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April Webinar Topic: ASOP Exposure Draft on Setting Assumptions

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The implementation of principle-based reserves (PBR) and the increased focus on risk management by both regulators and rating agencies has raised the bar for company actuaries in setting assumptions that can be justified and documented in actuarial reports. In an April webinar, the Smaller Insurance Company Section (SmallCo) provided actuaries with professionalism presentations on several topics, including a discussion of the exposure draft of a proposed Actuarial Standard of Practice (ASOP) on setting assumptions. This article provides information related to that presentation.

Assumption setting is fundamental to many kinds of actuarial work, and professional objectivity in setting assumptions gains added importance as results from actuarial models are included in financial statements (including PBR) and related risk analysis.

Some assumption-setting standards already exist, but there has been a perceived need for additional guidance to fill the gaps. This proposed standard would provide such guidance both for setting assumptions and for assessing the assumptions set by others. Its provisions would apply to all practice areas.

The scope of the exposure draft includes giving advice on another party's assumptions and covers a broad set of actuarial activities, including choosing assumptions, performing experience studies and other data analysis, evaluating and incorporating industry studies, trends, economic forecasts and other analyses, and using assumptions set by others.

If this proposed standard conflicted with other, more specific ASOPs or applicable laws, those ASOPs and laws would take precedence. This standard would be effective for projects including data current as of 12 months after its adoption by the Actuarial Standards Board (the "information date").

The following list represents nine guidelines for assumption setting:

1. The actuary should consider available and relevant data from a variety of sources, including the credibility of any such data as discussed in ASOP No. 25, Credibility Procedures.
2. If available data are deficient in some way, the actuary may consider whether adjusting the assumptions could properly compensate for the known deficiencies.
3. The actuary should identify the material assumptions whose variances would significantly impact the results.
4. The actuary should consider the appropriateness of the methodology being used. For example, a gross premium valuation may not be appropriate for a block of business with significant interest rate risk.
5. The actuary should look not only at the individual assumptions but also at the aggregate results produced by the combination of all assumptions, together with the selected methodology. If certain assumptions are prescribed by law, then the aggregate results should be evaluated with the stipulation that the prescribed assumptions are reasonable and may be independent of the other assumptions.
6. Assumptions should be consistent with each other and with the changing conditions over the range of scenarios tested.
7. If margins are appropriate, then they should provide for adverse deviation and uncertainty in parameter estimation. Where limited or no historical data are available, one approach to setting margins described in the PBR Valuation Manual is to establish a plausible range and set the assumption at the conservative end of that range.

8. The actuary should consider whether there are reasons to expect future experience to differ significantly from past experience. For example, if conditions have changed due to either internal or external conditions, past experience may no longer be predictive of future experience. This may be a special case of point 7, where a plausible range could be established for the assumption reflecting the new conditions.

9. Professional objectivity is the key to passing independent, third-party reviews of assumptions, including the following considerations:

   a. Ensure that assumptions are not set for counteracting the effect of prescribed assumptions set by law. One possible application of this principle applies to predictive modeling: the actuary must not choose predictive variables that are proxies for factors that would be considered discriminatory, such as race, gender, or other factors.

   b. The actuary should consider to what extent it is appropriate to use assumptions (and methods) that tend to significantly underestimate or overestimate the result.

   c. In determining whether to use assumptions selected by others, the actuary should follow Precept 8 of the Code of Professional Conduct, which states, "An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties." Richard Foster provided examples of following this precept, when he served as chief actuary for the Medicare program and publicly questioned the assumptions underlying certain Medicare cost projections.

Much more could be said about assumption setting, but reviewing the ASOP Exposure Draft provides a good feel for the importance of this particular actuarial role. Nonactuaries rely on us to do sound, professional work that considers relevant quantitative information combined with an educated common sense that might be loosely described as the "smell test." Assumption setting is one of the key activities in which we demonstrate that we are professionals with principles that hold us to a higher standard than may commonly be observed elsewhere. ■

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