



20 June 2008

The Director  
Board for Actuarial Standards  
5th Floor, Aldwych House  
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London  
WC2B 4HN

Subject: Actuarial mortality assumptions: discussion paper

Dear Sir or Madam

Mercer Limited is a global leader for HR and related financial advice and services. In the UK, our client base includes employers and trustees providing occupational pension schemes to employees in all sectors of industry; we provide pensions advice and services to 60% of companies in the FTSE100 but we also have a large proportion of clients that are employers classed as "Small to Medium sized Enterprises", or trustees of pension schemes with sponsoring employers in this class. We also frequently advise employers or trustees on M&A and other corporate and private equity transactions.

The discussion paper published by the Board for Actuarial Standards (BAS) summarises the current debate on the approaches taken by the actuarial profession and the insurance and pensions industries to developing assumptions for valuing benefits that are contingent on future mortality experience. It also puts forward various suggestions for how it could regulate mortality assumptions setting, should it choose to do so. Our response to the paper is provided in the context of occupational pension schemes, rather than other areas of actuarial work relevant to this debate (for example, life insurance).

In general, we do not believe it is appropriate for regulators to set standards that apply to specific assumptions. We prefer a principles based approach to standard setting, applied to the general aspects of the way the profession provides advice to its clients (including employers), that would encompass assumption setting. If this approach is taken, we believe that the concerns BAS appears to have that mortality assumptions are not set appropriately can be addressed in a way that is more likely to be consistent with the other assumptions required to carry out actuarial calculations.



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We have set out our answers to the particular questions asked in the discussion paper in an appendix to this letter.

The Board will have to publish other more specific consultations before it finalises its approach to the setting of mortality assumptions, so we are only responding briefly in this letter. However, if there are any aspects of our response that we could clarify or provide more background to, we would be happy to meet with you to discuss this.

With best wishes,

Yours sincerely

Deborah Cooper



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## Appendix – Detailed questions

### **1. Do respondents have any views on the significance of the adverse effects that the over- or underestimation of future mortality may have on pension scheme members, scheme sponsors, life insurance policyholders and life insurance companies, as set out in section 2?**

As the discussion paper says (para 2.19), “both the over- and underestimation of future improvements in mortality can ... have adverse effects on pension scheme members and their employers”. It is worth considering the differences between occupational schemes and life insurance companies in assessing the costs of these effects.

Insurance companies market products to prospective policy holders. If life insurance companies underestimate the effects of increased longevity in their pricing bases, then shareholders will be required to find extra capital, in which case the policyholder will have got good value from the product; or the firm will become insolvent, in which case the policyholder will not. If longevity is over estimated, then policyholders will get poor value from the product and future generations of shareholders will benefit from release of capital (assuming the error is market wide).

In funding defined benefit pension schemes, if increased longevity is underestimated, then the employer has miscalculated the value of the remuneration paid to the member/employee under the scheme. Provided the employer remains solvent, this can normally be addressed at future valuations and/or by amending benefit levels (exceptions to this would be transfer value and, in some cases, debt calculations). To the extent that extra cost is imposed on the company, there might be a cross subsidy between generations of shareholder. However, provided the employer remains solvent, there are no cross subsidies between employees and shareholder.

If future longevity has been overestimated, then the employer might reduce the terms of the pension scheme unnecessarily, and there will also be cross subsidies between generations of shareholder.

Because of the flexibility available to employers providing occupational schemes, we believe that the adverse affects of overestimation are greater than they would be for an insurance



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company. The opportunity to revisit assumptions and amend terms in an occupational pension scheme does not remove all the adverse effects of underestimating future mortality, particularly where the employer is weak. However, on balance and provided trustees understand the risks, it can be appropriate for trustees and insurance companies to behave differently when setting mortality assumptions for similar populations.

**2. The BAS has discussed some of the issues surrounding mortality assumptions in section 3. In that context:**

**a) Do respondents have views on appropriate methods of communicating the extent and impact of the inherent uncertainty involved in mortality assumptions?**

The appropriate form and content of communication depends on the matter at hand and the audience it is directed at. Mortality is not special in this regard, and we believe it can be covered by BAS's proposed generic reporting standard. We will be responding separately to the consultation on this proposed standard.

**b) Do respondents agree that the use of separate assumptions for base mortality and future changes in mortality, not taking the form of margins in other assumptions, would be desirable?**

Yes, although we do not believe it is possible, or necessary, to rule out the possibility of adopting margins elsewhere in a basis. The ideal would be that each assumption properly reflected the expected future experience, but since the information available to us is always incomplete, this is impossible to achieve. Future improvements in mortality rates are particularly hard to predict, to the extent that it seems impossible to state whether an assumption is prudent. In that case, we believe it could be reasonable to add a margin to a more 'predictable' item of the basis.

**c) Do respondents have views on appropriate methods of communicating the significance of assumptions, both in absolute terms and relative to that of other assumptions?**

See our answer to 2(a).



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### **3. Some proposals regarding the use of summary statistics and benchmarks in reporting on mortality assumptions are considered in section 3.**

#### **a) Do respondents foresee any practical difficulties in communicating the assumptions about subsequent changes in mortality rates underlying life expectancy statistics?**

This falls into a similar area as question 2(a). It will be difficult to explain some of the more complex approaches to modelling future reductions in mortality rates, but various summary statistics can be used to illustrate their effect. It is not necessary or desirable to prescribe particular approaches.

#### **b) Do respondents have suggestions for summary statistics that can be used to describe changes in mortality rates?**

Not for the purpose of a prescriptive standard.

#### **c) Do respondents think that the use of benchmarks is useful, and if so, should the development of standard benchmarks for future changes in mortality be encouraged?**

Benchmarks can provide useful measures, but only if they are relevant to the client. Our practice is to use benchmarks that relate as closely as possible to the scheme. We do not believe our clients would find a prescribed benchmark helpful.

### **4 The BAS would welcome any general comments that respondents may have on the various possibilities for standards set out in section 4. In particular:**

#### **a) Do respondents agree that the BAS should set some standards for mortality assumptions?**

No. We would hope that the proposed, generic, data, modelling and reporting standards should be sufficient to ensure that best practice will be followed in setting mortality assumptions.

A consistent approach to naming standard tables would be helpful and the CMI is beginning to adopt standard approaches to naming mortality tables. We believe that CMI's actions



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should be sufficient. We do not agree that BAS should set any prescriptive standards for setting mortality assumptions.

**b) Do respondents agree that reporting standards would play a significant role in increasing the transparency of assumptions and their comprehensibility to users of actuarial information?**

This will depend on the reporting standard. An appropriate and well written standard should be able to achieve this.

**c) Do respondents have any comments on how to assess the likely impact of possible BAS standards for mortality assumptions?**

It is not clear whether the 'impact' here is on the cost of providing information, or on the effectiveness of the information provided. For example, prescribing standard benchmarks could increase cost but not make assumption setting more effective (in fact it could produce a worse outcome).

We have already found that the best practice expected by BAS (for example, evidenced based assumption setting, where base table and projection assumptions are separately identified) is becoming common. Further progress towards this could be monitored using existing data sources (for example, in collaboration with the Pension Regulator, for pension schemes).

**5. In section 5 the BAS considers possible standards for assumptions about base mortality.**

**a) Do respondents believe that it would be desirable for a BAS standard to require the use of the most recent applicable published tables, taking into account both the communication problems and the practicality of setting a limit on the tables to be used?**

No. Standard tables are based on imperfect information, subjective judgements (for example the choice of the model) and approximations (for example, to enable them to cover the whole age range). Trustees should be able to select the table they believe is most likely to represent the experience of their scheme.



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We would expect trustees to consider the most up to date evidence available to them, in setting assumptions. But this should apply to all assumptions and can be covered in a generic standard.

**b) Do respondents have any comments on the proposals for possible requirements for reporting on assumptions about base mortality, criteria that assumptions should meet, or limits that should be observed when setting assumptions? Respondents are asked to focus on:**

- **any practical problems that might arise in complying with them; and**
- **whether they would further the BAS's aim of increasing the transparency of assumptions and their comprehensibility to users of actuarial information.**

We agree that trustees should be required to consider separately the base table, the method for updating the base tables to the date of the valuation, and the approach taken to projecting the base table to allow for future changes in mortality. However, the appropriate places for the matters set out in section 5 are in actuarial education and in guidance to users of actuarial information. Many of the proposals are included in the Pension Regulators draft guidance to trustees on "Good practice when choosing assumptions for defined benefit pension schemes with a special focus on mortality".

The suggestions in paragraphs 5.46-5.48 can be included in a generic reporting standard. For example, there is nothing special about mortality risk mitigation: in general, steps taken to mitigate risk are likely to affect the degree of prudence required in a basis, rather than the underlying assumptions themselves. It would seem appropriate for this to be covered in a report to trustees, for example, if it was relevant.

We would not agree with including paragraph 5.49 in a reporting standard. Whilst determining whether assumptions are 'best estimate' can (in most cases) be evidence based, the same is not true of 'prudence'. Advisers can only indicate whether an assumption is weaker or stronger than best estimate and the sorts of matter to take into account when considering 'prudence'; it is for trustees to determine the degree of prudence they require. We agree it might be appropriate for BAS to indicate what trustees should take into account when determining whether assumptions are 'prudent' in their case – but these matters are unlikely to be specific to mortality.



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**6. In section 6 the BAS considers possible standards for assumptions about future changes in mortality.**

**a) Do respondents agree there is no objective basis for differentiating the future changes in mortality likely to be experienced by a particular small group of lives from those likely to be experienced by the population as a whole? If respondents disagree, the BAS would be interested in examples to the contrary, together with supporting evidence.**

As the discussion paper notes in paragraph 6.60, it could be appropriate to make different assumptions of mortality improvements for males and females. In addition, there appears to be evidence that the cohort effect appeared later in population data than in CMI data and, although the results might not be conclusive, over some periods different social classes have experienced different rates of improvement. It does not seem possible to be categorical on this and it seems just as spurious to prevent differential rates of increase, as to include them.

**b) Do respondents have any comments on the proposals for possible requirements for reporting on assumptions about future changes in mortality, criteria that assumptions should meet, or limits that should be observed when setting assumptions? Respondents are asked to focus on:**

- any practical problems that might arise in complying with them; and
- whether they would further the BAS's aim of increasing the transparency of assumptions and their comprehensibility to users of actuarial information.

Our answers to this question are the same as for question 5(b).

We would not support any decision to impose limits on any assumptions, but (as with other items of the basis) it would be reasonable to expect that some justification is provided for the particular assumptions selected.



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**In addition to the specific questions listed above, the BAS invites respondents' views on any other aspects of possible standards for mortality assumptions in actuarial calculations. To ensure that the significance of their point is fully appreciated by the BAS, respondents are encouraged to indicate how their comments address the BAS's aim of increasing the transparency of assumptions and their comprehensibility to users of actuarial information.**

Prescription does not improve transparency. Instead it limits debate, diminishes the role of evidence based analysis and restricts the ability of decision makers to make appropriate choices.

We do not know what BAS's technical standards will be like, but we are encouraged by the decision to use a generic and principle based approach. Although there is pressure to move away from this in certain areas, including mortality, BAS should resist it. Instead, it should work with existing structures to ensure that actuarial education and professional standards result in actuaries who are able to recognise and respond to emerging issues appropriately, and that guidance to users of actuarial information supports trustees (and others) to interrogate their advisers adequately for them to undertake their responsibilities.