

*Adopted by the Life Insurance and Annuities (A) Committee – Dec. 11, 2016*  
*Adopted by the Life Actuarial (A) Task Force – Nov. 17, 2016*

## **Actuarial Guideline XLIX**

### **THE APPLICATION OF THE LIFE ILLUSTRATIONS MODEL REGULATION TO POLICIES WITH INDEX-BASED INTEREST**

#### **Background**

The *Life Insurance Illustrations Model Regulation* (#582) was adopted by the NAIC in 1995. Since that time there has been continued evolution in product design, including the introduction of benefits that are tied to an external index or indices. Although these policies are subject to Model #582, not all of their features are explicitly referenced in the model, resulting in a lack of uniform practice in its implementation. In the absence of uniform guidance, two illustrations that use the same index and crediting method often illustrated different credited rates. The lack of uniformity can be confusing to potential buyers and can cause uncertainty among illustration actuaries when certifying compliance with Model #582.

This guideline provides uniform guidance for policies with index-based interest. In particular, this guideline:

- (1) Provides guidance in determining the maximum crediting rate for the illustrated scale and the earned interest rate for the disciplined current scale.
- (2) Limits the policy loan leverage shown in an illustration.
- (3) Requires additional consumer information (side-by-side illustration and additional disclosures) that will aid in consumer understanding.

#### **Text**

##### **1. Effective Date**

This Actuarial Guideline shall be effective as follows:

- i. Sections 4 and 5 shall be effective for all new business and in force life insurance illustrations on policies sold on or after September 1, 2015.
- ii. Effective March 1, 2017, Section 4 and Section 5 shall be effective for all in-force life insurance illustrations on policies within the scope of this actuarial guideline, regardless of the date the policy was sold.
- iii. Sections 6 and 7 shall be effective for all new business and in force life insurance illustrations on policies sold on or after March 1, 2016.
- iv. Sections 3.B.ix, 3.B.x, 4.A.iii, 5.B and 6.B shall be effective for all new business illustrations on policies sold on or after \_\_\_\_\_

##### **2. Scope**

This Actuarial Guideline shall apply to any life insurance illustration that meets both (i) and (ii), below:

- i. The policy is subject to Model #582.
- ii. Interest credits are linked to an external index or indices.

### 3. Definitions

#### A. Alternate Scale: A scale of non-guaranteed elements currently being illustrated such that:

- i. The credited rate for each Index Account does not exceed the lesser of the maximum credited rate for the illustrated scale less 100 basis points and the credited rate for the Fixed Account. If the insurer does not offer a Fixed Account with the illustrated policy, the credited rate for each Index Account shall not exceed the average of the maximum credited rate for the illustrated scale and the guaranteed credited rate for that account. However, the credited rate for each Index Account shall never be less than the guaranteed credited rate for that account.
- ii. If the illustration includes a loan, the illustrated rate credited to the loan balance does not exceed the illustrated loan charge.
- iii. All other non-guaranteed elements are equal to the non-guaranteed elements for the illustrated scale.

#### B. Benchmark Index Account: An Index Account with the following features:

- i. The interest calculation is based on the percent change in S&P 500<sup>®</sup> Index value only, over a one-year period using only the beginning and ending index values. (S&P 500<sup>®</sup> Index ticker: SPX)
- ii. An annual cap is used in the interest calculation.
- iii. The annual floor used in the interest calculation shall be 0%.
- iv. The participation rate used in the interest calculation shall be 100%.
- v. Interest is credited once per year.
- vi. Account charges do not exceed the account charges for any corresponding Index Accounts within the policy in any policy year. If Index Accounts with different levels of account charges are offered with the illustrated policy, more than one Benchmark Index Account may be used in determining the maximum illustrated crediting rates for the policy's Index Accounts, subject to the requirements of 5.D.. However, for each Index Account within the policy, only one Benchmark Index Account shall apply. Any rate calculated in 4 (B) shall not apply for an Index Account if the account charges for the applicable Benchmark Index Account exceed the account charges for that Index Account in any policy year. Account charges include all charges applicable to an Index Account, whether deducted from policy values or from premiums or other amounts transferred into such Index Account.
- vii. Additional amounts credited are not less than the additional amounts credited for any corresponding Index Accounts within the policy in any policy year. Any rate calculated in 4 (B) shall not apply for an Index Account if the additional amounts credited for the applicable Benchmark Index Account **are** less than the additional amounts credited for that Index Account in any policy year. Additional amounts include all credits that increase policy values, including but not limited to experience refunds or bonuses.
- viii. There are no limitations on the portion of account value allocated to the account.
- ix. All sources of index credits are included in the Benchmark Index Account and its credited rate as defined in Section 4.
- x. All index credits are applied to the policy account value and only the account value is eligible for index credits.

- C. Fixed Account: An account where the credited rate is not tied to an external index or indices.
- D. Index Account: An account where the credited rate is tied to an external index or indices.

#### 4. Illustrated Scale

The credited rate for the illustrated scale for each Index Account shall be limited as follows:

- A. Calculate the geometric average annual credited rate for each applicable Benchmark Index Account for the 25-year period starting on 12/31 of the calendar year that is 66 years prior to the current calendar year (e.g., 12/31/1949 for 2015 illustrations) and for each 25-year period starting on each subsequent trading day thereafter, ending with the 25-year period that ends on 12/31 of the prior calendar year.
  - i. If the insurer offers an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use the current annual cap for the applicable Benchmark Index Account in 4 (A).
  - ii. If the insurer does not offer an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use actuarial judgment to determine a hypothetical, supportable current annual cap for a hypothetical, supportable Index Account that meets the definition of a Benchmark Index Account, and shall use that cap in 4 (A).
  - iii. The difference in costs supporting the cap for a Benchmark Index Account with no account charges as compared to a cap 100bps lower should be used as the differential across each 100bp change in caps in the determination of the hypothetical, supportable current annual cap for a hypothetical, supportable Index Account that meets the definition of a Benchmark Index Account and shall use that cap in 4 (A).
- B. For each applicable Benchmark Index Account, the arithmetic mean of the geometric average annual credited rates calculated in 4 (A) shall be the maximum credited rate(s) for the illustrated scale.
- C. For other Index Accounts using other equity, bond, and/or commodity indexes, and/or using other crediting methods, the illustration actuary shall use actuarial judgment to determine the maximum credited rate for the illustrated scale. The determination shall reflect the fundamental characteristics of the Index Account and the parameters shall have the appropriate relationship to the expected risk and return of the applicable Benchmark Index Account. In no event shall the credited rate for the illustrated scale exceed the applicable rate calculated in 4 (B).
- D. At the beginning of each calendar year, the insurer shall be allowed up to three (3) months to update the credited rate for each Index Account in accordance with 4 (B) and 4 (C).

#### 5. Disciplined Current Scale

The earned interest rate for the disciplined current scale shall be limited as follows:

- A. If an insurer engages in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed 145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.
- B. If the insurer engages in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale for assets equal to the policy value subject to index interest shall not exceed 145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) equal to the policy value subject to index interest. The assumed earned interest rate underlying the disciplined current scale for all other general account assets (excluding hedges for index-based credits) allocated to support the policy shall not

exceed the annual net investment earnings rate of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

- C. If an insurer does not engage in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed the annual net investment earnings rate of the general account assets allocated to support the policy.
- D. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all benefits including illustrated bonuses.
- E. If more than one Benchmark Index Account is used for an illustrated policy, each set of Index Accounts that correspond to each Benchmark Index Account must independently pass the self-support and lapse-support tests under Model #582, subject to the limitations in 5 (A), (B), and (C). All experience assumptions that do not directly relate to the Index Accounts as to expenses, mortality, investment earnings rate of the general account assets, lapses, and election of any Fixed Account shall equal the assumptions used in the testing for the entire policy.

#### 6. Policy Loans

- A. If the illustration includes a loan, the illustrated rate credited to the loan balance shall not exceed the illustrated loan charge by more than 100 basis points.
- B. If the illustration includes a loan, the illustrated rate credited to the loan balance for all credits linked to an external index or indices, net of any asset-based charges or any other policy charges that are explicitly used to increase the policy loan's index credits, shall not exceed the illustrated rate charged on the loan by more than 100bps.

#### 7. Additional Standards

The basic illustration shall also include the following:

- A. A ledger using the Alternate Scale shall be shown alongside the ledger using the illustrated scale with equal prominence.
- B. A table showing the minimum and maximum of the geometric average annual credited rates calculated in 4 (A).
- C. For each Index Account illustrated, a table showing actual historical index changes and corresponding hypothetical interest rates using current index parameters for the most recent 20-year period.

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