Comment #32 – 9/30/13 – 10:08 p.m.

Overall Comments:

This draft ASB needs to be rewritten to address the following issues:

1. The document states that it need not be followed in several circumstances (paragraph 1.2) yet creates a documentation burden for any such deviation (paragraph 3.1.3) in all cases. By including language for the use of models that the drafters acknowledge is not appropriate for many uses of models, the drafters are creating unnecessary litigation risk and documentation burdens on actuaries.

2. The structure does not follow ASOP standards – most of the discussion about communication and disclosure is in paragraph 3.4 and belongs instead in Section 4 (Communications and Disclosures). In addition, discussion about scope is included in paragraph 3.1 and belongs instead in paragraph 1.2 (Scope).

3. The draft does not sufficiently address the situation whereby the actuary is directed to use a certain model and with certain assumptions. This is frequently the case with regard to pricing/ratemaking work whereby the actuary is leveraging off of work done by others. (Examples include the underwriting profit margin from an insurer's profit or internal rate of return model, and catastrophe load results to be used in property insurance pricing.)

The resulting document seems to be more appropriate to a discussion paper or a practice note than an ASOP.

Answers to questions in the Exposure Draft:

Q1. Does the proposed standard provide sufficient guidance to actuaries working with models?

A1. No, for the reasons specified in the overall comments and in the detailed comments below. The guidance is frequently irrelevant with no clear message as to when it may or may not be relevant.

Q2. Is the proposed standard sufficiently flexible to allow for new developments?

A2. No, as it does not sufficiently address the situation whereby the actuary relies on others for the choice of models and/or the output of models.

Q3. 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?

A3. It is not appropriate. The current wording (and requirement to “justify limiting the full application of the guidance”) provides an unnecessary burden to any actuary seeking to comply with this document. The guidance should be clearer as to which sections/paragraphs apply to which situations. In general, the approach taken in this draft is better suited to a practice note than an ASOP.

Q4. 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?

A3. It is not sufficiently clear. There are some paragraphs where it is clear and many where it is not. The guidance should be clearer as to which sections/paragraphs apply to which situations. In general, the approach taken in this draft is better suited to a practice note than an ASOP.

Q5. 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?

A5. There was only one paragraph in Section 3 that addressed this issue (i.e., paragraph 3.6). That paragraph was extremely generic and did not seem to have any clear tie to the “modeling” topic. As such, this wording is probably better suited to a general practice standard such as ASOP #1.

Q6. 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?

A6. Yes, it does improve the clarity of the document.

Detailed Comments (by paragraph number)

1.2 Scope

This paragraph says

> *“… there may be less significant instances, such as those involving minimal reliance by the user, or resulting in a minimal financial effect, where some guidance described in this ASOP is not appropriate or practical, as discussed in section 3.1.”*

This wording essentially says that this guidance is not always useful or relevant, yet it leaves the choice of when it is relevant up to the actuary. There is already a way to address guidance that is not appropriate via “deviation” language found in all ASOPs. Hence this wording is unnecessary if the concern is that there may be rare instances where the guidance is not appropriate. Yet this wording seems to say that the guidance will frequently be inappropriate.

If this language will frequently be inappropriate, then it is not appropriate for an ASOP. Instead this calls for a Practice Note, Discussion Paper or educational paper.

This draft ASOP also implicitly requires the actuary to document any such judgment call to not fully apply the guidance (via the language in paragraph 3.1.3), thereby increasing the burden on the actuary. This language creates unnecessary litigation risk that can only be fully mitigated through always applying all the guidance in this ASOP (even where not appropriate) or by not using a model even when appropriate.

2.8 Margin

There are (at least) three types of margins that this definition could refer to, not all of which may be appropriate for the guidance. As such, more specificity is needed in this definition.

These three types are:

- A margin for adverse deviation – i.e., a conservatism
- A reflection of the market charge for risk – this is not a conservatism but instead is a market price of risk
- A correction for a known or perceived bias – this is not a conservatism. It is a correction that adjusts a value to an unbiased state.

2.9 Model

This definition of a model is way too broad and general to be appropriate for an ASOP. Virtually all of an actuary’s work could be deemed to be governed by this ASOP. This creates an unreasonable burden on the actuary to either follow this ASOP (full application) in all situations or to judgmentally opt out, but then have to identify, justify and disclose the rationale for deviating from this ASOP. Additionally, such a broadly worded definition unreasonably increases litigation risk for the practicing actuary.

3.1 Application of ASOP Guidance
The "guidance" in this paragraph belongs in the scope section, as it discusses the situation as to when the guidance applies.

3.1.2 Models Developed by Others
This section says that

> *"If the actuary uses a model designed or built by someone else … full application of the guidance in this ASOP may not be necessary."*

This guidance, however, still requires (via paragraph 3.1.3) the actuary to justify not applying the full guidance. As such, this wording is not effective. If the desire is to limit the expectations with regard to using a model designed or built by others then there needs to be better coordination in the standard between the two paragraphs.

This paragraph also requires an actuary using a model built by another to "*make a reasonable and appropriate attempt*" to understanding :

> *"a. the basic workings of the model;*
> *b. major sensitivities and dependencies within the model; and*
> *c. key strengths and limitations of the model."*

I question whether this should always be the case. For example, many property/casualty companies have one area develop the model for determining profit loads for the company's rate filings. The results of such models can't be called immaterial to the ratemaking workproduct, yet knowledge of such models workings is not considered a key part of the actuary doing the individual rate indications. They are using a tool developed by others and standardized for use throughout the company. It is comparable to using an excel macro developed by one person in a department that is relied upon by all in the department. The actuary doing the rate indication is focusing (and is responsible within the company) for the loss and premium components of the indication, not the profit load, yet this draft ASOP implies otherwise.

(Note that if this component of the rate indication is challenged in a rate hearing, it is a separate actuary that testifies with regard to that component.)

3.2.1 Designing, Building, or Developing the Model for the Intended Application
The last sentence of this paragraph provides a list of required considerations for all designing, building or developing work. All items in this list are required considerations as the paragraph is currently worded. But ot all the items in this list are necessary for many modeling applications. For example, a pricing model designed to differentiate between different insureds for auto insurance would not need to bother with "stochastic analyses or stress testing". They also may

not need to worry about “volatility around expected values”, as their focus is more with regard to the volatility or sensitivity of the expected value indication. Recommend that this list be a list of possible considerations, depending on the application, rather than required considerations for all applications.

3.2.2 Selecting or Using the Model for the Project’s Objective,
3.2.5 Model Structure
3.3 Mitigation of Model Risk
These paragraphs (or some new paragraphs) need to consider the situation where the actuary is directed to use a certain model – i.e., has no role in selecting which model to use. Examples include, but are not limited to, profit load models and catastrophe models.

3.2.7.a.4 Experience Used (margins)
This bullet point says that the actuary should consider:

> *“whether it would be appropriate to include a margin for an assumption or parameter where experience data are not full credible and where the assumption or parameter is significant”*.

Such guidance is deficient as it does not discuss the type of margin that the actuary should consider. (See comment on paragraph 2.8, definition of Margin.) The guidance should probably vary for situations where the margin is a correction for a perceived bias, versus where the margin might be viewed as conservatism. The use of margins may also be dictated by the context, yet this “guidance” does not point to context as a determinator of whether or not a margin is appropriate.

3.2.7.c Consistency
The second sentence of this paragraph would benefit from a slight change by adding somewhere the phrase “*where the model used includes an economic scenario generator*”. As worded it implies that all models include economic scenario generators.

3.2.7.e Documentation
This paragraph requires the actuary to document “*assumptions, data and parameters used in the model*”. Used by whom? By the modelers or by the actuary using the model? There can be a huge difference in these two for some models. Where the actuary is using a model built by others, the actuary should only be required to document the model used and the actuary’s input into the model, not the input (i.e., assumptions, data and parameters) of the model builders.

3.4 Presentation
This paragraph (and all its subsections) appears to belong in Section 4 (Communications and Disclosure), not Section 3.

The second sentence of this paragraph also requires the actuary to explain any changes made subsequent to a prior realization. This is not always possible nor desirable. The "prior realization" may have been done by another actuary who is not available. The "prior realization" may also not be relevant to the current assignment (e.g., performed for a different line of business or geographic area). Hence this requirement to explain changes from prior realizations needs to be changed to a consideration (as it is not always appropriate or possible).

3.6 Documentation
There is nothing in this paragraph that is specific to modeling. As such, it is not clear why this paragraph belongs in this standard. If it does belong here, then it belongs in nearly every ASOP (if not in all ASOPs).

--Ralph Blanchard