

Actuarial Guideline VA CARVM

Thomas A. Campbell, F.S.A., M.A.A.A.
Chair, Variable Annuity Reserves Work Group
Presentation to LHATF -- March 9, 2007



Proposed Modifications to AG VA CARVM

Proposal came from multiple sources:

- Items raised by the Academy's Life Practice Council
- VARWG's October 2006 Report
- Response to discussion with LHATF VACARVM Subgroup members
- Additional items raised by the VARWG



Any Impact on Survey?

- Most changes should have no impact

No impact on survey

- Some may have a small impact

Little impact on survey

- Some could materially impact

Possible impact on survey



Items Raised by AAA Life Practice Council

Change in terminology

No impact on survey

- Prudent Best Estimate → Prudent Estimate
- Best Estimate → Anticipated Experience
- Made throughout the document
- Only change to definition of terms
 - in Anticipated Experience – pg 6, section III)B)8)

“. . .the actuary's most reasonable estimate of future experience. . .”



“. . .the actuary's reasonable estimate of future experience. . .”



Items Raised by AAA Life Practice Council

■ Change in terminology

Little impact on survey

– Alternative Methodology – A4.1)E) – pg 30

■ Description of *CA* factor (amort. of surrender charges)

“lapse rates. . .
based on insurer’s
own anticipated
experience”



“lapse rates. . .
based on insurer’s
Prudent Estimate”

■ Working Reserve

– Discussed at December 2006 LHATF meeting

– VARWG not recommending a change at this time



Items from the VARWG's October 2006 Report

■ Treatment of Reinsurance

No impact on survey

- Three places in Guideline:
pg 7 – Section IV)B), pg 17 – Section A2.1)B), and
pg 21 – Section A3.3)B)
- “Where reinsurance is ceded. . . [the Aggregate Reserve]
shall be determined net of any reinsurance treaties that. . .”

“. . .are eligible for reinsurance credit under the NAIC Life and Health Reinsurance Agreements Model Regulation.”



“. . .meet the requirements for statutory accounting as reinsurance.”



Items from the VARWG's October 2006 Report

- Background – Section I (pg 2)

No impact on survey

"normal distribution"



"standard normal distribution"

- Relationship to C3 Phase II
– Section A1.6) (pg 16)

No impact on survey

"two major differences"



"several differences . . . and among them are two major differences"



Items from the VARWG's October 2006 Report

■ Certification Requirements

No impact on survey

- Appendix 8 – pg 55 – Section A8.3)D)2)h)
- Adds the following to information required to be in the memorandum:

“The section showing the assumptions used for lapse and utilization assumptions for contracts with guaranteed living benefits in the development of the Conditional Tail Expectation Amount, as described in section A9.7).”



Discussions with Members of LHATF'S VACARVM Subgroup

- Principle 3 – Section I (pg 3) Little impact on survey
 - Aggregate vs. individual margin issue
 - Added footnote supports proposed changes to Appendix 9 (discussed later)

Footnote: "The intent of Principle 3 is to describe the conceptual framework for setting assumptions. Appendix 9 provides the requirements and guidance for setting contractholder behavior and includes alternatives to this framework if the actuary is unable to fully apply this principle."



Discussions with Members of VACARVM Subgroup

- Revenue Sharing – Appendix 1 (pg 10)
 - “received and controlled”
 - Removed “and controlled”
 - Added footnote clarifying intent of “received”
 - See next slide

Little impact on survey



Revenue Sharing Footnote

Footnote: "For purposes of this section, Net Revenue Sharing Income is considered to be received by the company if it is paid directly to the company through a contractual agreement with either the entity providing the Net Revenue Sharing Income or an affiliated company that receives the Net Revenue Sharing Income. Net Revenue Sharing Income would also be considered to be received, if it is paid to a subsidiary that is owned by the company and if 100% of the statutory income from that subsidiary is reported as statutory income of the company. In this case the actuary needs to assess the likelihood that future Net Revenue Sharing Income is reduced due to the reported statutory income of the subsidiary being less than future Net Revenue Sharing Income received."



Discussions with Members of VACARVM Subgroup

- Revenue Sharing – Appendix 1 (pg 11)
 - Discussion of four alternative ideas on treatment of Revenue Sharing No impact on survey
 - Raised by people outside of the VARWG
 - Including members of the LHATF VACARVM subgroup
 - Not part of the VARWG recommendation
 - See page 11 of VARWG draft



Proposed Modifications to the Standard Scenario

- Guarantee Duration for Discount Rate

- pg 19, section A3.1)B)2) Possible impact on survey
- “greater than 10 years, but not more than 20 years”
- Deletion of 50 bps reduction
- Raised in VARWG October 2006 Report



Proposed Modifications to the Standard Scenario

- Reinsurance language – pg 21, A3.3)B)
 - Issue raised by the VARWG
 - “too restrictive” language is confusing
 - Uses language from Principle 5

No impact on survey

“. . . if the terms of the reinsurance treaty or the portion required to be excluded serves solely to reduce the calculated Standard Scenario Reserve without also reducing risk on scenarios similar to those used to determine the Conditional Tail Expectation Reserve. Any reinsurance reflected in the Standard Scenario Reserve shall be appropriate to the business and not merely constructed to exploit 'foreknowledge' of the components of the Standard Scenario Method.”



Proposed Modifications to the Standard Scenario

■ Aggregate Reinsurance – pg 25

- Section A3.3)D)1)

Possible impact on survey

- Allows discount rate to be consistent with underlying contracts

- Issue raised by the VARWG

“...the discount rate shall be a weighted average of the valuation rates (DR) of the contracts that are supported by the Aggregate reinsurance treaty. The weights used to determine this discount rate shall be reasonably related to the risks...and shall be applied consistently from year to year...”



Proposed Modifications to the Standard Scenario

- Approved Hedges – pg 25, A3.3)D)2)
 - Changed discount rate from DR to one-year CMT
 - CMT is more consistent with value of the hedges
 - One-year CMT consistent with discounting value of hedges projected to the end of the first projection year
 - Issue raised by the VARWG

Possible impact on survey



Proposed Modifications to the Standard Scenario

- Allocation of the value of approved hedges and Aggregate reinsurance
 - pg 26, A3.3)D)3)
 - Issue raised by the VARWG

No impact on survey

Current Draft Allocates
the value to:
All contracts



Suggested Modification
Allocates the value to:
Only contracts supported by
approved hedges and/or
Aggregate reinsurance



Proposed Modifications to the Standard Scenario

■ Other minor changes to Standard Scenario

No impact on survey

- pg 23 – A3.3)C)3) – corrects a missing “ (“
- pg 24 – A3.3)C)7) – note asking for clarification on “Guaranteed Maturity Annuity Benefit”
- Both raised in VARWG’s October 2006 Report



Proposed Modifications to Appendix 9

- Appendix 9 (pgs 57-60) No impact on survey
 - Requirements and guidance for setting Contractholder Behavior Assumptions
- One proposed change
 - splits Appendix 9 into seven subsections
 - Sections A9.1) through A9.7)



Proposed Modifications to Appendix 9

- Section A9.1) General (pg 57)
 - Removed “only to the extent justified by experience”
 - the phrase was used in reference to irrational behavior
 - Raised in VARWG’s October 2006 Report

No impact on survey



Proposed Modifications to Appendix 9

- Aggregate vs. Individual Margins

- Section A9.2) pg 57

Possible impact on survey

- New section in response to discussion with LHATF VACARVM Subgroup members

“...the actuary shall determine Prudent Estimate assumptions independently for each behavior...unless the actuary can demonstrate that an appropriate method was used to determine the level of margin in aggregate for two or more behaviors.”

- more discussion/feedback needed on “methods”
 - e.g., ASOP, practice note or in valuation manual



Proposed Modifications to Appendix 9

■ Section A9.3) Sensitivity Testing (pg 57)

- Clarifies role of sensitivity testing

Little impact on survey

- “is recommended” changed to “is required”
- additional language:

“The actuary should apply more caution in setting assumptions for behaviors where testing suggests that stochastic modeling results are sensitive to small changes in such assumptions. For such sensitive behaviors, the actuary shall use higher margins when the underlying experience is less than fully relevant and credible.”

- In response to discussion with LHATF VACARVM Subgroup members



Proposed Modifications to Appendix 9

- Section A9.4) Specific Considerations (pg 59)
 - No fully relevant and full credible experience
 - clarified language No impact on survey
 - removal of multiple occurrence of similar guidance

“. . . the actuary shall adjust the margin to reflect the increased uncertainty such that the contractholder behavior assumptions are at the conservative end of the plausible range of expected experience that serves to increase the Aggregate Reserve.”

- In response to discussion with LHATF VACARVM Subgroup members



Proposed Modifications to Appendix 9

■ Section A9.5) Dynamic Assumptions

– Clarified Language (pg 59)

Little impact on survey

- “additional margins” → “higher margins”

- sensitivity testing

- “encouraged to test” → “shall test”

- added “and follow the guidance discussed above on setting assumptions for sensitive behaviors.”

- In response to discussion with LHATF VACARVM Subgroup members



Proposed Modifications to Appendix 9

- Memorandum Info – section A9.7), pg 60
 - Disclose VAGLB lapse and utilization assumptions
 - Wording changes: No impact on survey
 - “special report” → “separately identifiable section”
 - “section. . .part of the supporting memorandum”
 - “If. . .requested. . .the section shall have the same confidential status as the supporting memorandum”
 - In response to discussion with LHATF VACARVM Subgroup members

