

**Comment #17 - 8/31/26 – 5:16 p.m.**

August 31, 2016

Pricing of Life Insurance and Annuity Products Exposure Draft  
Actuarial Standards Board  
1850 M St., Suite 300  
Washington, DC 20036-5805

I am pleased to submit these comments about the exposure draft. The opinions contained in this document are my own and do not necessarily represent the opinions of Prudential Financial or its employees.

There were 4 questions the ASOP TF specifically wished us to consider. I will briefly answer these questions, and follow this with comments about particular sections of the exposure draft.

1. Does the draft ASOP provide appropriate guidance to the actuary when providing actuarial services related to the pricing of life insurance and annuity products?

In general, it does provide such guidance, but I would prefer clarification of specific sections.

2. Given the range of roles that actuaries may have in the pricing of life insurance and annuity products, is the scope of the draft ASOP appropriate?

I believe the scope could be clarified.

3. Does the draft ASOP address the range of products and pricing methodologies used in the industry?

While many products and pricing methodologies are covered, I have some concerns related to the metrics.

4. Are the disclosures required in section 4 appropriate?

I have some suggestions about how to improve this section.

Comments:

Section 1.2 Scope

I would like clarification about products this would apply to. For instance, would this ASOP apply to pricing the units of deferred annuity benefit bought by 401(k) contributions? In some states, a GIC is issued as a group product with individual certificates, and this pricing ASOP

would be difficult to apply to pricing these contracts.

### Section 2.2 Model Point

In my experience, the term “model points” is known as “pricing cells”, and believe the definition should reflect both names.

### Section 2. Definitions

I recommend adding definitions of Market Consistent and Real World Stochastic Analysis to avoid confusion in a later section of the document.

### Section 3.1 Considerations Prior to Beginning the Pricing Exercise

This list of considerations seems to be a bit circular to the way pricing affects product design. Section 1.2 (Scope) says advising on the product design is part of the pricing exercise, but Section 3.1.a says the actuary should know the intended design prior to beginning the pricing exercise. Perhaps the actuary should know what design alternatives might be considered as part of this exercise.

There are additional categories not covered here, which a prudent actuary will discuss prior to beginning the pricing exercise. These are

- Underwriting/risk selection process
- Placement of this product within the company’s portfolio of products
- The company’s financial goals, such as hurdle rate and capital requirements

### Section 3.2 Selecting Profitability Metrics

Profitability metrics are often set by a company, not provided by a pricing actuary. When an insurance company has in-house actuaries, the profitability metrics are often set with actuarial input and are generally suitable for the purpose. The pricing actuary should generally follow this guidance. Selection of a profitability metric is not often required, unless the pricing actuary disagrees with the company’s choice or believes an additional profitability metric would provide useful information for the rate setting decisions. This section should be reworded to reflect limited role of an actuary in selecting profitability metrics.

The introductory paragraph to Section 3.2.1 implies that IRR is always an appropriate metric. I believe that it would not be appropriate for all products. This section would be more clear if it stated that IRR were simply one of many measures listed here.

In Section 3.2.1.c, embedded value is generally only applied to inforce blocks, and this pricing ASOP only applies to new business pricing exercises. The correct term should be value of new business.

Section 3.2.2 would be improved by adding the accounting framework as a consideration.

### Section 3.3 Developing the Model Framework

The introductory paragraph expects the actuary to simulate the “product’s expected impact on

the company's future financial and risk position." In practice though, pricing is done on a standalone product basis, rather than as a model office exercise. The process of considering the impact on the company's financials and risk profile is part of the forecasting and ERM process. I do not suggest restricting the actuary from considering the aggregation benefits, but believe the actuary should not be required to simulate the impact on more than the product under consideration.

There should be an additional item listed for management actions, either as part of a risk mitigation technique or not, with additional disclosure about the dynamism and effect.

#### Section 3.4 Pricing Assumptions

Section 3.4.1 (Consistency) would be better if it provided that anticipated changes in company's practices should be consistent with changes being applied to other products and functional areas.

The list in Section 3.4.3 should be expanded to include morbidity, sales mix (demographics), utilization rates, premium payment patterns, and cost of capital.

Section 3.4.4 Capital Market Assumptions needs considerable work. Market consistent assumptions could be considered, but not required. Perhaps a definition and examples would help. I believe market consistent to mean without a credit spread, but this is not universal, nor would it be necessary in a pricing context. How is this different from "real world assumptions"? Stochastic economic scenarios may or may not produce "real world" results, but should provide the actuary with insight into possible occurrences.

I propose removing the sentence "When analyzing a benefit that can be replicated using liquid capital market instruments ... the cost of the benefit using market consistent assumptions to the price of a comparable investment guarantee observed in capital markets." The actuary's principal should decide on the choice of real world versus market consistent profitability metric in Section 3.2. Moreover, expected cash flows on SPIAs and fixed annuities could "be replicated using liquid capital market instruments", however, pricing these products with Market Consistent scenarios without a credit spread would be inconsistent with industry pricing practice.

Comparing the "cost of the benefit" to the "price of a comparable investment guarantee" seems vague and doesn't provide a course of action.

Real world assumptions need to be consistent across different products, developed using multiple sources, follow company practice, etc., and that market consistent assumptions should be derived from observable market prices of financial instruments if available.

This section would also benefit from asking the pricing actuary to consider the illiquidity of the insurance liability and the fact that an insurance liability is not "risk free." (It is subject to the claims-paying ability of the insurer.)

#### Section 3.5 Cost of Risk

This section would benefit from being two separate sections, one on how the pricing actuary

would recognize the risks, and one on how to incorporate those risks in the pricing exercise. Setting Margins and recognizing Risk Capital is a prudent part of all pricing exercises, and is a normal part of the base modeling. Sensitivity Analysis and Stochastic Analysis are helpful in setting levels of margins, and levels of risk capital beyond regulatory requirements.

Pricing is generally based on best estimate assumptions. The purpose of margins is to mitigate against particular risks, which may be due to low credibility, variability, etc. When setting reserves, these are necessary. Pricing is an exercise in measuring profitability, and margins would generally not be appropriate.

Section 3.5.4 should be narrowed so that stochastic analyses are considered for only specific risks, which can reasonably be modeled this way, which today are capital and equity markets. Volatility in almost any assumption affects profitability, and this section is too broad. I suggest default deterministic scenarios and scenario testing for volatility in other assumptions until technology catches up to theory.

#### Section 3.6 Pricing Controls

I prefer that this section be removed from this ASOP. To the extent that the pricing exercise involves modeling, the controls from the Modeling ASOP will apply. In addition, I question how there would be an appropriate separation of duties in a small company. Is this ASOP advocating the use of consultants for a portion of the governance responsibilities?

The term “tested for fitness of purpose” seems vague. Does this mean that the model is sufficient to create a profitability assessment? That it is not too simplistic? How is this tested?

For pricing model validation, sensitivity tests are an appropriate tool. Section 3.6.b.ii could be improved by reflecting this.

#### Section 4.2 Disclosures

There are a significant numbers of disclosures a pricing actuary would make both during and after the pricing exercise. It may be important to recognize that there may be two separate audiences for pricing disclosures: one for the Principal making the decisions about rates and product design, and another directed at actuaries who would use this information to create reserve assumptions or who might price the next version of the product. The latter, a more detailed document, need not be available at the time of pricing decision.

In Section 4.2.a, I believe that along with profitability metrics, the sensitivity of profits should also be reported. If this was the intention of Section 4.2.d, this should be made clearer. The disclosures about metrics would be improved if there were a particular emphasis on metrics not traditionally used in a pricing exercise. This could be due to the Principal’s business plan, an emerging line of business, or even advances in actuarial techniques.

Also in Section 4.2.a, I am not sure why a pricing actuary would describe how a profitability metric will support a Principal’s goals as well as how a Principal would use such a description. The decision about pricing metric is made by the Principal before pricing analysis begins.

A typical actuarial pricing report does not mention the detail of each model framework item listed in Section 3.3. Would these disclosures be important to the Principal or only to another actuary? This is another example of why I see value in having two separate actuarial reports for a pricing exercise.

I appreciate the opportunity to submit comments on this exposure draft.

Sincerely,

Leonid Shteyman, FSA, MAAA, CFA