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PBA Corner

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In this issue of PBA Corner, I outline the recent activity of the NAIC Life Actuarial Task Force (LATF) VM-20 Subgroup activities as they resume bimonthly conference calls. I also mention the discussions of the Academy's Life Reserve Working Group (LRWG) as they resume periodic conference calls to discuss issues that have been channeled back to the Academy by LATF in light of feedback from the VM-20 impact study.

VM-20 RECENT CLARIFICATIONS

Exclusion tests and reinsurance ceded

Section 8D2a of VM-20 requires the exclusion tests to be reevaluated when determining the pre-reinsurance ceded reserve. Specifically, if the group of policies cannot demonstrate passing either exclusion test (stochastic or deterministic reserve exclusion test) on a pre-reinsurance ceded basis, whereas it does pass when considering reinsurance ceded, then the pre-reinsurance ceded reserve amount must be determined based on the pre-reinsurance ceded exclusion test result. This requirement makes sense for the stochastic reserve exclusion test, since reinsurance cash flows can be included or omitted in determining the exclusion test ratio. The deterministic reserve exclusion test, however, is currently only defined on a pre-reinsurance ceded basis. In the deterministic exclusion test the net premiums used in comparison to the guaranteed gross premiums are only defined on a direct basis. The LATF VM-20 Subgroup members have decided to wait for results of the impact study to consider if further changes to the exclusion test requirements are necessary.

Stochastic exclusion options

An amendment proposal form was adopted which clarifies three distinct options (formerly written as two) for implementing the stochastic exclusion test: (i) calculating the safe harbor exclusion test ratio, (ii) actuarial demonstration and (iii) certification by a qualified actuary that the group of policies is not subject to material interest rate risk or asset return volatility risk. Prior to this clarification, it was thought that the demonstration and certification together were one option. Variable life and universal life secondary guarantee (ULSG) are not eligible for the certification approach.

The demonstration option must satisfy certain criteria found in VM-20. VM-20 provides no substantive criteria on the certification approach.

Stochastic exclusion ratio parameters

The stochastic exclusion ratio is based on a deterministic reserve amount using anticipated experience assumptions. Section 6B2 was clarified to include mortality assumption language. Specifically, mortality improvement beyond the projection start date may not be reflected in anticipated mortality experience assumptions for purposes of the stochastic exclusion ratio calculation.

Industry mortality table

VM-20 requires an industry mortality table for purposes of blending with actual company experience or for use when no credible company mortality data yet exists. The Academy provided an amendment proposal which named the 2008 VBT as the industry standard. In response, the American Council of Life Insurers (ACLI) resurrected a letter written in 2009 to the Society of Actuaries expressing concerns related to the construction and use of the 2008 VBT tables under a principle-based system. The VM-20 Subgroup (i) acknowledged the ACLI's concern, (ii) adopted the amendment naming the 2008 VBT as the industry table, (iii) recognized that mechanisms are in place to update the table when an improvement is available and (iv) noted that the timing of new table development and VM-20's operative date is imperfect.

Asset cash flows

VM-20 includes language requiring the company to reflect uncertainty in the timing and amount of asset cash flows in the model. The LATF VM-20 Subgroup added language to clarify that this requirement does not apply to asset default assumptions since they are prescribed.

Reinsurance reserve credit calculations

Language was added to Section 8C to clarify that the determination of the pre-reinsurance ceded deterministic or stochastic reserve will be subject to the 98 percent to 102 percent collar on starting assets. However, the group noted Section 7D1c provides consideration for the starting asset amount being outside this collar as long as supporting documentation is provided. An explanatory guidance note was also discussed. For the final decision on this topic, the subgroup will wait for impact study results (this is a mid-priority sensitivity in Phase II of the impact study).

Margin determination

Language was added in Section 9 Assumptions to clarify that the company is permitted to change the method of determining margins from the method used in the prior year, if the rationale for the change and the impact on the minimum reserve is disclosed.

Dividend liability

Language was added to Section 7C6 to clarify the company's treatment of dividends and dividend liability and their effect on the modeled reserve. The liability for dividends declared but not yet paid continues to be established according to statutory accounting principles and reported separately from the statutory reserve. If the cash flow model used to calculate the deterministic or stochastic reserve omits the dividends that give rise to this dividend liability, then no adjustment need be made to the resulting modeled reserve amount. If the cash flow model includes the dividends that give rise to the dividend liability, then the resulting modeled reserve should be reduced for the amount of the dividend liability.

Valuation mortality assumption process

Currently drafted but not yet incorporated in the working draft as of June 30, 2011, are the Academy's clarifications surrounding the determination of valuation mortality assumptions. These changes are intended to clarify areas of confusion as indicated by the impact study underway. Below is a synopsis of the changes. For a complete read-through, see the most recent VM-20 working draft or amendment proposals.[1]

> **Credibility segment:** Its purpose is to determine whether a group of policies qualifies for the simplified method or not. It is defined by groups of policies with similar underwriting methods. Distinct underwriting methods include, for example, guaranteed issue and fully underwritten policies. Each credibility segment has a corresponding credibility data set, which includes the most recent three years' claims and in-force data of all policies currently in the credibility segment, or that would have been in the credibility segment at any time during the period over which experience is being evaluated.

i. If the number of deaths within the credibility data set for a credibility segment is less than 30, the company uses the simplified method in determining the prudent estimate mortality assumption.

ii. If the number of deaths within the credibility data set for a credibility segment is at least 30, the company uses experience mortality rates blended with industry experience where the blending is according to the company's selected credibility procedure.

iii. The credibility segment is also used to determine an aggregate credibility factor for use in the calculation of mortality margins. If (ii)

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above is followed, the aggregate credibility factor is determined by the credibility segment. If (i) above is followed, the aggregate credibility factor is 0. The basic formula for the mortality margin (Section 9C5) is *CF x r f* + (1–CF) *x cv* where *CF* is the aggregate credibility factor; rf is the random fluctuation component and *cv* is the company variation component.

Mortality segment: Within a given credibility segment are multiple mortality segments. These segments are defined by policies within the credibility segment that have similar mortality experience. The company may define a separate mortality segment for each gender and risk class combination, for example. It is the company mortality experience at the mortality segment level that is blended with an appropriate industry table. The method of blending is defined by the company's chosen credibility procedure. The blending procedure recognizes the credibility of the experience data within the mortality segment. In other words, as the credibility in the experience data set for a mortality segment increases, the credibility adjusted (blended) experience rates produced by the credibility procedure will approach the actual experience rates.

Lately there has been discussion about the level of granularity to be used in determining the credibility within a mortality segment. If determined at a highly granular level, inconsistencies can arise. For example, if a super preferred risk class has minimal credibility (according to the credibility procedure chosen) while a nonsmoker risk class has higher credibility, the credibility-adjusted experience rates for the nonsmoker risk class could potentially be lower than the credibility-adjusted experience rates for the super preferred risk class. This is because the latter would be highly dependent upon the corresponding industry table. Margins and credibility blending processes are high-priority sensitivities of the impact study Phase II analysis.

VM-02: NONFORFEITURE

The LATF PBR Process and Coordination Subgroup discussed changes to the nonforfeiture law that are necessary to align the nonforfeiture requirements with the new Valuation Manual. VM-02 is the chapter in the Valuation Manual that defines minimum nonforfeiture mortality and interest. The Standard Nonforfeiture Law for Life Insurance (SNFL) will be modified to recognize the operative date of the Valuation Manual and to recognize that the Valuation Manual will define the mortality and interest basis applicable for issues on or after the operative date of the Valuation Manual.

There remains a question, however, as to whether the option to use the prior calendar year's nonforfeiture basis still exists for policies issued on or after the operative date of the Valuation Manual (SNFL Section 5. H(1)).

An ACLI proposal for new appendices to the Valuation Manual is also being discussed. These appendices would contain the definition and resources for the various Commissioners Standard mortality tables and industry experience mortality studies and tables, as well as appendices for other critical assumptions that are referred to by the Valuation Manual. The benefit of the appendices would be to describe the table, when it was adopted by the NAIC, and where to find the official copy of the rates. Rules for the use of the tables would continue to be found in VM-02 for nonforfeiture, VM-20 for life reserves, VM-26 for credit life reserves, and so on. ■

END NOTES

1 During the June 30 LATF VM-20 Subgroup call, New York regulators were of the opinion these changes were not entirely clarifications, but rather reflected a change to the Academy's original intent. LATF is expecting to review New York's recommended wording in future calls.