Actuarial Guideline 45 and Return of Premium Products

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Topics to be Covered

- Notices
- Overview of Actuarial Guideline 45 (AG 45)
  - Scope
  - Background information
  - Guideline's approach/mechanics
  - Specific Requirements
  - Effective Dates
- Product Development Issues
  - Overview
  - Examples

Notices

- The official name for this guideline is Actuarial Guideline XLV. I will generally refer to it as AG 45, and possibly AG CCC.

- The primary focus of this presentation will be AG 45. The Interstate Compact has additional requirements which may be discussed if time permits.

Scope of Actuarial Guideline 45

- Applies to individual life insurance products with endowment benefits materially less than the face amount prior to the expiry date of the coverage.
- Does not apply to variable and non-variable adjustable life and current assumption whole life products.
- Products that offer a return of premium endowment benefit are considered a special case of the products subject to the Guideline.

Background

- ROP products were introduced and gained popularity.
- Cash benefit at the end of a specified year (typically 10, 20 or 30 years).
- Built into the policy or provided through a rider or endorsement.
- Straightforward application of SNL could result in negative or very low cash values at all durations due to high premiums assumed to be applicable in later durations.
- Concern that this application of the SNL produced unacceptable results since it failed to recognize that the cash benefit should be prefunded.

Background (continued)

- Regulatory requirements varied by state.

- Individual actuaries used different interpretations of the SNL.
  - Pure endowment approach
  - Unitary approach

- Pure endowments are exempt from the SNL.
  - Some actuaries argued no nonforfeiture values were required prior to the end of the endowment period.

- Unitary approach often resulted in negative cash values at all durations.

Mechanics

- Capture the prefunding of the endowment benefit during the endowment period.
  - Endowment period is the period of time from the issue date to the date when the endowment benefit becomes payable.
  - Only the prefunding of the endowment benefit is addressed.
  - No changes to the cash value treatment of term insurance with an initial period of level premiums followed by ART premiums.
  - For minimum cash value purposes, an endowment benefit added by rider is to be treated as an integrated product.

- Follow general principle of the SNL:
  - CV = PVFB – PVFAP
  - PVFB is the present value of the endowment benefit and any incremental death benefits
    - Level death benefit during the endowment period does not need to be prefunded
  - PVFAP is the present value of future adjusted premiums

- PVFAP at issue equals the PVFB plus an expense allowance.

Specific Requirements

- The mortality rates and interest rate used in calculating the minimum cash values are those applicable under the SNL for the entire period during which a death benefit is guaranteed under the policy.

- Nonforfeiture values at any duration must be equal or exceed the greater of:
  - Minimum cash values calculated in accordance with Section A of AG 45; and
  - Minimum cash values calculated in accordance with Sections 3 and 5c of the SNL.

- Actual cash value must satisfy the consistency of progression of cash values test ("smoothness test") described in Section 8 of the SNL.
  - Generally the most difficult provision to satisfy.
  - Minimum cash values calculated in accordance with AG 45 frequently do not satisfy the smoothness test.
  - Multiple iterations and significant amount of testing required.

Effective Dates

- Applied to all policy forms filed on or after January 1, 2009.
- Applies to all policies issued on or after January 1, 2010.

Product Development Issues

- Pre-AG 45 Products
  - Integrated policy form
  - Base policy plus a rider

- Filings under the rider approach frequently claimed the rider was exempt from SNL.

- AG 45 will cause both designs to be treated the same for minimum cash value purposes.

- Result of AG 45 will generally be increased minimum cash values and greatly increased administrative requirements.

Pre-AG 45 Products

- Cash values typically started no earlier than the 5th or 6th policy year.
  - Rider approach might have no cash values until the end of the endowment period.
- Cash values typically expressed as a percentage of the premiums paid to date.
  - One set of cash value percentages for all policies that did not vary by issue age, gender, underwriting class or rate band.
- 100% of the endowment benefit paid at the end of the level premium period.
- Potential problems with smoothness test
  - Some companies (and state insurance departments) ignored the smoothness test

Effects of AG 45

- Result of AG 45 will generally be increased minimum cash values, greatly increased administrative requirements and changes in product features.

- Minimum cash values can be required as early as the 2^{nd} or 3^{rd} duration at older ages.
    - If cash value percentages are used, will need to vary by issue age, gender, underwriting class and rate bands.
    - One company's pre-AG 45 product had 1 schedule of cash value percentages. The AG 45 compliant product could have more than 900.

- Premiums typically increase.
    - As much as 25% on an integrated product.
    - Premiums sometimes decreased at younger ages.

- Additional policy feature changes
    - Eliminate policy fees
    - Eliminate return of rider premiums
    - Eliminate return of modal premiums

Effects of AG 45 (continued)

- AG 45 does not address reserves, but an increase in minimum cash values will increase the cash value floor.

- Lapses
  - Will the increase in cash values change lapse experience?
  - No longer as great an additional cash value benefit to keep the policy in force.

- Iterative cash value calculation testing and smoothness testing is very time consuming.

- A number of companies dropped their ROP products.

Example

- Pre-AG 45 product was an integrated product developed in 2007.

- Not a true return of premium product.
  - Did not recognize any riders, substandard extra premiums or modal factors.
  - Endowment benefit defined as the annual mode total standard life premium, including policy fee, multiplied by 20.
  - Interim cash values equal to a percentage of the annual mode total standard life premium, including policy fee, multiplied by the number of years in force.

- The pre-AG 45 product used one schedule of cash value percentages for all policies.

- Twenty-two rate schedules (male/female, 3 bands, up to 5 underwriting classes per band).

ROP Term
Male Age 35 Preferred Non-Smoker
$150,000 Face Amount
$70 Policy Fee

Original Premium Per Thousand: $3.39

Duration	Original CV %	AG 45 CV %	Change
1	0%	0%	0%
2	0%	0%	0%
3	0%	0%	0%
4	0%	0%	0%
5	0%	10%	10%
6	7%	23%	16%
7	13%	33%	20%
8	20%	41%	21%
9	27%	48%	21%
10	33%	54%	21%
11	40%	60%	20%
12	47%	65%	18%
13	53%	69%	16%
14	60%	74%	14%
15	67%	78%	11%
16	73%	83%	10%
17	80%	87%	7%
18	87%	92%	5%
19	93%	96%	3%
20	100%	100%	0%

Profit margin impact -44%.

ROP Term
Male Age 35 Preferred Non-Smoker
$150,000 Face Amount
$70 Policy Fee

Revised AG 45 Premium Per Thousand: $3.77

Duration	$3.39 AG 45 CV%	$3.77 AG 45 CV%	Change
1	0%	0%	0%
2	0%	0%	0%
3	0%	0%	0%
4	0%	0%	0%
5	10%	14%	4%
6	23%	27%	4%
7	33%	36%	3%
8	41%	43%	2%
9	48%	50%	2%
10	54%	56%	2%
11	60%	61%	1%
12	65%	66%	1%
13	69%	70%	1%
14	74%	75%	1%
15	78%	79%	1%
16	83%	83%	0%
17	87%	88%	1%
18	92%	92%	0%
19	96%	96%	0%
20	100%	100%	0%

ROP Term
Male Age 35 Preferred Non-Smoker
$150,000 Face Amount
$70 Policy Fee

	Original	Revised	% Change
Premium Per Thousand	$3.39	$3.77	11.2%
Total Premium	$578.50	$635.50	9.9%

ROP Term
Male Age 35 Preferred Non-Smoker
$249,999 Face Amount
$70 Policy Fee

Original Premium Per Thousand: $3.39

Duration	Original CV %	AG 45 CV %	Change
1	0%	0%	0%
2	0%	0%	0%
3	0%	0%	0%
4	0%	0%	0%
5	0%	8%	8%
6	7%	22%	15%
7	13%	32%	19%
8	20%	40%	20%
9	27%	47%	20%
10	33%	53%	20%
11	40%	59%	19%
12	47%	64%	17%
13	53%	69%	16%
14	60%	74%	14%
15	67%	78%	11%
16	73%	83%	10%
17	80%	87%	7%
18	87%	91%	4%
19	93%	96%	3%
20	100%	100%	0%

ROP Term
Male Age 35 Preferred Non-Smoker
$249,999 Face Amount
$70 Policy Fee

Revised AG 45 Premium Per Thousand: $3.77

Duration	$3.39 AG 45 CV%	$3.77 AG 45 CV%	Change
1	0%	0%	0%
2	0%	0%	0%
3	0%	0%	0%
4	0%	0%	0%
5	8%	13%	5%
6	22%	25%	3%
7	32%	35%	3%
8	40%	43%	3%
9	47%	49%	2%
10	53%	55%	2%
11	59%	60%	1%
12	64%	65%	1%
13	69%	70%	1%
14	74%	74%	0%
15	78%	79%	1%
16	83%	83%	0%
17	87%	87%	0%
18	91%	92%	1%
19	96%	96%	0%
20	100%	100%	0%

ROP Term
Male Age 35 Preferred Non-Smoker
$249,999 Face Amount
$70 Policy Fee

	Original	Revised	% Change
Premium Per Thousand	$3.39	$3.77	11.2%
Total Premium	$917.50	$1,012.50	10.4%

ROP Term
Male Age 35 Preferred Non-Smoker
$150,000 & $249,999 Face Amounts
$70 Policy Fee

Revised AG 45 Premium Per Thousand: $3.77

Duration	$150,000 CV%	$249,999 CV%	Difference
1	0%	0%	0%
2	0%	0%	0%
3	0%	0%	0%
4	0%	0%	0%
5	14%	13%	1%
6	27%	25%	2%
7	36%	35%	1%
8	43%	43%	0%
9	50%	49%	1%
10	56%	55%	1%
11	61%	60%	1%
12	66%	65%	1%
13	70%	70%	0%
14	75%	74%	1%
15	79%	79%	0%
16	83%	83%	0%
17	88%	87%	1%
18	92%	92%	0%
19	96%	96%	0%
20	100%	100%	0%

Questions?

Contact Information

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