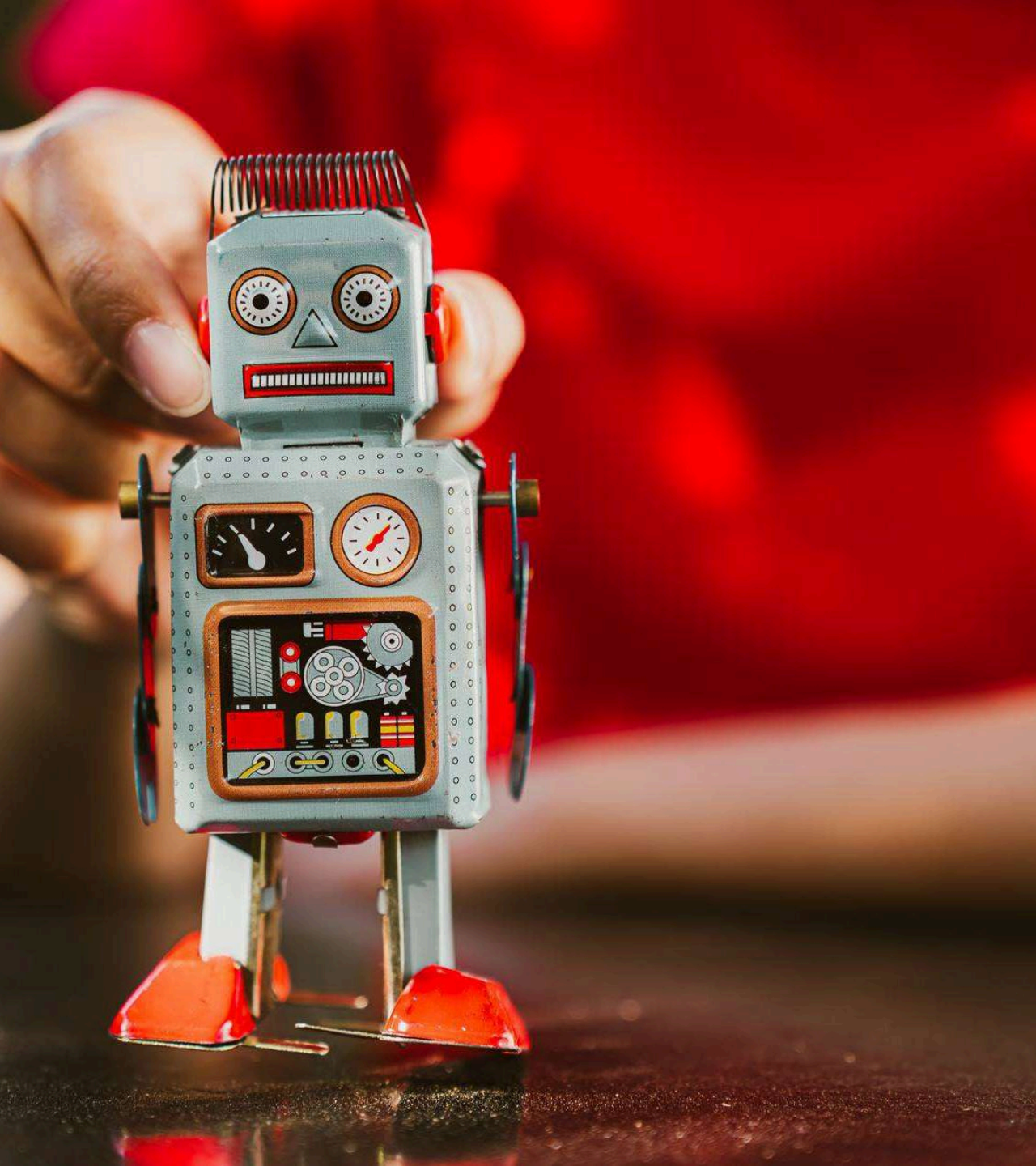
Same CMI model, different parameterisations

Different CMI Model parameterisations can:

- fit observed data equally well, but
- express very different views in on the future projection, and
- result in material differences in life expectancy

The CMI model is only parameterised for the UK. Care is needed when using it elsewhere.





Conclusions

- Returning to pre-pandemic projections is the most common outcome
- The default CMI model is not always consistent with a return to pre-pandemic projections
- Different parameterisations can fit past data well, but produce very different projections
- Every additional post-pandemic datapoint is valuable