



**BOARD FOR ACTUARIAL STANDARDS**

**ACTUARIAL MORTALITY ASSUMPTIONS:  
ANALYSIS OF RESPONSES TO DISCUSSION PAPER**

**NOVEMBER 2008**

# 1 INTRODUCTION

## DISCUSSION PAPER AND RESPONSES

- 1.1 In March 2008, the Board for Actuarial Standards (BAS) published a discussion paper on *Actuarial mortality assumptions*, which was intended to inform its thinking during the development of a new book of actuarial standards.
- 1.2 The consultation period ended on 20 June 2008. A total of 38 public responses were received; 8 from professional and trade bodies, 27 from insurers, consultants and actuaries, and 3 from other bodies (see appendix A).<sup>1</sup> There was also one confidential response. In addition, we discussed the paper with several stakeholders and with the Actuarial Stakeholder Interests Working Group. We found the responses to be well considered and helpful, and we would like to thank all those who contributed.

## SUMMARY

- 1.3 Many respondents remarked that the discussion paper presented a balanced view and that it would help to stimulate debate. Two comments to this effect were:

“In general terms, the discussion paper was a very balanced and helpful contribution to the ongoing debate on actuarial mortality assumptions.”

“We welcome the efforts made by the BAS in producing the discussion paper, which is well-informed and thoroughly researched, with clear and well-reasoned discussion.... we believe that the document will be of particular help to actuaries who do not specialise in this area.”

- 1.4 There was general agreement that it was appropriate for the BAS to set standards for actuarial mortality assumptions. However, no respondents thought that there should be limits on the assumptions that could be used. Standards should address the reporting of mortality assumptions and, possibly, criteria that they should meet.
- 1.5 Earlier this year the BAS published a Consultation Paper on the *Structure of new BAS standards*, which proposed the development of three generic Technical Actuarial Standards (TASs) – on reporting, data and modelling – and five or six specific TASs, but not a separate TAS on mortality. The responses it received generally supported the proposals, and the BAS is proceeding with them.
- 1.6 Although we are not intending to issue a TAS that addresses only mortality, matters concerning mortality assumptions will be addressed in both generic and specific TASs. The generic TASs on Reporting and Modelling will contain principles that will affect the reporting and selection of mortality assumptions. The specific TASs on Long Term Insurance Business and Pensions are likely to address the selection of mortality assumptions for particular purposes in more detail, and may include criteria that the assumptions should meet.

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<sup>1</sup> The responses are available at <http://www.frc.org.uk/bas/publications/pub1690.html>.

- 1.7 The responses that we received to the mortality discussion paper will assist us greatly during the development of the planned TASs.
- 1.8 Many respondents felt that there was a danger that standards might result in disproportionate reports. They were also concerned that the standards should recognise the differing needs of the users of actuarial information. We share these concerns, but believe that the use of principles-based standards, along with an explicit recognition of the importance of materiality and proportionality, will address them.
- 1.9 The remainder of this paper considers the responses to the specific questions that were posed in the discussion paper (section 2) and the general comments that respondents made (section 3).

## 2 SPECIFIC QUESTIONS

### BACKGROUND

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?
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2.1 Of the 29 respondents who replied to this question, 21 explicitly agreed that both over- and underestimation of future mortality could have significant effects, and a number of them welcomed the balanced treatment in the discussion paper.

2.2 Most of the comments were concerned with the effects on pension schemes, their members and sponsors. Several respondents made the point that, unlike insurance companies, pension schemes could to some extent rectify matters over time by changing contribution rates. Others pointed out that the benefits pension scheme members receive could be directly affected, through reduced benefits in the event of a wind-up, changes to scheme benefits in other circumstances, or the effects on member options such as cash commutations and transfer values. A few respondents mentioned the risk of pension schemes being closed by their sponsors, or decisions on scheme design (such as defined benefit or defined contribution) being affected by the costs falsely appearing too high. These decisions might have broad social policy implications. Others suggested that other assumptions, such as those concerning future investment returns or changes in market conditions could be more significant than mortality assumptions. Three respondents mentioned the potential effects on the Pension Protection Fund, by way of levies set at too low a level resulting in insolvency of the PPF, levies set at too high a level hastening the closure of defined benefit schemes, or more schemes entering the PPF. One respondent suggested that the effects on defined contribution schemes, and on defined benefit schemes using liability-driven investment strategies, had been understated.

2.3 One respondent suggested that the discussion paper had under estimated the effects of mortality assumptions on non-life insurers: for example, in reserving for mesothelioma claims the financial outcome is very dependent on projections of the number of deaths from the disease of those over 80 years old.

2.4 Three respondents emphasised that the effects on life insurers will depend very much on their mix of business and reinsurance arrangements. Another thought that insurance regulation in the UK has shown that where the mortality assumptions for valuation purposes are set too high, insurance companies will take advantage of regulatory arbitrage, for example by ceding the risk offshore through reinsurance to a less onerous environment.

## ASSUMPTIONS

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

2a) Do respondents have views on appropriate methods of communicating the extent and impact of the inherent uncertainty involved in mortality assumptions?

2.5 Although one respondent said that the uncertainty was such that any quantification of its extent and impact would be spurious, most respondents agreed that communication was important. There was widespread agreement that no one method of communication should be mandated, and that different methods of communication were suited to different contexts and audiences.

2.6 The most common view, expressed by 14 respondents, was that the impact of uncertainty was best communicated through the financial effect on possible outcomes, such as the technical provisions or contribution rates for pensions, or the value of the liabilities for life business. Scenarios were mentioned by 13 respondents, either in this context or as a general technique. There was little support for expressing the impact in terms of an equivalent change in another assumption, such as the discount rate.

2.7 Rather fewer respondents explicitly addressed the issue of communicating the extent of uncertainty. Fan charts, confidence intervals, or other techniques based on stochastic models were mentioned by six respondents, and the use of reasonable ranges of assumptions by two.

2.8 Two respondents believed that the uncertainty arising from random variation was likely to be more important than that arising from mortality assumptions (especially where small numbers of lives were concerned).

2b) 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?

2.9 All those who replied to this question agreed, at least in principle, that separate assumptions would be desirable. However, some respondents thought that there were some circumstances in which combining assumptions, or using margins in other assumptions, might be appropriate. Reasons for doing so included cost considerations, system constraints, and lack of materiality for some lines of business or for some calculations. On the other hand, several respondents felt strongly that the assumptions should always be separate, including one who stated that convenience of calculation should not compromise transparency, understanding and comprehensibility.

2.10 One respondent explained some possible difficulties in moving away from the use of margins in other assumptions:

“... this approach is widely used to avoid over-prudent trustees. In practice if the current set of funding assumptions were taken to be prudent as a whole, with the discount rate adjusted downwards to make allowance for future improvements in mortality, it may be difficult to persuade the trustees to reverse the discount rate adjustment at the same time as making full allowance for future improvements within the mortality assumption. It may be necessary to renegotiate with the trustees

and there is a danger that requiring this change could create an overly prudent basis if previous adjustments cannot be reversed appropriately.”

- 2.11 This comment highlights the lack of transparency inherent in using a margin in another assumption.
- 2.12 There was also a fairly widespread view that it might be undesirable to include separate margins for prudence in each assumption, with an overall margin in a single assumption being more transparent.

2c) Do respondents have views on appropriate methods of communicating the significance of assumptions, both in absolute terms and relative to that of other assumptions?
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- 2.13 The answers to this question were generally consistent with those to question 2a (see paragraphs 2.5 to 2.8). Many respondents referred to the use of sensitivity analyses, comparing the effects of variations in assumptions on the overall financial outputs.

### SUMMARY STATISTICS AND BENCHMARKS

3	Some proposals regarding the use of summary statistics and benchmarks in reporting on mortality assumptions are considered in section 3.
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3a) Do respondents foresee any practical difficulties in communicating the assumptions about subsequent changes in mortality rates underlying life expectancy statistics?

3b) Do respondents have suggestions for summary statistics that can be used to describe changes in mortality rates?

- 2.14 There was a great deal of overlap between the answers to these two questions, with some respondents commenting on the potential scope for confusion in the use of the terms period and cohort life expectancy in reply to question 3b, and others suggesting other summary statistics in their replies to question 3a. We therefore take the responses to both questions together.
- 2.15 Most respondents thought that life expectancies were the most useful summary statistics, although there was widespread recognition that it is important that they are not presented in a misleading way, that the extent to which they allow for future improvements should be explained, and that period life expectancies may present particular communication difficulties. A couple of respondents also thought that confusion between curtate and complete life expectancies was possible. Many respondents also commented on the importance of tailoring the method of communication to the audience.
- 2.16 The complexity of the issues involved was thought by many respondents to pose difficulties in the communication of assumptions about changes in mortality rates, though a significant minority felt that there were no practical difficulties, either in the context of life expectancy statistics or in general.
- 2.17 There were a number of useful suggestions for summary statistics and other techniques that can be used in communicating changes in mortality rates. A comparison between life expectancies at different dates was a popular choice (both period and cohort expectancies were recommended). Also mentioned were annual or average rates of change, a comparison between annuity values or other financial estimates at different dates, heat maps, fan charts

and other graphical methods, a comparison between period and cohort life expectancies and survival rates.

- 2.18 Overall, the majority of respondents appear to be happy with the use of life expectancies as the basis of communication about changes in mortality rates, feeling that their advantages outweigh any disadvantages. However, we note that there were few responses on this issue from users of actuarial information.
- 2.19 A number of respondents expressed the view that BAS standards should not be prescriptive in this area, in terms of either mandating or forbidding the use of specific summary statistics. We are in general agreement with this view, but do not rule out the possibility of mandating specific summary statistics for use in particular well-defined contexts at some stage in the future. We have no immediate plans for any such requirements.
- 2.20 It was also felt that BAS standards should be consistent with requirements imposed by other regulators. We understand this view, but note that other regulators may have different objectives from us and from each other. We will work closely with other regulators with the aim of achieving consistency (see also paragraph 3.8).
- 2.21 Some of the responses to these questions contained exceptionally lucid analyses of the advantages and disadvantages of the use of summary statistics in general and life expectancies in particular. These will be very helpful to us as we develop both generic and specific TASs.

3c) 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?
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- 2.22 Views on the usefulness of benchmarks varied enormously, with even those respondents who thought they would be useful, either in general or under some circumstances, identifying a number of potential problems with their development and use. Others pointed out potential problems, without opining on whether, on balance, they would be useful. A significant minority felt that the problems outweighed any possible benefits, and that benchmarks would definitely not be useful.
- 2.23 Respondents agreed with several of the potential problems identified in the discussion paper as well as suggesting others. The most common concern, expressed by 13 respondents, was that assumptions would tend to cluster around the benchmarks, because they would come to be seen as de facto standards, or would be given more credibility than was warranted. Some respondents felt that this risk could be lessened by not describing them as benchmarks but using some other term, by ensuring that there were several benchmarks covering a wide range of possibilities, or through clear communication. Other potential difficulties included the need to maintain and update them, and the considerable problems and uncertainties involved in any causal analysis.
- 2.24 Some respondents felt that the CMI interim cohort projections were currently serving the purpose of benchmarks, while others suggested alternatives such as the equivalent constant rate of change.
- 2.25 We agree that the scenario-based benchmarks that were suggested in the discussion paper might not currently be practical and might have other problems associated with them. However, we note that several respondents

who might be considered to be users (rather than producers) of actuarial information were in favour of some form of benchmark comparison.

- 2.26 We are not currently minded to require the general use of benchmarks to provide standard comparisons for mortality assumptions, not least because there are no suitable candidates available.
- 2.27 We still believe that the use of some specified comparisons for mortality assumptions might be helpful to users, particularly in the area of possible scenarios for future rates of improvement. We are working with the Continuous Mortality Investigation and other bodies towards the early development of suitable candidate benchmarks.

## STANDARDS FOR MORTALITY ASSUMPTIONS

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:
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	4a) Do respondents agree that the BAS should set some standards for mortality assumptions?
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- 2.28 Only one respondent was against the BAS's setting of any standards in this area, but even they thought that a consistent approach to naming tables would be helpful. However, the general approval was limited to the setting of standards for the reporting of assumptions, with some support for the setting of criteria to be met by assumptions. There was a nearly universal dislike of the idea of setting limits on assumptions. Several respondents indicated, in response to this question or to others, that they thought that there was nothing special about mortality assumptions, and that the BAS should not treat them any differently from other assumptions about the levels of decrements, economic assumptions, or indeed any other assumptions.
- 2.29 We share respondents' concerns about standards that impose limits on mortality assumptions, as we indicated in the discussion paper.
- 2.30 Several respondents, while doubtful about the need for standards on setting mortality assumptions, thought that guidance would be helpful. The credibility of experience analyses was an area that was especially prominent in this context. The BAS does not take the view that its role as a standards setter is to issue guidance to actuaries, and has determined that any standards it sets will be mandatory. It believes that the setting of principled criteria that assumptions should meet would achieve the desired effect, by encouraging good practice without limiting the form that it might take. It will consider this point further when developing its TASs on Long Term Insurance Business and Pensions. One respondent suggested that it might be possible to set limits within which very little disclosure was required, with increased requirements for disclosure outside the limits.
- 2.31 Many respondents felt that the BAS should set standards for reporting mortality assumptions, but there were differing views on the aspects of assumptions that such standards should address.
- 2.32 Eight respondents encouraged the BAS to set standards in the area of consistent and unambiguous terminology, including naming conventions for tables and projection methods. However one respondent pointed out that standard naming conventions, such as that used by the Continuous Mortality Investigation, may be meaningless to non-specialist readers. Four respondents highlighted the need to communicate the rationale underlying

the choice of assumptions, while three thought that levels of disclosure should be such that other actuaries could reproduce the results.

- 2.33 Our generic TASs on reporting and modelling are likely to cover the need to explain the rationale underlying any assumptions that are made, including those concerning mortality, and the need for clear communication of what the assumptions actually are. We currently have no proposals to prescribe terminology, but may consider the point further when developing the TASs on Long Term Insurance Business and Pensions. The reporting TAS is likely to emphasise the need for communicating in a way that is useful and comprehensible to the intended user.
- 2.34 One respondent found the question strange, and wondered what the purpose of the BAS was, if it was not to set standards. The BAS does not necessarily intend to set standards for all possible aspects of actuarial work. As explained in paragraphs 1.6 and 3.5, it will consider mortality in the context of each of its mandatory generic and specific standards, rather than singling it out for special treatment.

4b) 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?
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- 2.35 Again, there was broad support for the idea that standards on the reporting of mortality assumptions would play a significant role in increasing their transparency and comprehensibility, although a number of caveats were expressed.
- 2.36 Several respondents appeared to assume that reporting standards would consist of required terminology and specific types of information that should be supplied, and noted that additional explanations would be needed in order to increase transparency. They were also concerned that standards should be flexible enough to be appropriate in the many different circumstances in which they might be applicable. Others noted that different information would have to be supplied in order to increase transparency to the user of the information from that which would increase transparency to other specialists. There was a widespread recognition that communication should be tailored to the recipient.
- 2.37 We share the concerns of many of these respondents. It is likely that our generic TAS on reporting will emphasise the need to present information in a way that will be understood by its intended audience and the undesirability of swamping material information with spurious detail. Both the generic TAS on reporting and that on modelling are likely to include high level principles on the reporting of assumptions that will not dictate particular modes of explanation.
- 2.38 The BAS's *Scope and Authority of Technical Standards* allows departures from a TAS that are immaterial – in other words, if the departure is not such that, at the time the work is performed, the effect of the departure (or the combined effect if there is more than one departure) could influence the decisions to be taken by the intended recipients of the work product.

4c) Do respondents have any comments on how to assess the likely impact of possible BAS standards for mortality assumptions?
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- 2.39 Several respondents pointed out that assessment methods would depend on the form of the standards being assessed. Several different types of impact, in

terms of both benefits and costs, were identified, nearly all of them difficult to measure. Possible benefits included more informed decision making by users of actuarial information, while costs included compliance costs, increased costs to users caused by the inclusion of more information, and any costs resulting from changes in the assumptions used. One respondent pointed out that changing mortality assumptions might change the pattern of contributions to pension schemes but would not directly affect the eventual benefits paid out.

- 2.40 Two respondents suggested running a pilot project in order to assess the impact, while two others suggested that surveys and discussions with those affected would be useful.
- 2.41 One respondent wondered whether the inclusion of this question implied that the BAS foresaw significant changes to existing practices. We may set standards for the reporting of mortality assumptions, or for criteria that they should meet, but do not currently intend to set limits on assumptions.

### ASSUMPTIONS FOR BASE MORTALITY

5	In section 5 the BAS considers possible standards for assumptions about base mortality.  5a) 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?
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- 2.42 While respondents agreed that current trends and the latest research should be taken into account when choosing mortality tables, there was strong opposition to a BAS standard requiring the most recent applicable published tables to be used. Only a few respondents expressed even qualified support.
- 2.43 The main reason for the opposition was that it was thought that the choice of published tables was one of judgement. Eleven respondents pointed that older tables may be more appropriate for some groups of lives, for instance if they provide a better fit to the underlying data, while others identified the difficulty of defining what the most applicable published table actually is. Nine respondents identified potential practical problems that might arise when new published tables become available.

5b) 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.
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- 2.44 Respondents generally supported the reporting proposals and the criteria, although with some reservations. Unsurprisingly, given the responses to earlier questions, no support was expressed for limits that should be observed when setting assumptions.

- 2.45 There was a general concern that, if the disclosure requirements were too specific, they would be too burdensome and could result in disproportionate reports. One respondent pointed out that much of the suggested detail could be irrelevant for small pension schemes where random variation is more significant than any error in underlying assumptions.
- 2.46 Three respondents did not agree that the sources, extent and impact of the risk and uncertainty in the base mortality assumptions should be described, although the importance of these matters was acknowledged. Another suggested that many of the proposals applied more generally than to mortality assumptions, and would be appropriate in the generic reporting standard.
- 2.47 Three respondents opposed the inclusion of a statement on whether the mortality assumptions were a best estimate or prudent assumption because of the practical difficulties in determining prudence. Two others noted that in the context of pension scheme funding the decision regarding prudence belongs to the Trustees.
- 2.48 We share respondents' concerns about the possibility of disproportionate reports but note that the generic TAS on reporting is likely to address the matter through a principle that material information should not be obscured by the inclusion, in an inappropriate way, of items that are not material or not relevant. We are aware that in the context of scheme funding it is the trustees who decide on the assumptions. However we believe that it is important that it is clear whether the information on which the trustees base those decisions represents best or prudent estimates. The generic TAS on modelling is expected to address this matter.

#### **ASSUMPTIONS FOR FUTURE CHANGES**

6	In section 6 the BAS considers possible standards for assumptions about future changes in mortality.
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	6a) 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.
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- 2.49 The majority of respondents agreed that 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. However most respondents felt that any standards set by the BAS should not prevent the use of different rates of improvement for different groups as there may be justifiable reasons for doing so. Six respondents disagreed with the assertion, but none supplied any supporting evidence.
- 2.50 Several respondents suggested that future research may improve understanding of the factors which lead to longer life expectancy, enabling objective differentiation to be made. There were also suggestions that there may be justification for differentiating by, for example, gender, socio-economic group or health.

6b) 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.

- 2.51 Respondents broadly supported the proposals for reporting requirements and criteria that assumptions should meet. Consistency with responses to earlier questions was again maintained: no support was expressed for limits on assumptions.
- 2.52 There was again a concern that, if the disclosure requirements were too specific, they would be too burdensome and could result in disproportionate reports, especially when simple models had been used. One respondent stated that they could foresee practical problems in determining which parameters used in a particular mortality table projection model should be disclosed. Two respondents were unsure about the need to disclose how assumptions reflect any mitigation of mortality risk through swaps or other arrangements.
- 2.53 One respondent stated that they did not believe that it was appropriate to be required to specify whether assumptions about future mortality changes were best estimate or prudent, noting that reporting should be objective and that best estimate and prudent are not clearly defined.
- 2.54 Three respondents noted that it would not always be appropriate for future mortality changes to differentiate between sexes, for instance if the vast majority of the group of lives under consideration were male.
- 2.55 There were differing views on whether the proposals would increase transparency, with one respondent suggesting that transparency to non-technical readers would not be increased. Another commented on the difficulty of producing a single standard for the various users of mortality information.
- 2.56 The comments about proportionality, materiality and best estimate or prudent estimates made in paragraph 2.48 apply as much to assumptions about future changes as they do to assumptions about base mortality rates. We agree with most respondents that it is important that actuarial information be tailored to the recipient. It is likely that the generic TAS on reporting will address this issue.

### 3 GENERAL COMMENTS

- 3.1 In addition to the specific questions listed in section 2, we invited respondents' views on any other aspects of possible standards for mortality assumptions in actuarial calculations. To ensure we fully appreciated the significance of their points, respondents were encouraged to indicate how their comments addressed our aim of increasing the transparency of assumptions and their comprehensibility to users of actuarial information.
- 3.2 Many respondents commented favourably on the paper, stating that they found it a well balanced and helpful contribution to the ongoing debate on actuarial mortality assumptions.
- 3.3 Several common themes emerged, many of which were also addressed in the responses to the specific questions.
- 3.4 There was strong opposition to setting limits for mortality assumptions. The BAS does not currently intend to set limits. However, it does not rule out the possibility in the future.
- 3.5 Many respondents thought that the BAS should not concentrate solely on mortality assumptions, but should address assumptions more generally in its generic standards. We recently consulted on the structure of our new book of standards, and our plans do not include the development of a separate standard on mortality assumptions. It is likely that matters relevant to mortality and other assumptions will be addressed in the three generic TASs on reporting, data and modelling, as well as in the relevant specific TASs.
- 3.6 There was also a widespread concern that standards might result in disproportionate reports that were inappropriate for their audience. We share this concern, and believes that the use of principles-based standards, along with an explicit recognition of the importance of materiality and proportionality (see paragraph 2.48), will guard against this.
- 3.7 Several respondents recognised the need for further research in the area of mortality and for the education of those using actuarial information, and several regretted that the discussion paper had not placed more emphasis on matters that might be significant for term assurance, such as pandemics.
- 3.8 Some respondents felt that the role of the BAS in setting standards was not clear, and that there should be more clarity around the relationship of BAS standards with the rules set by the FSA and the Pensions Regulator and in the context of financial reporting. We liaise closely with other regulators, who have different objectives from us and from each other. We cannot rule out the possibility of producing standards that are inconsistent with the immediate requirements of other regulators but in such circumstances we would work with them to resolve the inconsistencies for the benefit of those undertaking relevant work. In any impact assessment we carry out, we will examine the consistency of the proposed standards with the current requirements of other regulators.
- 3.9 Two respondents thought that there was a need to address the distinction that is drawn in the scheme funding regulations between assumptions based on prudent principles and prudent assumptions. We will bear this point in mind as we develop the TASs, especially the specific TAS on pensions.

- 3.10 Two respondents asked whether BAS standards apply to actuaries working in the public sector, given the statement in the discussion paper that work concerned with public sector and government matters, and the long term costs of health care, is outside the scope of BAS standards. The statement was intended to mean that matters of social policy are outside the scope of BAS standards. The precise scope of BAS standards in relation to actuarial work performed by actuaries in the public sector will be determined during the development of the relevant standards, and will be consulted on at that time.
- 3.11 One respondent suggested that the BAS might wish to distinguish between standards for external disclosure and standards for internal disclosure, such as documentation. Our generic TAS on modelling is likely to address this issue.
- 3.12 Another suggestion was that the BAS should consider reviewing the currently-published actuarial guidance with the specific topic of mortality in mind. The BAS does not currently intend to revise the Guidance Notes that it adopted from the Actuarial Profession, unless it is necessary to do so because they have become obsolete or inconsistent with legislation or regulation. It believes that its limited resources are better directed towards the development of its new standards.

## A LIST OF RESPONDENTS

### PROFESSIONAL AND TRADE BODIES

Association of British Insurers	National Association of Pension Funds
Association of Consulting Actuaries	Society of Pension Consultants
Confederation of British Industry	The Actuarial Profession
Pensions Management Institute	
Pension Protection Fund	

### INSURERS, CONSULTANTS AND ACTUARIES

Allan Martin	Legal & General
Aon	Lucida plc
Barnett Waddingham	Mercer
Deloitte	Norwich Union
Friends Provident	Pearl Group
Gen Re	PricewaterhouseCoopers
Government Actuary's Department	Prudential
Hewitt	Punter Southall
Hymans Robertson	Royal London Mutual Insurance Society
Ian Reynolds	SCOR
Keith Miller	Standard Life
KPMG - Life Insurance Actuaries	Towers Perrin
KPMG - Pensions Actuaries	Watson Wyatt
Lane Clark & Peacock	

### OTHERS

Balfour Beatty  
Hundred Group  
Nottingham University

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