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PBA Corner

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During the last week of June 2012, the Life Actuarial Task Force (LATF) of the National Association of Insurance Commissioners (NAIC) exposed for comment the complete Valuation Manual. This is the first time the Valuation Manual has been exposed for comment in its entirety. This manual includes minimum reserve requirements for products subject to principle-based valuation requirements and for products not subject to such requirements. The Valuation Manual establishes the minimum reserve and related requirements for jurisdictions where the Standard Valuation Law (SVL) as amended in 2009, or similar legislation, has been enacted and the Valuation Manual is operative.

The Valuation Manual is composed of five sections and several appendices as outlined below:

SECTION I: INTRODUCTION

This is an introductory section covering general concepts underlying the reserve requirements in the Valuation Manual. Look to this section to find the goals of the Valuation Manual, the operative date, the process for updating the manual and information regarding principle-based reserve feedback loops.

SECTION II: RESERVE REQUIREMENTS

This section provides the requirements by type of product. For example, variable annuity products should refer to VM-21 for minimum reserves, while fixed annuity products refer to Appendix A (VM-A) and Appendix C (VM-C). Riders and supplemental benefits are covered in Section II as well. Detail calculation concepts are not included in this section.

SECTION III: ACTUARIAL OPINION AND REPORT REQUIREMENTS

This section summarizes the requirements for the actuarial opinion and memorandum and the principle-based reserves report.

SECTION IV: EXPERIENCE REPORTING REQUIREMENTS

Experience reporting requirements are found in VM-50 while the particular formats and instructions are found in VM-51.

SECTION V: VALUATION MANUAL MINIMUM STANDARDS

- Definitions (VM-01);
- Minimum nonforfeiture mortality and interest for policies subject to principle-based reserving (VM-02);
- The Standard Valuation Law as amended in 2009 (VM-05);
- Minimum reserve requirements for various products types and methods (life products: VM-20, variable annuities: VM-21, health insurance: VM-25, credit life and disability: VM-26);
- Actuarial opinion and memorandum requirements (VM-30);
- Reporting and documentation requirements for business subject to a principle-based reserve valuation (VM-31); and
- Experience reporting requirements (VM-50).

APPENDICES

- VM-Appendix A, which lists the specific minimum reserve requirements for policies issued on and after the Valuation Manual operative date, unless otherwise provided for in the Valuation Manual. This appendix includes APPM A-200 through A-830.
- VM-Appendix C, which includes the actuarial guidelines currently found in Appendix C of the Accounting Practices and Procedures Manual.
- VM-Appendix G, covering corporate governance requirements for principle-based reserves.
- VM-Appendix M, which includes a listing of mortality tables and corresponding sources.

The Valuation Manual is located at *http://www.naic.org/committees_a_latf.htm* under Exposure Drafts. It is expected that regulators will continue to refine the requirements in the life products section, VM-20, after adoption by the NAIC and prior to the Valuation Manual operative date.

Valuation Manual Updating

Once operative, changes to the Valuation Manual will be effected according to a process specified in VM-00. If an interested party, working group, or task force would like to recommend a change to the requirements in the Valuation Manual, the first step is to submit an amendment proposal form (APF) to LATF. The APF will be placed on the Pending List. Prior to each NAIC National Meeting, the Pending List will be updated. If LATF chooses to address an issue, the APF is moved to the Active List. Issues that are determined as not applicable or rejected by LATF are moved to the Rejected List. A Disposition List tracks the conclusions of LATF on each submitted APF. An issue can move from the Pending List to the Disposition List in one or more National Meetings.

Items on the Active List that become proposed changes to the Valuation Manual and are adopted by a simple majority of LATF will be exposed for comment through the NAIC's website. After some coordination with SAPWG,[1] the changes will be forwarded to the appropriate parent committees or task forces prior to consideration of NAIC adoption by the Executive Committee and Plenary. Changes to the Valuation Manual require adoption by the NAIC by an affirmative vote of at least three-fourths of the members of NAIC voting, but not less than a majority of the total membership, where such members represent jurisdictions totaling more than three-fourths of the relevant direct premiums written.

Valuation Mortality Requirements in VM-20

The valuation mortality requirements in VM-20 continued to change right up to the date of LATF's adoption of the Valuation Manual. The methodology for developing a mortality assumption for the modeled reserves[2] is consistent with the methodology proposed by the American Academy of Actuaries (the Academy) Life Reserves Working Group, but the parameters for margins and for grade-in to industry mortality rates were modified significantly by LATF. For a comprehensive understanding of the requirements, the reader is encouraged to review Section 9.C of VM-20 in the Valuation Manual. The process is summarized below, in steps.

i. Determine the mortality segments. Each segment consists of policies for which the company expects the mortality experience to be different than it is for other policies. Male preferred nontobacco risks, for example, would be one mortality segment.

ii. Determine the company experience for each mortality segment. Section 9.C lists more than one source of data that must be considered. The most obvious source is experience associated with the policies in the segment. The next source is experience associated with other books of business within the company and using similar underwriting. The last source, if applicable, is experience data from one or more mortality pools in which these policies participate under a reinsurance treaty.[3]

   The experience study upon which the company bases its assumption must be performed at least once every three years, and include at least three exposure years but not more than seven exposure years. Mortality improvement may be included from the central point of the exposure period to the valuation date but not beyond. The company's experience rates for the mortality segment cannot be lower than the mortality rates the company expects to emerge. This condition should be discussed and documented in the PBR actuarial report.

iii. For each mortality segment, determine the applicable industry mortality table. Currently, the 2008 VBT in all its forms (primary, limited underwriting and relative risk) serves as the industry table. This determination may be made using the underwriting criteria scoring

CONTINUED ON PAGE 20

tool (UCS) or any actuarially sound method, providing the company documents the analysis performed to demonstrate the applicability of the chosen method and reasons why the results using the UCS may not be suitable.

iv. Over the entire exposure period of the company's experience study, determine a single level of credibility. If the credibility level is less than 20 percent, the company cannot use any of its own mortality experience.

v. Increase the mortality rates by a margin. The margin tables are prescribed in VM-20 and are different between that used for company experience versus industry rates. Both are expressed as percentage increases that vary by attained age. The margin used for company experience depends upon the single level of credibility determined in item iv. above. Lower levels of credibility require higher percentage increases. Although the Academy's original recommendation for percentage increases went lower than 5 percent at some attained ages, the final margin tables are floored such that no percentage increase is less than 5 percent.

vi. The final step in the process is to determine the prudent estimate mortality assumption. The company experience rates with margin are used for policy durations in which there exists sufficient company experience data. This is determined for a mortality segment by identifying the last policy duration with 50 or more claims over the exposure period.[4] This last policy duration cannot be longer than the maximum, or cap, found in the VM-20 table. The company must begin grading to industry rates following the sufficient data period. A company with low credibility must begin grading no more than one year after the sufficient data period ends. A company with high credibility must begin grading no more than four years after the sufficient data period ends. Once grading has begun, the company then has four years to linearly grade to 100 percent of the industry rates with margin. All policies must be at 100 percent of the industry rates with margin by the later of attained age 100 or 15 years after underwriting.

The final step in the process is to determine the prudent estimate mortality assumption.

Net Premium Reserve Methodology

In reaction to the results of the Impact Study, LATF requested the American Council of Life Insurers (ACLI) to recommend an alternative formula for the net premium reserve (NPR) for Universal Life products with secondary guarantees (ULSG). The ACLI enlisted member companies to help determine a method that ideally would minimize tax inefficiencies by following the economics of the policy while at the same time provide a reasonable statutory floor. Several alternatives were considered and, in the end, the following method was advanced:

$$NPR^{ulsg} = Min\left[\frac{ASG_{x+t}}{FFSG_{x+t}}, 1\right] \cdot NSP_{x+t} - E_{x+t}$$

where

ASG_{x+t} = actual secondary guarantee at the valuation date (e.g., the shadow account, for products utilizing a shadow account);

$FFSG_{x+t}$ = fully funded secondary guarantee at the valuation date (e.g., the fully funded shadow account, for products utilizing a shadow account);

NSP_{x+t} = net single premium at the valuation date, using mortality, lapse, and interest as prescribed in VM-20 Section 3; and

E_{x+t} = Expense allowance for ULSG products as defined in Section 3.

The final NPR for any ULSG product is the larger of the NPR described above and the NPR as calculated for a similar policy without the secondary guarantee and floored at the greater of the policy's cash surrender value and cost of insurance charges to the next processing date. ■

END NOTES

[1] Statutory Accounting Principles Working Group

[2] Deterministic Reserve and Stochastic Reserve

[3] If applicable mortality experience data is not available or limited, the company may choose to use an industry table as representative of its expected experience.

[4] The company may use a more aggregate basis in determining the sufficient data period if the mortality experience is based on a more aggregate level and then subdivided into segments.