

**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. The current products include a risk of loss throughout the life of the contract and include 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. However, unlike traditional non-variable indexed annuities, these annuities may reflect negative index returns.

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 products 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.

This guideline does not apply to an annuity contract or a subaccount of an annuity contract that is subject to the requirements of NAIC Model 805, Standard Nonforfeiture Law for Individual Deferred Annuities.

### **Principles**

This guideline is based on the following principles:

1. Interim Values and any market value adjustments defined in the contract provide equity to both the contract holder and the 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.

“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, and any explicit charges.

“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.

Market value adjustments that reflect changes in the value of hypothetical fixed income assets due to interest rate and/or credit spread movements are allowed. Market value adjustments may be applied as part of the Interim Value calculation (as outlined below) or at the contract level (applicable to Strategy Values subject to this guideline) or some combination thereof as long as the aggregate market value adjustments provide equity between the contract holder and the company.

The value of the Fixed Income Asset Proxy:

- a. At the beginning of the Index Strategy Term equals the Index Strategy Base less the Derivative Asset Proxy value;
- b. Earns interest at a rate that results in the Fixed Income Asset Proxy equal to the Index Strategy Base at the end of the Index Strategy Term; and
- c. May include market value adjustments.

The value of the Derivative Asset Proxy is determined assuming a package of derivative assets that replicates the index credit provided by an Index Strategy at the end of an Index Strategy Term. The value of the package of derivative assets is determined on each day that Interim Values are calculated. Assumptions used to value the Derivative Asset Proxy including yields, implied volatility, risk-free rate, and dividend yield 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.

Actuarial certification must be included with each ILVA product filing that includes the following:

- a. Interim Values defined in the contract provide equity to both the contract holder and the company.
- b. The assumptions used to value the Derivative Asset Proxy including yields, implied volatility, risk-free rate, dividend yield, 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 Costs represent reasonably expected or actual costs at time the Interim Value is calculated.

{ Industry is presenting two alternatives for the language in this section and are looking for feedback from the Subgroup. We would like confirmation that states can accept the confidential actuarial memo.

#### Option 1

The company must also provide a proprietary and confidential appendix to the actuarial memorandum with each ILVA product filing that includes the following:

#### Option 2

The company will supply upon request a proprietary and confidential appendix to the actuarial memorandum prepared at the time of product filing that includes the following: }

1. 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.

2. Descriptions of:

- a. Fixed Income Asset Proxy;
- b. Derivative Asset Proxy;
- c. Any market value adjustments and Trading Costs; and
- d. 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 (excluding Section 7.B) with net investment return consistent with the requirements for determining Interim Values and market value adjustments in this guideline to confirm that the level of surrender charges and other loads are appropriate.

**Effective Date**