

Principle-based Reserving for Life Insurance Products

2013 SERA Conference

Nancy Bennett, FSA, CERA, MAAA

Senior Life Fellow, American Academy of Actuaries

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American Academy of Actuaries

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Discussion Outline

- Current State of Affairs
- Implementing PBR: Insurers
- Implementing PBR: Service Providers
- PBR's Impact
 - Existing business
 - Possible Impact on Product Design
 - Future Refinements



Operative Date of the Valuation Manual

January 1 of the first calendar year following the first July 1 of the calendar year in which all of the following have occurred:

- (1) Adoption of VM by NAIC of at least 42 members or $\frac{3}{4}$ of members voting, whichever is greater
- (2) SVL, as amended by NAIC in 2009, enacted in states representing greater than 75% of direct premiums written as reported in the 2008 annual statements (Life, A&H, Health, Fraternal)
- (3) Amended SVL enacted in at least 42 of the following 55 jurisdictions: the 50 states of the United States, the District of Columbia, American Samoa, the American Virgin Islands, Guam and Puerto Rico



Contents of the Valuation Manual

- VM-0 (Table of Contents, Introduction, Overview)
- VM-1 (Definition of Terms)
- VM-2 (Types of Contracts, Riders, Supplemental Benefits, Substandard Risks)
- VM-3 (Contracts subject to PBR)
- VM-5 Standard Valuation Law
- VM-20 (Reserve Requirements for Life Products)
- VM-21 (Reserve Requirements for Variable Annuities)
- VM-22 (Reserve Requirements for Non-Variable Annuities)
- VM-25 (Reserve Requirements for Health Insurance)
- VM-26 (Reserve Requirements for Credit Life and Disability)
- VM-30 (Requirements of Actuarial Opinion and Memorandum)
- VM-31 (Requirements for Reporting and Documentation)
- VM-50 (Requirements of Experience Reporting)
- VM-51 (Experience Reporting Data Formats)



Implementing PBR: Insurers

- Understand new valuation requirements
 - Academy (webinars, seminars, ASOP, Practice Note, presentations)
 - SOA (case studies, articles, seminars, presentations)
 - NAIC (Legislative & Educational Briefs, PBR Implementation Activities)
- Enhance modeling systems (e.g., utilities, model efficiency, runtime)
- Update experience studies; commit to frequent updates
- Document valuation processes
- Establish/review governance procedures
 - Assumption review
 - Model validation
 - Model governance
 - Peer review



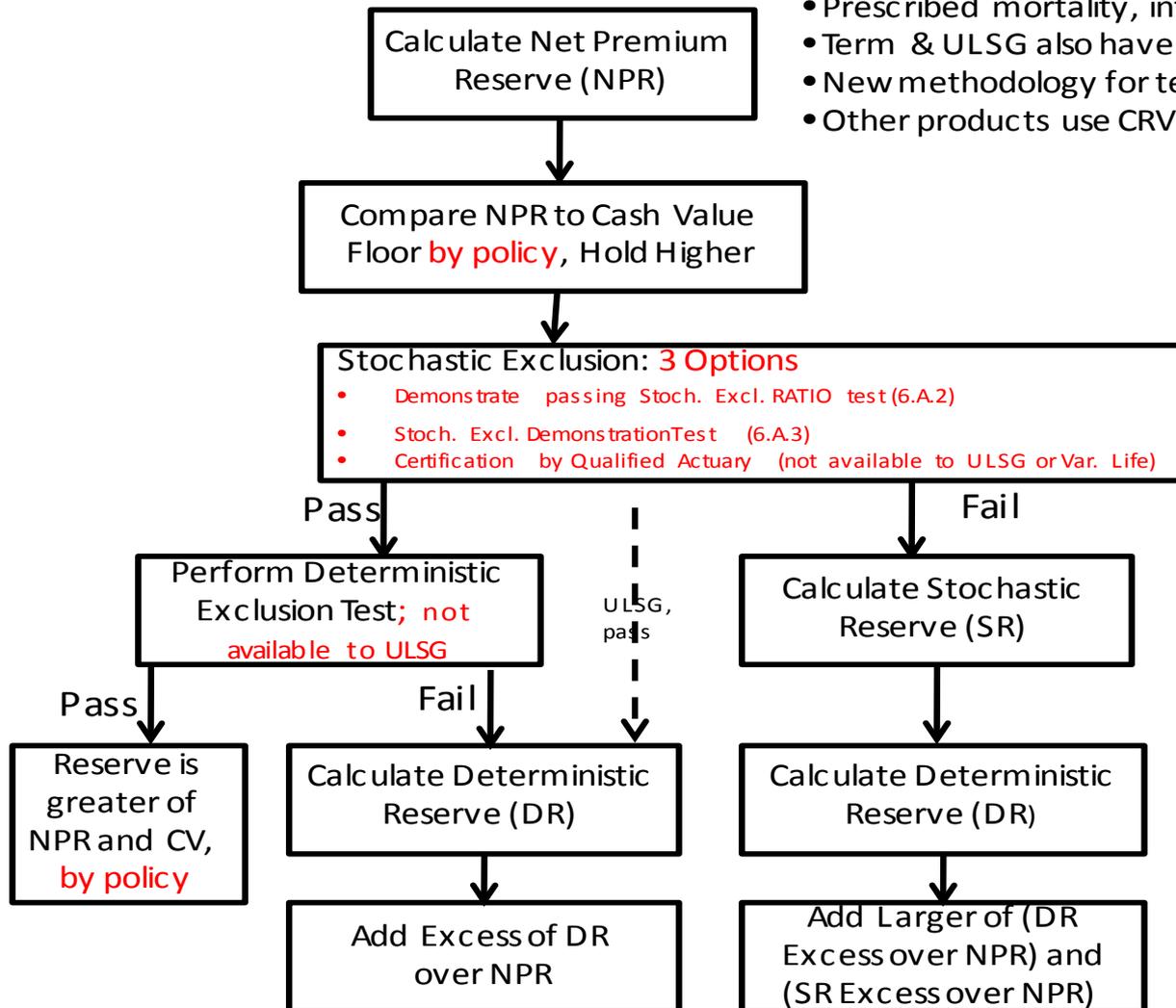
Implementing PBR: Insurers (cont.)

- Review consistency of PBR with other modeling applications; identify differences
- Secure sufficient resources trained in modeling
- Secure sufficient resources with ability to understand and explain results
- Prepare for annual audits and periodic state examinations
 - Expectation of a thorough review of company use of PBR models and assumptions within the first two years of applying PBR
 - Ongoing assessment of PBR compliance would be conducted during regular financial examinations
- Contribute to industry surveys on the effectiveness of PBR



PBR Calculation

- Prescribed mortality, interest, expense assumptions
- Term & ULSG also have prescribed lapse assumptions
- New methodology for term & ULSG
- Other products use CRVM



Exclusion tests are at the Company's option and at policy group level



Implementing PBR: Service Providers

- Consultants
 - Understand new valuation requirements
 - Understand expected volatility of results
- External Auditors
 - Greater emphasis on analyzing results (esp. current vs. prior), trends, materiality, volatility
 - Greater emphasis on model validation & model governance procedures
 - Greater emphasis on documentation & disclosure
- Software vendors
 - Greater emphasis on supporting model validation
 - Greater emphasis on developing utilities to support disclosure
 - Support increased demand to project stochastic results
 - Support increased demand to increase model and runtime efficiency



PBR Impact: Existing Business

- New valuation requirements (VM-20) only apply to new life insurance policies issued after the effective date
- PBR has no impact on inforce reserves
- Interpretation of Actuarial Guideline 38 (AG38) has been recently issued (prior to VM)
 - Interpretations are a step toward PBR (“PBR-lite”)
 - Interpretations apply to both new and inforce reserves for products subject to AG38



PBR Impact: New Business

- The VM modernizes valuation procedures for products already issued by insurance companies.
- Impact of PBR is difficult to predict
 - NAIC commissioned an impact study in 2011 conducted by Towers Watson.
 - Greatest impact expected for competitive term and universal life with secondary guarantees (ULSG) where reserves are expected to increase the most



PBR Impact: Future Refinements

- Define PBR for non-variable annuities (VM-22)
 - Note that PBR is already in place for variable annuities through AG43
- Determine impact on RBC
- Other modifications as indicated by PBR results



Contact Information

Nancy Bennett, Senior Life Fellow
bennett@actuary.org

John Meetz, Life Policy Analyst
meetz@actuary.org

