I appreciate the work of the Actuarial Standards Board (ASB) and its committees to consider a standard of practice related to models. Actuaries have been using models extensively over the course of time and having a standard of practice is long overdue. There are many worthwhile ideas and concepts that are described in the exposure draft.

In addition to responding to the six questions that were asked, I have added additional observations, concerns and questions.

The task force would appreciate comments on all areas of this proposed ASOP and would like to draw the readers’ attention to the following questions in particular:

1. Does the proposed standard provide sufficient guidance to actuaries working with models?
   It is not entirely clear what detailed documentation needs to be performed and retained. Given the broad scope of the draft standard, parts of the standard read like a practice note, outlining what may be desirable or good practice, but not necessarily required in all cases.

2. Is the proposed standard sufficiently flexible to allow for new developments?
   It appears that given the scope of the draft standard, it does appear to be flexible enough to cover new developments.

3. The draft ASOP starts with a wide scope, but allows the actuary to use professional judgment to identify those instances (such as those involving minimal reliance by the user, or resulting in a non-material financial effect) where some guidance described in this ASOP is not appropriate or practical. Is this clear and appropriate?
   Yes, these instances do appear clear and appropriate. Most would agree that not every actuarial model needs to stand up to these standards. What is not entirely clear is the use of models in areas such as pricing. In areas such as these, documentation of the final models that are used to support product development should fall subject to the standard, but what about intermediate models that are used by principals to shape the products during the process. In many cases these are relied on by the user in a significant way.

4. In those instances where some guidance described in this ASOP is not appropriate or practical and the deviations from guidance are “not material,” the actuary does not need to disclose these deviations. Is this clear and appropriate?
   Yes, these instances do appear clear and appropriate.

5. Appropriate documentation simplifies later use and development of current models as well as allowing easier review by principals and other actuaries. Section 3 contains guidance with regard to documentation. Is this guidance clear and appropriate?
   Section 3 contains lots of guidance that appears to be best practice, rather than a minimum required by a standard. This is the section that I believe comes close
to being a practice note, providing guidance on good practice. The guidance is clear. I do not believe it is necessarily appropriate as a standard.

6. Does the use of bold font to identify defined terms improve the readability and clarity of the standard? If not, what suggestions do you have to improve the recognition of defined terms in the standard?
Overall, I believe it helps to improve readability of the standard. There are paragraphs that use many of the defined terms, which results in lots of use of the bold font. In those few cases, it does not clarify.

Other comments:
The effective date does not make it clear what aspects of using models are required. Does this apply to existing models that are used after the effective date, or does it only apply to new models developed after the effective date. If the former, a transition time longer than four months may be required.

The draft includes many good suggestions. In some cases the good suggestions appear to be “best practice” rather than a minimum standard. It also appears to result in many cases of “should consider” comments? Does the standard get diminished because the scope is so broad?

There are many instances in the draft standard where it says the actuary should consider, meaning that it is not required. Is it really the intent that the scope of this standard will cover any model used by an actuary in any practice area? Actuaries use models in many places. Many of these models (especially capital markets models – a.k.a. economic scenario generators) are developed outside of the actuary’s expertise. A method of selecting model points to represent groups of policies is a model. Are shortcuts a model?

Does an actuary outside of “traditional” actuarial roles using a model need to comply with the standard? Consider an investment professional who is an actuary or a finance professional with actuarial credentials who works with models for an insurance enterprise.

I am concerned the standard may set unrealistic documentation expectations on models that are run with high frequency. If you adhere to the standards that the model needs to be documented with every realization of the model, it could be quite burdensome for some of processes that use models like pricing or hedging, where there are many realizations of the model and the results are not insignificant.

In Section 3.3.1 the validation described appears to rely heavily on analyzing the model outcomes to determine validity. I believe that validation is also an important requirement of the development phase of models.

In Section 3.3.2 there is only a cursory discussion of governance. More detail
could be spelled out in this section. The draft does not describe roles and responsibilities of the various developers, users or others who may interact with the models or model output. Again, more could be described to make it clear what roles and responsibilities are required.

There places where actuarial judgment is discussed, but no mention of the support or rationale for using it. This has been a point of interest with regulators in the case of Solvency II. This should not be a stopping point for this standard, but indicates the value professionally of additional work within the profession to clarify this issue. It is a challenging one that includes many aspects and will not be able to be addressed within one standard.

Thanks,

John Esch, FSA, MAAA
Vice President – Corporate Actuarial

Allianz Life Insurance Company of North America | www.allianzlifecom