

**Actuarial Guideline XLIX – 1<sup>st</sup> exposure until 10/30/19; 2<sup>nd</sup> exposure planned for 11/1/19 subgroup call**

**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.

*{redline is from current AG 49;*

*yellow highlights are differences from 10/17 LATF materials version;*

*blue highlights are comments (potential areas that need to be worked out with help from experts;*

*green highlights are on the question of whether the supplemental option budget should be an add-on to the earned rate.*

**Text**

- 1. Effective Date *[Need strawman for new revisions – impact new & inforce]*

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.

- 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 total amount credited ~~to as a result of~~ -the loan balance, including Indexed Credits and all other illustrated benefits and bonuses that impact the policy's account value, shall not exceed the illustrated loan charges ~~ss 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. Annual Net Investment Earnings Rate: Gross portfolio annual earnings rate, less provisions for investment expenses and default cost, of the general account assets (excluding hedges for Indexed Credits) allocated to support the policy. [Need to tighten up, add "not inclusive of charges, to ensure, e.g., NIER doesn't equal 6.5%?]

B.C. 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.

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

E. Index Account: An account where the credited rate is tied to an external index or indices.

F. Indexed Credits: Any interest credit, multiplier, factor, bonus, or other enhancement to policy values that is linked to an external index or indices. [Is there a reason to mention direct or indirect linkage to an index]

G. Supplemental Option Budget: The total amount spent to generate the Indexed Credits of the policy minus the Annual Net Investment Earnings Rate. This amount is expressed as a percent of the policy's indexed account value.

[Should 3G focus on charges instead, e.g., “Any asset-based charges or other policy charges that are used to increase the amount spent to generate the Indexed Credits of the policy.” would replace the first 3G sentence?]

Drafting note: When AG 49 was originally adopted, the Option Budget was typically less than or equal to the Annual Net Investment Earnings Rate. However, in subsequent IUL designs, the Option Budget may be supplemented by asset-based charges or other policy charges, leading to an Option Budget that may exceed the Annual Net Investment Earnings Rate.

#### 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).
- 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).  
[Proposal to tighten up language?]
- 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).

E. The total Index Credits illustrated shall not exceed the annual earned interest rate underlying the disciplined current scale as defined in 5 (A) and (B).

#### 5. Disciplined Current Scale

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

- A. If an insurer engages in a hedging program for ~~index based interest~~Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy, inclusive of all hedge/derivative assets and cash flows that support Indexed Credits and all other investments that support the policy, shall not exceed i. + ii. + iii.  
where:
  - i. equals the Annual Net Investment Earnings Rate, plus
  - ii. equals 45% times the Annual Net Investment Earnings Rate, plus and
  - iii. equals the Supplemental Option Budget. [adjust for timing differences to get same result for multipliers and non-multipliers?]

~~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.~~

*Drafting note: i. is a proxy for the amount funding the 0% interest guarantee; ii. Allows a 45% return on the portion of the Option Budget up to the Annual Net Investment Earnings Rate; iii. Allows a return of the Supplemental Option Budget to offset the charges – discuss whether the charges are actual negative cash flows that need to be offset to attain the desired result.*

~~A.B.~~ If an insurer does not engage in a hedging program for ~~index based interest~~ Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy shall not exceed the ~~a~~Annual ~~n~~Net ~~i~~Investment ~~e~~Earnings ~~r~~Rate ~~of the general account assets allocated to support the policy.~~

~~B.C.~~ These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all Indexed Credits and all other illustrated benefits ~~and including illustrated~~ bonuses.

D. 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, including all illustrated Indexed Credits that apply to an Indexed 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 and Indexed Credits 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.

E. The table below illustrates two examples of the calculation of the assumed annual earned interest rate underlying the disciplined current scale and assumes the insurer engages in a hedging program. Example 1 assumes the insurer's Supplemental Option Budget is zero. Example 2 assumes the insurer's Supplemental Option Budget is positive.

	Example 1	Example 2
<u>Annual Net Investment Earnings Rate</u>	<u>4.5%</u>	<u>4.5%</u>
<u>Supplemental Option Budget (as % of Indexed Account Value)</u>	<u>0%</u>	<u>2.5%</u>
<u>Maximum Annual Earned Interest Rate underlying the Disciplined Current Scale</u>	<u>6.53% =</u> <u>1.45 * .045</u> <u>+ 0</u>	<u>9.03% =</u> <u>1.45 * .045</u> <u>+ .025</u>
<u>Maximum Annual Earned Interest Rate minus Supplemental Option Budget</u>	<u>6.53%</u>	<u>6.53%</u>

## 6. Policy Loans

If the illustration includes a loan, the total amount illustrated rate credited to as a result of the loan balance, including Index Credits and all other illustrated benefits and bonuses that impact the policy's account value, shall not exceed the sum of explicit illustrated loan charges and asset-based charges applicable to the loan balance by more than 100 basis points of the loan balance.

## 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.