

CMI Annual Review 2012-2013

A summary of work undertaken by the CMI over the past year and our future plans

Background

The Continuous Mortality Investigation (CMI) is the largest single research project organised by the Actuarial Profession. It has been accumulating and analysing data on mortality and morbidity risks arising under life assurance, annuity and pension business for nearly 90 years.

A new beginning

From 1 March 2013, the structure and processes of the CMI have been revised, to ensure that it remains fit for purpose in the 21st century. The revisions result from a review, with the Management Board of the Profession, over the past two years. The changes address vulnerabilities in the CMI's previous structure and funding, strengthen its processes and governance and will create a stronger and fairer organisation that will continue to be regarded as 'a jewel in the crown' of the Institute and Faculty of Actuaries.

The key vulnerability identified in the previous arrangements was that the majority of the CMI's funding was on a voluntary basis and, if a life office or consultancy chose not to contribute, it could still use most of the CMI reports, software and tables as they were freely available. As a result, in future the full outputs of the CMI will only be available to those organisations and individuals who register as CMI users, and who contribute the appropriate amount for their organisation. Historical publications will remain publically available.

Organisations are categorised as life offices, reinsurers and consultancies with an appropriate fee structure assigned to each category. An approach has also been agreed for setting fees for other organisations that do not fit into this categorisation. We have written to all existing financial contributors to advise them of the process for becoming subscribers for 2013/14. The changes have also been announced in *The Actuary* and further information, including Terms and Conditions for subscribers, is available on the CMI pages on the Institute and Faculty of Actuaries' website.

Most aspects of the CMI's operations have not changed, although these operations are now undertaken within a new UK private company limited by shares and wholly owned by the Institute and Faculty of Actuaries. This does not change the structure or operations of the CMI – rather, it formalises the CMI as a corporate entity, which will continue to operate as a not for profit research organisation.

Understanding SAPS Mortality

The SAPS Mortality Committee's main focus in the year was on "S2" Series mortality tables. The Committee made a decision to include the latest available data, that which had been received by 30 June 2012, in the graduations. This has led to the tables being issued slightly

Correspondence address: Cheapside House, 138 Cheapside, London, EC2V 6BW

Tel: 020 7776 3820 Fax: 020 7776 3810

www.cmib.org.uk info@cmib.org.uk

later than originally intended – draft tables are due to be released shortly. The methodology used and the range of tables included is very similar to the previous “S1” Series.

The Committee remains keen to explore alternative graduation methodologies which may lead it to perform alternative graduations of the data underlying the “S2” Series tables. The intention is that this would inform the eventual production of the “S3” Series tables.

During the year, the Committee also released an analysis of experience by industry type, published in CMI Working Paper 61 in May 2012 (having previously been issued in draft form to SAPS members in February 2012). This used the dataset collected by 30 June 2010 and demonstrated the high variation between different industry groups, often correlated with differences in average pension amounts.

The Committee’s second publication was the regular annual update on the SAPS investigation – this year analysing SAPS mortality experience for the period 2003 to 2010 based on data collected by 30 June 2011 – which was published as CMI Working Paper 62, also in May 2012, having previously been issued in draft form to SAPS members in November 2011. A further update, based on data collected by 30 June 2012, will be released alongside the draft “S2” Series tables shortly.

In addition to completing the production of the “S2” Series of mortality tables, in the coming year the Committee will consider alternative graduation methodologies for future tables and decide whether an analysis of approaches for carrying out more detailed statistical analysis of mortality improvements would be beneficial.

Life Office Mortality and Critical Illness data

In recent years, the CMI has been seeking to improve the coverage, quality and granularity of the data it collects from life offices, for the Life Office Mortality investigations in particular. Some offices have been able to submit data in the detailed format requested, but many have found it very difficult. One consequence is that the most recent All Office results for the Life Office Mortality and Critical Illness investigations are in respect of 2006.

Our experience led us to recognise that the new data requirements may have been over-ambitious and beyond the capabilities of some insurers at the current time. We also know that insurers’ resources are severely stretched due to Solvency II and other developments.

As a result, last year the CMI launched a special data collection exercise for the years 2007-2011 where it adopted a more flexible approach to data collection and validation. The approach avoided areas that have proved problematical in the past and made data submission as easy as possible for offices whilst still providing valuable aggregated results.

Part of the exercise involved talking to insurers to investigate what data could be provided. Discussions resulted in a high level of support for the initiative and allowed us to collect encouraging volumes of data. Ambitious timescales for the project set an original target to collect all data by 30 September 2012.

The processing of annuity data was prioritised, as the level of these data received by the original target date was initially most encouraging. The Secretariat has sent out individual

office results and the Life Office Mortality Committee hopes to issue an initial set of All Office results in the near future. These results follow the format set out in CMI Working Paper 56 and represent a considerable step forward from results for years up to 2006 which had been based on scheduled data. Generally, data has only been split into fairly high-level product categories at this stage; we hope that offices will be able to help us map their data to the more detailed categories listed in Working Paper 56.

The data coverage for assurances, including critical illness, is less complete. The Secretariat has recommenced processing but some large portfolios remain outstanding which we hope to receive before releasing interim All Office results (for both life assurance and critical illness) in the summer. By doing so, we aim to avoid a discontinuity in the results (compared with earlier years' data submissions) as far as possible.

Data for 2012 is now sought in the same format as 2007-2011. It is hoped that offices unable to submit 2007-2011 data in the timescales of last year's collection exercise may be able to provide this alongside their 2012 data, allowing a second, final, set of 2007-2010 results to be issued, if warranted.

Getting results up-to-date is the main priority for both the Life Office Mortality and Critical Illness investigations. However, each committee has further work planned. Further analysis of the 2007-2010 datasets is expected to be undertaken in the coming year, including working towards "08" Series mortality tables. The Life Office Mortality Committee will also consider an area of growth in the life insurance market – that of underwritten annuities – and explore options for future analyses.

The Critical Illness Committee will complete its work on developing a revised analysis methodology, on which considerable progress was made in the last year. This will allow a more conventional approach based on incurred claims and an allowance for late reporting, and will be published in a working paper shortly. The methodology will be used in the forthcoming 2007-2010 results. The Committee will also aim to progress work to develop a formal statistical model and will shortly launch a consultation on the use of the "AC04" Series morbidity tables.

Mortality Projections

As signalled last year, the latest version of the CMI Mortality Projections Model, CMI_2012, was released slightly later in the year than CMI_2011, as a result of ONS population estimates being made available later. This was because the 2011 Census was factored into these estimates. We expect to be able to release CMI_2013 by October 2013, based on the current ONS release schedule.

As a result of the 2011 Census, the ONS revised its population estimates for the years since the previous Census in 2001. These revised estimates were incorporated into CMI_2012, which was released in February 2013, alongside CMI Working Paper 63. In order to help practitioners understand the impact of the revised population estimates separately from an additional year's data, an updated version of CMI_2011, incorporating the former, has also been made available on request.

When the Model was first launched, we indicated that a review of the structure and parameterisation would be undertaken, after at most five years, in particular to take account

of how the Model is being used in practice. A formal consultation has recently been launched in CMI Working Paper 64. This consultation also encompasses the CMI Library of Mortality Projections, version 1.4 of which was released simultaneously.

Income Protection

Having completed the development of its revised methodology and reporting format, the Income Protection Committee released All Office results for 2008 and 2009 in February 2012. The results pack also included a restatement of the 2007 experience using the new basis and format, and incorporated an extension of spreadsheet-based reporting to provide additional detail for the claim terminations experience.

An analysis of Income Protection experience by cause of claim is being developed. The Committee intends to produce a Working Paper setting out a high-level analysis, and to release alongside it a database of results by cause of claim for the period 1991-2009. We hope that this will enable IP practitioners to explore other areas of the experience.

Feedback

Feedback is vital to many organisations and CMI is no different. We are grateful to all those who have taken the time to provide their views on our work over the year. Further feedback on our activities, including any of the items listed in this Review, is most welcome. Please send any comments to info@cmib.org.uk.

And finally...

The Actuarial Profession and users benefit greatly from the time and expertise donated by the many actuaries and others who participate in the CMI's research committees and working parties. I would like to thank, on behalf of the CMI Executive Committee, all volunteer members and the secretariat for their commitment and support.

In recent years, we have sought to adopt a more open approach to seeking new members of CMI committees and all vacancies are advertised on the Profession's website. It is gratifying to note that there is a strong desire amongst actuaries to support CMI's committees – on each occasion when we sought volunteers during the year, we received more strong candidates than we could accommodate.

This will be the last time I sign off a CMI annual review, as I step down as chairman at the end of June. We are looking for a volunteer with a high level of interest in mortality and morbidity research, and a commitment to continue the long-standing work of the CMI, to fill this role, which will shortly be advertised on the website of the Institute and Faculty of Actuaries. If you are interested in applying, please contact Debbie Atkins, Volunteer Engagement Manager, via the website.

Considerable thanks are also due to the life offices, reinsurers and actuarial consultancies that not only provide financial support but also, in many cases, provide data too. Without your continued support our work could not even begin.

Gordon Sharp, Chairman

April 2013

Appendix

CMI Publications during 2012-13

- Working Paper 61: An investigation into the mortality experience by industry classification of pensioners of self-administered pension schemes (May 2012)
- Working Paper 62: Report on the preliminary results of an analysis into the mortality experience of pensioners of self-administered pension schemes for the period 2003-2010 based on data collected by 30 June 2011 (May 2012)
- Working Paper 63: the CMI mortality projections model, 'CMI_2012' (February 2013)
- User guide for the CMI mortality projections model, 'CMI_2012' (February 2013)
- Working Paper 64: Consultation on the future of the CMI Library of Mortality projections and the CMI Mortality Projections Model (April 2013)

CMI results released to members during 2012-13

Income Protection

- 2007, 2008 and 2009 'All Office' results for Individual business (February 2013)

CMI seminar presentations during 2012-13

- Trends in Income Protection experience 1975-2009 and the IPM 1991-98 graduations, at the Health & Care conference (May 2012)
- Life Office Mortality and Critical Illness data collection at CILA (May 2012)
- CMI update at the Actuarial Profession's Mortality and Longevity seminar (June 2012)
- Update on the SAPS Committee, the latest CMI mortality projections model and the CMI review at the ACA members' conference (February 2013)

Copies of the slides can be found on the CMI's pages of the UK Actuarial Profession's website (<http://www.actuaries.org.uk/research-and-resources/pages/continuous-mortality-investigation-presentations>).