



SOCIETY OF ACTUARIES

Article from:

Small Talk Newsletter

November 2002 – Issue No. 19

Reworking The ABC's Of XYZ

by Tom Kalmbach

The National Association of Insurance Commissioners recently introduced a proposal that defines minimum cash values for life insurance products with secondary guarantees. The draft regulation, known as the Minimum Non-forfeiture Values for Universal Life Insurance Products and Variable Universal Life Insurance Products with Secondary Guarantees Model Regulation (XYZ), generated considerable controversy.

At the Life and Health Actuarial task force meeting on September 10, at least one company opposed Regulation XYZ outright and others said the proposal failed to adequately address regulations for minimum cash values.

One of XYZ's strengths includes the introduction of a reasonable methodology to determine the implied mortality guarantees provided by any secondary guarantee. Because the proposed regulation would apply to both UL and VL products, it would create a level playing field across both product lines. And the methodology would also allow minimum cash values to be determined at issue.

The ability to determine minimum cash values at issue can make the policies easier to administer. However, the cost for doing so is the inability to reflect pre-funding of benefits in minimum cash values. This is an unnecessary trade-off, as you'll see later in a suggested alternative. A key reason for non-forfeiture values in the first place is to reflect pre-funding of benefits—a common occurrence with flexible premium plans. This is a major shortcoming.

... it would create
a level playing
field across both
product lines.

A second shortcoming is that applying XYZ to shadow design plans results in very low minimum cash values. Shadow design plans generally have increasing required premiums, much like annual renewable term policies. Since the expense allowance in XYZ is determined based on an arithmetic average of these premiums, the result is a very high expense allowance. Minimum cash values are then calculated by taking the actual required premium minus this expense allowance. Since first year required premium is generally low relative to later year premiums and the expense allowance is large, the result is very low minimum cash values relative to a similar premium based guarantee. Chart 1 demonstrates this result for a fictional shadow design and premium based design.

Ideally, the non-forfeiture method chosen should reflect pre-funding and be easy to administer. The current Universal Life Model Regulation achieves both goals. It is easier to administer because the resulting minimum cash values equal the actual policy value less an unamortized unused initial expense allowance as defined in the model regulation. It works because companies can calculate surrender charges, which when applied, result in cash values that meet non-forfeiture regulations. An alternative to XYZ is the application of the methodology of the UL Model Regulation to products with secondary guarantees. The basic premises for the alternative are as follows:

- a) The UL model regulation works well today.
- b) Any non-forfeiture regulation should reflect pre-funding.
- c) The expense allowance in the UL model regulation is a whole life expense allowance. Products with secondary guarantees provide whole life coverage first and

secondary guarantees second. Thus, a whole life expense allowance is appropriate, however, the mortality assumptions used to determine this expense allowance should reflect those implied or specified in the guarantee.

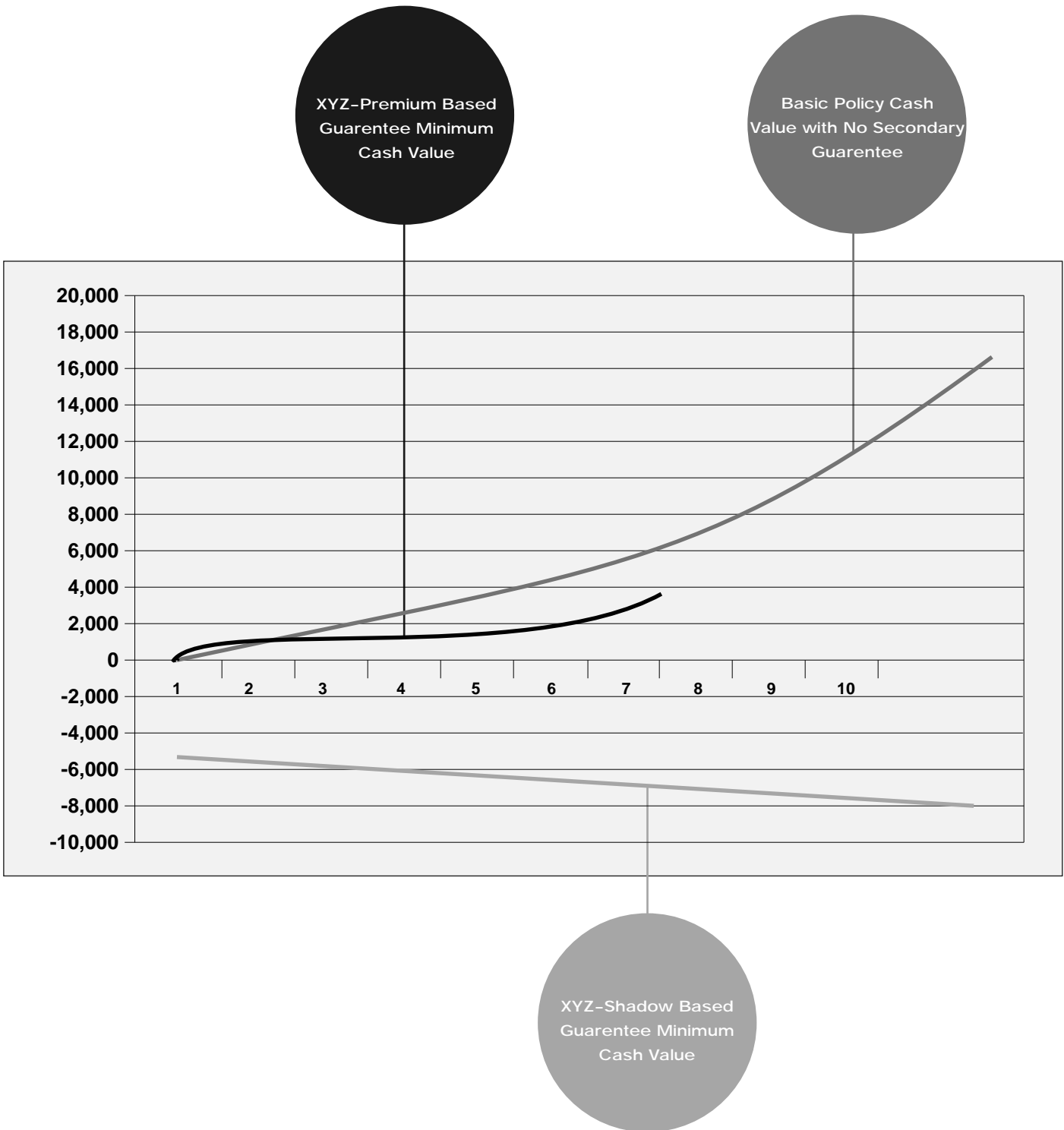
- d) XYZ's "R" methodology with some adjustments does a reasonable job to determine implied guarantees.
- e) Cash values will reflect actual interest/investment credits, actual policy charges and actual benefit charges.

The suggested alternative introduces a few other modifications to XYZ.

1. The "R" methodology should reflect expense charges applicable to the secondary guarantee, if any.
2. Because a constant percentage ("R") of 1980 CSO may not be adequate to cover mortality and other costs, a company should have the option of specifying the mortality charges in the secondary guarantee. This provides companies with a good deal of flexibility in product design.
3. Minimum cash values equal accumulated premiums, less expense charges and benefit charges less an unamortized, unused expense allowance, where expense charges and benefit charges are no greater than those implied or specified in the secondary guarantee. Thus, minimum cash values for a product that has actual expense charges and actual benefit charges less than those specified or implied in the secondary guarantee will equal the policy value less a surrender charge where maximum surrender charges are determinable at issue.

Cash values will
reflect actual
interest/
investment credits,
actual policy
charges and actual
benefit charges.

Chart I: August 9, 2002 Draft of XYZ
 Hypothetical Example for Shadow Design and Premium Design
 Level No Lapse Premium = \$950, Face Amount = \$100,000
 Actual Premium Payment = \$1,100 annually



4. Non-forfeiture expense allowances are calculated using mortality implied or specified in the secondary guarantee but no greater than non-forfeiture mortality.

5. Finally, if a policy is kept in-force by the presence of a secondary guarantee, the policy value is floored at zero.

The result is a non-forfeiture regulation similar to today's non-forfeiture regulations that can be administratively straightforward and appropriately reflects pre-funding of benefits. The next steps are to stress test the alternative and then seek reactions from life insurers and regulators. Copies of the draft should be available on the NAIC Web Site for your comment.

XYZ's "R" methodology with some adjustments does a reasonable job to determine implied guarantees.
