**Disclaimer:** The revisions to Actuarial Guideline 49-A have not been adopted by the NAIC’s Life Insurance and Annuities (A) Committee or the Executive (EX) Committee and Plenary and are thus subject to change or to non-adoption. However, the revisions have been adopted by the Life Actuarial (A) Task Force and this version has been posted to the Task Force’s public website to provide regulators and interested parties with the most current language.

***Revised Actuarial Guideline*** *-**Draft: 1/13/2022*

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*Adopted by Life Insurance and Annuities (A) Committee – TBD*

# Actuarial Guideline XLIX-A

**THE APPLICATION OF THE LIFE ILLUSTRATIONS MODEL  
REGULATION TO POLICIES WITH INDEX-BASED INTEREST SOLD   
(On or After December 14, 2020)**

**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 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 for all new business and in force illustrations on policies sold on or after December 14, 2020.

1. Scope

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

* 1. The policy is subject to Model #582.
  2. The policy offers Indexed Credits.

1. Definitions
2. Alternate Scale: A scale of non-guaranteed elements currently being illustrated such that:
   1. The Annual Rate of Indexed Credits for each Index Account does not exceed the lesser of the maximum Annual Rate of Indexed Credits 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 Annual Rate of Indexed Credits for each Index Account shall not exceed the average of the maximum Annual Rate of Indexed Credits for the illustrated scale and the guaranteed Annual Rate of Indexed Credits for that account. However, the Annual Rate of Indexed Credits for each Index Account shall never be less than the guaranteed Annual Rate of Indexed Credits for that account.
   2. If the illustration includes a loan, the illustrated Policy Loan Interest Credited Rate shall not exceed the illustrated Policy Loan Interest Rate. For example, if the illustrated Policy Loan Interest Rate is 4%, the Policy Loan Interest Credited Rate shall not exceed 4%.
   3. All other non-guaranteed elements are equal to the non-guaranteed elements for the illustrated scale.
3. Annual Net Investment Earnings Rate: Gross portfolio annual earnings rate of the general account assets (excluding hedge assets for Indexed Credits), less provisions for investment expenses and default cost, allocated to support the policy. Charges of any kind cannot be used to increase the Annual Net Investment Earnings Rate.
4. Annual Rate of Indexed Credits: The total annualized Indexed Credits expressed as a percentage of the account value used to determine the Indexed Credits.
5. Benchmark Index Account: An Index Account with the following features:
   * + 1. The interest calculation is based on the percent change in S&P 500® Index value only, over a one-year period using only the beginning and ending index values. (S&P 500® Index ticker: SPX)
       2. An annual cap is used in the interest calculation.
       3. The annual floor used in the interest calculation shall be 0%.
       4. The participation rate used in the interest calculation shall be 100%.
       5. Interest is credited once per year.
       6. The Hedge Budget used to determine the cap in 3 (D) (ii) does not exceed the Annual Net Investment Earnings Rate. Charges of any kind cannot be used to increase the annual cap.
       7. There are no enhancements or similar features that provide additional Indexed Credits in excess of the interest provided by 3 (D) (i) through 3 (D) (v), including but not limited to experience refunds, multipliers, or bonuses.
       8. There are no limitations on the portion of account value allocated to the account.
       9. A single Benchmark Index Account will be determined for each policy. This can be either an Index Account offered with the illustrated policy or determined according to Section 4 (A) (ii) for purposes of complying with this guideline. A policy shall have no more than one Benchmark Index Account.
6. Fixed Account: An account where there are no Indexed Credits.
7. Hedge Budget: For each Index Account, the total annualized amount assumed to be used to generate the Indexed Credits of the account, expressed as a percent of the account value in the Index Account. This total annualized amount should be consistent with the hedging program of the company.
8. Index Account: An account where some or all of the amounts credited are Indexed Credits.
9. Indexed Credits: Any interest credit, multiplier, factor, bonus, charge reduction, or other enhancement to policy values that is linked to an index or indices. Amounts credited to the policy resulting from a floor greater than zero on an account with any interest credit, multiplier, factor, bonus, charge reduction, or other enhancement to policy values that is linked to an index or indices are included.
10. Loan Balance: Any outstanding policy loan and loan interest, as defined in the policy.
11. Policy Loan Interest Rate: The current annual interest rate as defined in the policy that is charged on any Loan Balance. This does not include any other policy charges.
12. Policy Loan Interest Credited Rate: The annualized interest rate credited that applies to the portion of the account value backing the Loan Balance:
    1. For the portion of the account value in the Fixed Account that is backing the Loan Balance, the Policy Loan Interest Credited Rate is the applicable annual interest crediting rate.
    2. For the portion of the account value in an Index Account that is backing the Loan Balance, the Policy Loan Interest Credited Rate is the Annual Rate of Indexed Credits, net of any applicable Supplemental Hedge Budget, for that account.
13. Supplemental Hedge Budget: For each Index Account, the Hedge Budget minus the minimum of the Annual Net Investment Earnings Rate and the Hedge Budget that is used in the determination of the Benchmark Index Account. The Supplemental Hedge Budget will never be less than zero. This amount should be consistent with the hedging program of the company.
14. Illustrated Scale

The total Annual Rate of Indexed Credits for the illustrated scale for each Index Account shall be limited as follows:

1. Calculate the geometric average annual credited rate for the 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.
   1. If the insurer offers a Benchmark Index Account with the illustrated policy, the illustration actuary shall use the current annual cap for the Benchmark Index Account in 4 (A).
   2. If the insurer does not offer a 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 the Benchmark Index Account, and shall use that cap in 4 (A).
2. For the Benchmark Index Account the Annual Rate of Indexed Credits shall not exceed the minimum of (i) and (ii):
   1. The arithmetic mean of the geometric average annual credited rates calculated in 4 (A).
   2. 145% of the Annual Net Investment Earnings Rate.
3. For any other Index Account that is not the Benchmark Index Account in 3 (D), the Annual Rate of Indexed Credits illustrated as a percentage of the account value in the Index Account prior to the deduction of any charges used to fund a Supplemental Hedge Budget shall not exceed the minimum of (i) and (ii) for policies sold prior to May 1, 2023 and shall not exceed the minimum of (i), (ii), and (iii) for policies sold on or after May 1, 2023:
   1. The Annual Rate of Indexed Credits for the Benchmark Index Account calculated in 4 (B) plus the Supplemental Hedge Budget for the Index Account.
   2. The Annual Rate of Indexed Credits reflecting the fundamental characteristics of the Index Account and the appropriate relationship to the expected risk and return of the Benchmark Index Account. The illustration actuary shall use actuarial judgment to determine this value using lookback methodology consistent with 4 (A) and 4 (B) (i) where appropriate.

iii. The lesser of (1) and (2) multiplied by the Annual Rate of Index Credits for the Benchmark Index Account, calculated in 4 (B), divided by (2); plus, the Supplemental Hedge Budget for the Index Account:

1. The Hedge Budget of the Index Account

2. Hedge Budget of the Benchmark Index Account.

1. For the purposes of compliance with Section 6 (C) of Model #582, the Supplemental Hedge Budget is subtracted from the Annual Rate of Indexed Credits before comparing to the earned interest rate underlying the disciplined current scale.

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).

1. Disciplined Current Scale

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

1. If an insurer engages in a hedging program for Indexed Credits in an account, the assumed earned interest rate underlying the disciplined current scale for that account, inclusive of all general account assets, both hedge and non-hedge assets, that support the policy, net of default costs and investment expenses (including the amount spent to generate the Indexed Credits of the policy) shall not exceed the lesser of (i) and (ii):
   1. The Annual Net Investment Earnings Rate, plus 45% of the lesser of (1) and (2):
      1. Hedge Budget minus any annual floor, to the extent that the floor is supported by the Hedge Budget.
      2. The minimum of the Annual Net Investment Earnings Rate and the Hedge Budget that is used in the determination of the Benchmark Index Account.
   2. The Annual Rate of Indexed Credits plus the Annual Net Investment Earnings Rate minus the Hedge Budget.

These rates should be adjusted for timing differences in the hedge cash flows to ensure that fixed interest is not earned on the Hedge Budget minus any annual floor, to the extent that the floor is supported by the Hedge Budget.

Guidance Note: The above approach does not stipulate any required methodology as long as it produces a consistent limit on the assumed earned interest rate underlying the disciplined current scale.

For a policy with multiple Index Accounts, a maximum rate in 5 (A) should be calculated for each account. All accounts, fixed and indexed, within a policy can be tested in aggregate.

1. If an insurer does not engage in a hedging program for Indexed Credits, the assumed earned interest rate underlying the disciplined current scale shall not exceed the Annual Net Investment Earnings Rate.
2. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all illustrated benefits including any illustrated benefits and bonuses that impact the policy’s account value.
3. Policy Loans

If the illustration includes a loan, the illustrated Policy Loan Interest Credited Rate shall not exceed the illustrated Policy Loan Interest Rate by more than 50 basis points. For example, if the illustrated Policy Loan Interest Rate is 4.00%, the Policy Loan Interest Credited Rate shall not exceed 4.50%.

1. Additional Standards

The basic illustration shall also include the following:

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