

Minutes of the IAA Mortality Working Group Meeting October 11, 2010 – Vienna, Austria

Members Present

Martin Stevenson, Chairperson
William R Horbatt, Vice-Chairperson
Henk van Broekhoven, Vice-Chairperson
Erik T Alm
Michael Eves
Dieter S Gaubatz
Allen M Klein
Mika Mäkinen
Taisuke Nishimura
Ermanno Pitacco
Brian Ridsdale
Thomas S. Terry

Invited Guest

Pablo Antolin, OECD

Apologies

John Armstrong
Paul Lewis
Marc Tardif

Observers attending

Dimitri Denisov, Russian Guild of Actuaries
Alan Joynes, Institute and Faculty of Actuaries
Erzsebet Kovács, Hungarian Actuarial Society
Jung-Chien Kuo, Actuarial Institute of Chinese Taipei
Safia Lekend, Institut des Actuaire
Gennaro Olivieri, Istituto Italiano Degu Attuari
Lars Pralle, Deutsche Aktuervereinigung e. V.
Harriet Yuan, Actuarial Institute of Chinese Taipei

1. The Chairman welcomed all members, observers, and the invited guest.

2. Minutes of last meeting

In Point 4(e) of the minutes of the previous meeting: “send” should have been “seek”. With this change the [minutes from Cape Town](#), South Africa were accepted.

In response to a question, Martin Stevenson advised that the IAA Secretariat had been advised that expenses for members of the Working Group (most likely travel expenses) had

been requested up to \$2,000 per annum. In the absence of push back, it was assumed that this amount was available.

3. Development of the website

Brian Ridsdale presented two papers in respect of a website for the IAA Mortality Working Group. The purpose of the website is to provide information to actuaries about mortality. Brian outlined the structure of the website and noted that discussions had been held with the Secretariat which had indicated that IT requirements could be met.

The first paper envisaged that the work of members of the subgroup would be included on the website; with such work including hyperlinks to other work in the field (a good example was Brian Ridsdale's paper on cause of death and social and demographic stratification).

The second paper outlined a website that would be a comprehensive data base on international thinking on mortality and longevity; and drawing on both actuarial and non-actuarial resources.

In the discussion, the Group formed the view that the work required to achieve the scope described in the second paper was beyond the resources of the Mortality Working Group. It was considered that the scope outlined in the first paper was achievable plus papers, studies, etc., that were accessible from Mortality Working Group members' local associations.

The Chair thanked Brian for the work carried out to date, and for Brian agreeing to be the first editor.

4. Collection of global mortality tables

Dieter Gaubatz updated the Group on the SoA's Table Manager. The tables were very comprehensive including over 900 U.S. and international tables. There are tables covering insured, annuitant and population lives.

However the tables have not been updated in the past five years because of software difficulties. Also, ease of use could be improved. The SoA was now focussed on rewriting the software, and it is expected that this project will be completed in Q1 2011.

For the foreseeable future, reports to the MWG in respect of the collection of global mortality tables will focus on SoA's Table Manager.

5. Mortality trends and uncertainty

Henk van Broekhoven advised the Group that a subcommittee had been formed comprising himself, Ermanno Pittaco, Paul Sweeting and Al Klein. This subcommittee will work on producing a paper setting out current best practice in respect of setting mortality trends and the uncertainty attaching to predictions of future rates of mortality.

A lively discussion then took place. Some of the points made in the discussion included:

- The paper that is eventually produced should describe the major credible methodologies – not just the method favoured by members of the sub-committee.
- Opinion of medical experts tended to be diverse and not amenable to statistical analysis. However such opinion was very valuable in explaining the underlying causes of past trends;
- Because new drugs generally require ten years to come to market, there is greater certainty about mortality trends over the next ten years; thereafter the possibility of new medical breakthrough increases the level of uncertainty;
- Whilst life expectancy is increasing rapidly, life span has remained relatively constant. That is, the mortality of people at very old ages remains very high.

Henk's committee will report in Sydney.

6. **Pandemics**

Mika Mäkinen provided a presentation on the current status of the A(H1N1) pandemic. It started on 11 June 2009 and ended 10 August 2010. In comparison with past pandemics, the number of lives lost was relatively small although the number of deaths due to the pandemic was understated in developing countries. Moreover nearly all the people who had died had other medical conditions. Because of international travel the pandemic spread faster than previous ones. An outstanding feature of the management of the A(H1N1) pandemic was that medical vaccines and treatments were produced and disseminated very rapidly. Thus most of the deaths occurred in developing countries rather than developed countries. It is not expected that there will be a "second wave" of the pandemic.

7. **Mortality of disabled people**

Ermanno Pitacco presented on the mortality of disabled people. Disability insurance income protection, long term care policies and critical illness (or dread) policies. Ermanno identified six different actuarial approaches to disability annuities. Despite the overall financial significance of these products, there is very little in the way of authoritative data on levels of mortality.

It was agreed that it would be worthwhile for the Mortality Working Group (led by Ermanno Pitacco) to provide a report on mortality data of disabled people plus a description of actuarial valuation models. The first step in this process is for all members of the Mortality Working Group to determine what data / investigations / studies are available from their local associations, and report back to Ermanno. It is anticipated that Ermanno will provide a progress report to the meeting in Sydney.

8. **SoA International Experience Study**

Bill Horbatt gave an update on the work of the SoA International Experience Study, Countries that have been assisted recently include Estonia, Philippines and Vietnam. Areas and countries where some interest has been shown in respect of joining the study include Africa, the Middle East, India and Poland. The number of corporate sponsors of the study has increased.

10. Simplified issues

Al Klein made a presentation to the Working Group in respect of simplified issues.

Simplified issues refers to the practice of a life insurance company writing policies on a basis somewhere between fully underwritten and a guaranteed issue. The most common non-medical information sought was sex, height and weight, country of residence and occupation. Simplified issues have become more popular recently as policies can be written more quickly and the process is less intrusive. It is also a means for a life insurance company to enter new markets. The disadvantage is that rates may be less competitive.

The presentation gave details on:

- underwriting tools used
- ways to minimise anti-selection;
- methods of setting mortality assumptions.

The members of the working group expressed their appreciation of the very informative presentation. A significant feature that emerged from the discussion was the different approaches to underwriting in different countries, often driven by country specific cultural differences (e.g., privacy laws). Accordingly, it was decided to investigate underwriting further, under the guidance of Al Klein and Brian Ridsdale. The starting point is a comparison of underwriting practices in different countries.

[Subsequently, email discussions have been held with the Groupe Consultatif. The EU's Advocate General has recently provided an opinion that rating factors based on gender are contrary to EU law. Whilst the Groupe Consultatif will pursue this issue directly, input from the IAA MWG would be appreciated in respect of fundamental research, to assist on this issue, probably at some future date rather than immediately.]

The meeting requested a presentation from Al Klein on cognitive testing.

11. OECD

Pablo Antolin addressed the meeting in respect of an OECD project on mortality / longevity. The project's main purpose is to assess how pension funds and annuity providers and the regulatory framework incorporate future improvements in mortality and life expectancy. It aims at developing policy recommendations and best-practices in the following areas:

- How do pension funds and annuity providers currently provision for longevity risk?
- What mortality tables are legally required and to what extent do they incorporate improvements in mortality and life expectancy?
- How do liabilities of appropriate provision for longevity risk compare with the liabilities from actual practice and liabilities when applying the regulatory framework.

The project will consist of four main phases:

- market practice: how pension funds and annuity providers currently provision for longevity risk?

- regulatory framework: what mortality tables are legally required and to what extent pension funds and annuity providers are legally required to incorporate future mortality and life expectancy improvements
- the impact of longevity risk: actual data and OECD models used to estimate the impact on pension fund and annuity providers' balance sheets of longevity risk
- policy recommendations and best-practices

It was clear that the Cass paper commissioned by the Actuarial Profession in the UK and the Mortality Working Group would be very useful to the OECD, and once completed will be immediately passed on to Pablo. The meeting also advised Pablo that the working group would be pleased to assist him on any aspect of the OECD initiative – particularly to peer review draft papers.

12. ICA 2014

The chair commented that the nine presentations at ICA 2010 had been well received and had helped gain widespread recognition of the work of the Mortality Working Group.

The aim of the working group for ICA 2014 should be to “raise the bar” by seeking to organise a plenary session and by presenting “deeper” papers at concurrent sessions. Possible presenters for the plenary sessions included Kirkwood, Olshasky Vaupel and Lee.

Al Klein was appointed co-ordinator for the Mortality Working Group for ICA 2014.

13. Other business meeting

- It was noted that Henk van Broekhoven was the Mortality Working Group's representative on the Population Issues Working Group.
- There was discussion about the need to have a longer period than three hours for the IAA committee meetings in Sydney. Consideration will be given to this suggestion. [There is an agenda prepared by the Secretariat that includes the usual three hour meeting for the working group. It will be possible to organise additional time if we so decide.]
- [Outside the meeting Erik Alm kindly agreed to be the person on the working group to determine eligibility of potential new members of our group.]

14. Next meeting

The next meeting will be held in Sydney in conjunction with the IAA Committee Meetings 6-9 April 2011.