Exposure Draft ASOP for Principle-Based Reserves for Life Products – March 2017

First of all, we would like to thank the members of the Task Force on Principle-Based Reserves for their work on this draft. Your work is especially important here in light of the clear challenge of drafting an appropriate ASOP that is consistent with the Valuation Manual during a time that the Valuation Manual itself has been undergoing some significant revisions. Below, we first respond to the questions posed by the task force and then provide additional comments.

ASB Questions:

1. *Is the guidance concerning VM-G clear and appropriate (section 3.1)?*

   Yes.

2. *Is the guidance concerning the PBR Actuarial Report clear and appropriate (section 4.2)?*

   Yes, but we suggest inserting “qualified” in front “actuary” throughout this section as it appears to apply specifically to the actuary assigned by the company to prepare the PBR Actuarial Report or a sub-report.

3. *Are there any significant inconsistencies between the requirements of this draft ASOP and the requirements of the Valuation Manual?*

   Yes; see section “Significant Inconsistencies Noted” below.

4. *Does the proposed effective date of December 31, 2017 provide sufficient time to comply with this standard if the ASB adopts the standard in September 2017?*

   Yes.

Significant Inconsistencies Noted:

1. Regarding 2.12, the definition of the PBR Actuarial Report, since this refers to the entire report and not a single sub-report, we believe that the definition should refer to “one or more qualified actuaries” rather than “a qualified actuary”.

2. In 3.4.1.b, if there is not a reason that "asset earned rates" is being used here instead of "net asset earned rates", we suggest using "net asset earned rates" for consistency with the Valuation Manual.

3. In the last sentence of 3.4.1.c, Model Validation, we find the current phrasing concerning, especially in this stage of PBR. We suggest: "A model that in the actuary's judgement was previously subject to rigorous review and testing and updated in a controlled manner ~~may require less rigorous current review~~ may reasonably be subject to a current review that is more focused on recent updates."

4. Regarding 3.4.2.b.2, Investment Experience, the discussion of reinvestment cash flows seems to be missing a reference to the alternative investment strategy (see VM-20 Section 7.E.1.g, which states the requirement that "the model reserve is not less than would be obtained by substituting an alternative investment strategy in which all fixed income reinvestment assets are…").

5. Regarding 3.4.2.f.3, it is unclear what is meant by "relatively insignificant" assumptions. What is it relative to? Expenses may be relatively insignificant in comparison to mortality, but expenses still very well may need a margin (see VM-20 Section 9.B.1, 9.B.4). A reference to materiality rather than relative significance seems more appropriate and in keeping with the Valuation Manual here.

6. In the first sentence of 3.5.3, Credit for Reinsurance Ceded, the language should be revised to reflect that the value cannot be negative; see VM-20 Section 8.D.1. (pg. 20-43). We suggest: "… the credit for reinsurance is the ~~difference between~~ excess, if any, of the pre-reinsurance-ceded minimum reserve ~~and~~ over the (post-reinsurance-ceded) minimum reserve."

7. In 3.4.1.b, 3.4.1.d.1, 3.4.d.1.ii, 3.4.2.b.1, 3.4.2.c.vi, 3.4.2.f, and 3.4.2.f.4, we urge that references to "minimum reserve" be replaced with references to "modeled reserve" or perhaps to "deterministic reserve or stochastic reserve, as appropriate". We believe that was the original intent, especially given our understanding that these sentences predated the introduction of the NPR for VM-20. In cases when NPR is the minimum reserve, some of the passages (e.g. in 3.4.1.b and 3.4.2.b.1) do not make sense as currently written. In other words, when NPR is the largest of the three (NPR, DR, and SR), especially if only by a small amount, it does not seem proper that the standards described in the ASOP for deriving DR and SR should effectively be made null and void.

8. There are multiple passages in the ASOP where it appears to be referring to satisfying VM-20 Section 2.G; however, in each instance it appears to only address the first of the two prongs required for a demonstration satisfying VM-20 Section 2.G. That is, the demonstration required by VM-20 Section 2.G has two prongs: (1) not materially underestimating the reserve and (2) not biasing the reserve low. We suggest:

a. 3.4.2.b.1: "When using these techniques, the actuary should be satisfied that the techniques used are appropriate to the situation and can reasonably be expected not to result in a material reduction or a downward bias in minimum reserves."

   See VM-20 Section 7.G.2.c, VM-31 Section 3.D.6.r, and VM-20 Section 2.G.

b. 3.4.2.c.2: "If this is not done and consequently the business has one modeling cell and average pattern, the actuary should consider sensitivity testing to determine whether the estimates of reserves or risks are materially impacted or biased downward by the use of such an approach."

   See VM-20 Section 7.B.2 and VM-20 Section 2.G.

c. 3.4.2.c.1.vi: "If the actuary chooses to use a model for anticipated policyholder behavior that is not scenario-dependent, the actuary should demonstrate that the use of scenario-dependent assumptions is unlikely to result in a materially higher minimum reserve and would not result in a higher expected reserve."

   See VM-20 Section 9.D.2.a and VM-20 Section 2.G.

d. 3.4.1.d.1: "When grouping is used, the actuary should demonstrate that the use of a model with a higher degree of granularity is unlikely to result in a materially higher minimum reserve and would not result in a higher expected reserve."

   See VM-20 Section 7.B.2 and VM-20 Section 2.G.

e. 3.5.1: "The actuary should not calculate the stochastic reserve or deterministic reserve by deducting a formulaic reinsurance credit (such as the Statement of Statutory Accounting Principles No. 61 reserve credit) from a stochastic reserve or deterministic reserve that is based on hypothetical pre-reinsurance cash flows as discussed in section 3.5.2 below, unless, in the actuary's professional judgment, such a procedure would produce a reserve that does not materially differ from a directly calculated stochastic reserve or deterministic reserve and would not result in a higher expected reserve."

   See VM-20 Section 7.B.2 and VM-20 Section 2.G.

Furthermore, we must note that in these passages there is a significant gap between what is required to satisfy the first prong of VM-20 Section 2.G and the guidance given in the ASOP. The Valuation Manual requires that "the company can demonstrate that the use of such techniques does not understate the reserve by a material amount". In contrast, the proposed ASOP states weaker requirements of it being "unlikely" that the reserve is a material underestimate and that the reserve is "reasonably expected not to be" a material underestimate. To represent standards in these sections that would not inadvertently steer actuaries astray of the requirements of the Valuation Manual, further changes should be made to address this gap. Alternatively, these sections could simply advise that the actuary comply with the requirements of VM-20 Section 2.G as these passages seem to be alluding to appropriate use of simplifications, approximations, and modeling efficiency techniques.

Valuation Manual References for Significant Inconsistency Noted # 8:

VM-20 Section 2.G

A company may use simplifications, approximations and modeling efficiency techniques to calculate the NPR, the deterministic reserve and/or the stochastic reserve required by this section if the company can demonstrate that the use of such techniques does not understate the reserve by a material amount, and the expected value of the reserve calculated using simplifications, approximations and modeling efficiency techniques is not less than the expected value of the reserve calculated that does not use them. This does not preclude use of model segmentation for purposes of determining discount rates.

VM-20 Section 7.B.2

The company may use simplifications or modeling efficiency techniques to develop cash flows, if the approach is consistent with Section 2.G.

VM-20 Section 7.G.2.c

Use of fewer scenarios rather than a higher number of scenarios is permissible as a model efficiency technique provided that:

i. The smaller set of scenarios is generated using the prescribed scenario generator.

ii. The use of the technique is consistent with Section 2.G.

VM-20 Section 9.D.2.a

The company shall use a dynamic model or other scenario-dependent formulation to determine anticipated policyholder behavior unless the behavior can be appropriately represented by static assumptions.

VM-31 Section 3.D.6.r

If a scenario reduction technique is used, a description of the technique and documentation of how the company determined that the technique meets the requirements of Section 2.G. of VM-20.

Other Comments:

1. The Valuation Manual capitalizes “PBR Actuarial Report”, while the ASOP does not except when quoting the Valuation Manual. The difference is highlighted in 3.7, where there are instances of both treatments. We recommend capitalizing PBR Actuarial Report in the ASOP for consistency with Valuation Manual and common use.

2. Regarding 2.3, the 12/31/16 updates to the Valuation Manual included revising “Cash Flow Model” to be “Cash-Flow Model”. Similar changes were made for cash-flow testing, cash-flow projections, etc. We recommend the ASOP be updated for consistency. This affects 2.3, 2.11, 2.18, 3.3.1.b, 3.3.2.b, 3.4.1.a, 3.4.1.c.2, the final paragraph of 3.4.2.a, the second paragraph of 3.5.2, and the second paragraph of 3.5.4.e. While not in the ASOP itself, this also affects Background paragraph 3 and Current Practices paragraphs 1&2.

3. In 2.15, the definition of Deterministic Reserve, this definition is consistent with the current Valuation Manual. However, we would like to note that an APF was submitted for this definition and we would ask that the ASOP would be similarly revised if the APF is adopted within the near future.

4. Regarding 2.19, the definition of Sensitivity Testing, we believe that sensitivity testing applies to both varying a single assumption and varying multiple assumptions. We suggest: “The process of calculating the effect of varying ~~an~~ one or more assumptions.”

5. In 3.3.2.b, what is listed does not appear to be a factor with a possible impact on reserves. Therefore, it does not seem to fit with the sentence immediately preceding (a) and (b). We suggest “other factors found to be significant based on the results of ~~other~~ analyses that may have been completed as part of an economic capital measurement process or cash flow testing.”

6. In the first paragraph of 3.4.2, it would be beneficial to include a reference to the new ASOP on Setting Assumptions, if it is finalized in time, or incorporate such a reference in future revisions of this ASOP.

7. In the third paragraph of 3.4.2, there is a somewhat awkward contrast between assumptions with a “significant impact” and those with a “less significant impact”. That is, there is a contrast between a binary condition (significant/not significant) and a graded condition (less significant/more significant/most significant). The prior sentence discusses those assumptions that have the “most significant impact”. We suggest: “The actuary should consider performing more extensive analysis for assumptions that have a more significant impact on valuation results ~~than for assumptions that have a less significant impact~~.”

8. Regarding the fourth paragraph of 3.4.2.d.2, it seems strange to allow for the exclusion of anomalous expenditures while only considering their possible recurrence. We suggest: “If such

expenditures occurred in the exposure period and were not amortized, the actuary may exclude them from the experience but should consider and if appropriate include a provision for the possibility that similar expenditures will occur in the future."

Thank you for consideration of our comments.

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