AMERICAN ACADEMY of ACTUARIES

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January 2, 2019

Mr. Mike Boerner
Chair, Life Actuarial (A) Task Force
National Association of Insurance Commissioners

Re: APF 2018-44

Dear Mike:

The American Academy of Actuaries'[1] Life Reserves Work Group is pleased to submit the following comments regarding amendment proposal form (APF) 2018-44 on credited amounts for indexed accounts in the calculation of the Deterministic Reserve (DR).

Supporting analysis—Number of stochastic scenarios

The supporting analysis for the APF used 1,000 Stochastic Reserve (SR) scenarios.

The following table shows a comparison of the analysis using the full set of 10,000 SR scenarios compared to the 1,000 SR scenarios.

		Projection year 1-20		Projection year 20-50	
		Variable	Indexed	Variable	Indexed
Index Parameters	Dividends	Yes	No	Yes	No
	Cap	n/a	Dynamic*	n/a	Dynamic*
	Guaranteed Cap	n/a	n/a	n/a	n/a
1,000 SR Scenarios	Mean	7.40%	3.40%	7.50%	4.00%
	SD	3.60%	0.80%	3.10%	1.00%
	Minimum	-3.50%	1.90%	-1.90%	2.20%
	Maximum	18.50%	6.30%	17.70%	7.00%
10,000 SR Scenarios	Mean	7.67%	3.22%	7.88%	4.02%
	SD	3.62%	0.67%	3.04%	0.93%
	Minimum	-4.43%	1.12%	-4.05%	1.65%
	Maximum	20.31%	7.26%	18.78%	9.27%
DR Scenario—Current	Rate	4.00%	2.00%	7.70%	5.40%
	SDs From 1,000 Scn. Mean	**(1.0)**	**(2.2)**	**0.1**	**1.4**
	SDs From 10,000 Scn. Mean	**(1.0)**	**(2.2)**	**(0.1)**	**1.5**
DR Scenario—100% OB	Rate		2.60%		3.70%
	SDs From 1,000 Scn. Mean		**(1.0)**		**(0.3)**
	SDs From 10,000 Scn. Mean		**(0.9)**		**(0.3)**
DR Scenario—108% OB	Rate				4.00%
	SDs From 1,000 Scn. Mean				-
	SDs From 10,000 Scn. Mean				**(0.0)**

[1] The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

As shown in the table, the results of this analysis are substantially similar to the supporting analysis shown in the APF when using the full set of 10,000 SR scenarios.

Supporting analysis—Representative indexed account

Specifications for the representative indexed account used in the analysis supporting the APF are shown in the following table along with the portion of sales represented[2]

Parameter	Selection	% Sales
Index	S&P 500	60.3%
Crediting method	Annual Point-to-Point	78.8%

As shown in the table, the representative indexed account used in this analysis is based on the most common design in the market today and covers a majority of the market.

The results of this analysis are similar if a different index or crediting method were used because the equity market returns for the DR and SR scenarios use the same underlying methodology and logic across the different markets.

Supporting analysis—Option budget and hedge strategy

Specifications for determination of the option budget used in the analysis supporting the APF are shown in the following table.

Assumption	Selection
Rate type	New money
Investment strategy	20 year bonds
Credit spread	1.5%
Portfolio turn-over rate	8% per year
Company spread	1.5%
Volatility	20% at-the-money with 35bps skew
Index dividend rate	2%

These assumptions produce option budgets that start around 2.5% which lead to cap rates close to 5%; whereas competitive indexed universal life products feature currently declared cap rates between 8 and 12%. Using less conservative assumptions for the option budget determination would produce higher cap rates and recommended option returns.

[2] *Wink's Sales & Market Report*, 3rd Quarter, 2018, indexed life sales by index and crediting method for Q3 2018

The APF leads to higher option returns for hedge strategies with higher option costs in the DR scenario. This might be perceived as creating an incentive to develop a strategy for the purpose of reducing reserves. However, such a strategy would be at a disadvantage when used for the SR because option returns are not linked to the option budget and an artificially costly hedge strategy would lead to a higher reserve. Furthermore, products with a clearly defined hedging strategy (CDHS) cannot be exempt from SR requirements under VM-20.

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If you have any questions, please contact Ian Trepanier (trepanier@actuary.org), life policy analyst at the Academy.

Thank you for your consideration.

Chris Whitney, MAAA, FSA
Member, Life Reserves Work Group
American Academy of Actuaries