



AMERICAN ACADEMY *of* ACTUARIES

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September 10, 2008

Florence E. Harmon, Acting Secretary  
Securities and Exchange Commission  
100 F Street, N.E.  
Washington, DC 20549

Re: Initial Comments on Release Nos. 33-8933 & 34-58022 (File No. S7-14-08): Proposed Rule 151A

Dear Ms. Harmon:

The American Academy of Actuaries'<sup>1</sup> (Academy) Equity Indexed Annuities Work Group (Work Group) presents its initial comments on the Securities and Exchange Commission's proposed Rule 151A. The Academy's mission includes providing independent and objective actuarial information, analysis, and education for the formation of sound public policy and proactively identifying and addressing issues on behalf of the public in matters where actuarial science provides a unique understanding. The Academy Work Group's comments are intended to provide an objective perspective in helping the Commission understand the implications of the proposed rule. Background for some of our comments can be found in prior comments we submitted to the SEC on January 5, 1998 in response to Concept Release 33-7438 and on December 21, 2005. They are attached to our submission for your reference as Appendix A and B, respectively.

Based on our review of the SEC's proposed Rule 151A, we understand the SEC has two concerns. The first concern is that consumers do not fully understand indexed annuities (sometimes also referred to as fixed indexed annuities, equity-indexed annuities, or EIAs) and may not be fully informed at the time of purchase of an indexed annuity. This includes concerns about agent training, disclosure, sales material, and determination of suitability. The second concern is related to the belief that indexed annuities have characteristics which make them a security.

We understand that the proposed rule would result in three major changes:

1. Require sales by registered representatives and, consequently, sales with the use of a prospectus. This would introduce training, disclosure, sales material review, and suitability determination requirements similar to those for securities, such as variable annuities;

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<sup>1</sup> The American Academy of Actuaries' mission is to serve the public on behalf of the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

2. Define a new class of annuity as a security and set requirements that would cause almost all current indexed annuities to be included in the new class;
3. Introduce a requirement to certify whether an annuity falls into this new class of securities, although who would be making this certification is not clearly defined within the proposed rule.

#### INITIAL OBSERVATIONS

Based on our review of the proposed rule thus far, we have five observations, which are summarized below. Because of the complexity and far reaching nature of proposed Rule 151A, we feel that there are additional areas to be more fully analyzed. We have previously requested an extension of the comment period and the opportunity to discuss some of the issues directly with you.

- 1) Proposed rule 151A would define indexed annuities as securities on a basis which is inconsistent with prior determinations of securities status and with commonly understood differences between insurance and securities.
- 2) The determination of the status of an annuity as a security should be based on the presence of variance that includes risk of loss of principal, not the uncertainty of interest earned above principal and interest guarantees.
- 3) The proposed rule will negatively impact values available to the consumer.
- 4) We see several unintended consequences of the proposed rule as well as many unanswered questions. For example, it also would seem to apply to several other insurance products in addition to indexed annuities.
- 5) While we understand the concerns that have been raised leading to the proposed rule, state insurance regulators and the insurance industry have been working to address them. Some remedies are already in place and others are in process that could address the SEC's concerns.

We recognize the SEC's expertise regarding issues of risk for security products and would like to share what we have learned from our training and the application of managing risk and maintaining financial integrity through the design and valuation of insurance products. In the remainder of this letter, we focus on the following:

- I. Distinctions between insurance and security products;
- II. Concerns with the proposed risk criteria in Rule 151A for determining what constitutes a security; and
- III. Regulatory options, alternatives and solutions.

#### **I. DISTINCTIONS BETWEEN INSURANCE & SECURITY PRODUCTS**

Significant distinctions exist between insurance and securities products. We review some of these distinctions in this section including: (a) objective of the purchaser, (b) risk assumption by the issuer, (c) distinctions between a debt instrument and an annuity, (d) principal guarantees, (e) annuity exemption test, (f) principle of commonality, and (g) contractual characteristics. In addition, we discuss how the distinctions impact the insurer, (who designs and offers products

which must protect policyholders and are structured to allow fulfillment of promises), and those who purchase these products.

(a) Objective of the purchaser

Several questions can be asked to clarify the purpose for purchasing an insurance or a securities product. They include, but are not limited to, the following:

- Is the purchaser of the product intending to purchase insurance to manage risk (and protect against the risk of something “bad” occurring<sup>2</sup>) or to purchase a security product to accept or take on risk?
- Is safety of principal of paramount importance?
- What is the upside or downside potential?

In general, insurance (in contrast to a security) provides guarantees that eliminate the risk of loss of principal due to investment performance. In addition to principal, annuity credits once earned can never be “lost” or taken away<sup>3</sup> due to investment performance. For securities, some loss of principal due to investment performance is a real possibility and this risk is taken in exchange for returns in excess of market expectations.

Because of the changing nature of risk and the purchaser’s desire to be able to change his risk position, securities exist in a market where they can be bought, sold and traded for different risk/return exposures; risk of loss due to investment performance is always possible. Even government bonds, often considered risk-free, are subject to loss over the term of their holding period due to changes in interest rates.

(b) Risk assumption by the issuer

A distinction can be made between whether the provider of the product is a “conduit for passing on risk” or whether it is managing risk (and is therefore required to hold capital for the risk). The previous distinction between taking on risk versus managing risk also applies to the entity offering the product.

A company issuing a stock or bond is using those funds to support the risk of whatever business it is in. This requires the investor to share in the results of its business success or failure, either directly as an owner or indirectly as a creditor.

By contrast, a company offering an insurance product engages in enterprise risk management approaches to manage risk through diversification, holding required capital, product design

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<sup>2</sup> The definition of “bad” is unique to each individual and may include dying too soon, living too long, needing medical care or having unexpected liquidity needs. This leads to two distinct objectives when a consumer buys a product:

1. Paying something to insure against some kind of loss or event; or
2. Putting an investment at risk, realizing that risk is linked to reward

<sup>3</sup> Other than registered Market Value Adjusted Annuities (MVA’s)

considerations and possible repricing actions. Even though the ultimate return to a policyholder may improve because of an insurer's sound business practices, there is a floor of guaranteed benefits that must be provided because of guarantees inherent in insurance products. While an insurance company may make business decisions that put corporate profits at risk, the regulatory environment aims to prevent putting solvency at risk. In fact, in the event of a failure, the rest of the insurance industry is required to make whole, at a minimum, the guarantees made to the policyholders of the failed company.

(c) Distinctions between a debt instrument and an annuity

While it could be argued that a company issuing bonds and an insurer offering annuities are both issuing debt instruments, there are several important distinctions to note.

1. A bond issuer does not need to set up and maintain risk-based capital when the bond is issued whereas risk-based capital is required for annuities.
2. Bond liabilities can contain the right to be extinguished or redeemed by the issuer, no matter the desires of the holder. Annuities cannot force redemption. Even the maturity date on an annuity is not a mandatory redemption date
3. Bonds promise (but don't guarantee) a value only on the last day of the holding period, whereas individual, deferred general account annuities guarantee values on every day the contract is in force and are designed to be settled at the option of the policyholder with the company directly as opposed to traded in the market. This imposes much greater risk to the issuer of the annuity, and therefore requires the company to hold additional capital and to keep more liquid investments to support the business.
4. Many annuities include lifetime income guarantees as well as valuable features such as the waiver of charges at death and at the occurrence of nursing care, penalty-free withdrawals, and lifetime withdrawal guarantees. Bonds lack these features
5. The ability of an insurer to pay back the contract holder requires prudent investment management of assets held specifically to support the value of the annuity, in contrast to the general business operating gains reliance for bonds.
6. Because it is a negotiable security, the owner of a bond can sell it on the open market at any time, but annuities are not negotiable securities and therefore not traded in the secondary market<sup>4</sup>.

(d) Principal Guarantees

Annuities (other than variable annuities and registered market value adjusted annuities) initially guarantee the major portion of the principal and ultimately guarantee an amount greater than principal, which continues to increase and cannot be taken away once granted.

Furthermore, even for an indexed annuity, the interest crediting falls within a rather limited range due to the fact that its opportunity value to the customer is determined by a "budget" that is quite similar to interest crediting on a fixed-rate annuity. In short, the economic drivers within an

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<sup>4</sup> There are "period certain annuities" in payout phase that have no policy options and no mortality benefits and are sometimes sold in a nascent "secondary market" of sorts. We know of no EIAs that are being traded at this time.

indexed annuity are quite similar to those in an ordinary fixed-rate annuity and, over the long run, will typically produce cumulative interest credits that are similar to but greater than those of a fixed-rate annuity.

In several ways, indexed annuities are similar to bank certificates of deposit (CD), in that both have guarantee of principal, both offer interest credits over short-to-medium time periods that are independent of company (bank or insurer) performance, both subject their owners to an early withdrawal or surrender penalty under certain pre-specified conditions and neither has historically been considered a security. In addition, both have guaranty bodies that secure the promises in the event of company insolvency. Like indexed annuities, CD credited rate options may include an equity-indexed credit and both use contract pricing to set policy terms and values. The annuity also, however, can provide guaranteed income for life which the CD cannot.

(e) Annuity exemption test

Although Rule 151 provides a safe harbor under Section 3(a)(8) of the Securities Act exempting fixed-rate annuities from securities registration, the safe harbor is usually held not to apply directly to other annuities, such as indexed annuities. As a result, issuers of indexed annuities have made their determinations on the basis of meeting the concepts of Rule 151 within the broader context of Section 3(a)(8). A common approach is to consider whether an indexed annuity product displays the following characteristics:

1. Meets the minimum requirements of the Standard Nonforfeiture Law for Individual Deferred Annuities (SNFLIDA);
2. Adjusts its excess interest crediting formula no more frequently than annually; and
3. Is marketed with emphasis on safety of principal and the provision of retirement income, rather than on any investment features.

A product meeting these criteria would commonly be considered an insurance product rather than a security.

Additional factors to consider are the changes that were made to the SNFLIDA a few years ago (since the adoption of Rule 151) through a National Association of Insurance Commissioners (NAIC) model law adopted by many states:

1. Minimum nonforfeiture interest rates are set at policy issue, generally for the life of the policy, based on a recent average of the five-year Constant Maturity Treasury rate, but limited to a range of 1% to 3%. This contrasts with a constant 3% rate in the prior law.
2. There is a uniform structure for single premium and recurring premium annuity contracts that starts the minimum contract guarantee at 87.5% of premium. This contrasts with 90% for single premium contracts and 65% of first year and 87.5% of renewal year premiums for recurring premium contracts in the prior law.

In addition to the cumulative floor guarantee, an indexed annuity generally contains a minimum crediting formula guarantee that is applicable when renewal crediting formulae are set in the future. In this fashion the insurer guarantees significant value in future crediting.

(f) Principal of commonality

All holders of a security constitute a class and receive the same treatment/return. For insurance products, however, this does not hold. Each indexed annuity policy return is unique because of differing policy provisions. These provisions include issue dates, renewal rate declarations, index election (fixed, S&P, NASDAQ, etc.), proportion of funds allocated to each index option, renewal premiums, death, disability and nursing home benefits. In addition, penalty-free withdrawal provisions allow access to policy earned rates, yet do not jeopardize principal.

(g) Contractual characteristics

While annuities potentially could be investment contracts, e.g., variable annuities, Section 3(a)(8) of the Securities Act grants an exclusion from securities registration for insurance contracts. Additionally, Rule 151 has provided a safe harbor for determination in relation to fixed-rate annuities. The Section 3(a)(8) exception provides the opportunity for indexed annuities to be excluded from registration requirements. The issue is to justify that exemption on the basis of contract characteristics.

As we have practiced in this area the following items are what have been presented to us as the legal context for past practice and classifications.

- 1) Historically, in lieu of a general definition that covers all securities, Congress has defined “securities” exhaustively (and not very precisely) as a long list of individual products: (Section 3a item 10 of the 1934 Act). We do not see any clear category where an indexed annuity could be considered a security in this list and thus consider indexed annuities not to fall within these identified categories.
- 2) For investment schemes that do not fall within the traditional categories of securities as defined by Sec. 2(a)(1) of the Securities Act and Sec. 3(a)(10) of the Securities Exchange Act, the classification of a security is based on whether there is an “investment contract” that must be registered. Criteria used to make this determination are investment of money, a common enterprise, and expectation of profits to come primarily from the efforts of others.<sup>5</sup> We note that while a premium is paid for an indexed annuity, there is no common enterprise and there is no expectation of profits deriving from other's efforts (based on our understanding of what these terms refer to).

We also note another common characteristic of a security - A security is a fungible, negotiable instrument representing financial value.

Fungibility is the property of a good or a commodity whose individual units are capable of mutual substitution. It describes the ability to exchange one unit of a commodity with another unit of the same commodity. Thus a stock certificate is fungible because each certificate is exchangeable for another certificate of the same company. An indexed annuity is not fungible because each certificate is unique to its owner. With an insurance contract, different values may

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<sup>5</sup> See SEC v. W.J. Howey Co. and SEC v. Glenn W. Turner Enterprises, Inc.

be provided based on the time of purchase, contract elections made by the owner, age, sex and even health of the contract owner. Thus, this characteristic of a security is not true for an indexed annuity.

### Summary of Distinctions

These differences distinguish insurance (and indexed annuities) from traditional registered securities. Furthermore, comparing the indexed annuity design to the concepts of Rule 151 suggests that, in addition to these differences, there is a strong basis in existing law and regulation for recognizing that indexed annuities are not securities.

## **II. CONCERNS WITH PROPOSED RISK CRITERIA**

Proposed Rule 151A suggests that if the following two criteria are met, the product does not qualify for an exemption from security status under Section 3(a) (8) of the Securities Act:

1. Amounts payable by the insurance company under the contract are calculated, in whole or in part, by reference to the performance of a security, including a group or index of securities.
2. Amounts payable by the insurance company under the contract are more likely than not to exceed the amounts guaranteed under the contract.

We see five issues in these criteria. We list them here and will then elaborate more fully on each of them.

1. *Inconsistency with existing criteria for determining security status. The determination of the status as a security is based on the likelihood of amounts greater than a guarantee, rather than based on traditional views of risk as a return that could be either negative or positive. This does not appear consistent with existing criteria for determining securities status.*
2. *The “more likely than not” test would classify most of today’s indexed annuity designs as securities and either force higher guarantees and reduce indexed based crediting for insurance products or add extra expense to the product.*
3. *The “more likely than not” test is subject to interpretation that could lead to unevenness of application.*
4. *It does not provide a safe harbor guideline to say when a product is insurance. The proposed rule only includes criteria to classify a product as a security, but no criteria for classifying a product as insurance.*
5. *There are many downstream consequences that need to be considered.*

1. Inconsistency with existing criteria for determining security status.

An investment presents two dimensions of uncertainty to an investor: uncertainty of return of principal and uncertainty of positive returns. The historic view of a security, as we have understood it is that the uncertainty of return of principal is a true risk that defines security status, not the uncertainty of a dispersion of positive returns.

An indexed annuity provides guarantees that eliminate the risk of loss of principal. The uncertainty of positive returns within the product is the variability of credited interest above principal. As stated earlier, the interest crediting falls within a rather limited range due to the fact that its opportunity value to the customer is determined by a “budget” that is quite similar to interest crediting on a fixed-rate annuity. In short, the economic drivers within an indexed annuity are quite similar to those in an ordinary fixed-rate annuity and, over the long run, will typically produce cumulative interest credits that are similar to but greater than those of a fixed-rate annuity.

At its roots, an indexed annuity effectively translates interest that otherwise could have been credited at a fixed rate into an “option budget”. This causes the index-based interest to have a call option value comparable to the interest credited on a fixed-rate annuity. This is a general indicator of the magnitude of the average interest that will be credited on an indexed annuity. Although the amount of the option budget varies, based on today’s investment environment, it would generally be in the range of 3% to 5% of premium. Consequently, over the long run, the average annual interest crediting on an indexed annuity will converge to a range dictated by this 3% to 5% value. (Based on our testing, the actual average annual credits will converge over the long run to a value higher than for the comparable fixed-rate annuity if one assumes the typical historic characteristic of equity index increases exceeding the risk-free rate that is embedded in option pricing.)

2. The “more likely than not” criterion will restrict value for the consumer

The “more likely than not” criterion is severe and would force higher guarantees for nonregistered indexed annuities when compared with today’s typical indexed annuities. These higher guarantees leave less room for index-based interest crediting, limiting consumer choice and values. If current products are now classified as securities, then the additional expense and complication of filing and reporting will be borne by the consumer.

3. The “more likely than not” test is subject to interpretation

If the proposed Rule were to be adopted, then insurance carriers would have to calculate whether credited interest would be more likely than not to exceed product guarantees. These calculations would likely depend on actuarial assumptions drawn from those used in annuity pricing and valuation.

Actuarial assumptions naturally vary from carrier to carrier, reflecting variations in product design, distribution system, estimated mortality, estimated index behavior, and so on. Two different carriers could then end up, given two annuities with similar characteristics, making

different determinations of securities status for those annuities, a result that may not have been intended by the SEC. Our comments will address this further when we describe what is needed for the drafting of Actuarial Standards of Practice.

*4. No Safe Harbor exists in the proposal*

We will offer some constructive comments on this issue in the next section. We suspect one of the challenges in the marketplace has been the lack of clarity about some key insurance and risk concepts. We think further clarification of these concepts may help increase comfort both for regulators and the public.

Some of this may be accomplished with a safe harbor provision that would better distinguish between insurance and securities (in addition to the concepts covered elsewhere in our comments). In addition, clarification of the following items may help to either define a safe harbor or educate the public:

1. the interplay of liquidity, growth and guarantees in the product design process;
2. distinguishing complexity that puts the holder at risk versus complexity to manage the guarantee; and
3. differentiating risk free returns versus realized returns (and how that impacts understanding the value and cost of a guarantee).

While these warrant a much fuller discussion we do note the following two points:

- (1) Insurance companies use product designs as part of their risk management practice and to allow growth of principal at higher rates for purchasers with a longer investment horizon. All insurance products must mesh the three elements of liquidity, growth and guarantees in order to determine final design and capital requirements. If products are mandated to have more liquidity they will either put the company at risk or take away consumer choice as well as the potential to select a unique risk/reward opportunity.<sup>6</sup>
- (2) While hedging behind the scenes may be complex for the company to manage, the public values options and flexibility. In order to provide them while still maintaining guarantees, precise limits on the use and exercise of the options need to be spelled out. These options include free partial withdrawals, withdrawal of excess credits, the option to switch between declared-rate interest and equity-indexed credits, the option to pay more premium, and the option to select different equity-indexing formulas. This flexibility may create complication, but the investment management to achieve it is the responsibility of the carrier, not the purchaser.

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<sup>6</sup> In fact, research indicates that the biggest destroyer of value for security purchasers is selling during a falling market (and, conversely, buying during a rising market). Liquidity does not protect security purchasers from a market changes, and actually may aggravate losses over the long run. By contrast, a “buy and hold” annuity contract is meant to discipline that behavior, with the insurer taking on investment risk for the benefit of the purchaser.

5. Downstream Impacts

Following are some ancillary areas we feel would be impacted by proposed Rule 151A and should be further investigated:

1. Regulating a contract as both a security and an insurance product creates a non-level playing field versus other products available in the marketplace unless modifications are made to the current disclosure guidance for securities. For example, indexed annuities would still have guarantees of principal and oversight by state regulators that includes:
  - a. Payment into state guaranty funds for these products.
  - b. Payment of state premium taxes.
  - c. State/NAIC disclosure requirements

Unless security disclosure requirements are modified to include the significant value of the guarantees, consumers will not be able to see the significant protection they are getting as a benefit provided by the insurance company. .

2. Subjecting the product to multiple regulators can create several problems:
  - a. It would delink product design from risk management for company and regulator. Efforts by one regulator to improve benefits for some consumers may come at a cost of benefits for other consumers. It would also preclude the ability for one regulator to oversee these issues in their totality. One of the important causes cited in the failure of the subprime mortgage market was the breakdown of the regulatory oversight between solvency, product design, and product sales process. There was not one regulator charged with overseeing the system as a whole and assessing the relation between design, sales and solvency. Currently state based regulation charges the regulator with oversight for the totality of product design, sales oversight and company solvency. We are concerned with a proposal that would lead to fragmenting regulatory accountability given the recent market experiences.
  - b. Conflicting regulatory perspectives could lead to different rules particularly on the product approval side.
  - c. Conflicting regulatory philosophies could be difficult to reconcile. For example, the current US and International focus for Insurance Regulation is on building a principle-based framework that is outcome focused as opposed to the current rule-based standards that focus on past violations of the rules. While we understand the SEC has been supportive of the accounting move towards principle-based standards, we observe that current security regulation is a rule-based framework with definitions and requirements laid out as rules.
3. Proposed rule 151A would lead to anomalies with certain investment alternatives that are not SEC-regulated and that do provide indexing with guarantees, such as indexed CD's. Such CD's are backed by the FDIC and not overseen by the SEC.
4. The lack of criteria to determine which products would be subject to Rule 151A and the lack of a safe harbor to determine which are not, leads to uncertainty of the impact of the proposed rule. As the proposal is drafted it could apply to equity indexed life insurance,

market value adjusted annuities that contain floor guarantees, dividends in life insurance policies, and non-guaranteed elements in other insurance products. Most of these products utilize either an index or returns on a managed portfolio of assets, at least in part, in determining amounts credited to a contract.

5. The exact nature and impact of the proposed certification process with respect to securities status will need to be clarified and we hope to work with you to clarify the role of the actuary in this process.

### **III. REGULATORY OPTIONS & ALTERNATIVES**

Given the concerns that motivated the SEC to (a) suggest that most indexed annuities should be considered securities, (b) improve the understanding of the product at the time of sale, and (c) improve what happens in the sales process, are there alternatives to Rule 151A that could be considered?

The proposal addresses two issues: actions at the point of sale and the security status of indexed annuities. There is an expressed concern about agent training, content of marketing materials, disclosure, and purchaser suitability determination. State insurance regulators and the National Association of Insurance Commissioners (NAIC) have jurisdiction and existing processes in these areas for all annuity products, including indexed annuities. We believe it is possible to address both of these issues through some integrated solutions as well as through more limited steps. We provide a list of possible options, but the list is not meant to be exhaustive.

#### Disclosure for insurance

While these requirements have had different parameters and purposes than those for a security, we believe the SEC could provide guidance to assist in this process and improve disclosure for both insurance and security products. It is clear from the text of proposed Rule 151A that the SEC believes that the indexed annuity marketplace would benefit from additional disclosure, and that this would lead to more suitable sales.

The Academy Work Group believe an important constraint on providing more clarity to purchasers of indexed annuities has been the decision by companies that offer the products to avoid numerical disclosures that demonstrate the risk/reward tradeoff (and impact of a guaranteed value), precisely because of the restrictions on marketing of insurance as a security. The issue has not been that the companies wish to market these products as securities, but that the use of analytics to illustrate product behavior might be seen as evidence that the insurance product is a security.

Rough differences between returns and variability are illustrated here and are meant only as approximate placeholders until we can provide some more thorough demonstrations. For example, the table below compares a guaranteed annuity that today might yield a 4% rate to an indexed annuity and S&P 500 Index.

	Guaranteed Annuity	Indexed Annuity	S&P 500 Index
Mean Return	4%	5%	9%
Range for one standard deviation	4%	4% to 6%	2% to 12%
Min Max Range	4%	2% to 7.5%	-3% to 17%

In addition, for all data points over the 10 year period, while the worst indexed annuity return is a 2% return, for the S&P 500 Index, the chance of a loss in any year would be about 25% and the chance of loss even over a 10 year period is still about 5%<sup>7</sup>.

We believe that while there are new analytic approaches that can be used to improve product disclosure, there is no simple, perfect solution. Some of these possible methods of enhancing the sales process include:

1. A statement certifying that the value of the indexed interest is equivalent to an interest rate of x% that could have been credited that year.
2. Disclosure that addresses variability of returns (including principal). There are measures of risk that reveal more than the traditional mean/variance analysis often used for securities. For comparison to insurance products, there are additional measures (along the lines of Sortino ratios and variability of loss) that could be modified to help quantify exposure to loss. The disclosures could also include measures of minimum, maximum, and median credited interest over some meaningful horizon, such as to the end of the surrender charge period. Work to clarify how to simply use these more substantial measures will prove fruitful in improving the quality of disclosure to understand differing crediting methods (as well as provide clearer criteria (and clarification for the consumer) for the determination of a security. We are interested in offering our assistance on this issue.

What can the SEC do to support current state based initiatives?

Proposed Rule 151A would require additional disclosure for indexed annuity contracts due to their security status. The Academy Work Group believes that the same result could be achieved by working with the state insurance departments who are already pursuing a number of initiatives with respect to indexed annuity disclosure and suitability, to take advantage of state expertise.

One of the objectives of such coordination could be the development of a standard for numerical disclosures and performance comparisons, such that specified information could be provided to prospective clients wishing to buy nonregistered products.

<sup>7</sup> These results are used only as approximate examples. They use daily S&P 500 index data from 1/1/1950 to 12/31/2007. The index data itself does not include dividends but also does not include any investment fees, as one cannot invest directly in the S&P 500. The Fixed Rate and indexed annuity are representative samples found in the market place.

Another objective of such coordination could be the development of a consistent basis for index crediting assumptions to be used in such numerical disclosures and performance comparisons, such that prospective clients could make informed comparisons of the products being offered.

Numerical disclosures could eventually include items such as a credited rate comparison on a standardized basis. Considerable work will be required to develop and validate any such basis of comparison given the wide variety of products and index crediting methods. The Academy Work Group would be pleased to meet with Commission staff in order to discuss this matter in more detail.

#### Considerations for constructing a safe harbor for indexed annuities

Issuers of indexed annuities have historically concluded that provision of a guarantee based on the SNFLIDA would justify exemption under Section 3(8)(a). It has been noted that the guarantee is similar to but not identical to that in Rule 151.

Under Rule 151, as adopted in 1986, ordinary fixed-rate annuities are required to credit an interest rate to premiums plus credited interest at a rate at least as high as that required by the SNFLIDA.

More clarity could be created for the indexed annuity products, and the SEC could have greater assurance that certain indexed annuities do not have characteristics of a security if an indexed annuity safe harbor were created. One possibility would be to require the value provided annually be equal to the interest rate required on an ordinary fixed-rate annuity that satisfies Rule 151. The value could be specified to be on some common basis, such as Black-Scholes pricing or its approximation for option pricing that cannot be done with a closed-form solution. Although the actual crediting would vary from year to year, the opportunity value to the purchaser would be stable from year to year. This guarantee would be in addition to the current cumulative floor value under the SNFLIDA. This is one of the areas that we would like to discuss further with the SEC and we are interested in offering our assistance on this issue.

#### **Summary**

- 1) Proposed rule 151A would define indexed annuities as securities on a basis which is inconsistent with prior determinations of securities status and with commonly understood differences between insurance and securities.
- 2) The Academy Work Group believes the determination of the status as a security should be based on the presence of variance that includes the risk of loss of principal, not the uncertainty of interest earned above principal and interest guarantees.
- 3) The proposed rule will negatively impact values available to the consumer.
- 4) As currently written, we see several unintended consequences of the proposed rule as well as many unanswered questions. For example, it is not clear whether the proposed rule would apply to other insurance products in addition to indexed annuities.

- 5) While we understand the concerns that have been raised leading to the proposed rule; state regulators and the insurance industry have been working to address them. Some remedies are already in place and others are in process to address the SEC's concerns. That these items are in process of development is an important reason why we have previously requested a 90-day extension to the comment period. There are sound demonstrations that can be shown to clarify the value and purpose of indexed annuities as legitimate alternatives to the risks of a security.

Thank you for the opportunity to offer these comments. We will follow up with you to arrange an appropriate time to meet together on these issues.

**American Academy of Actuaries'  
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**APPENDIX A**

**American Academy of Actuaries'  
Comments on SEC Concept Release No. 33-7438  
January 5, 1998**

January 5, 1998

Response of the American Academy of Actuaries to the  
Securities and Exchange Commission

Concept Release No. 33-7438,

Request for Comment on information about the structure of equity  
indexed products and the manner in which they are marketed, and other  
matters for consideration in addressing federal securities law issues  
raised by equity indexed insurance products

File number S7-22-97

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# Introduction

The American Academy of Actuaries welcomes this opportunity to respond to the Securities and Exchange Commission (SEC) Concept Release No. 33-7438, File No. S7-22-97, on Equity Indexed Insurance Products (EIIPs) and would be pleased to further assist the SEC in its review of the applicability of securities laws to EIIPs. In this document, we offer our thoughts on equity indexed insurance product features, assumption of investment risk, and marketing of equity indexed insurance products. We make the assumption that the SEC will receive adequate information regarding the applicability of state insurance regulation from other interested parties; however, should there be any question concerning terms or concepts, the Academy would be pleased to provide further explanation.

The American Academy of Actuaries (Academy) is the public policy organization for actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. The Academy is nonpartisan and assists the public policy process through the presentation of clear actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials and congressional staff, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

In January, 1997, the Academy formed the Equity Indexed Products (EIP) Task Force to study the issues involved with EIIPs. This work was undertaken at the request of the Life and Health Actuarial Task Force (LHATF) of the National Association of Insurance Commissioners (NAIC). The primary focus of the Academy EIP Task Force was to provide input to LHATF on all actuarial issues associated with these products. An in depth review was conducted of issues including risk analysis of these products, establishment of adequate reserves, establishment of minimum nonforfeiture values, adequate disclosure in marketing materials and insurer investment practices. The Academy EIP Task Force's final report was presented at the December, 1997 NAIC meeting.

While the Academy EIP Task Force is still working with the NAIC on certain aspects of recommendations on approaches to regulating EIIPs, a final Academy EIP Task Force report was delivered at the December, 1997 NAIC meeting.

Please contact Stephen Rentner, Policy Analyst at the American Academy of Actuaries, at (202) 785-7875 if you would like additional information.

# Executive Summary

EIIPs are best characterized as ordinary insurance products with a new way of calculating non-guaranteed elements. Since most EIIPs are designed to be general account products, the investment risk for most EIIPs is assumed primarily by the insurer. The analysis of disintermediation risk shows that EIIPs are placing more risk on insurers than traditional insurance products.

## Description of Equity Indexed Insurance Products (EIIPs)

- Equity indexed insurance products are insurance products that tie all or a portion of the benefits payable to the performance of an external index.
- If written as an individual life insurance or annuity product, the EIIP must satisfy the Standard Nonforfeiture Law or other applicable nonforfeiture legislation or regulation. Except in the case of certain modified guaranteed (market value adjusted) products, this is done by the inclusion of a floor below which the surrender value of the contract is guaranteed not to fall. This floor normally consists of a percentage, such as 90%, of premiums deposited plus interest at a rate, such as 3%, consistent with the applicable nonforfeiture law. Contracts written on a group basis are not subject to the same nonforfeiture rules, but frequently include similar contractual floor guaranties. The discussion below is limited to EIIPs written as individual life or annuity contracts which satisfy the Standard Nonforfeiture Law or other applicable nonforfeiture legislation or regulation unless otherwise stated.
- The index is usually a broad-based market average of securities prices. A wide variety of formulas are used to determine credits based on index performance. These formulas are normally fully specified in the contract, except that the insurer sometimes reserves the right to change the percentage of index performance that is credited to the contract (the “participation rate”).

## Assumption of Investment Risk

- The contract owner assumes the following risks:
  - the risk of index performance above the floor (but not the risk of performance of a specific asset or pool of assets);
  - the risk of insurer discretion if participation rate is variable; and
  - the risk of insurer insolvency (but this risk is significantly limited by state reserve, risk based capital and asset adequacy laws and regulations).
- Compared to variable products, much less risk is normally assumed by the contract owner.

- Compared to market value adjusted EIIPs, the contract owner assumes significantly less interest rate risk.
- The insurer assumes the following risks:
  - the risk that actual underlying assets will perform differently than the index (this includes both the default risk for all assets used by the insurer to provide cash flows to pay contract benefits and the risk that such underlying assets will not increase in value as quickly as does the index); and
  - the risk that deaths and contractually permitted withdrawals will occur at rates different from those which were assumed in pricing the product.
- The insurer also assumes the responsibility for setting strategies to manage product risk that will stand up to regulatory scrutiny and satisfy state laws and regulations on reserves, risk based capital and asset adequacy. (Asset adequacy analysis provides protection for the nonforfeiture floor in particular.)

### **Marketing of EIIPs**

- Life insurance and annuity products are designed to provide for long term needs. Proper utilization requires illustration of both guaranteed and nonguaranteed elements on some reasonable basis.
- For life insurance products with non-guaranteed elements, including Equity Indexed Life Insurance, the NAIC has developed a model regulation dealing with illustrations that requires an actuarial certification. A model regulation dealing with annuities, including Equity Indexed Annuities, is under development.
- Illustrating the results of an index is something which has not been commonly done by insurers. Several approaches are being tried.

# Description of Equity Indexed Insurance Products

Equity indexed insurance products are insurance products that tie all or a portion of the benefits payable to the performance of an external index.

## Products Currently Available

There are three general types of EIIPs currently offered in the marketplace: equity indexed deferred annuities, equity indexed immediate annuities, and equity indexed life insurance. The Academy EIP task force provided a detailed description of each of these equity indexed insurance products to the NAIC in its December 1997 report. This portion of the report has been attached for reference as Appendix A.

Any life insurance or annuity product that provides for the payment of nonguaranteed elements or dividends can be made into an equity indexed insurance product by adding a contractual provision that ties a nonguaranteed element to an index. This paper will discuss General Account EIIPs, which satisfy the minimum guaranties found in state insurance nonforfeiture laws.

There are other insurance products which could be considered to be EIIPs, but which either do not invest funds in the General Account, or do not satisfy the minimum guaranties found in state insurance nonforfeiture laws. Examples include variable annuities with a minimum guaranteed return and EIIPs with market value adjustments which invade the guaranteed minimum values specified in the nonforfeiture law. These products will not be discussed in this paper and should be distinguished from the General Account EIIPs.

## Minimum Guaranties Provided

The comments on the following pages refer to products where liabilities and supporting assets are held in the General Account of the insurer. All of these products have guaranteed minimum values that meet or exceed the requirements specified in the state nonforfeiture laws. These minimum values are the same as those offered on traditional insurance products.

### *Deferred Annuities*

Single premium equity indexed annuities commonly guaranty surrender values at least equal to the accumulation of 90% of the premium at an interest rate of 3%. Flexible premium equity indexed deferred annuities provide a cash value floor guaranty of at least 65% of the first year premium and 87.5% for the subsequent premiums, all accumulated at 3%. This scale equals the values required by the NAIC Model Standard Nonforfeiture Law for Individual Deferred Annuities. Some of the equity indexed deferred annuities offer higher floor guaranties than the statutory minimums.

While the Standard Nonforfeiture Law minimum requirements are identical, most fixed (non-EIIP) deferred annuities generally guaranty an interest rate of 3% applied to 100% of the premium. These contracts are voluntarily exceeding the requirements of state law. Also traditional fixed deferred annuities generally also assess a surrender charge upon early termination of the contract. In contrast, most EIIP deferred annuities provide a guaranty of 3% interest applied to 90% of the premium. This satisfies the statutory nonforfeiture requirements.

### ***Life Insurance***

Also, equity indexed life insurance products available in the marketplace today ( all current products are of a universal life chassis) have been designed with minimum cash values that comply with minimum requirements specified in the NAIC Universal Life Insurance Model Regulation. This law requires minimum values through the maximum mortality charge and minimum interest rate requirements.

### **Nonforfeiture Recommendation**

The Academy EIP task force reviewed the product designs available in the marketplace and the nonforfeiture requirements under state law. It recommended to the NAIC that both equity indexed annuities and equity indexed life insurance products be required to continue to follow the current nonforfeiture laws for fixed products.

As a result of state nonforfeiture requirements, EIIP contract owners have contractual protection of principal. Moreover, once amounts are unconditionally credited they cannot be forfeited afterward, regardless of the index performance.

### **Index Participation Formula**

EIIPs tie some of the benefits in excess of the minimum guaranteed benefits to the performance of an external index. Currently most products tie these benefits to the performance of the S&P 500. Some current products do tie some of the benefits to the performance of another index, such as a bond index.

The formulas currently being utilized to tie the benefits to an external index currently have many forms. They vary from guarantying all elements of the formula for the entire term or several years, to an annual reset formula where the elements of the formula are declared annually at the beginning of each policy year. A more detailed description of the possible formulas can be found in Appendix A.

# Assumption of Investment Risk

The analysis of risk associated with an EIIP or any other general account insurance product should focus on the allocation of risk between the contract owner and the insurer. This allocation is established by the terms of the contract. The investment risk borne by the contract owner in relation to such a contract is independent of the investment strategies used by the insurer in supporting the liabilities of a class of such contracts.

To the extent that the insurer has a sound and reasonable investment strategy which precludes insolvency, the equity linked credits to an EIIP are not subject to the performance of the underlying assets. This is unlike a variable product, where the performance is tied to the performance of the underlying assets. The equity linked credits on an EIIP are defined by a pre-determined formula at issue and at pre-determined subsequent points in time, such as anniversaries, specified in the contract.

## Risks Assumed by Contract Owner

There are several elements of EIIPs to consider when analyzing contract owner investment risk. First, while the index values reflect general market volatilities (subject to minimum values being credited), they do not depend on the value of a specific pool of assets. Second, the risk faced by the contract owner due to potential insurer insolvency is significantly limited by state insurance reserve laws and other regulations. In addition, policy values are backed by state guaranty associations.

### Effect of Equity Indexed Crediting Formula on Contract Owner Risk

EIIPs remove much or all of the insurer's discretion with respect to equity linked credits. With the exception of some annual reset products, the equity formulas embedded in these contracts are guaranteed for the entire term. Although the performance of the equity index is uncertain, the contract owner has a prospective guaranty from the insurer to provide future values under the insurance contract according to the formula stated in the contract.

Some equity indexed annuities guaranty all components of the index formula at the initial level for the entire term period (where the term period is considered to be the length of time after which the contract owner may have access (without penalty) to benefits provided by equity indexed credits). This type of EIIP is analogous to those traditional fixed deferred annuities which guaranty the initial declared rate of interest for a multi-year period.

Other equity indexed deferred annuities, usually those of the annual reset type, reserve the right for the insurer to adjust one or more components of the formula during the term. For example, an annual reset product might have a participation rate of 70% in the first

year of the term and reserve the right to change the rate as a new year begins; it might have an underlying guaranty of, say, 50% for all years in the term.

However, all equity indexed deferred annuities of this second type change the formula on a policy anniversary and are analogous to traditional fixed deferred annuities where the current rate of interest is declared at the beginning of each policy year and guaranteed for the entire year. These contracts are designed to comply with the Rule 151 requirement that the rate of interest be guaranteed not to change more frequently than once per year.

An insurer is able to declare the rate of excess interest to be credited to a traditional fixed annuity at the beginning of the year because the yield to be earned on the fixed income investments supporting the annuity is known in advance. With equity linked credits, it is not possible to declare such credits in advance, since one cannot know how the equity markets will perform until the year is over. For EIIP contracts, the formula and its components (other than the final index values) are known in advance by the EIIP contract owner.

It is clear that EIIPs dramatically reduce the investment risk retained by the contract owner relative to variable contracts. Variable contracts have no guaranteed cash values and follow the vagaries of the market on a daily basis and can lose substantial amounts of a contract owner's principal. EIIP owners have guaranties protecting their principal and interest earnings, and can only receive additional positive credits from the equity linked benefits provided under the terms of their contracts. A major risk component of equity investing, a negative return, is eliminated under an EIIP.

### **Effect of State Insurance Laws and Regulations Designed to Reduce Risk of Insurer Insolvency**

Under the provisions of EIIP contracts, the investments held by the insurer in support of its obligations under the contract do not directly affect the contract owner. It is the quality of the insurer, not the specific assets held by the insurer, that backs the EIIP contract and all other General Account contracts. As long as the insurer can honor its obligations, the investment policies of the insurer are not directly related to contract performance.

However, if the underlying investments were to create an undue risk of insurer insolvency, the contract owner would, of course, be affected. This risk is no different than in any other insurance contract, and the EIIP contract owner bears this risk equally with all other contract owners of the insurer.

Ensuring the solvency of insurers for the benefit of the public is one of the primary purposes of state insurance regulations. Various insurer solvency requirements have been

adopted by the states. This includes adoption of several model regulations developed by the NAIC.

### **Applicability of Minimum Reserve Standards**

EIIPs' minimum reserve levels are governed by each state's valuation law, which typically requires the use of the Commissioners' Annuity Reserve Valuation Method (CARVM) for annuities and the Commissioners' Reserve Valuation Method (CRVM) for life insurance. The Academy task force has made recommendations to the NAIC on how to interpret these methods for application to EIIPs.

### **Equity Indexed Deferred Annuities.**

At the September 1997 meeting of the NAIC, the Academy EIP Task Force recommended four interpretations of CARVM to be used for equity indexed deferred annuities. After discussion with LHATF, these recommended interpretations were reduced to three. The NAIC is currently exposing for comment Actuarial Guideline ZZZ based on these recommendations. Actuarial Guideline ZZZ is expected to become effective for year end 1998. However, at least one state is requiring companies to comply with the current draft of the Guideline for year end 1997.

In developing these recommendations, the Academy EIP task force found that equity indexed annuity reserves could be established using CARVM, but a mechanism was needed to reflect the implied cost of the equity indexed guaranties. The Academy proposals deal with establishing a cost for the equity indexed guaranties and incorporating this cost in the existing CARVM regulation.

There are two basic methods reflecting acceptable interpretations of CARVM for equity indexed deferred annuities.

#### **Type I Reserve Method:**

The Type I reserve method (Enhanced Discounted Intrinsic Value Method or EDIM) reflects the intrinsic value of the hedge both on the liability side (reserve) and on the asset side of the balance sheet. Companies electing to use EDIM must certify quarterly that they are satisfying "hedged as required" criteria. Basically, these criteria indicate that a company has hedged its liabilities appropriately, reflecting both interim and maturity benefits. In addition, they indicate that the insurer regularly monitors the effectiveness of the hedging strategy.

#### **Type II Reserve Methods:**

There are two Type II reserve methods, CARVM with Updated Market Values (CARVM-UMV) and Market Value Reserve Method (MVRM). CARVM, for fixed deferred annuities, requires future guaranteed benefits to be projected into the future. The CARVM reserve is the greatest present value of future projected benefits. The idea behind CARVM-UMV is that future guaranteed benefits can be valued as the floor of the benefit plus the future value of the market value of the option that pays the excess of the benefit over the floor of the benefit. In a slight variation, MVRM projects the expected future index levels. The index at maturity is projected to be the strike price plus the future value of the current market value of the call option. Intervening index levels are calculated using geometric interpolation. Once the index levels are projected, future guaranteed benefits can be calculated. Both of the Type II reserve methods hold the liability hedges at market value. Because they track changing market conditions better than a Type I reserve method, they are not subject to the “hedged as required” criteria.

### **Equity Indexed Life and Single Premium Immediate Annuities.**

The Academy EIP Task Force made reserving recommendations for equity indexed life products and for payout annuities at the December 1997 NAIC meeting. It is anticipated that the NAIC will then use these recommendations as a basis for developing Actuarial Guidelines for these two products.

### **Appointed Actuary Statement of Asset Adequacy**

As part of the state financial solvency requirements, insurers above certain minimum sizes are required to complete for all products an analysis of asset adequacy for sensitivity to financial losses due to changes in both interest rates and contract owner behavior. Cash flow projections are completed for insurance contract liabilities (i.e., contract holders withdrawing money based on sensitivity to the scenario's interest rate environment) and asset values (i.e., the ability of investment earnings or the sale of assets to meet the scenario's anticipated cash demands).

The Academy EIP task force has recommended that a statement of asset adequacy be required for all companies writing material amounts of EIIPs. This recommendation has been incorporated in the NAIC's Actuarial Guideline ZZZ. Since EIIPs are subject to these asset adequacy testing requirements, it is likely that insurers will be purchasing hedges to satisfy equity indexed contractual obligations.

The presence of such hedging does not mean that the equity indexed contract owner is receiving a pass-through of investment results from the insurer. The insurer is obligated to satisfy the equity indexed obligations regardless of the presence or absence of hedging investments.

### **Contract Filing Requirements**

The Academy EIP Task Force has made recommendations to the NAIC on contract filing requirements. The goal of these requirements is to provide state insurance departments with adequate information to understand the submitted policy form and proposed key management practices of the insurer. A copy of these recommendations is enclosed in Appendix B.

### **State Risk Based Capital Requirements & Investment Laws**

Each state has insurance laws and regulations that establish the minimum surplus requirements (risk based capital) based on the risk assumed by the company. They also have investment laws and regulations which establish acceptable classes and amounts of insurer investments. The purpose of the risk based capital requirements and the investment laws are to ensure that insurers will have a very high probability of remaining solvent. The current requirements for equity indexed products are the same as the requirements for traditional deferred annuities.

### **Guaranty Association Coverage**

Life and health insurance guaranty associations are organizations created by the District of Columbia, Puerto Rico and the 50 states to protect the policyholders and beneficiaries of an insolvent insurer, up to specified limits. All insurance companies licensed to write life or health insurance or annuities in a state are required, as a condition of doing business in the state, to be members of the guaranty association. If a member company becomes insolvent, money to continue coverage or pay claims is obtained through assessments of other insurance companies writing the same line(s) of insurance as the insolvent company.

The Life and Health Insurance Guaranty Association Model Act (Model Act) makes no distinction between policies and contracts with equity indexed features and those without. A life insurance policy or allocated annuity with equity indexed features would appear to be treated as any other life insurance policy or allocated contract. Thus, premiums received on such contracts would appear to be subject to assessment regardless of coverage limitations. Since they are guaranteed, the minimum nonforfeiture benefits of indexed products are covered by the model act. However, the coverage limitations for the indexed features have not been tested. For example, it is not clear whether, upon the insolvency of a company selling indexed products, the guaranties tied to an index would be subject to the limitations of Model Act section 3.B.(2)(c).

### **Risks Assumed by Insurers**

Insurers have assumed investment risk and the risk associated with mortality and surrender differing from pricing expectations.

### **Investment Risk**

Analyzing the investment risk to insurers can be completed by separately considering “the investment risk assumed by the insurer from the contract owner” and “the management of that risk”. These are two fundamentally distinct concepts.

### **Investment Risk Assumed by the Insurer**

Many of the EIIP investment risks assumed by the insurer are similar to the risk associated with traditional fixed insurance products. The investment risks are due to failure of the investments to earn the expected yield, credit and default risk, and disintermediation risk.

In addition to these traditional risks, EIIPs also have investment risk related to the equity indexed obligation.

Insurers are obligated by guaranties in EIIPs to at least credit the guaranteed interest rate (usually 3%), and the obligations can range to a high which may be unbounded. The performance of the S&P 500 equity index from 1995 through late 1997, for example, approached a 30% annual rate of return. The insurer must deliver whatever the equity formula dictates.

In contrast, the ultimate interest rate guaranteed on fixed annuities is commonly 3%. Insurers often limit higher interest rate guaranties on fixed annuities to only one year.

In one respect, however, the investment risk of equity indexed and fixed annuities is similar. Both are subject to disintermediation risk. The disintermediation risk of fixed annuities is well known; rising market interest rates induce surrenders as contract owners seek higher yielding alternatives, and insurers must pay these surrenders by selling their fixed income securities at depressed market values.

Disintermediation risk is also present for equity indexed insurance products. Although it has not been experienced since equity indexed annuities were introduced, the insurer's risk from increased contract owner surrenders must be considered.

EIIPs would have the same risk from rising interest rates as non-indexed insurance products. As interest rates increase, contract owners are incited to surrender their current insurance contract and purchase a new contract with higher interest rates. Because of the guaranteed values, the risk of liquidating investments at depressed market values is the responsibility of the insurer.

EIIPs also have a second source of disintermediation risk. Because rising interest rates often are accompanied or perhaps caused by a decreasing stock market it is reasonable to anticipate that many EIIP contract owners will anticipate poor future EIIP returns, resulting in increased surrenders. Again, because of the guaranteed floor values they are able to surrender their contracts with minimal loss and move their funds elsewhere.

Falling equity markets also depress the call option prices typically used to hedge equity indexed obligations (to the extent these call options are liquid and can be sold).

Equity indexed products can increase investment risk in other ways. Although they are under no legal obligation to do so, most insurers choose to “hedge” the equity risk through the purchase or replication of call options. Because there are only a small number of financial institutions providing over-the-counter calls tailored to these products, a significant default risk inevitably builds up, especially considering that these similar institutions may jointly suffer economic difficulties from the same underlying causes.

There is a different type of risk if, on the other hand, an insurer chooses to manufacture the desired option in-house through option replication. These are complicated schemes which demand good record keeping and constant attention. Perhaps because of turbulent markets, or perhaps because of inexperience in this sophisticated field, the insurer may suffer an inability to adequately replicate the desired option and must pay the promised equity-related interest from company surplus.

Insurers’ investment risk with respect to variable insurance products is far lower than with equity indexed and other types of fixed insurance products. Investment returns are passed through to variable contract owners, including any losses resulting from asset defaults. Additionally, variable insurance products have no disintermediation risk.

### **Management of Investment Risk by Insurers**

The vast majority of EIIPs have been designed to be general account products. The assets purchased with funds from the sale of equity indexed products are commingled with assets purchased with funds from the sale of all other general account products to support all general account liabilities. There are generally no legally segregated pools of assets which support equity indexed obligations.

As identified in the discussion of the Appointed Actuary Statement of Asset Adequacy, insurers have generally attempted to hedge insurance products. Assets purchased to provide funds for the guaranties are generally invested in fixed income securities, similar to the assets used to back non-indexed insurance products.

Equity indexed liabilities are generally hedged with a call option on the equity index. Hedging is prudent because insurers typically have no offsetting general account liabilities, i.e., liabilities which decrease when the equity market increases. If such offsetting liabilities did exist, hedging would be less common because asset-liability management is often conducted on a company-wide basis.

In hedging the equity indexed obligations, the insurer considers similar investment issues to those considered in analyzing any investment. These include counter-party risk of default, the term to

maturity, and liquidity of the asset (in the event that policy surrenders or withdrawals leave the insurer “over-hedged”).

The call option on the equity index is usually obtained in one of three ways by an insurer; purchase an exchange-traded option; purchase a custom option “over the counter” from a financial institution; or manufacture the option via its own trading using a technique known as “option replication”.

Exchange-traded options are standardized and are available with adequate liquidity and variety only for short durations. They are therefore unsuitable for hedging most equity indexed products.

Longer term custom options are available from a variety of financial institutions. Because they can be manufactured to the insurer’s specifications, they can exactly match the term and equity indexed formula used by the equity indexed insurance product. However, these custom options have disadvantages because they usually are not available in small amounts, have counterparty risk (i.e., risk of default from the issuing financial institution), and they are not readily tradable. In addition, some companies believe that the assumptions used by the institutions to price longer term options make them expensive relative to option replication.

Option replication is an alternative to purchasing an option. Through option replication the insurer itself manufactures the call option needed to hedge its liabilities. It does so by following a trading strategy: which will result in the company owning the amount of index equity needed at expiration to cover the liability; and which does so at a cost which, if market volatility and interest rates remain stable, is expected to approximate what it would have cost to purchase the option at the outset.

### **Mortality and Lapse Risks**

The mortality risk associated with EIIPs is comparable to the risk associated with non-indexed insurance products. The guaranteed mortality rates for life products or the guaranteed purchase rates for annuities are generally the same as in other insurance products. The presence of an equity indexed obligation in the insurance product design does not change the mortality risk associated with the insurance contract.

The risk associated with lapse rates differing from pricing expectations is also similar to the risk associated with non-indexed insurance products. As with other products, if lapses are higher than expected in early years, then the acquisition costs may not be recovered in full.

EIIPs do have an additional risk associated with mortality or lapse rates differing from their expected level. This is due to the possibility of over or under hedging the index risk.

Additionally, many EIIPs have mortality risk associated with immediately vesting the equity linked participation upon death.



## Marketing of EIIPs

An area of great concern when the securities status of a product is considered is the methods utilized in marketing the product. While such issues are not strictly actuarial in nature, the Academy EIP Task Force was asked by the NAIC to examine marketing and disclosure issues relative to EIIPs. The Academy EIP Task Force has developed recommended guidelines that could be incorporated in new model regulations or modifications of existing model regulations to address these issues. The underlying goal of the Academy EIP Task Force recommendations is to provide consumers with clear, accurate and full information which will foster understanding of these products and how they work, and to set appropriate expectations for consumers on how these products function.

To achieve this end, the Academy EIP Task Force recommended consistency with existing NAIC Model Rules Governing the Advertising of Life Insurance (including annuity products), NAIC Model Life Disclosure Regulation, and as consistent as possible with NAIC Annuity Disclosure and Sales Illustration Model Regulation's as they are adopted.

The Academy EIP Task Force has recommended that disclosure of all fully guaranteed benefits and values and all guaranteed parameters related to the non-guaranteed equity indexed design be required. Disclosure of total amounts of non-guaranteed elements of the equity indexed design was recommended as optional. The Academy EIP Task Force recognizes that many options exist for disclosing values to consumers. Every option was found to have desirable features as well as drawbacks; therefore, the Academy EIP Task Force recommended that all such options should be permitted.

To ensure that both the negatives and positives of product features be described to consumers, the Academy EIP Task Force recommended that any marketing or disclosure material regarding non-guaranteed elements should provide consumers with a balanced view of the policy provisions inherent in the equity indexed design through the use of balancing language.

Finally, the Academy EIP Task Force recommended that annual reports be sent to contract owners.

A copy of this section of the Academy proposal to the NAIC is enclosed in Appendix C.

## **APPENDIX A: GENERAL DESCRIPTION OF EQUITY INDEXED PRODUCTS**

### **EQUITY INDEXED PRODUCT DESCRIPTION**

The following pages provide general descriptions and design choices for equity indexed deferred annuities, equity indexed immediate annuities and equity indexed life products. Also shown are product feature comparisons for current equity indexed annuities.

#### **General Description of an Equity Indexed Deferred Annuity**

Equity indexed deferred annuities (EIDA) are deferred annuity products that tie all or a portion of the benefits payable to the performance of an external index. These annuities can contain all other features of fixed deferred annuities. EIDAs have come to be described in terms of the length of their index-based interest cycle, type of index-based interest calculation, index used, usage of averaging of index values, method of converting the amount of index change into an interest rate, the method of crediting excess interest, and the end-of-term return guaranty. Some examples are: (a) 7 year, point-to-point, based on the S&P 500, using 6 month index averaging, with 80% participation, and a guaranty of 100% accumulating at 3% or (b) 8 year, annual ratchet, based on the NASDAQ, using year-end index values, with 100% participation minus a 2.00% spread, and a guaranty of 90% accumulating at 3%. Other characteristics such as flexibility of premium payment, vesting of interest credits, cash value profile, use of a market value adjustment, whether the annuity is part of a broader product, etc. could also be identified.

#### **Design Choices in an Equity Indexed Deferred Annuity**

Equity indexed deferred annuities can take many forms and are a combination of many separate design components. A key concept in evaluating various product designs is that no design is inherently financially superior to any other design. If all other characteristics of two products are identical, i.e., expenses, lapses, cash values, fixed investment yield, profit margin, etc., then the two products will spend the same amount on hedging cost and will provide equivalent value, although they may have different participation rates as a reflection of the design differences. What will differ is which product will produce better benefits under a specific set of circumstances; however, the call option market will have priced the various possibilities such that equivalent value is available under all designs. The design choices currently being used are described below:

##### Index Term Period

The index term period is the period over which equity index benefits are calculated and at the end of which a guaranteed return is provided. Typically, the full contract value is available without surrender charges at the end of a term. Commonly, each term is followed by another index term period. The contract value at the beginning of each index term period is set equal to the greater of the equity index benefit and the guaranteed minimum benefit at the end of the previous period. Some contracts offer several index term periods from which to choose and in those cases different terms can be chosen at the end of each term. Usual index term periods are from one to ten years.

## Interest Calculation Methods

There are many different interest calculation methods; however, they generally fall into several families of designs and blends of the families:

**Point-to-point** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the end of the term.

**Ladder** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the end of the term with the additional guaranty that the recognized final index value will not fall below a specified index level if the index reached that level at specified points during the term. One or more “rungs” of a ladder may be specified. Measurements are typically done on anniversaries, but a more frequent basis is possible.

**High water** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the highest value the index has achieved at specified measurement points up to the end of the term. Typically, these measurement points are the anniversaries in the contract, but they could occur with greater frequency. Each of these measurement points could use some averaging technique. The high water method also is sometimes referred to as the discrete lookback method, in recognition of the type of call option utilized to hedge it.

**Low water** methods credit interest as a portion of the percentage growth in the underlying index from the lowest value the index has achieved at specified measurement points during the term to the index value at the end of the term. Typically, these measurement points are the anniversaries in the contract, but they could occur with greater frequency. Each of these measurement points could use some averaging technique. The low water method also is sometimes referred to as the discrete lookforward method, in recognition of the type of call option utilized to hedge it.

**Ratchet designs** credit index-based interest to the current contract value periodically throughout the term. The following variations of the design are used:

*Method of accumulation.* A compound ratchet applies the index-based interest rate to the current contract value at the time of the crediting. A simple ratchet applies the index-based interest rate to the premium minus cumulative withdrawals at the time of the crediting.

*Frequency of accumulation.* Most ratchets operate annually; however, less frequent application is possible.

*Length of guaranty of index change recognition.* The current participation rate, spread charge, or cap can be guarantied for the entire term, only for the current interest crediting period, or for some intermediate period. If the guaranty is only for the current interest crediting period, a lesser guaranty commonly is provided for the balance of the term and subsequent terms.

*Minimum guaranteed interest.* For each interest crediting period, there is a specified minimum guaranteed interest rate, which generally does not vary. Typically, this is 0%, although a higher interest rate is sometimes used.

#### Equity Index Used

Any published index may be used, provided there are no licensing restrictions. Also, insurers can construct their own indices. The choice of indices is influenced by the availability of hedging instruments. Equity indices generally reflect the movement in the price level of the underlying stocks and do not include value growth due to dividend payments. Most contracts in the U.S. are based upon the S&P 500 Index, both because it is one of the indices most easily recognized by potential customers and because the call options needed to hedge the risk are readily available and liquid.

#### Index Averaging Methods

The simplest index measurement uses the index value of a single day; however, various averages of index values are sometimes used in order to reduce the volatility of the index increase measurement or to moderate the value credited to the annuity contract. Averaging techniques are characterized by the length of the averaging period and the frequency of the measurements within the period. Contracts which use averaging techniques are often referred to as having an Asian end or an Asian beginning, references to nomenclature used in option hedges:

**Short term averaging** may be used at the end of each contract year, and sometimes at the beginning of the contract, in order to reduce the volatility of the index measurement. Daily averaging over periods of 30 or 60 days might be used.

**Long term averaging** may be used at the end of a multi-year point-to-point benefit determination, e.g., when the index benefit is determined solely upon the change in the index from the beginning of the index term period to the end of the index term period, which could be up to ten years. Such averaging might be over a period of 2 to 24 months and commonly might use the average of monthly indices, although daily averaging could be used. This type of average provides some comfort to the purchaser that the benefit determination will not be based upon a relative low-point value of a single day, and it additionally produces a less expensive benefit which could support a higher participation rate.

**Annual averaging** of index values within each year for ratchet designs is used to reduce the volatility in the interest credited to the contract. Another result is that a nominally higher portion of the calculated index increase rate is reflected in the interest rate. Methods used are daily averaging, monthly averaging, and quarterly averaging. These methods reflect on average half to slightly more than half of the annual index increase percentage; however, the portion will vary considerably from year to year depending upon the profile of the index volatility during the year.

### Method of Adjusting the Index Increase Percentage

The index-based interest crediting rate is some portion of the increase in the index and this adjustment is accomplished through the use of a participation rate, a spread deduction, a cap, or a combination of the methods:

**Participation Rate** is a multiplier applied to the percentage increase in the index in order to determine the index-based interest rate. Participation rates are dependent upon interest rates and call option costs and, consequently, are determined separately at the beginning of each period during which they are guaranteed. The highest participation rates are for point-to-point products and lowest for ratchet products.

**Spread Deduction** is a deduction from the percentage increase in the index in the calculation of index-based interest.

**Benefit Cap** is a maximum applied to either the annual or the cumulative index-based interest rate.

### Guaranty Period for the Method of Adjusting the Index Increase Percentage

The participation rate, spread deduction, and cap can be guaranteed for any length of time; however, they are generally guaranteed at their current level either annually or for each index term period. If the current guaranty is for less than the full term, there often is a lower guaranty for the balance of the term and for subsequent terms.

### Fixed Return Guaranty

The annuities guaranty at least a return of premium at the end of the index term period and generally an additional amount. The amount of guaranty is generally a percentage of the consideration applied at the beginning of the period with accumulation at a specified rate of interest. The minimum is the Standard Nonforfeiture Law minimum, i. e., 90% of premium accumulated at 3% for single premium contracts and 65% of first year premium and 87.5% of subsequent premium for flexible premium contracts. The most common guaranties are 90% accumulated at 3% and 100% accumulated at 3% or a higher rate.

Generally, the fixed return guaranty serves as a minimum guaranty against which the premium plus index-based interest is compared. Another design is to provide the index-based interest in addition to the guaranty.

There are three distinct manners in which the minimum guaranty is continued into the second and later index term periods. The lowest value is provided if the minimum required guaranty is continued as 3 percent compounding without interruption. A higher value generally is provided if each index term reinitializes the guaranteed value at the greater of the guaranty at the end of the previous term and 90 percent of the amount of the contract value at the end of that term. The highest value is provided if the reinitialization is at the greater of the guaranty at the end of the previous term and the contract value at the end of that term period minus 10 percent of the initial premium paid.

### Time of Crediting Interest

Index-based interest is credited to the contract value either when it is calculated or at the end of the term. Interest in point-to-point contracts invariably is credited at the end of the term because its amount is unknown until then. Interest in other types of interest calculation methods is credited to the contract value at the time it is determined, generally annually, if the cash surrender value is a percentage of the contract value; but it is credited either annually or at the end of the term if the cash surrender values are determined as a percentage of the guaranteed return.

### Vesting of Index-Based Interest

Index-based interest which is credited prior to the end of a term may be subject to vesting, which is the percentage of the interest which is available for recognition in the calculation of cash surrender values. The vested percentage generally increases annually and reaches 100% at the end of the term.

### Cash Values

There are several cash surrender value designs:

**Contract Value Minus a Percentage Surrender Charge.** The percentage surrender charge generally is applied to the current contract value, although it sometimes is applied to the premium. The contract value would recognize any reductions due to vesting. The pattern generally repeats with the beginning of each index term period.

**Guaranteed Value Minus a Percentage Surrender Charge.** If the guaranteed value is larger than the minimum required by the Standard Nonforfeiture Law, the cash surrender value might be the guaranteed value minus a percentage surrender charge.

**Guaranteed Value.** If the guaranteed value equals the minimum required by the Standard Nonforfeiture Law, the cash surrender value might be the guaranteed value.

**Imputed Ultimate Annual Returns** sometimes are used to calculate cash values. In this approach the cumulative index-based interest return since the beginning of the index term is treated as if it was the return for the entire term and it is translated into an imputed annual return over the number of years in the full term. This understated annual return is then reduced by a spread deduction and the result is then accumulated for the number of years that have actually elapsed.

**No Cash Surrender Value** could be available, but this would be possible only within a group contract. Nonforfeiture values are required at all times under individual contracts if they are available at any time.

### Free Withdrawals

Partial withdrawals or surrender without surrender charges or otherwise reduced values is available under various circumstances:

**End of Term.** Full contract values are customarily available for a 30 to 45 day window at the end of each index term period. The window either precedes or follows the end of the term.

**Free Annual Withdrawals.** Many contracts annually allow the withdrawal of a specified percentage, such as 10%, of the contract value or premium at full or vested contract value without the assessment of a surrender charge. The free withdrawal may be unavailable in the first year of the contract and may be limited in other ways, such as one per contract year or once per each running year. If the contract does not credit interest until the end of the term, the amount withdrawn might be ineligible for index-based interest credits.

**Required Minimum Distributions.** Withdrawals required to satisfy laws and regulations on tax-qualified plans often are allowed without surrender charges.

**Illness Waivers.** Nursing home waivers, which permit free withdrawals in the event of confinement in a nursing home, and terminal illness waivers, which permit free withdrawals when death is diagnosed as being imminent, are frequently included in the contracts.

#### Policy Loans

Policy loans are generally not offered because of the flexibility provided by the withdrawal provisions. In some cases policy loans are provided for because of the requirements for 403(b) plans.

#### Minimum Cash Surrender Values

The minimum cash surrender value is determined as the amount specified under the Standard Nonforfeiture Law. This is 90% of the premium accumulated at 3% for single premium contracts and 65% of first year premium and 87.5% of subsequent premium for flexible premium contracts.

#### Death Benefits

Several death benefit designs are possible:

**Full Contract Value** is the most common death benefit. For contracts with annual index-based interest crediting, this will be the contract value on the most recent anniversary. For contracts in which interest is not credited until the end of the term, an interim interest is credited as if the most recent anniversary prior to the date of death was the end of the term. Generally, vesting is recognized at 100% in the calculation of the death benefit. As a variant of either of these designs, a calculation could be made to determine the benefit based upon the index value as the date of death rather than as of the most recent anniversary.

**Guaranteed Value** could be the death benefit. This is uncommon but could occur in contracts where the cash surrender value is the guaranteed value minus a percentage surrender charge.

**Specified Percentage of Premium** could be the death benefit. This could occur if the cash surrender value is the Standard Nonforfeiture Law minimum or if there is no cash surrender value.

#### Frequency of Premiums

Contracts are available both as single premium annuities and flexible premium annuities. Generally, each payment under a flexible premium annuity is treated in the same fashion as a single premium, namely, it establishes the beginning of an index term period; however, it is possible to accumulate premiums in a daily interest account during a contribution window until a sufficiently large amount has been collected or until the window closes.

A contribution window is the longest possible period that a premium has to remain in a daily interest account before index participation begins. It can be a month, a quarter, a year, or conceivably longer. At the end of the contribution window, all of the accumulated premium in the daily interest account becomes one single payment which is swept into an equity indexed account (viewed as a “bucket”).

The number of equity indexed buckets depends on whether contribution windows are used, the length of the contribution window, and length of the index term period. The longer the contribution window is, the fewer buckets there are. The shorter the index term period, the fewer buckets there are.

Premiums received during a contribution window accumulate interest in the daily interest account. At a minimum, the interest rate credited in this account is the contractual guaranteed minimum interest rate. Higher interest rate may be credited by companies based on their current credited rates on fixed products.

#### Use of a Separate Account

Almost all contracts are supported by assets carried in the general account of the insurer. Some contracts utilize a separate account for reasons unrelated to the equity index feature, such as the use of a market value adjustment formula.

#### Choices at the End of a Term

Most contracts provide several choices at the end of each index term, although some provide for an automatic continuation into either another index term or into a fixed annuity. Generally the choices are as follows:

**Renew for Another Term.** The renewal term is selected from among the term lengths offered in the contract. The amount applied to begin the new term is the amount of the contract value at the end of the term which just ended. The participation rate, spread deduction, or cap is redetermined for the new term. The surrender charges generally are reinitiated for the term.

**Continue as a Fixed Annuity.** The initial amount is the amount of the contract value at the end of the term which just ended.

**Make Withdrawals.** Part or all of the contract value can generally be withdrawn without a surrender charge.

#### Annuitization Options

Most contracts offer only the standard options available with fixed annuities; however, equity index based annuitization options can be offered.

#### Contract Structure

The equity indexed annuity feature is available in various combinations with other annuity alternatives:

**Stand Alone.** The equity indexed annuity is the totality of the contract. There might be several choices of index term period offered.

**Combined with Fixed Alternatives.** The contract might allow allocations and switching between equity indexed and fixed alternatives at the end of each term.

**Within a Variable Annuity.** The equity indexed annuity might be an alternative within a variable annuity contract.

#### Inclusion of Common Fixed Annuity Designs

The equity indexed annuity is essentially a fixed annuity with a different way of determining the credited interest rate; consequently, equity indexed annuities can contain any feature which might be found in a traditional fixed annuity. Current designs include bonus interest rates, two-tier structures, and market value adjustments.

#### Frequency of Issue

Contracts generally are issued on a weekly or bi-weekly basis in order to be able to combine larger amounts of premium for the efficient purchase of hedging options:

### **General Description of an Equity Indexed Immediate Annuity**

Equity indexed immediate annuities (EIIA) are immediate annuities that tie all or a portion of the benefits payable to the performance of an external index. These annuities can contain all other features of fixed immediate annuities. EIAs are new to the market and currently show only limited designs, in contrast to equity indexed deferred annuities which are offered by many companies and reflect numerous designs. This description is primarily reflective of currently available products and will need to be revised when more products are available and additional design creativity has been brought to the market. An EIIA can be described in terms of the type of annuity payout, assumed interest rate, minimum payment guaranties, index used, usage of averaging of index values, participation rate, and length of the participation rate guaranty. Some examples are: (a) life annuity based on a 3% assumed interest rate with payments never below the initial payment, based on the S&P 500 using annual index values, with 80% participation guarantied for 5 years or (b) 10 year certain annuity based on a 4% assumed interest rate with payments never below the previous payment, based on the S&P 500 using annual index values, with 90% participation guarantied for 7 years.

## **Design Choices in an Equity Indexed Immediate Annuity**

Equity indexed immediate annuities can take many forms and are a combination of many separate design components. A key concept in evaluating various product designs is that no design is inherently financially superior to any other design. If all other characteristics of two products are identical, i.e., expenses, mortality, fixed investment yield, assumed interest rate, profit margin, etc., then the two products will spend the same amount on hedging cost and will provide equivalent value, although they may have different participation rates as a reflection of the design differences. What will differ is which product will produce better benefits under a specific set of circumstances; however, the call option market will have priced the various possibilities such that equivalent value is available under all designs. The important design elements and some of the possible design choices are described below:

### Assumed Interest Rate

The initial annuity benefit reflects an assumed interest rate, which the insurer may allow to be selected by the annuitant. The assumed interest rate also serves as the required interest in the calculation of equity index adjusted annuity payments. Equity index based interest in excess of the assumed interest rate produces an increase in the annuity payment and interest below the rate produces a decrease, in the absence of any guaranteed payment levels.

### Minimum Payment Guaranty

There are several types of payment level guaranties which can be provided with the annuity payments:

**Initial Payment Amount** guaranties provide that any payment will be no less than the initial annuity payment. This is analogous to a point-to-point benefit in a deferred equity indexed annuity.

**Previous Payment Amount** guaranties provide that any payment will be no less than the previous annuity payment. This is analogous to a high water benefit in a deferred equity indexed annuity.

**Ratchet Payment** guaranties provide an increase over the most recent annuity payment if equity index based interest exceeds the assumed interest rate. This is analogous to a ratchet benefit in a deferred equity indexed annuity.

### Frequency of Annuity Amount Change

The annuity amount could be changed as often as the payments are made; however, annual adjustments may be the most practical frequency, regardless of the frequency of the annuity payments.

### Equity Index Used

Any published index may be used, provided there are no licensing restrictions. Also, insurers can construct their own indices. The choice of indices is influenced by the availability of hedging instruments. Equity indices generally reflect the movement in the price level of the underlying stocks and do not include value growth due to dividend payments. Most contracts in the U.S. are

based upon the S&P 500 Index, both because it is one of the indices most easily recognized by potential customers and because the call options needed to hedge the risk are readily available and liquid.

#### Index Averaging Methods

The simplest index measurement uses the index value of a single day; however, various averages of index values could be used in order to reduce the volatility of the index increase measurement or to moderate the change in the annuity payment.

#### Participation Rate

The index-based interest rate used in the determination of annuity payment amounts is some portion, called the participation rate, of the increase in the index over the period being measured. Participation rates are dependent upon interest rates and call option costs and, consequently, are determined separately at the beginning of each period during which they are guaranteed. The highest participation rates are for initial payment amount guaranties and lowest for ratchet guaranties.

#### Participation Rate Guaranty Period

The participation rate can be guaranteed for any length of time; however, it is generally guaranteed for a specified number of years, at which time it would be guaranteed at a newly determined level for another period of years. There may be a minimum participation rate guaranty for these subsequent periods.

#### Use of a Separate Account

The assets are held in the general account unless there is some design component, independent of the equity index feature, which would suggest use of a separate account.

#### Contract Structure

The equity indexed immediate annuity feature can be combined with other annuity alternatives:

**Stand Alone.** The equity indexed immediate annuity is the totality of the contract.

**Combined with Fixed Alternatives.** The contract might allow allocations between equity indexed and fixed alternatives.

**Settlement Option.** The equity indexed immediate annuity might be a payout alternative within an annuity which itself may or may not have equity index features.

#### Inclusion of Common Fixed Annuity Designs

The equity indexed immediate annuity is essentially a fixed immediate annuity with a different way of determining the annuity payments; consequently, equity indexed immediate annuities can contain any features which might be found in a traditional fixed immediate annuity.

### **General Description of an Equity Indexed Life Product**

Equity indexed life products are life insurance products that tie all or a portion of the benefits payable to the performance of an external index. Equity indexed life products (EILPs) can take the form of a single premium, fixed premium or flexible premium life product. These products can contain all other features of a regular life counterpart with one exception — the credited interest is determined retrospectively based on the performance of an external index. Like equity indexed annuities (EIAs), the excess interest, or credited interest less the minimum guaranteed interest, on EILPs can be described in terms of the length of the index-based interest cycle, type of index-based interest calculation, index used, index participation, usage of averaging of index values, method of converting the amount of index change into an interest rate. Unlike EIAs, most EILPs would have smaller size premiums and would involve periodic deductions from the policyholder fund, such as premium loads, monthly loads and mortality charges.

### **Design Choices in an Equity Indexed Life Product**

The equity index concept can be applied to any life products. The products currently available in the market are universal life products. Therefore, this document focuses on the design choices of an equity indexed universal life product.

An equity indexed universal life product can be viewed as a universal life product with at least one equity indexed account in addition to a daily interest account. In theory, each premium can be treated like a single premium. The periodic premiums can be viewed as a series of single premiums; and hedges can be purchased on each one of these premiums. However, options cannot be purchased in small amounts. Premiums need to be bundled to gain appropriate size for purchasing hedges. This means that the equity index participation may not begin immediately when the premium is received. The equity index benefits are constructed periodically, coinciding with the option purchase program. Premiums received at the time options are purchased will have index participation immediately. Premiums received at other times will have index participation deferred. The mechanism required to accumulate premiums during the interim period between option purchase dates is called a contribution window or contribution period.

#### Contribution Window

A contribution window is the longest possible period that a premium has to remain in a daily interest account before index participation begins. It can be a month, a year or a period of several years. Insurance companies may limit the issue dates of EILPs so that the policy start dates coincides with the start of a contribution window. At the end of the contribution window, all or a portion of the accumulated premium in the daily interest account becomes one single tranche and this tranche is swept into an equity indexed account (viewed as a “bucket”). Once it is swept into an equity indexed account, index participation begins. Therefore, at the end of each contribution window, a “bucket” is formed.

#### Index Term Period

The index term period is the period over which equity index benefits in an equity indexed bucket are calculated. At the end of the index term period of an equity indexed bucket, the equity index benefits will be calculated and credited to the bucket. The index benefits will be no less than the guaranteed minimum interest rate. Funds in that bucket are then rolled into a new equity indexed bucket and combined with contributions from the most recent contribution window and receive a new index participation rate.

The index term period can be any length, but one year is most common for flexible premium products. However, it is possible to have buckets of decreasing length to cover the period from the end of a contribution window to the next policy anniversary. Multi year index periods are typical for single premium products.

#### Number of Equity Indexed Buckets

The number of equity indexed buckets on an EILP depends on the length of the contribution window and the index term period. The longer the contribution window is, the fewer buckets there are. The shorter the index term period, the fewer buckets there are. For an EILP that accepts flexible premiums, the number of equity indexed buckets on a product can be calculated by multiplying the number of contribution windows in a year by the length of the index term period in years. For example, if there are quarterly contribution windows (i.e. the premiums are swept into an equity indexed bucket once every quarter) and the index term period for each bucket is five years, there will be twenty equity indexed buckets.

Due to the potential difficulties caused by numerous equity indexed buckets, flexible premium products currently available tend to have a one year index term period and a one year contribution window (or a one month contribution window) and hence, only one equity indexed bucket (or twelve equity indexed buckets).

#### Daily Interest Account

Premiums received during the contribution window accumulate interest in the daily interest account. At a minimum, the interest rate credited in this account is the contractual guaranteed minimum interest rate. A higher interest rate may be credited by companies based on their current credited rates on fixed products. Policy deductions, such as monthly loads, per unit loads, and cost of insurance charges, can be deducted from the daily interest account or from the equity indexed bucket(s).

#### Interest Calculation Methods

Potentially, there can be as many different interest calculation methods for the equity indexed buckets for EILPs as there are for EIAs. These methods can be categorized as follows:

**Point-to-point** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the end of the term.

**Ladder** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the end of the term with the additional guaranty that the recognized final index value will not fall below a specified index level if the index reached that level at specified points during the term. One or more “rungs” of a ladder may be specified. Measurements are typically done on anniversaries, but a more frequent basis is possible.

**High water** methods credit interest as a portion of the percentage growth in the underlying index from the beginning of the term to the highest value the index has achieved at specified measurement points up to the end of the term. Typically, these measurement points are the anniversaries in the contract, but they could occur with greater frequency.

Each of these measurement points could use some averaging technique. The high water method also is sometimes referred to as the discrete lookback method, in recognition of the type of call option utilized to hedge it.

**Low water** methods credit interest as a portion of the percentage growth in the underlying index from the lowest value the index has achieved at specified measurement points during the term to the index value at the end of the term. Typically, these measurement points are the anniversaries in the contract, but they could occur with greater frequency. Each of these measurement points could use some averaging technique. The low water method also is sometimes referred to as the discrete lookforward method, in recognition of the type of call option utilized to hedge it.

**Ratchet designs** credit index-based interest to the current contract value periodically throughout the term. The following variations of the design are used:

*Method of accumulation.* A compound ratchet applies the index-based interest rate to the current contract value at the time of the crediting. A simple ratchet applies the index-based interest rate to the premium minus cumulative withdrawals at the time of the crediting.

*Frequency of accumulation.* Most ratchets operate annually; however, less frequent application is possible.

*Length of guaranty of index change recognition.* The current participation rate, spread charge, or cap can be guaranteed for the entire term, only for the current interest crediting period, or for some intermediate period. If the guaranty is only for the current interest crediting period, a lesser guaranty commonly is provided for the balance of the term and subsequent terms.

*Minimum guaranteed interest.* For each interest crediting period, there is a specified minimum guaranteed interest rate, which generally does not vary. Typically, this is 2.5% or 3% on EILPs although higher rates can be used.

Due to the smaller size premiums and monthly deductions associated with life products, they tend to have simpler designs on the calculation of index benefits. The point-to-point design tends to be prevalent, particularly for flexible premium products. For single premium life products, the calculation of index benefits can take on any of the designs mentioned above.

#### Equity Index Used

Any published index may be used, provided there are no licensing restrictions. Also, insurers can construct their own indices. The choice of indices is influenced by the availability of hedging instruments. Equity indices generally reflect the movement in the price level of the underlying stocks and do not include value growth due to dividend payments. Most contracts in the U.S. are based upon the S&P 500 Index, both because it is one of the indices most easily recognized by

potential customers and because the call options needed to hedge the risk are readily available and liquid.

#### Index Averaging Methods

The simplest index measurement uses the index value of a single day; however, various averages of index values are sometimes used in order to reduce the volatility of the index increase measurement or to moderate the value credited to the annuity contract. Averaging techniques are characterized by the length of the averaging period and the frequency of the measurements within the period. Contracts which use averaging techniques are often referred to as having an Asian end or an Asian beginning, references to nomenclature used in option hedge:.

**Short term averaging** may be used at the end of each contract year, and sometimes at the beginning of the contract, in order to reduce the volatility of the index measurement. Daily averaging over periods of 30 or 60 days might be used.

**Long term averaging** may be used at the end of a multi-year point-to-point benefit determination, e.g., when the index benefit is determined solely upon the change in the index from the beginning of the index term period to the end of the index term period, which could be up to ten years. Such averaging might be over a period of 2 to 24 months and commonly might use the average of monthly indices, although daily averaging could be used. This type of average provides some comfort to the purchaser that the benefit determination will not be based upon a relative low-point value of a single day, and it additionally produces a less expensive benefit which could support a higher participation rate.

**Annual averaging** of index values within each year for ratchet designs is used to reduce the volatility in the interest credited to the contract. Another result is that a nominally higher portion of the calculated index increase rate is reflected in the interest rate. Methods used are daily averaging, monthly averaging, and quarterly averaging. These methods reflect on average half to slightly more than half of the annual index increase percentage; however, the portion will vary considerably from year to year depending upon the profile of the index volatility during the year.

Due to the shorter index term period on EILPs, averaging tends to be short term, such as over a period of one to six months.

#### Method of Adjusting the Index Increase Percentage

The index-based interest crediting rate is some portion of the increase in the index and this adjustment is accomplished through the use of a participation rate, a spread deduction, a cap, or a combination of the methods:

**Participation Rate** is a multiplier applied to the percentage increase in the index in order to determine the index-based interest rate. Participation rates are dependent upon interest rates and call option costs and, consequently, are determined separately at the beginning of each period during which they are guaranteed. The highest participation rates are for point-to-point products and lowest for ratchet products.

Since the index term periods of the equity indexed buckets for EILPs tend to be shorter than those under EIAs, the participation rates are usually lower than those seen under EIAs, both on the guaranteed and current bases.

**Spread Deduction** is a deduction from the percentage increase in the index in the calculation of index-based interest.

**Benefit Cap** is a maximum applied to either the annual or the cumulative index-based interest rate.

#### Guaranty Period for the Method of Adjusting the Index Increase Percentage

The participation rate, spread deduction, and cap can be guaranteed for any length of time; however, they are generally guaranteed at their current level either annually or for each index term period.

#### Index Benefits for an Equity Indexed Bucket

At the end of the index term period of an equity indexed bucket, index benefits are calculated for that bucket by multiplying the index increase percentage by the value of that equity indexed bucket immediately before the calculation takes place.

#### Guaranteed Minimum Interest

EILPs generally have a guaranteed minimum interest rate specified in the contract. This rate applies to the daily interest account as well as the equity index buckets. This guaranteed minimum interest rate can be a fixed rate, such as 2.5% or 3%, or an indexed rate, such as 50% of the 90 day Treasury rate.

#### Contract Charges

The charges which are characteristic of a universal life contract are similarly applied to an EIL contract:

**Premium Loads** are assessed on premiums paid to cover state premium tax, DAC tax and sales related expenses. They are expressed as a percent of premiums and are deducted from premiums upon receipt.

**Monthly Loads** can be on a per policy and a per unit basis. They are deducted from the daily interest account or the equity indexed bucket(s) on monthiversaries.

**Cost of Insurance charges** are deducted from the daily interest account or the equity indexed bucket(s) on monthiversaries.

#### Partial Withdrawals

Partial withdrawals are allowed from the daily interest account or equity indexed bucket(s), usually subject to surrender charges.

#### Policy Loans

Policy loans are allowed on EILPs. The maximum loan available can be the entire cash value. Loans are made from the daily interest account or the equity indexed bucket(s). Transfers may be made from the equity indexed bucket(s) to the daily interest account before the withdrawals are processed.

The loan interest rate can be a fixed rate or a rate tied to an outside index or a rate declared by companies from time to time. The rate credited on the loan amount is the guaranteed minimum interest rate or a higher rate.

#### Transfer From Daily Interest Account To Equity Indexed Bucket

Transfers from the daily interest account to an equity indexed bucket occur at the end of a contribution window. All or a portion of the accumulated premium in the daily interest account is swept into an equity indexed bucket on that date. To the extent that there is more than one equity indexed bucket, the accumulated premium is swept into the equity indexed bucket with a start date coinciding with the transfer date.

#### Transfer From Equity Indexed Bucket To Daily Interest Account

Transfers from an equity indexed bucket to the daily interest account are usually not allowed, except to cover policy charges and loans from the daily interest account.

Under these exceptional circumstances, transfers are automatically made from the equity indexed buckets to the daily interest account. To the extent that there is more than one equity indexed bucket on the product, some convention, such as pro-rata, LIFO, or FIFO, needs to be established as to which equity indexed bucket will be drawn upon. The amounts on which the index benefits will be calculated at the end of the index term period of the equity indexed buckets affected are then reduced.

#### Death Benefit Options

Like regular universal life products, EILPs offer two death benefit options: level and increasing. However, EILPs differ from regular universal life products in that the "fund value" used in the calculation of death benefit can have the interest for the partial year preceding death calculated in one of the following ways:

*At guaranteed minimum interest rate only:* The index benefits of an equity indexed bucket at time of death will be calculated using only the guaranteed minimum interest rate taking into account the duration from the beginning of the equity indexed bucket to the day of death.

*Using the method of calculating index benefits:* The index benefits of an equity indexed bucket at time of death will be calculated using the method defined in the contract although the index term period used for the calculation is equal to the time elapsed from the beginning of an equity indexed bucket to the time of death.

#### Account Value

The account value of an EILP is equal to the value of the daily interest account plus the value(s) of the equity indexed bucket(s).

Cash Surrender Value

The cash surrender value of an EILP is equal to the account value less surrender charge.

Surrender Charge

Surrender charge scale of an EILP is similar to that of a regular universal life product. The surrender charge scale can be ten to twenty years long. It can be based on units, premiums, or a percent of fund value.

Use of a Separate Account

The assets are held in the general account unless there is some design component, independent of the equity index feature, which would suggest use of a separate account.

Frequency of Issue

Due to the existence of a contribution window and a daily interest account, EILPs can be issued every day, although companies may limit the issue dates of EILPs to the start of a contribution window.

## **APPENDIX B: CONTRACT FILING REQUIREMENTS**

The purpose of establishing contract filing requirements for equity indexed products is to facilitate the regulator's understanding of these products and, thereby, expedite the review and approval process of such products. Since some of the proposed requirements are not actuarial in nature, the NAIC may wish to solicit input from industry and other professional groups regarding the proposals outlined below.

The contract filing requirements proposed in this document are primarily modeled after those stipulated in the NAIC Interest Indexed Annuity Model Regulation and the section on Interest-Indexed Universal Life Policies (Section 10) of the Universal Life Insurance Model Regulation, adjusted to reflect the characteristics unique to equity indexed annuity and life products, respectively.

The company can request the filing materials to be kept confidential by the insurance departments, where applicable.

The Academy's EIP Task Force proposed contract filing requirements are shown below.

### **I. Actuarial Memorandum**

#### **A. Description of the product**

**B. Description of the index used:** Describe the external index used and the criteria for selecting a substitute index if the current index is no longer in existence or applicable. Advance notification should be provided to the insurance department on the substitute index, the rationale for replacing the existing index and the substitute index used for inforce contracts.

**C. Description of how index-based benefits are calculated:** Provide descriptions, complete with formula definitions, of how index-based benefits are calculated under level, up and down index scenarios. Provide a description, complete with an algorithm, if any, of how these index-based benefits are set initially at product launch, and how they are planned to be reset subsequent to product launch.

**D. Demonstration of compliance with the applicable nonforfeiture requirements, if any.**

**E. Description of the reserving method, including a statement as to what method will be used to value the index-based benefits.** Accepted methods are provided in the reserve section of this report.

**F. Brief description of asset adequacy testing methodologies used to address product features unique to equity indexed annuity or life product, if applicable.**

## II. Advertising Materials

A. Advertising materials are defined in the "NAIC Model Rules Governing the Advertising for Life Insurance", which include illustrations. "Invitation to Contract" and "Invitation to Inquire" are defined in the Marketing Material and Disclosure section of this report.

B. Drafts of "Invitation to Contract" advertising materials should be provided with the product filing.

C. Drafts of "Invitation to Inquire" advertising materials need not be filed.

D. Any subsequent material changes to "Invitation to Contract" advertising materials should also be filed.

E. The guidelines above are subject to state specific requirements governing advertising materials. For example, some states require preapproval of advertising materials; other states do not require filing of any advertising materials.

## III. Materials Provided by the Company to the Policyholder after the Sale of the Policy

A. Policy form and application: Policy form includes any policy data page, which is policy specific.

B. Sample of policy summary (also known as statement of cost and benefit information) or sample of illustration, as appropriate.

C. Sample of annual policyholder report (or a sample periodic statement to be provided to the policyholder). Items which must be included in such a report or statement are specified in the Marketing Material and Disclosure section of this report.

D. The guidelines above are subject to state specific requirements regarding the required filing of such materials.

## IV. Hedging Policy

A. Description of hedging instruments, if any, which are planned to be acquired to fund the obligations inherent in the product.

B. Details concerning methods used to determine the amount and type of hedging instruments, if any, used to hedge the risks associated with the indexed obligations. When identifying the hedging instruments which will be acquired, information concerning type, maturity and strike price (if applicable) must be provided.

C. Description of the methods which will be used to determine the extent of rebalancing the portfolio supporting the product and the frequency of rebalancing.

D. Description of responsibilities within the company, i.e., who determines the hedging policy, and who has the authority to approve and who has the responsibility to carry out this policy.

E. Description of how the company handles the risks associated with purchasing hedging instruments. Such risks may include, but are not limited to:

1. Liquidity risk, which arises when there is limited ability to hedge, close out, or sell a financial risk position;
2. Credit risk associated with possible counterparty defaults;
3. Market risk due to fluctuations in market values of assets and liabilities
4. Pricing risk, arising from infrequently set product parameters relative to the cost of options that are yet to be purchased;
5. Legal risk associated with legal agreements with derivative dealers; and
6. Operations risk, arising from inadequate internal systems and control, human error, or management failure.

F. Details should be provided supporting any required reserve certifications regarding "reasonableness of assumptions" or "reasonableness and consistency of assumptions".

G. If the reserving method is based upon the attainment of any "hedged as required" criteria, details should be provided as to how such criteria will be met.

#### V. Sample Policy Projections

The Task Force recommends that companies not be required to provide sample policy projections to all states. However, we recognize that a few states do impose such a requirement on all policy filings. In these situations, the Academy Task Force recommends that the index scenarios under which the projections are to be performed should be customized by the company to recognize the distinct design features of the product.

## **APPENDIX C: MARKETING MATERIAL AND DISCLOSURE**

Part of the charge set forth to the American Academy of Actuaries by the NAIC was to examine marketing material and disclosure needs for equity indexed products. This report recommends guidelines for regulators in developing new model regulations and modifying existing model regulations to address these issues.

As regards the issue of ‘What is the responsibility of the actuary?’, this remains to be determined by the regulators.

### **I. Proposal for Recommended Guidelines to Regulators for Marketing Materials Used in the Sale of Equity Indexed Life and Annuity Products**

For purposes of these Guidelines, it is recommended that the definition of "Non-guaranteed policy elements" in the Rules Governing the Advertising of Life Insurance be modified to include consideration of the Equity Index

#### **A. Goals/Objectives:**

1. Foster consumer education and understanding of equity indexed products.
2. Provide consumers with clear information about these products.
3. Be consistent with the NAIC Model Rules Governing the Advertising of Life Insurance (including annuity products) whose purpose is:

To set forth minimum standards and guidelines to assure a full and truthful disclosure to the public of all material and relevant information in the advertising of life insurance policies and annuity contracts.

#### **B. Definitions:**

1. "Invitation to inquire" is defined for these recommended guidelines as marketing material whose objective is to create a desire to learn more about the product and is limited to a brief description.
2. "Invitation to contract" is defined for these recommended guidelines as marketing material that is not an invitation to inquire.

#### **C. Marketing Material:**

1. It is recommended that any marketing material used which is an invitation to inquire or an invitation to contract consumers in the sale of equity indexed products be covered by the NAIC Model Rules Governing the Advertising of Life Insurance. These rules require that advertising material must:

- a. be truthful and not misleading in fact or by implication.
- b. be sufficiently complete and clear so as to avoid deception.
- c. not have the capacity or tendency to mislead or deceive.

Compliance of advertising material with the Rules is measured based on the overall impression.

D. Balancing Language:

1. It is recommended that any marketing material which is an invitation to contract and contains language regarding the non-guaranteed elements, provide consumers with a balanced view of the policy provisions inherent in the equity indexed design
2. The purpose of balancing language is to ensure that both the negatives and positives of product features are described for consumers. Section V. of this appendix offers some examples of balancing language. These examples are in no way an all-inclusive list of balancing language nor must the specific words be used.

II. Proposal for Recommended Guidelines to Regulators for Disclosures Used in the Sale of Equity Indexed Annuity Products

It is recommended that the Guidelines to Regulators for Marketing Materials also be applicable to disclosures.

A. Goals/Objectives:

1. Foster consumer education and understanding of equity indexed annuities.
2. Provide consumers with a clear explanation of how these products operate.
3. Set appropriate expectations on how these products function.
4. Be as neutral as possible with regard to policy design.
5. Be consistent with the proposed NAIC Annuity Disclosure Model Regulation (As revised at the April 30, 1997 Interim Meeting of the NAIC Life Disclosure Working Group) and the NAIC Model Rules Governing the Advertising of Life Insurance (including annuity products).
6. Be complementary to work done on equity indexed nonforfeiture and policy design.
7. Provide consumers with a balanced view of the advantages and disadvantages of the indexed policy provisions.

**B. Disclosure of Guaranteed Benefits and Values, Including Guaranties within the Non-Guaranteed Equity Indexed Design:**

1. Disclosure of all fully guaranteed benefits and values and all guaranteed parameters related to the non-guaranteed equity indexed design is required by the proposed NAIC Annuity Disclosure Model Regulation (As revised at the April 30, 1997 Interim Meeting of the NAIC Life Disclosure Working Group). This proposed Model Regulation applies to most group and individual annuity contracts and certificates including equity indexed annuities. It requires that applicants be given a disclosure document which has numerous disclosures about the annuity contract including the requirement of a description of the guaranteed and non-guaranteed elements of the contract, and their limitations, if any, and an explanation of how they operate.

**C. Disclosure of Total Amounts of Non-Guaranteed Elements of the Equity Indexed Design:**

1. It is recommended that disclosure of total amounts of non-guaranteed elements of the equity indexed design be optional. It is further recommended that if shown: it may be narrative or tabular, under single or multiple scenario(s) (e.g., historical, hypothetical, level, fluctuating) and under any index; the disclosure may be shown generically or may be personalized to the applicant as long as it is fully identified as to which method is used; and any projection period used must be such that the implications of going beyond the initial term of the product design are clearly disclosed to consumers.

2. Many options for disclosing values to consumers were reviewed including narrative versus tabular, single versus multiple scenarios, historical versus hypothetical, indices that were level versus fluctuating, and generic versus personalized. Every option had desirable features as well as drawbacks. Given the variety of today's and future equity indexed product designs and the number of different components that have to be considered, it was concluded that no one option can adequately capture the policy mechanics of all equity indexed product design variations. Therefore, it is recommended that all such options be permitted, subject to being supplemented by balancing language. This supports the needed flexibility in presenting total amounts of non-guaranteed elements in equity indexed designs and also ensures consumers have full and balanced information for their decision making process.

**D. Balancing Language:**

1. It is recommended that any disclosures containing language regarding the non-guaranteed elements provide consumers with a balanced view of the policy provisions inherent in the equity indexed design.

2. The purpose of balancing language is to ensure that both the negatives and positives of product features are described for consumers. Section V of this appendix offers some examples of balancing language. These examples are in no way an all-inclusive list of balancing language nor must the specific words be used.

III. Proposal for Recommended Guidelines to Regulators for Annual Reports for Equity Indexed Annuity Products

A. It is recommended that annual reports to consumers of equity indexed annuities be required.

B. It is recommended that such annual reports have to satisfy the NAIC Model Rules Governing the Advertising of Life Insurance.

C. It is further recommended that such annual reports, at a minimum, disclose the following values as of the annual report date:

1. Cash surrender value.
2. Account value.
3. Death benefit.
4. Contributions for the year.
5. Outstanding loans, if any.
6. Anything specific to the equity indexed design that affected the values during the year.

D. It is recommended that disclosure of the impact of changes in the index on current or future policy values be optional. Any disclosure of such impact must indicate whether the amount is locked-in or subject to diminution due to future changes in the index. If a future value is disclosed, the conditions that must be met to be eligible to receive the future benefit must be fully disclosed.

IV. RECOMMENDATIONS CONCERNING THE NAIC LIFE INSURANCE ILLUSTRATIONS MODEL REGULATION

A. Section 3 of the NAIC Life Insurance Illustration Model Regulation (Model) states, "This regulation applies to all group and individual life insurance policies and certificates..." Exceptions to this broad statement are made. However, there is no exception for equity indexed life insurance policies. Hence, insurers marketing these products face the challenge of interpreting the Model in an attempt to comply with its requirements. This entails making decisions as to the interpretation of several concepts including guaranteed and non-guaranteed elements, disciplined current scale, currently payable scale, illustrated scale and actual recent historical experience. In addition, some of the limitations contained in the Model may result in inadequate explanation of policy features. For example, the standard for supplemental illustrations may prohibit attempts to explain policy features such as caps on index increases. It is recommended that as a near term solution to the issue raised, regulators consider insurer adherence to the following recommendations be considered an acceptable interpretation of the Model when it is being applied to an equity indexed life insurance policy form. However, as the number of insurers marketing equity indexed life products increases and product variation increases, the NAIC should consider suitable modifications to the Model to

make it a more appropriate tool for regulating illustrations provided under equity indexed life insurance policies.

B. Applying the Model requires a decision as to which elements of the policy design are guaranteed and which are non-guaranteed. Equity indexed based benefits and interest credits may consist of guaranteed elements (e.g., underlying index) and non-guaranteed elements (e.g., changes in the value of the underlying index). It is recommended that the determination as to the guaranteed/non-guaranteed nature of a benefit of credit under an equity indexed life insurance policy be at the individual product feature level. A recommended definition of guaranteed elements and non-guaranteed elements is contained in the section of this report captioned “General Descriptions of Equity Indexed Products.” Application of these definitions may result in indexed benefits or indexed interest crediting rates being viewed as a combination of elements, some guaranteed and some non-guaranteed.

C. The definition of “currently payable scale” refers to a scale of “non-guaranteed elements.” The scale may consist of dollar amounts per unit, percentage rates or a formula that is based on both guaranteed and non-guaranteed elements that can only be evaluated at some future date. The formula may include policy design features that are guaranteed or non-guaranteed. It is recommended that the declaration of a formula with guaranteed and non-guaranteed elements be considered an acceptable currently payable scale.

D. The definition of “disciplined current scale” refers to “actual recent historical experience.” It is recommended that for purposes of the developing of the disciplined current scale, changes in the value of the underlying index should be based on long-term experience periods terminating near the date of termination of the disciplined current scale. Except in cases where the rules for determining the index value have changed, the procedure for determining the change in the value of the underlying index should not vary over time.

E. Section 7C of the Model requires that basic illustrations be provided on three bases: policy guaranties, the illustration scale, and on the basis reflecting certain specified modifications to non-guaranteed elements in the illustrated scale. It is recommended that an illustration of benefits and values on the third basis should reflect modifications to each non-guaranteed element separately.

F. When providing a supplemental illustration in accordance with Section 8 of the Model, it is recommended that each non-guaranteed element contained explicitly, or implicitly in the supplemental illustration be subject to the limitations contained in Section 8A(2) of the Model.

G. When preparing an in-force illustration in accordance with Section 10 of the Model, it is recommended that the in-force illustration reflect non-guaranteed elements as illustrated in the insurer’s current illustrated scale except for any elements which may have values “locked in” for a period of time.

H. The Model requires that inconsistencies between non-guaranteed elements illustrated in the in-force illustrations and illustrations for new policies must be disclosed in the actual certification required by Section 11. It is recommended that differences between the participation rates and /or spread deductions used in the illustrated scale for new issues and those used in-force illustrations

for similar policies, when based on inconsistent cost considerations, be disclosed in the annual certification.

## V. EXAMPLES OF BALANCING LANGUAGE

The purpose of balancing language is to ensure that both the negatives and positives of product features are described for consumers. Following are some examples of balancing language. These examples are in no way an all-inclusive list of balancing language, nor must the specific words be used.

- A. To the extent that the index methodology uses averaging and it is advertised that protection is provided against downturns, it must also be disclosed that the method does not give full credit for an upturn.
- B. To the extent that the index methodology is based on multiple factors, then it must also be disclosed that comparisons of a single factor can be misleading.
- C. To the extent that any year to year index increases or volatility (hypothetical or historical) are disclosed, then it must also be disclosed that that performance is no indication as to future performance.
- D. To the extent that the index excludes dividends, such a fact should be disclosed.
- E. To the extent that early termination or the exercise of withdrawal rights may result in the loss of some or all of the benefit of any increases in the index, this must be disclosed.
- F. To the extent that the marketing material includes statements like "participate in the upside of the Index" or "participate in the upside without risk" then it must also be disclosed that there is a downside risk which can go to the guaranteed minimum level.

**APPENDIX B**

**American Academy of Actuaries'  
Comments to the Securities and Exchange Commission  
Concerning Equity-Indexed Annuities  
December 21, 2005**



# AMERICAN ACADEMY *of* ACTUARIES

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December 21, 2005

Susan Nash  
Associate Director  
Division of Investment Management  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549-0506

Re: Comments to the Securities and Exchange Commission Concerning Equity-Indexed Annuities

Dear Ms. Nash:

The July 2005 request from the Securities and Exchange Commission (SEC) of insurers that are the major writers of equity-indexed annuities (EIA) suggested to us that the SEC is again interested in considering the issues of what are the characteristics of an EIA and whether an EIA is a security. When the SEC previously addressed these issues with its "Concept Release" in August 1997, the American Academy of Actuaries (Academy) submitted comments. While not solicited by the SEC at this time, the Academy offers these submitted comments as additional background for the current review of EIAs.

We have reviewed and evaluated the characteristics of currently available EIAs, from the perspective of both the purchaser and the insurer. The review includes the risks (or mitigation thereof) of guarantees, the options available to the insurer and purchaser and who controls the assets supporting the EIA contract. We then specifically compare the characteristics of EIAs to fixed-rate annuities and variable annuities (VAs) in order to best illustrate why EIAs are most appropriately regarded as fixed annuities.

## **EIAs from a Purchaser's Perspective**

### Contract Characteristics

An EIA that is not registered as a security is a product that is supported by the insurer's general account. Since the Standard Nonforfeiture Law for Individual Deferred Annuities (SNFLIDA) requires general account products to provide a minimum level of guaranteed interest, these EIAs are sold with interest crediting guarantees. This differentiates these EIAs from separate account products, such as a variable annuity, that transfers all or most of the investment risk to the purchaser.

### *Current Interest Crediting Guarantee*

During each interest-crediting period, whether a single year or a multi-year period, the terms of the EIA interest crediting are guaranteed in advance. The participation rate, cap, or spread fee is determined and declared prior to the start of the period. Although the specific amount of the interest cannot be determined, the terms of the crediting are unalterably set for the remainder of the current interest-crediting period.

### *Current Interest Floor Guarantee*

During each interest crediting period, whether a single year or a multi-year period, a minimum level of credited interest is guaranteed. Commonly, this is a 0% guaranteed interest rate over a one-year period. For multi-year interest crediting approaches, this is commonly expressed as the greater of 0% and a greater guarantee that is derived from compliance with the SNFLIDA.

### *Minimum Interest Crediting Guarantee in Later Years*

Commonly, the changeable factor in the crediting rate formula has a guarantee of the limiting value that will provide a minimum guaranteed benefit when the crediting formula is declared for the second and later interest crediting periods. This is expressed in terms of a minimum cap or participation rate or a maximum spread fee.

### *Long-term Interest Floor Guarantee*

EIAs not intended to be securities (Note-There have been EIAs within a variable annuity and free-standing registered EIAs) have a cumulative guaranteed floor that complies with the SNFLIDA and guarantee positive contract value increases over the holding period of the contract.

### *Selection of Interest Crediting Basis*

The purchaser of an EIA has very limited interest crediting basis choices. A typical contract offers interest crediting based on only one equity index and, possibly, an alternative for fixed-rate crediting. Some contracts may offer a second or third index alternative. In any case, the index is well defined and broadly used in financial markets; consequently, it provides no opportunity for investment direction by the purchaser other than the broad choice of the index.

### *Limited Reallocation Flexibility*

Some EIA contracts offer a single crediting strategy, e.g., participation rate or capped annual crediting, while others provide several choices of strategies, and may also include fixed-rate crediting. With multiple available strategies, the purchaser generally is allowed to reallocate the contract value among strategies at specified times; however, this flexibility generally is limited to times when the underlying hedges would mature. For

contracts with annual ratchet designs, this would allow reallocations only on anniversary dates; for multi-year guarantee designs, this would allow reallocations only at the end of the multi-year guarantee periods. Even when reallocations take place between equity-index-based crediting strategies, this generally is simply a change in interest-crediting strategies and not recognition of a different index.

### *Control of Assets*

The underlying assets for a nonregistered EIA are held in the general account of the insurer. This places them beyond the control and direction of the purchaser.

### *Method of Selling*

EIA contracts are sold in a similar fashion as traditional fixed-rate annuities in that the agent selling the annuity is licensed for insurance sales, provides sales literature that has been prepared by the insurer, and applies the same suitability screening that is used for fixed-rate annuity sales.

### Comparison with Fixed-Rate and Variable Annuities

The combination of these characteristics can be compared with both a fixed-rate annuity and a variable annuity in order to better understand the significance of the characteristics.

### *Comparison with a Fixed-Rate annuity*

The characteristics of an EIA, as provided to the purchaser, have much in common with those provided by a fixed-rate annuity.

- The current interest-crediting guarantee conveys value in a manner similar to that in a fixed-rate annuity. The call option value of the interest crediting based on participation in the index within an EIA is comparable to the interest that could have been credited if the contract had a fixed-rate structure. This is apparent in EIAs that include a fixed-rate alternative interest crediting strategy, where the insurer provides comparable value in both the index-based interest crediting and the declared-rate crediting.
- The current interest floor guarantee bears similarity to the current interest crediting guarantee in a fixed-rate annuity, although the level of the guarantee may be lower. The lower guarantee provided to the purchaser is compensated for by the potential for higher actual credited interest when the index-based interest outperforms the fixed rate alternative in the contract.
- The minimum interest crediting guarantee in later years is similar to the minimum interest crediting guarantee in fixed-rate annuities. Although the value of the guarantee may vary when the option-pricing value of the guarantee changes to

reflect changing interest and index-volatility circumstances, its core value typically maintains consistency with that offered in a fixed-rate annuity.

- The long-term interest floor guarantee is comparable to that in a fixed-rate annuity because both are designed to comply with SNFLIDA. The requirements of SNFLIDA allow a reduction of up to one percent (per year) in the minimum nonforfeiture interest rate for EIAs, but this is in recognition of the additional risk to the insurer due to the dispersion of actual interest crediting results. The lower guarantee allows the potential for more favorable index-based interest crediting that accrues to the benefit of the purchaser.
- Generally, the selection of interest crediting strategies for an EIA provides a single index as a basis for the interest calculation. This is the same degree of selection as in a fixed-rate annuity. Even when a choice of a fixed-rate allocation is available, it is not adding anything beyond what is commonly offered in an annuity. Choices that include several indices provide limited variations insofar as each index is well defined by an external source.
- Differences among index-based interest crediting strategies are primarily a matter of form rather than substance. Differing strategies will still be rooted in the same hedging cost (“hedge budget”) and, consequently, are structured to convey the same inherent value. This is very clear when the interest crediting strategies are based upon the same index, but still is basically true even when the index is different.
- Holding of assets supporting the contract in the general account, and thus beyond the control of the purchaser, is identical to the practice on fixed-rate annuities.
- The requirements and oversight (market conduct review) of the sales process are, as for fixed-rate annuities, regulated by the state insurance departments, generally in accordance with NAIC requirements.

### *Comparison with a Variable Annuity*

The characteristics of an EIA, as recognized by the purchaser, can be compared with those of a variable annuity.

- None of the current, floor, future, or cumulative guarantees is present in a variable annuity, insofar as the essence of a variable annuity is the pass-through structure for the investment returns. Even when a variable annuity contains guaranteed living benefits (GLB), e.g., guaranteed minimum income benefit, guaranteed minimum accumulation benefit, guaranteed minimum withdrawal benefit, or a guaranteed payout annuity floor, the interim cash-out value of the variable annuity prior to the maturity of the GLB has no guarantees. In addition, the risk payoff for a VA is not capped.

- The choices in an EIA of allocations among one or a few equity indices and, possibly, one fixed-rate allocation are very limited, in contrast to a variable annuity in which there may be 40 to 60 choices of subaccounts. The content of the EIA choices is currently limited to the construction of the indices, while the variable annuity subaccounts can take on almost any form.
- The holding of the EIA assets in the general account reflects the obligation of the insurer to credit interest on a guaranteed formula basis, whereas the variable annuity assets are held in separate accounts as a reflection of their pass-through nature.
- EIAs are not required to be sold by registered representatives, although many persons selling EIAs are registered representatives. In this regard, sales requirements for EIAs are similar to those for other fixed annuities.

### **EIAs from an Insurer's Perspective**

EIAs can also be characterized on the basis of the way that the insurer manages the product and its risks. This includes the method of investing to support the product and the resulting financial impact on the insurer.

#### Product Management Characteristics

##### *Assets that Support EIAs*

The typical two-fold composition of the assets that support EIAs is first, an index-based hedge that is structured to cover the index-based interest crediting and, second, fixed-yield assets such as bonds for the balance of the required assets. In the most common EIA structure that credits interest annually, this creates a balance of approximately 3-4% of the assets in hedges and 96-97% in fixed-yield investments. Insofar as it is reasonable for an insurer to invest with the same risk profile for both fixed-yield and equity-indexed products, there can be a 96%+similarity in the investments used for EIAs and fixed-yield products.

##### *Asset-Liability Management (ALM)*

The insurer takes on the obligation to deliver the guaranteed benefits, and the resultant responsibility of the insurer is to invest appropriately in order to support the guaranteed benefits. The primary result of this is the purchase of hedges to match the index-based interest liability and the purchase of fixed-yield investments to match the other guarantees. Management of the ALM risk to the company requires modeling and tracking the interest and equity risk exposures.

### *Risk Profile of Insurer*

An insurer that has properly invested for an EIA will typically manage the derivative risk either with static hedging (over-the-counter call options or exchange-traded call options) or dynamic hedging (actively-managed combination of derivative instruments, heavily based on index futures). An insurer that has properly hedged the derivative-based risk will have investment income consisting of payoffs on matured hedging instruments and coupons on fixed-yield investments. The related interest-crediting obligations would then consist of the crediting of interest in an amount comparable to the payoff of the hedge. If actual policyholder persistency matches assumed persistency when the hedge positions were first opened, then the hedge payoff will match the interest credits quite closely with static hedging and will show some variance with dynamic hedging. The coupons on the fixed-yield investments would support the underlying principal guarantees.

This investment risk profile is similar to that with fixed-rate interest guarantees if the index-based interest crediting were for the same amount as if the hedge budget was used for fixed-rate crediting. Even when the index-based interest crediting varies, as it certainly will, the risk is similar because the credited amount is financed by a comparable option payoff. The additional risk to the insurer versus that with a fixed-rate crediting annuity is that the cumulative floor guarantees may incur additional risk in the event of a sequence of low index-based interest crediting terms. This can be mitigated with the lower available minimum nonforfeiture rate for EIAs under SNFLIDA.

### *Obligations of the Insurer*

The insurer is required to provide benefits as guaranteed in the annuity contract. These consist of currently declared crediting guarantees, minimum crediting guarantees in future interest crediting terms, and minimum cumulative contract value guarantees. These obligations are independent of the method in which the underlying funds are invested.

### *Method of Managing Interest Crediting*

Interest is credited on the basis of a series of guaranteed declarations that are made at the beginning of each interest crediting term. In most cases this is annual, but multi-year guarantees are common, too. In the case of annual interest crediting, the insurer typically will broadly translate the interest that would have been credited for fixed-rate crediting into a hedge budget that is applied to the purchase of a call option that matches the index-based crediting that has been guaranteed. In particular, the affordable guarantee is determined as that which can be hedged within the hedge budget. An analogous method is typically used for the determination of index-based interest crediting guarantees in multi-year crediting guarantee annuities.

### *Profitability Profile*

An insurer that effectively manages the ALM risk with the placement of appropriate index-based hedges can anticipate a profitability profile similar to that on a fixed-rate annuity. The tracking will be closest with static hedges and will have some variances with dynamic hedging. The greater dispersion of interest-crediting results on an EIA versus a fixed-rate annuity will broaden the range of potential account values and this will have an impact on profitability, but the mean results should be similar. An aspect of potential reduced profitability is that the cumulative guarantees could come into play with an extended period of low index-based interest crediting. This low-probability event could have a moderate impact on profitability for the issuer of EIAs. The periodic (generally annually) crediting of floored (generally at 0%) interest avoids the cumulative-loss risk problems that exist in VAGLBs. The occurrence of even just a few positive crediting periods either eliminates the loss or greatly mitigates it.

### *Capital Structure*

The regulatory capital requirements for an issuer of EIAs are similar to those for fixed-rate annuities because the risk profiles are similar. The business risk (C-4) and the market value liquidation risk (C-3) requirements are the same as for a fixed-rate annuity, in recognition of the essentially similar risk profiles. The investment risk (C-1) requirement is identical for the fixed-yield investments and is consistently carried forward for the EIA hedging instruments. In the latter case, the capital requirements for static hedging are based on the credit rating of the counterparty, just as for all other investments. If dynamic hedging is used, an insurer may hold additional capital in recognition of the variability of hedging results, but this is compensated for by the lower mean cost of dynamic hedging versus static hedging.

### Comparison with Fixed-Rate and Variable Annuities

The comments above generally described the method of managing the EIA risk and the roots of the method, which is based on techniques used for other fixed annuities. The reason for the similarity in product financial management is the similarity of the product to a fixed-rate annuity.

The practices differ in almost all respects from the practices for variable annuities because of the difference in the nature of the risk. An EIA is a product with guarantees that must be supported by the insurer's general account investments, whereas a variable annuity is a pass-through product that transfers the investment risk to the purchaser through a separate account mechanism.

### **Summary Observations**

From a technical perspective we have noted that an EIA provides to a purchaser guarantees and other conditions that are quite similar to those on a fixed-rate annuity. Similarly, the method in which an insurer financially manages the product and realizes

financial results is essentially the same as that for a fixed-rate annuity. The combination of these perspectives indicates that nonregistered EIAs operate like fixed-rate annuities and thus have characteristics that support their status as nonregistered products.

Sincerely,

/S:/

Dave Sandberg  
VP of Life  
American Academy of Actuaries

Cc: Keith Carpenter and William Kotapish