

May 8, 2007 VERSION

● **DISCUSSION DRAFT** ●

Independent Review of Principles-Based Valuations

**Developed by the
Task Force on Independent Review of
Principles-Based Valuations of the
Life Committee of the
Actuarial Standards Board**

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INDEPENDENT REVIEW OF PRINCIPLES-BASED VALUATIONS

A proposal for an actuarial standard of practice associated with current regulatory work on principles-based reserve review opinions is currently in development by the Task Force on Independent Review of Principles-Based Valuations of the Life Committee of the Actuarial Standards Board. This discussion draft is a result of that work and is intended to be consistent with draft regulations and actuarial guidelines on this topic that were recently exposed by the Life and Health Actuarial Task Force of the NAIC. Please note that it is a work in progress and many changes are likely.

The Actuarial Standards Board (ASB) has not used Discussion Drafts in the past. It has authorized the Task Force on Independent Review of Principles-Based Valuations to distribute this discussion draft to illustrate how an actuarial standard of practice (ASOP) might work in conjunction with a model regulation on Principles Based Reserves Review Opinions. The ASB has neither reviewed nor approved this Discussion Draft. This is not an Exposure Draft.

The Task Force expects to create an Exposure Draft after discussions with interested parties and adoption of a Model Regulation by the NAIC. That Exposure Draft (which will draw on the ideas in this discussion draft modified by discussions with interested parties and unfolding events) will go through the normal ASOP process:

1. The Task Force (TF) will submit the Exposure Draft (ED) to the Life Operating Committee (LOC).
2. The LOC will revise the ED and submit it to the ASB.
3. The ASB will revise the ED and release it to all actuaries and other interested parties for comment. The ASB has the final authority with respect to actuarial standards of practice.
4. Following the end of the exposure period the TF will revise the ED based on comments received and produce a proposed ASOP or a second ED (depending on the amount of change). This document will follow the same process as the original ED (and even if submitted as a proposed ASOP may be changed to a second ED by the LOC or the ASB).
5. The ASOP will become effective only after final approval by the ASB.

At this time, comments on the discussion draft received by the TF will not be shared with the ASB but may be used by the TF as input. Also, note that the discussion draft may undergo substantial change as it is being developed, at the sole discretion of the Task Force.

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Section 1. Purpose, Scope, Cross References, and Effective Date

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries when performing professional services in connection with a PBA review opinion as required by the NAIC *Principles-Based Reserves Review Opinion For Life Products Model Regulation* (hereafter, the *PBA Review Model*) or other law or regulation with comparable provisions. In this context, “principles-based approach” means an approach to calculating statutory reserves for life insurers including fraternal benefit societies as defined in the *Principles-Based Reserves for Life Product Model Regulation* (hereafter, the *PBA Reserve Model*).

1.2 Scope—This standard applies to actuaries when performing professional services on behalf of life insurers, including fraternal benefit societies, in connection with a PBA review opinion as required by the *PBA Review Model* or other law or regulation with comparable provisions.

The actuary should comply with this standard except to the extent it may conflict with applicable law (statutes, regulations, and other legally binding authority). If compliance with applicable law requires the actuary to depart from the guidance set forth in this standard, the actuary should refer to section 4.3 regarding deviation from standard.

1.3 Cross References—When this standard refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any successor to them, by whatever name called. If any amended or restated document differs materially from the original referenced document, the actuary should consider the guidance in this standard to the extent it is accurate and appropriate.

1.4 Effective Date—This standard will be effective for work performed on or after four months after adoption by the Actuarial Standards Board.

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Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice.

- 2.1 Certifying Actuary—An actuary who meets the qualifications defined in the *PBA Reserve Model*, and who has certified that the reserves have been calculated in a manner consistent with the *PBA Reserve Model* and complies with all applicable actuarial standards of practice.
- 2.2 Credibility—A measure of the predictive value in a given application that the actuary attaches to a particular body of data (predictive is used here in the statistical sense and not in the sense of predicting the future).
- 2.3 Margin—An amount applied to anticipated experience in order to derive a prudent estimate assumption to provide for estimation error and adverse deviation. The margin should be directly related to the level of uncertainty in the behavior or phenomenon for which the prudent estimate assumption is made, whereby the greater the uncertainty, the larger the required margin, with the margin added or subtracted as needed to produce a larger reserve than would otherwise result without it.
- 2.4 PBA Review Actuary—An independent and qualified actuary who is retained by the board of directors of the company or its designee to render a PBA review opinion.
- 2.5 Qualified Opinion—A PBA review opinion that contains a statement that the PBA review actuary disagrees with a material aspect of the actuarial judgments of the certifying actuary.
- 2.6 Risk Profile—The types of potential future events to which a company's reserve adequacy is particularly vulnerable, and the degree of such vulnerability.

Section 3. Analysis of Issues and Recommended Practices

- 3.1 General—The primary focus of the PBA review is to evaluate the appropriateness of the actuarial judgments made by the certifying actuary. The PBA review actuary should review the data and analysis used by the certifying actuary to form the actuarial judgments in the PBA valuation. The PBA review actuary should review the data and analysis in sufficient depth to develop an understanding of the degree of rigor of the certifying actuary's analysis. The PBA review actuary would not normally perform recalculations of the PBA valuation, develop independent analysis, check the control processes related to the valuation or validate the model used in calculating reserves. The PBA review actuary is not responsible for

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forming an opinion as to whether reserves are adequate to cover future policyholder benefits and expenses.

- 3.2 Regulatory Requirements—The *PBA Review Model* contains detailed instructions, requirements and specifications regarding the PBA review. Actuaries providing professional services within the scope of this standard should be knowledgeable of the *PBA Review Model*, any applicable state law based on the *PBA Review Model*, and this standard. The PBA review actuary should also be knowledgeable of the *PBA Reserve Model*.
- 3.3 Appointment & Qualifications—The *PBA Review Model* contains detailed requirements regarding the appointment and qualifications of the PBA review actuary. Some of these requirements are the responsibility of the company, and some are the responsibility of the PBA review actuary. The responsibilities of the PBA review actuary include the following:
- 3.3.1 Acceptance Letter—The PBA review actuary, on accepting the PBA review assignment, should provide an acceptance letter to the company suitable for filing by the company with the commissioner of its state of domicile. The letter should indicate that the PBA review actuary is independent and qualified.
- 3.3.2 Discussions with Previous PBA Review Actuary—The previous PBA review actuary should make himself or herself available to the newly appointed PBA review actuary to discuss and share documentation of the previous PBA review and, in particular, any issues identified. The Code of Professional Conduct, Annotation 10-5 should be reviewed by both PBA review actuaries as the code contains guidance regarding the interaction between the previous and newly appointed PBA review actuary.
- 3.3.3 Engagement Letter—The PBA review actuary should have a written engagement agreement with the company specifying the terms and conditions of employment. This engagement agreement should be separate from agreements for other assignments for the company performed by the PBA review actuary or by his or her firm.
- 3.3.4 Qualification Requirements—The PBA review actuary should satisfy the requirements for appointed actuary as specified in the Actuarial Opinion and Memorandum Regulation and by the American Academy of Actuaries, including being a member of the American Academy of Actuaries (MAAA).

The PBA review actuary should satisfy the Qualification Standards for Prescribed Statements of Actuarial Opinion promulgated by the American Academy of Actuaries.

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The PBA review actuary should be knowledgeable of current methods and processes for calculating principles-based reserves and should be familiar with all appropriate standards of practice that apply to principle-based reserves.

- 3.3.5 Independence—The PBA review actuary should take any appropriate steps required to document that he or she is independent of the work he or she is reviewing. The PBA review actuary should be certain that he or she is not functioning in the role of company management. In addition, the PBA review actuary should not have participated in the work being reviewed, and should not, while serving as review actuary for a company, serve in an advocacy role for that company. In this context, advocacy would include representing the company before any regulatory body or any involvement in the sales process either directly to consumers or through third parties.
- 3.3.6 Employment—The PBA review actuary must not have been employed by the company or an affiliate of the company in the three years preceding the date of valuation. The PBA review actuary must not be an employee of the same consulting firm or audit firm as the appointed actuary or certifying actuary.
- 3.3.7 Financial Interests—The PBA review actuary should not have any material financial interests as a shareholder or other financial interests in the company for which the actuary is performing the review, other than as a policyholder, beneficiary, or insured.
- 3.3.8 Rotational Requirement—An actuary shall not provide a PBA review opinion for a company for more than five consecutive years. After terminating the role of PBA review actuary for a company, an actuary shall not be reappointed as PBA review actuary for that company until five years have elapsed.
- 3.3.9 Code of Professional Conduct—The PBA review actuary should review the Code of Professional Conduct adopted by the American Academy of Actuaries particularly regarding any potential unresolved conflict of interest as described in the code.
- 3.4 Understand Company Risk Profile—The PBA review actuary should have adequate discussions with the certifying actuary to gain a thorough understanding of the company's material risks for products within the scope of the principles-based review. The PBA review actuary should review documentation of the certifying actuary's risk analysis including information as it relates to the review of the company's risk profile, products, business in force, and risk management practices. If the company's documentation is complete and the company's risk profile is reasonably typical of the industry, this level of review would normally be sufficient.

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- 3.5 Evaluation of Material Risks—The PBA review actuary should evaluate whether the certifying actuary has reflected all material risks in the PBA valuation, review any sensitivity testing to evaluate the significance of the material risks, and document this evaluation. The PBA review actuary should discuss the evaluation of material risks with the certifying actuary.
- 3.6 Appropriate Methods—The PBA review actuary should consider the methods used to calculate PBA reserves, including the use of stochastic and deterministic models. For products with material tail risk arising from sensitivities to changing economic conditions, stochastic modeling is required by the *PBA Reserve Model* unless certain defined conditions are met. For other products, a single deterministic scenario may be adequate to capture the risks of the product. The PBA review actuary should review the risk analysis developed by the company or the certifying actuary and determine whether the use of stochastic or deterministic models is appropriate for the company’s products and is consistent with the provisions of the *PBA Reserve Model*. Further, the PBA review actuary should determine whether appropriate methods have been used to calculate the deterministic reserve and stochastic reserve as required for a PBA valuation.
- 3.7 Reasonable Models—The PBA review actuary should consider the appropriateness of the models used to calculate the PBA reserves. The PBA review actuary should perform a review of the models and consider the availability of in force data, mapping across product or fund characteristics, and model validation and reconciliation. The PBA review actuary should consider whether the model properly reflects the options and guarantees of the inforce policies and the assets included in the projection. The PBA review actuary should determine whether the models are reasonable and consistent with the provisions of the *PBA Reserve Model*.
- 3.8 Supportable Assumptions—The PBA review actuary should consider the appropriateness of the assumptions used to calculate PBA reserves. The PBA review actuary should review the company’s experience studies and the development of the assumptions used in the PBA valuation. The PBA review actuary should compare the current assumptions with those of the prior year and recent experience. The PBA review actuary may rely on the company’s experience studies in forming a view of the assumptions. The PBA review actuary should consider the credibility of the company’s experience as well as available industry studies to evaluate the assumptions. The actuary should consider whether the valuation assumptions are internally consistent (for example, interest and inflation rates).
- 3.9 Supportable Margins—For assumptions that are not stochastically modeled, the *PBA Reserve Model* requires that the assumptions include a margin for uncertainty. The PBA review actuary should consider the margins added to the anticipated experience assumption to develop prudent estimate assumptions. The PBA review actuary should determine whether

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the margins used in the PBA valuation are consistent with the provisions of the *PBA Reserve Model*.

- 3.10 Additional Data and Analysis—If the PBA review actuary is unable to form a view of the risk profile, methods, models, assumptions, and margins used in the PBA valuation based on the documentation provided by the certifying actuary and the company, the PBA review actuary should request additional data or analysis from the company.
- 3.11 Relationship with the Certifying Actuary—The PBA review actuary should maintain a cooperative relationship with the PBA valuation actuary. If the PBA review actuary has concerns or unanswered questions about the PBA valuation, including the underlying assumptions and actuarial judgment therein, the PBA review actuary should first discuss and attempt to resolve these issues with the certifying actuary, prior to expressing these concerns to the Board of Directors or to regulators.
- 3.12 Documentation—The PBA review actuary should create records and other appropriate documentation supporting his or her review and, to the extent practicable, should take reasonable steps to ensure that this documentation will be retained for a reasonable period of time (and no less than the length of time necessary to comply with any statutory, regulatory, or other requirements). The PBA review actuary need not retain the documentation personally; for example, the PBA review actuary’s employer may retain it. Such documentation should identify the information reviewed and the methods used by the PBA review actuary in forming his or her opinion with sufficient clarity that another actuary qualified in the same practice area could evaluate the reasonableness of the PBA review actuary’s work. The documentation supporting the PBA review actuary’s report should be made available to the company, and if required, regulators.

The PBA review actuary should include in his or her documentation any data, documents, analysis or other information on which the PBA review actuary relied. The PBA review actuary should consider including the following items in the documentaion:

- a. the PBA review procedures followed;
- b. the analysis performed;
- c. the conclusions reached relevant to the PBA review and opinion;
- d. planning documents, work programs and schedules;
- e. memoranda, correspondence, confirmations, commentaries, and representations related to the assignment; and

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- f. any relevant information obtained and relied on in the process of forming a PBA review opinion.

3.13 Opinions—If the PBA review actuary, based on the procedures performed, is able to form an opinion as to the reasonable application of actuarial judgment in the calculation of reserves as prescribed in a valuation performed under a principles-based valuation, then the PBA review actuary should issue an opinion stating that:

- a. all quantifiable material risks are considered;
- b. the methods used are appropriate;
- c. the models used are reasonable for the purpose;
- d. the assumptions used are supportable and appropriate;
- e. the margins in the reserves are supportable and are consistent with the provisions of the model; and
- f. with respect to these items, the requirements of the applicable insurance law and regulations and applicable actuarial standards of practice have been satisfied.

If the PBA review actuary's opinion is qualified, then he or she shall issue a qualified PBA review opinion explicitly stating the reasons for such an opinion. If after completing the procedures outlined in this standard the PBA review actuary is unable to form an opinion as to the reasonable application of actuarial judgment in the calculation of reserves, he or she shall refuse to issue a PBA review opinion.

If the PBA review actuary identifies a material issue with the PBA valuation that can not be satisfactorily resolved with the company prior to the filing date of the annual statement, then he or she shall immediately notify the domiciliary commissioner. Such notification shall specify the nature of the problem and the differences that gave rise to the issue. The PBA review actuary should provide a copy of any such notification to the company.

3.14 Cooperation with Insurance Regulator—The PBA review actuary should cooperate with any insurance regulator, taking steps necessary to satisfy him or her regarding any inquiries with respect to the PBA review.

3.15 Reliance on Others for Data, Projections, and Supporting Analysis—The PBA review actuary may rely on data, projections, and supporting analysis supplied by others. In doing

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so, the PBA review actuary should disclose in the PBA review report both the fact and the extent of such reliance. The accuracy and comprehensiveness of data, projections, and supporting analysis supplied by others are the responsibility of those who supply the data, projections, and supporting analysis.

- 3.16 Reliance on Other Reviewers—The PBA review actuary may rely on other reviewers for a portion of the PBA review opinion. The actuary may rely on another qualified actuary who has, for a particular segment of the business, conducted some or all of the evaluations and reviews described in this standard. However, the relying actuary should be satisfied that the other actuary’s evaluation was performed in accordance with this standard. The actuary should document the extent of such reliance in accordance with section 4.1.

Section 4. Communications and Disclosures

- 4.1 PBA Review Opinion—The PBA review actuary should issue a PBA Review Opinion, as required by the *PBA Review Model*¹, expressing the PBA review actuary’s opinion with respect to the subjective judgments made by the certifying actuary in developing the PBA reserves. The form of the PBA Review Opinion is specified in the PBA Review Model.
- 4.2 PBA Review Report—The PBA Review Model requires that the PBA review actuary prepare a PBA review report to be filed with the company’s board of directors. The form of the PBA review report is specified in the PBA Review Model.
- 4.3 Deviation from Standard—If, in the actuary’s professional judgment, the actuary has deviated materially from the guidance set forth elsewhere in this standard, the actuary can still comply with this standard by applying the following sections as appropriate:
- 4.3.1 Material Deviations to Comply with Applicable Law—If compliance with applicable law requires the actuary to deviate materially from the guidance set forth in this standard, the actuary should disclose that the assignment was prepared in compliance with applicable law, and the actuary should disclose the specific purpose of the assignment and indicate that the work product may not be appropriate for other purposes. The actuary should use professional judgment to determine whether additional disclosure would be appropriate in light of the purpose of the assignment and the intended users of the actuarial communication.
- 4.3.2 Other Material Deviations—The actuary’s communication should disclose any other material deviation from the guidance set forth in this standard. The actuary should

¹ As stated in *Model* sections _____

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consider whether, in the actuary's professional judgment, it would be appropriate and practical to provide the reasons for, or to quantify the expected impact of, such deviation. The actuary should be prepared to explain the deviation to a principal, another actuary, or other intended users of the actuary's communication. The actuary should also be prepared to justify the deviation to the actuarial profession's disciplinary bodies.

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Appendix

Background and Current Practices

Note: This appendix is provided for informational purposes but is not part of the standard of practice.

Background

Current Practices

The *PBA Review Model Regulation* contains detailed instructions, technical requirements, and prohibitions regarding many aspects of principles-based reserves.