

Date: September 30, 2013

To: The Actuarial Standards Board ERM Task Force

From: Dustin Schneider, MS in Statistics with an Analytics Concentration.

Comments: Exposure Draft on Modeling

Overall I think the board did a good job in developing a broad ASOP draft for modeling and it is focused in the right direction. However it is my belief that there are some parts of the ASOP which could be improved. Below I will address my suggestions for the definition section. While I focus on the definition section, I believe the comments stated by Tobias E. Bradley and Greg Hayward should be given considerable thought as well.

Overall Concerns

Section 2 - Definitions

2.1 – Assumptions: I do not feel that assumptions should be considered inputs about the model. There are a wide variety of assumptions which can be made. Due to the fact many of these assumptions would not be directly input into the model, I feel calling them inputs would not be correct.

2.3 - Granularity: The definition for Granularity was difficult for me to follow and understand. I feel the definition should be slightly changed so that it is more understandable. One of the more confusing parts of this definition is the term “cell”. I would consider giving the “cell” term a definition. Additionally the use of the term assumptions within the definition is quite confusing. It is unclear how you would use assumptions by cell.

2.4 – Implementation – Calling any useable/executable form of the model an implementation does not seem true. If the model cannot reasonable be used for its intended purpose I would not considered it implemented.

2.5 – Input: I believe that assumptions should be not be considered inputs to the model. In my experience a majority of assumptions are not inputs to a given model. In addition I would not consider all parameters to be inputs to the model since some parameters are model outputs.

2.8 – Margin: I find the use of this term to be confusing. When modeling I think of provision for uncertainty more than Margin. I feel this term may want to be renamed to help with clarity. One suggestion might be uncertainty provision.

2.9 – Model: The use of the phrase “statistical, financial, economic concepts and equations” seems too limiting as new modeling techniques are being developed. One of the best examples of this could be use of social concepts as a part of the model.

2.10 – Modeling: I suggest adding reviewing to the list of selecting, designing, building, modifying, developing, or using.

2.11 - Model Risk: I feel that the definition of model risk is too narrow. There could be many other reasons for model risk. One example would be the lifetime of the model. Consider adding wording to open up the definition for other causes of risk.

2.13 – Neutral: This term is not consistently used throughout the ASOP. I also feel that the definition for this term is not clear. I would consider removing this definition from the ASOP.

2.13 – Parameters: Parameters can also be outputs from a model.

2.17 – Realization – I would consider changing this term to Output. In addition the second sentence of this definition seems unnecessary.

Request for Comments

1. Does the proposed standard provide sufficient guidance to actuaries working with models? **No – however, with suggested changes other and I have suggested I believe it will be.**

2. Is the proposed standard sufficiently flexible to allow for new developments? **It is close to being flexible enough and I believe there could be a few improvements made.**

3. The draft AOP 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 clear & appropriate? **Yes**

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

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? **As drafted I don't think so, but with changes suggested by other commenters Yes.**
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? **Yes.**