

**Actuarial Guideline ILVA  
Nonforfeiture Requirements for Index Linked  
Variable Annuity Products**

**Background**

**The purpose of this guideline is to specify the conditions under which an Index-Linked Variable Annuity (ILVA) is consistent with the definition of a variable annuity and exempt from Model 805 and specify nonforfeiture requirements consistent with variable annuities.**

A number of insurers have developed and are issuing annuity products with credits based on the performance of an index with caps on returns, participation rates, spreads or margins, or other crediting elements, that include a risk of negative index returns subject to limitations on the loss, such as a floor or a buffer. These products are not unitized and do not invest directly in the assets whose performance forms the basis for the credits.

There is no established terminology for these annuity products. These products go by several names, including structured annuities, registered index-linked annuities (RILA), or index-linked variable annuities, among others. This guideline refers to these products as index-linked variable annuities (ILVA).

Variable annuities are exempted from the scope of NAIC Model 805, *Standard Nonforfeiture Law for Individual Deferred Annuities*; however, NAIC Model 805 does not define the term "variable annuity".

NAIC Model 250, *Variable Annuity Model Regulation*, defines variable annuities as "contracts that provide for annuity benefits that vary according to the investment experience of a separate account" Section 7B of NAIC Model 250 provides that "to the extent that a variable annuity contract provides benefits that do not vary in accordance with the investment performance of a separate account" the contract shall satisfy the requirements of the NAIC Model 805.

The application of the NAIC Model 250 to a traditional variable annuity with unitized values is straightforward. The unitized feature provides an automatic linkage between annuity values and the investment experience of a separate account. Daily values (market values of the separate account assets) are the basis of all the benefits, including surrender values.

The fact that ILVA accounts are not unitized means they do not have values determined directly by the market prices of the underlying assets. Therefore, this guideline sets forth principles and requirements for determining values, including death benefit, withdrawal amount, annuitization amount or surrender values, such that an ILVA is considered a variable annuity and thereby exempt from Model 805. An ILVA that does not comply

with the principles and requirements of this guideline is not considered a variable annuity and therefore is subject to Model 805.

Drafting Note: This guideline interprets the term “variable annuity” for purposes of exemption from Model 805. It is not intended to modify the definition of a variable annuity under Model 250 or other Model Regulations.

### **Scope**

This guideline applies to any index-linked annuity exempt from the NAIC Model 805 on the basis that it is a variable annuity and includes index-linked crediting features that are built into policies or contracts (with or without unitized subaccounts) or added to such by rider, endorsement, or amendment.

### **Principles**

This guideline is based on the following principles:

1. Interim Values defined in the contract provide equity between the contract holder and the insurance company
2. Interim Values are consistent with the value of the Hypothetical Portfolio over the Index Strategy Term.

### **Definitions**

“Derivative Asset Proxy” means a package of hypothetical derivative assets established at the beginning of an Index Strategy Term that is designed to replicate credits provided by an Index Strategy at the end of an Index Strategy Term.

“Fixed Income Asset Proxy” is a hypothetical fixed income asset with a term equal to the Index Strategy Term.

“Hypothetical Portfolio” means a hypothetical portfolio composed of a Fixed Income Asset Proxy and a Derivative Asset Proxy.

“Index” means a benchmark designed to track the performance of a defined portfolio of securities.

“Index Strategy” means a method used to determine index credits with specified index or indices and cap, buffer, participation rate, spread, margin or other index crediting elements.

“Index Strategy Base” means the notional amount used to determine index credits that does not change throughout the Index Strategy Term except for withdrawals, transfers, deposits, loans, and any explicit charges.

**Commented [A1]:** Defining the Fixed Income Asset Proxy initially as the Index Strategy Term. Then allowing for an optional market value adjustment (MVA) based on a choice of term lengths appropriate to the investment strategy.

“Index Strategy Term” means the period of time from the term start date to the term end date over which an index changes and the index credit is determined.

“Interim Value” means the Strategy Value at any time other than the start date and end date of an Index Strategy Term.

“Strategy Value” means the value, attributable to an Index Strategy, used in determining values including death benefit, withdrawal amount, annuitization amount or surrender values.

“Trading Cost” means the additional cost of liquidating the derivative assets in the Derivative Asset Proxy or actual derivative assets supporting the Index Strategy that is not accounted for in the Derivative Asset Proxy calculation.

### Text

The Index Strategy Base must equal the Strategy Value at the Index Strategy Term start date.

The Fixed Income Asset Proxy is assumed to be a hypothetical fixed income asset ~~with a maturity based on the weighted average maturity of the fixed income assets supporting the ILVA and~~ Its value:

~~a.~~

~~a. With a yield that results in~~

~~b.a. at the beginning of the Index Strategy Term is the value of the asset equal to the Index Strategy Base less the Derivative Asset Proxy value;~~

~~e-b. at the end of during the Index Strategy Term, is the beginning value accumulated at an interest rate that will accumulate to equal the Index Strategy Base at in the book value of the asset, assuming no change in interest rates, projected to equal the end of the Index Strategy Term Base; and~~

~~d.c. May additionally be adjusted by include a market value adjustment that reflects the change in the value of the Fixed Income invested assets Asset Proxy during and at the end of each Index Strategy Term either consistent with the length of the Index Strategy Term, or the assumed the maturity of the Fixed Income invested Assets Proxy, or other relevant term. A market value adjustment that reduces value may only be applied only to partial withdrawals and surrenders.~~

~~b.~~

**Drafting Note:** Interim values are intended to reflect the market value of the hypothetical portfolio. For fixed income assets the book value of the assets plus a market value adjustment is meant to approximate the market value of the assets. Using a maturity consistent with longer maturity assets typically used to support these products, the book value of the assets plus a market value adjustment results in a closer match to the market value of the assets held in support of the product. ~~Because Index Strategy Terms are~~

**Commented [A2]:** The Fixed Income Asset Proxy is defined above. If an MVA adjustment is included it would be additional to the Fixed Income Asset Proxy.

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**Commented [A3]:** This eliminates negative MVA's on death benefits. Positive MVA's would apply to withdrawals, surrenders and death benefits.

**Commented [A4]:** The fixed income invested assets are used to determine the market value adjustment. If a market value adjustment is included it would be reflected in the interim value for only partial withdrawals and surrenders.

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~~generally shorter than the average maturity of the supporting assets, using the Index Strategy Term to determine the market value adjustment will generally result in smaller adjustments.~~

**Commented [A5]:** This is not needed.

The value of the package of derivative assets is determinable daily. Assumptions used to value the Derivative Asset Proxy including implied volatilities, risk-free rates, and dividend yields must be consistent with the observable market prices of derivative assets, whenever possible.

Interim Values must be materially consistent with the value of the Hypothetical Portfolio over the Index Strategy Term less a provision for the cost attributable to reasonably expected or actual Trading Costs at the time the Interim Value is calculated.

If a contract provides Interim Values determined using a methodology other than a Hypothetical Portfolio methodology as described in this guideline, the company must demonstrate that the contractually defined Interim Values will be materially consistent over the Index Strategy Term with the Interim Values that would be produced using the Hypothetical Portfolio methodology for each combination of Index Strategy and Index Strategy Term under a reasonable number of realistic economic scenarios that include index changes that test crediting constraints and recognize initial option pricing parameters.

The company must provide an actuarial memorandum with each ILVA product filing that includes the following:

1. Actuarial certifications must be included with each ILVA product filing and must include the following:
  - a. Interim Values defined in the contract provide equity between the contract holder and the insurance company;
  - b. The assumptions used to value the Derivative Asset Proxy including implied volatilities, risk-free rates, dividend yields, and other parameters required to value the derivatives are consistent with the observable market prices of derivative assets over the Index Strategy Term, whenever possible. Valuation techniques include the standard Black-Scholes method, Monte-Carlo Simulation techniques, and other market consistent option valuation techniques for more complex options;
  - c. The contractually defined Interim Values are materially consistent with the Interim Values that would be produced using the Hypothetical Portfolio methodology for each combination of Index Strategy and Index Strategy Term over the Index Strategy Term less a provision for the Trading Costs at the time the Interim Value is calculated;
  - d. Any Trading ~~unwinding~~ Costs represent reasonably expected or actual costs at the time the Interim Value is calculated; and

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e. The market value adjustment, if any, applicable to the Fixed Income Asset Proxy, is expected to produce results reasonably similar to changes in the market value of the ~~hypothetical~~ fixed income ~~invested~~ assets and the formula provides for reasonable equity between the contract holder and the insurance company.

**Commented [A7]:** The MVA is recommended to be part of the Interim Value and not the hypothetical fixed income asset.

2. If the Interim Values are determined using a methodology other than the Hypothetical Portfolio methodology described in this guideline, the actuary shall describe the testing performed to verify that the values are materially consistent with the Hypothetical Portfolio methodology. The actuary should define any parameters or assumptions used in determining material consistency and provide a summary of the results of the testing.

3. Descriptions of

- a. Fixed Income Asset Proxy including any market value adjustment;
- b. Derivative Asset Proxy including any Trading Costs;
- c. All formulas, methodologies and assumptions used to calculate these values for each Index Strategy and Index Strategy Term as well as the sources for all assumptions.

ILVA nonforfeiture benefits for Index Strategies subject to this guideline must comply with Section 7 of Model 250 not including Section 7.B with net investment return consistent with the requirements for determining Interim Values in this guideline.

#### **Effective Date**

The Guideline applies to all contracts issued on or after April 1, 2023.