

HBOS Response to Board for Actuarial
Standards
Modelling: Consultation Paper
November 2008

Feedback for BAS Modelling Consultation Paper

Overall

The overall feedback on the paper is that the suggested principles and context of the document is very sensible. The view held was that these represented best practice and recognised that they should be applied when using models. A key point was around proportionality, to ensure that the standard is not overly onerous for less material models resulting in non adherence to the principles in general.

A question was raised regarding the operation of this standard when considering models built and used by multiple disciplines, e.g. risk practitioners.

1) Purpose

The four statements adequately summarised the purpose of modelling TAS. The use of "sufficiently" was questioned considering that modelling is limited as indicated by point d) and may therefore not be sufficient. It was agreed that it should represent the real world on a best endeavours basis, taking into account best practice and the available data.

2) Definition of model

It was felt the definition was generic enough to cover all envisaged models.

3) Documentation, proportionality, judgement

We agree with the sentiments made in 3.15, 3.22 and 3.27.

4) Materiality

The part of the statement regarding documentation is a bit convoluted and could be clearer, but agree that materiality should also refer to the documentation of the models

5) Documentation

The TAS should contain principles on documentation, but we need to be careful that the requirement for documentation should also be proportionate to the complexity of the model and the purpose for which it has been built.

6) Relevance

4.12 ties in with the overall purpose of the TAS, point a). It is questionable that one could take into account ALL materially relevant phenomena, and thus there is an element of judgement required and consideration of best practice and available information. Agree strongly with 4.17.

7) Data

5.17 – agreed. For 5.28 and 5.29 quantifying the effect of non grouped or alternatively grouped data could be very difficult and thus compliance with these principles may be limited to a theoretical discussion. 5.35 – agree strongly and particular consideration of consistency between a model that uses information from another model, not necessarily in the same "suite" of models. 5.42 – While unable to give an immediate example of a point estimate that is not statistically definable, we were not sure that it had to be, as long it can be explained. 5.51 – see question 10 below.

8) Data

- a) Yes
- b) Yes, where possible.

9) Grouped data

Yes, where possible, but not a requirement.

10) Best Estimate

Agree that it should be independent. The statement in 5.51 is a little confusing could be simpler, possibly just as set out in question 10?

11) Prudence

- a) Agree it is dependant on context.
- b) Where the best estimate is known, it should be presented, but circumstances may exist where a prudent view is taken because a best estimate not clear.

12) Ranges

Where a range can add value to the information it should be included, but not for every point estimate.

13) Fit for purpose

6.8 - agreed

6.12 - agreed

6.20 – given that reality is often based on historical experience and models are used to project the future, we feel it would be preferable to state that the model is not an unreasonable representation of the future

6.28 - agree strongly

6.33 - agree strongly

14) Reproducibility

We could not imagine any.

15) Back testing

There are potential issues where there is limited data or shift changes in the environment such that either the back testing is of limited value or the projected view of the future is expected to be different from the observed past data. However, would suggest that it should be recommended as best practice where possible or appropriate.

16) External models

Agree that it is desirable, but do not believe it can be at the same level of detail as for own models. Outputs from the models should be checked for reasonableness and suitability for purpose. Reliance is placed on the developer to provide the documentation.

17) Robustness

Agree in accordance with the definition of robustness as used here. Also reasonableness

18) Justification of Sensitivity tests & Utility of models

7.29 – Concern was raised that requesting that justification be given for all assumptions not sensitivity tested might be onerous. It is presumed that this relates only to explicit assumptions included in the model and not to implicit assumptions and variables that have been omitted based on judgement.

7.41 - Agreed

19) Sources of model error

Yes, could not envisage any other sources of error.

20) Explanation of model limitations

Agree that the third option should be taken.

21) Should TAS stipulate limitations to be explained

It was felt that a check list can be provided to help modellers ensure that they have considered and communicated all material and relevant areas of model error, therefore not a select list that have to be included and not an all inclusive list that would result in an unwieldy presentation of information

22) Any other matters?

None