EQUITY-INDEXED ANNUITIES: FUNDAMENTAL CONCEPTS AND ISSUES

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Introduction

This year, 2006, represents a major milestone for the 78 million baby boomers in the U.S. as the first wave of "boomers" turns age 60. Two years from now—in 2008—these individuals will qualify for Social Security's early retirement benefits and three years after that—in 2011—this initial wave will attain age 65 and become eligible for Medicare.[1] This initial cohort will be followed, annually, by 18 additional waves of baby boomers reaching similar milestones, with the last of the individuals born in the 1946-1964 period reaching age 60 in 2024.

Baby boomers and succeeding generations face a somewhat daunting task in planning for their financial future especially as it relates to retirement. Many of these individuals will face retirement with no guaranteed monthly income, or with a substantially reduced amount, coming from their employers due to multiple job changes or as the result of an employer's decision to terminate or "freeze" an existing defined benefit pension plan. Further, while benefiting from an increased life expectancy, many of these same individuals also will likely be confronted with high medical costs and long-term care costs at a time when many employers are implementing major cutbacks in their retiree medical expense plans and Medicare is experiencing significant financial pressures of its own. Given these trends, together with the projected future deficits under Social Security, it is clear that baby boomers and successive generations need to exercise greater individual responsibility in seeing that their retirement income objectives are achieved.[2]

Asset accumulation and asset diversification will likely remain important to future generations of retirees as they approach retirement. However, whether these retirees will enjoy the "best of times" associated with a long and healthy retirement, or endure the "worst of times" that potentially could occur when a lengthy retirement period is coupled with inadequate income, may depend on how these individuals structure their retirement assets. It is in terms of asset structuring where *annuitization* can play an important role in retirement planning.

Annuitization is the process whereby assets are converted into a guaranteed income stream payable for a fixed period of time, or over the lifetime(s) of one or more individuals. Annuitization provides individuals with a guarantee that they will not "outlive their income"—a major concern for many retirees. It also allows persons to maximize the amount of their periodic retirement income, although it may defeat any bequest motives on the part of these individuals. Arguably, a strong case can be made for the annuitization of at least a portion of an individual's retirement asset portfolio, especially in those instances where only a modest portion of the total retirement income objective is met through monthly income received from Social Security and/or an employer-sponsored defined benefit pension plan. In the U. S. to date, annuitization through private annuities has been an underutilized source in meeting retirement income needs. Several explanations have been offered for this phenomenon including the presence of adverse selection in the private annuity market, individual bequest motives (e.g., parents wanting to leave assets to children), and the existence of Social Security and private defined benefit pensions that provide annuitized streams of income.[3] Although asset accumulation and diversification will remain important to baby boomers and subsequent generations as they approach retirement, it is

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[1] One year later—in 2012—this cohort will qualify for unreduced Social Security retirement benefits as they will have then met the Social Security Normal Retirement Age of 66.

[2] Medicare's hospital insurance trust fund currently is paying out more in benefits annually than it is collecting in payroll taxes. It is projected that Social Security will begin incurring annual deficits within eleven years—by 2017.

[3] Brown and Poterba, p. 528. Quite a bit of research exists focusing on the underlying rationale for annuitization. For recent studies see, for example, Brown and Poterba (2000) and Mitchell, Poterba, Warshawsky and Brown.

anticipated that distribution of these assets—especially through annuitization—will assume a much greater role in retirement planning.

This monograph focuses on Equity-Indexed Annuities (EIAs), also known simply as Indexed Annuities—a category of relatively new and increasingly popular products offered by some insurers. Annuities in general, and EIAs in particular, provide a way for individuals to accumulate additional assets to help meet their retirement income needs. EIAs and other fixed annuities provide purchasers with certain guarantees including the opportunity to annuitize these assets at contractually guaranteed rates. In addition, EIAs credit interest returns to accumulation values based on the performance of an equity index that, hopefully, will provide inflation protection for these assets.

EIAs recently have received a significant amount of criticism from both within and outside the insurance industry, and these products currently are facing increasing regulatory scrutiny. A primary purpose of this paper is to address important issues surrounding EIAs. Comparisons with other financial products will be made where appropriate. Key product features, the current EIA marketplace, and issues and criticisms surrounding EIAs also are addressed in the paper. Specific recommendations are then presented, followed by a summary and conclusions section.

Equity-Indexed Annuities Defined

Fundamentally, an equity-indexed annuity is a type of fixed annuity whose ultimate rate of return is a function of the appreciation in an external market index, with a guaranteed minimum return. As such, EIAs provide their owners with the potential for larger interest credits—based on growth in the equities market—than what might be paid on traditional fixed-rate annuities, while avoiding the downside risk that accompanies the direct investing in equities. The external market index used in EIAs is almost always the Standard & Poor's 500 Composite Stock Price Index (i.e., S&P 500), although one of several other recognized market indices might also be used.

The origin of equity-indexed annuities in the U.S. is generally traced back to 1995 when Keyport Life Insurance Company (part of the Sun Life Group) began selling its "Key Index" product early that year.[4] Arguably, EIAs are the most innovative annuity products to ever hit the U.S. market. These products have garnered a lot of excitement in the annuity marketplace and, simultaneously, have achieved record industry sales in a relatively short period of time. However, EIAs, as well as certain sales and marketing practices, are also currently the subject of controversy and criticism.

The fundamental concept that underlies all equity-indexed annuities—interest credits tied to an external market index—is a fairly simple one. However, as will be seen later, achieving a full understanding of EIA product design is not a simple task, due partly to the proliferation of product designs and interest-crediting structures that currently exist in the marketplace. Although introduced in the U.S. market more than a decade ago, EIA product design is still evolving. New products, containing one or more new features or offering variations on one or more "old" features, are introduced into the marketplace on a relatively frequent basis. Furthermore, a number of contract features—not just the change in the external market index—affect the financial performance of equity-indexed annuities.

The major features, or components, of EIA product design are described later in this report. However, it is important to note here that for many contract features the insurer has a variety of options from which

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[4] Tiong, p. 149.

to choose in designing an EIA product. As a result, the current EIA marketplace contains hundreds of variations in EIA product design. Many insurers have multiple EIA products, each one designed to address a differing set of customer needs and objectives.

Several basic concepts underlie all EIA product designs, however, and a grasp of these fundamentals should contribute to a better understanding of EIAs and how these innovative products are similar to, and yet different from, other annuity products:

- Nearly all equity-indexed annuities purchased in the U.S. today are of the "deferred" variety. This means that the purchaser anticipates that a significant period of time (usually several years or longer) will elapse between the time the first (and, possibly, only) premium payment is made into the contract and the point at which, if ever, the contract holder annuitizes the contract and begins receiving periodic income payments. A few immediate EIAs can be found currently in the marketplace in which the principal is annuitized within a very short period of time after purchase.

- Most EIAs in the U.S. are purchased with a single premium, although some contracts exist that can be purchased with multiple, periodic premiums.

- EIAs generally are considered to be a type of fixed annuity since they contain minimum guarantees as to principal and interest. Like all fixed annuities, non-registered EIAs specify guaranteed minimum rates of interest that are used to calculate cash surrender values and guaranteed minimum accumulation values.[5] Guaranteed interest rates are fixed, and do not change, throughout the life of the policy. Interest-crediting rates—applied to EIA accumulation values—in excess of the guaranteed amounts are tied to an external market index, e.g., S&P 500.[6] Due to the presence of these equity-index-linked returns, there are some who believe that all EIAs—like variable annuities—should be registered as securities with the SEC. Opponents of this view emphasize that EIAs possess significant guarantees beyond what variable annuities can offer and that these important guarantees are what differentiate EIAs from variable annuities, mutual funds and other types of securities.

- A limited number of EIAs issued by a couple of insurers are registered as securities with the Securities and Exchange Commission (SEC). Currently, these products account for only a very small share of total EIA sales. Registered EIAs are not subject to state insurance regulations that apply to fixed annuity products. In many ways, they are similar to traditional variable annuities in that they do not have to provide guarantees of principal, a minimum interest-crediting rate or minimum cash values. The primary difference between registered EIAs and variable annuities is that EIA returns are directly tied to a recognized external market index, while variable annuity accumulation values generally are based on the investment performance of one or more (insurer) separate accounts that physically own and hold securities.[7] In comparison to non-registered EIAs, registered EIAs usually provide

[5] It is important to recognize the distinction between an annuity contract's accumulation value and its cash surrender value. Generally, a policy's cash surrender value is defined as the greater of (1) the accumulation value less any surrender charges, or (2) the guaranteed minimum value required under the standard nonforfeiture legislation. During the period of time when surrender charges (e.g., 5 years, 7 years, 10 years or longer) are applied, an annuity's cash surrender value will be smaller than its accumulation value.

[6] Many EIA products permit contract owners to allocate a portion of the premium to a traditional fixed interest account where the earnings rate is fixed and not based on an external market index. In these instances contract owners generally are permitted to move monies between the fixed interest rate account and the index-linked account once a year on the policy anniversary date.

[7] Under EIA contracts, including registered EIAs, there is no physical ownership of the securities that make up the external market index (see below).

greater participation (to the contract owner) in increases in the market index but also reduce contract values when the external index declines in value due to the absence of guaranteed minimum values.

- As an annuity contract, EIAs contain lifetime income options (i.e., annuitization options) that offer a guaranteed income stream for a specified number of years, for the lifetime of the annuitant (and, possibly, a beneficiary), or for the greater of a specified number of years and the annuitant's lifetime. Similar to other annuity types, to date very few EIAs have been annuitized, however.

To summarize, nearly all EIAs in the marketplace today are fixed annuities with an interest credit that varies according to changes in an external market index, subject to a guaranteed minimum crediting rate. EIAs are typically purchased with a single premium, although they may be purchased with periodic, installment premiums. In fact, flexible-premium products are appearing with greater regularity. When purchased with a single premium, the funds frequently come from the liquidation of certificates of deposit (CDs), mutual funds, or individual stocks and bonds.

Unique Benefits of EIAs

The principal and minimum rate-of-return guarantees provide the EIA purchaser with protection against downside market risk and the assurance of, at least, a modest return.[8] The index-linked interest-crediting feature embedded in EIA product design provides the purchaser with the opportunity for higher returns during periods of escalating values in the securities markets. Many risk-averse individuals desire protection against declines in equities markets while still having an opportunity for long-term growth. EIAs with their built-in guarantees and index-linked interest crediting-mechanism help purchasers achieve these objectives, which likely explains much of their popularity.

EIAs, Variable Annuities and Mutual Funds: A Comparison

To achieve an even fuller understanding of equity-indexed annuities as well as some of their benefits and drawbacks, it is instructive to compare and contrast EIAs with variable annuities and mutual funds.

EIAs vs. Variable Annuities

A non-registered EIA is an insurance company "general account" product just like traditional fixed annuities and non-variable life insurance policies (e.g., term, traditional whole life and universal life). As such, insurer assets generated from the sale of these contracts are commingled for investment purposes, and all assets in the insurer's general account are available to support any and all contingent claims arising from these contracts. General account products always include certain insurer guarantees—most notably, guarantees of principal and a minimum rate of return.

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[8] In recent years, when market interest rates have been unusually low, minimum interest guarantees (e.g., 3 percent) have proven to be particularly valuable to owners of fixed annuities—especially of the traditional variety. The minimum guarantee for EIA products is less than the minimum guarantee provided by traditional fixed-rate annuities. As such, all EIAs present an additional element of financial risk to the purchaser, in comparison to traditional fixed annuities, due to the lower guarantee. However, EIAs have a greater potential for higher interest credits than do fixed-rate annuities.

In contrast, variable annuities (VAs) are a "separate account" product where there is no commingling of the assets backing these products with the assets supporting other separate account products nor with the assets that underlie the insurer's general account products. Any gains or losses to the assets (typically securities) in the VA separate account are reflected directly and immediately in the VA contract owners' accumulation values. As such, the investment risks associated with assets held in separate accounts are passed through to, and borne by, the VA purchaser. In addition, the upside potential in VA contracts is not limited, or capped, as is the case with EIAs.

Similar to EIAs, returns under VA contracts are tied to the equity (or bond) markets. However, purchasers of variable annuities generally are provided with a number of investment sub-accounts where they may direct a portion (or all) of their VA accumulation values. VA contract holders are allowed to change their investment allocations among sub-accounts periodically, sometimes as often as daily, and the returns and VA contract values vary according to the performance of the selected investment portfolios (i.e., sub-accounts). As such, VA products provide their owners with considerably greater investment flexibility than do EIAs even in those instances where the EIA purchaser is allowed to choose between several external indices or between an equity index and a fixed-rate allocation.

Traditionally, VA contracts in the U.S. have offered guaranteed minimum death benefits but they have not contained any guarantees relating to principal or a minimum rate of return. However, although not at the same level of EIA guarantees, newer VA products frequently contain one or more guaranteed living benefits (GLB). One popular GLB is the guaranteed minimum *accumulation* benefit (GMAB). [9] A variable annuity containing a GMAB may contain multiple maturity dates (e.g., every five years). In this instance, the contract guarantees a minimum accumulation value—possibly equal to paid premiums, or principal—at the end of the initial five-year period. The accumulation value at the initial maturity date equals the greater of the GMAB and the VA fund balance based on actual credited investment returns. This amount becomes the "new principal" in the VA contract. If the contract owner decides to renew the VA for another term, this process is repeated with the GMAB at the end of the second five-year term set equal to the "new principal" amount.

Although a valuable benefit in variable annuity contracts, the "guarantee" in the GMAB is not at the same level as the principal guarantee embodied in equity-indexed annuities. Specifically, no minimum guarantees apply to underline cash (accumulation) values prior to the maturity of the GMAB in a variable annuity contract. Furthermore, the VA's accumulation value from the previous period—i.e., the "new principal—is not "locked-in" at renewal. That is, interim cash-out values during the second five-year period could fall below the "new principal" guarantee until the end of the second five-year period, at which time the GMAB would kick-in again. In contrast, EIA accumulation values never fall below their guaranteed amounts and interest credits, once locked-in, cannot be lost or forfeited.

A key regulatory difference between VAs and most EIA products is that VAs are considered to be securities and must be registered with the Securities and Exchange Commission (SEC). As such, purchasers must be provided with a prospectus, and VAs can be sold only by registered representatives possessing the requisite securities and insurance licenses. Although many EIAs are sold by registered representatives, a securities license is not a requirement to sell an EIA unless it is a registered product. Sellers of non-registered EIA products must hold the appropriate (state) insurance license as is true for other fixed annuities.

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[9] Other types of guaranteed living benefits (GLBs) include: (a) guaranteed minimum *maturity* benefit (GMMB), (b) guaranteed minimum *surrender* benefit (GMSB), and (d) guaranteed minimum *income* benefit (GMIB). See Hardy for an extensive treatment of guaranteed living benefits and other investment guarantees embedded in annuities and life insurance contracts.

VA purchases have long been subject to a "suitability" screening requirement. As part of a general concern about potential market conduct issues surrounding the sale of life insurance and annuity products, several years ago the National Association of Insurance Commissioners (NAIC) adopted a model regulation entitled *Suitability of Sales of Life Insurance and Annuities* requiring that producers make suitable recommendations. This model regulation applies equally to EIAs and traditional fixed annuities. Suitability requirements necessitate the collection of certain financial and other information about the purchaser that is then open for inspection and review by the issuing insurers and appropriate regulatory authorities.

EIAs (and VAs) vs. Mutual Funds

Annuity contracts, including traditional fixed annuities, EIAs and VAs, possess certain income tax advantages that do not inure to mutual funds. Specifically, taxation of interest income or investment gains in annuity contracts is deferred until these amounts are withdrawn from the contract. At distribution, the income portion of the distribution is taxed at ordinary income rates. More favorable long-term capital gains tax treatment is not available to distributions or withdrawals from EIAs, traditional fixed annuities and VAs even though the contract has been in force for more than one year prior to the distribution. An additional tax may be assessed in the event that a distribution from an annuity contract is made prior to the contract owner reaching age 59 ½. Specifically, if the distribution constitutes a "premature withdrawal" under IRS rules and regulations, an additional "10 percent penalty tax" is imposed.

In the case of mutual funds, unless part of a qualified plan[10] [e.g., 401(k)], interest income, dividends, realized gains on the sale of securities by the mutual fund, and sales of mutual fund shares themselves are taxed currently with no possibility of deferral to a later point in time. Net gains from the sale of mutual funds enjoy the more favorable long-term capital gains tax treatment to the extent that the fund shares are purchased at least 12 months prior to their sale.[11] Realized gains from the sale of securities within the mutual fund that are then credited to the account of the mutual fund shareholder also are eligible for the lower taxation if the mutual fund has owned the stock for 12 months or longer. Finally, "qualified dividend income" distributed to shareholders from equity (and balanced) mutual funds also are eligible for the reduced tax rate.[12]

It should be further noted that purchasers of EIAs do not acquire partial ownership rights to a collection, or basket, of securities, nor do they acquire partial ownership rights in a mutual fund as is true for purchasers of variable annuity contracts. Consequently, while purchasers of EIAs are provided with interest credits that are tied to gains in an equities index, they are not entitled to any dividends paid on stocks that comprise this index. In direct contrast, owners of individual securities, most variable annuity contract holders, and owners of mutual funds (including index funds since these funds purchase and hold individual stocks) benefit from any dividends paid on stocks held in the underlying investment portfolio. Of course, mutual funds offer no guarantees to their purchasers whereas EIA contracts provide their owners with several significant guarantees, as described earlier.

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[10] For purposes of this report a *qualified* plan is any type of retirement plan that receives special (favorable) tax treatment under the Internal Revenue Code. Generally speaking, *qualified* plans include IRAs, 401(k), 403(b), 457 and Keogh plans and other vehicles that are tax-qualified with the Internal Revenue Service.

[11] Currently, net long-term capital gains are taxed at either 15 percent or 5 percent (for individuals in lower income tax brackets).

[12] Generally, distributions from U.S. corporations and certain foreign corporations are eligible to be treated as "qualified dividends." Equity and balanced mutual funds may distribute "qualified dividend income" (QDI) to their shareholders, but dividends distributed from money market and bond mutual funds are not eligible for the lower tax rates and will not constitute QDI.

Equity-Indexed Annuity Product Design

The design of equity-indexed annuities is non-uniform across competing insurers and forever changing. Various carriers offer multiple EIA products allowing purchasers to select a product that best fits their needs. The variety of features is extensive and it is impossible to address here all the permutations in product design that currently exist in the marketplace today or what might be offered in the near future. Rather, we will focus on generic descriptions of the main features of EIA product design. It is exceedingly important, however, for prospective purchasers to acquire a full understanding of these features, and their relative benefits and tradeoffs, to enable them to make an informed decision concerning the possible purchase of an equity-indexed annuity.

Key EIA contract features include the following:

- **Tied Index**—the specific market index utilized in the EIA (e.g., S&P 500).
- **Indexing Method**—the specific approach used to measure change in the tied index; a single ending-index value or an average of several index values (e.g., consecutive monthly values) might be used to measure movement in the tied index.
- **Index Term**—the period over which index-linked interest credits are measured—generally either annually or over the entire period between the date of purchase and the end of the surrender-charge period.
- **Simple or Compound Interest**—interest can be earned on the principal amount only (i.e., simple interest) or, alternatively, interest can be earned on the principal as well as the interest credited in earlier time periods (i.e., compound interest).
- **Surrender Charges**—charges assessed against the accumulation value upon premature withdrawal of funds from the contract.
- **Minimum Guarantees**—principal, interest and annuitization guarantees.
- **Participation Rate**—the percentage (e.g., 80 percent) of the gain in the tied index that is incorporated into the calculation of the index-linked interest-crediting rate.
- **Yield Spread**—a percentage (e.g., 2 percent) that is deducted from an increase in the tied index as part of the process of determining the amount of index-linked interest that will be credited to the accumulation value.
- **Interest Rate Cap**—a ceiling, or limit, placed on the amount of index-linked interest that will be credited to the accumulation value.
- **Other**—including premium bonuses, market value adjustments (MVAs) and riders.

Each of these terms is described at length below. But it should be remembered that, due to the myriad of possibilities, it is unlikely that every EIA in the marketplace will be fully circumscribed by the general discussion that follows.

Fundamental Concepts and Definitions

Tied Index. Each and every EIA contract ties the actual interest-crediting rate, in excess of the guaranteed rate, to an external market index. Different EIA products may use varying indices. Some EIAs allow the contract owner to allocate individual portions of the premium between two or more indices and may also permit a portion of the premium to be allocated to a fixed interest rate option[13]

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[13] Interest credits under this option are not linked to the performance of the tied index. Rather, they are determined in a manner similar to that used in traditional fixed (rate) annuities that incorporate a one-year rate guarantee. The initial interest rate is specified at policy issuance and typically is guaranteed for the first policy year. Subsequent crediting rates are usually declared annually by the insurer and

within the EIA contract. In these instances owners are usually allowed to change their allocations annually on policy anniversary dates.

The majority of EIA products are based on the S&P 500 Composite Stock Price Index (or simply, S&P 500). In theory, however, any market index that tracks the performance of a specific collection of securities, a segment of a securities market, or the entire market could be used. While many, if not most, EIA contracts specify a single index, some EIA products permit purchasers to choose one or more indices from a group of prescribed indices. This latter category of EIAs frequently permits the contract holder to change from one external index to another at one or more times during the term of the contract.

In addition to the S&P 500, other market indices used by some EIAs include the DJIA, Nasdaq 100, Mid-Cap 400, Russell 2000, and the Lehman Bond index. Of course, different indices pose varying levels of risk to the EIA purchaser. To illustrate, an interest-crediting rate tied to the S&P 500, on average, would be expected to vary from one period to the next to a lesser extent than an interest-crediting rate tied to the Nasdaq 100. Market indices other than the S&P 500 are currently offered by approximately one-fourth of EIA carriers. At the present time, however, approximately 95 percent of sales are for S&P 500 indexed products, with very little money flowing into any of the other indices.

Indexing Method. The indexing method measures the amount of change in the tied index that is credited to the EIA's accumulation value. Gains in the external index typically are measured monthly, annually, biennially, or over the entire contract term, depending on the specific indexing method used. Most indexing methods used in the U.S. fall into one of three broad categories: Point-to-Point, High Water Mark and Annual Reset.[14] The leading EIA industry sales report further classifies Annual Reset methods into: (1) Annual Reset—No Averaging; (2) Annual Reset—Averaging; and, (3) Annual Reset—Monthly Cap Gain.[15] Collectively, the Annual Reset interest-crediting methods currently account for nearly all of new EIA sales.

Index Term. The index term of an EIA contract is the period during which index gains are measured and corresponding index-linked interest credits are locked-in and added to the EIA's accumulation value.[16] Annual Reset interest-crediting methods generally use an index term of one year that corresponds to a policy year. On each policy anniversary date a new index term begins and lasts until the end of that policy year. In contrast, index terms for traditional Point-to-Point and High Water Mark methods are multi-year periods, generally ranging in length from five to 15 years or longer, with index terms of seven to 10 years being the most common.

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take effect on policy anniversary dates. These interest rates will likely vary from year to year, subject to a guaranteed minimum crediting rate (e.g., 2 percent).

[14] See below for an extensive discussion of the indexing methods commonly used in EIAs.

[15] Jack Marrion, *Advantage Index Product Sales & Market Report* (Advantage Compendium, Ltd: Maryland Heights, MO).

[16] An EIA's "index term" should be carefully distinguished from the "term" of an EIA (or the "term" of any other annuity product for that matter). Unfortunately, a certain amount of confusion frequently surrounds the use of the word "term" when describing EIAs and other types of annuities. Some individuals when commenting on an annuity's "term" may, in fact, be referring to the length of time that surrender penalties may be assessed. Others more correctly point out that the "term" of any annuity contract is the period of time between the purchase date and the contract's maturity date (typically defined in the contract as when the annuity owner reaches age 85, 90 or 100). At contract maturity—that is, at the end of the "term"—the contract's accumulation value must be paid out either as a lump sum or as a periodic income stream.

Under traditional Point-to-Point EIAs, the index term and the surrender-charge period are generally the same length. Further, the traditional Point-to-Point product typically contains a single index term, although some Point-to-Point EIAs provide for multiple index terms, separated by a short period of time (e.g., 30 days) during which the contract holder is permitted to withdraw all funds from the contract with no surrender charges or other penalties being imposed. While the majority of EIAs are purchased with a single premium, some EIA contracts are purchased with periodic, or installment, premiums. In these instances, the payment of each subsequent premium may trigger a new index term with respect to that premium payment.

Simple Interest or Compound Interest. Whether an EIA, traditional fixed-rate annuity, or any other financial product (e.g., certificate of deposit) determines its interest credits on the basis of simple or compound interest can lead to different accumulation values. When interest credits are based on simple interest, interest is earned only on the original premium (or principal). In contrast, when interest is compounded, interest is earned on both the premium and any prior interest credits during the term resulting in a larger accumulation value at the end of the term. Regardless of whether an EIA credits simple or compound interest *during a term*, it generally compounds the credited interest from one term to any successive term.

Let's assume that we want to invest $1,000 for a period of five years. We are presented with two investment opportunities—one offering 8 percent simple interest per year and the other also providing an 8 percent yearly return but with annual compounding of interest. Under the simple interest scenario, the fund will accumulate to $1,400 at the end of the five-year period {$1000 x [1 + (.08) + (.08) + (.08) + (.08) +(.08)]}. In contrast, with interest compounded annually, the fund in the second scenario will equal $1,469 (rounded to the nearest dollar) at the end of five years {$1,000 x [(1.08) x (1.08) x (1.08) x (1.08) x (1.08)]}—resulting in a difference of $69. The more frequent the compounding (e.g., quarterly instead of annually) and the longer the term (e.g., 10 years instead of 5 years), the larger the difference in the amounts of interest credited under these two approaches.[17]

Surrender Charges. Most traditional fixed-rate annuities and variable annuity contracts assess a charge in the event of an "early surrender" of the contract. Surrender charges are imposed to help the insurer offset a portion of, or all of, the sales costs (i.e., agent commissions and related selling expenses) and other costs associated with the issuance of these contracts that otherwise would be recoverable in future years had these policies stayed in-force with the insurer. For policies staying "on the company's books," the insurer hopes to recover the "upfront costs" from investment returns that are higher than the amounts credited under the contract. Surrender charges can also have beneficial trade-offs in the financial performance of a contract since they discourage individuals from "cashing in" their contracts. For example, in the case of fixed-rate annuities, the expectation of fewer surrenders means that insurers can take a longer position (i.e., longer maturities) on its underlying investment portfolio in an attempt to generate higher returns.

Most equity-indexed annuities also impose a withdrawal penalty, or surrender charge, when the contract owner cashes in the EIA prior to the expiration of a prescribed period. Many EIA products incorporate surrender charges that last 10 years, 15 years or longer.[18] Lengthy surrender-charge

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[17] The generalized formula for computing a future value using simple interest is: $FV = PV [1 + (i \times n)]$.
Whereas, the generalized formula for computing a future value with annual compounding of interest is:

$FV = PV [1 + i]^n$. In both formulas, FV = future value, PV = present value, "i" is the interest rate, and "n" is the number of years over which interest is earned.

[18] It should be noted that one or more states currently limit the maximum length of the surrender-charge period in all deferred annuity contracts.

periods can be a serious drawback in instances where there is a significant chance that the funds may be needed prior to the expiration of the surrender-charge period. To combat this disadvantage and, simultaneously, to provide EIA purchasers with additional financial flexibility, most EIAs allow limited "surrender-charge-free," or "penalty-free," withdrawals when certain requirements are met. Penalty-free withdrawal provisions normally take effect after the first contract year, and most provisions permit annual withdrawals of either 10 percent of the accumulation value or 10 percent of the premium. Care should be exercised in all partial-withdrawal (and early-surrender) situations since all interest withdrawn is currently taxable and is subject to an additional 10 percent tax if the withdrawal is deemed to be a premature distribution under IRS rules and regulations.

It is important to note that EIA products containing longer surrender-charge periods and/or higher surrender charges frequently provide additional benefits to contract owners. Such benefits may include the payment of premium bonuses, the incorporation of a higher participation rate (or higher interest rate cap or lower yield spread), and the inclusion of other more favorable contract terms. Thus, individuals who keep their EIAs until the end of the surrender-charge period can benefit from the presence of longer/higher surrender charges through the enhanced financial performance of their contracts. On the other hand, individuals who receive the cash surrender value from their EIA policies prior to the end of the surrender-charge period will experience a drastically different outcome. Cash surrenders during this time will trigger a forfeiture of a portion of the contract's accumulation value due to the subtraction of a surrender charge. Some EIAs also apply a market value adjustment (MVA) to the accumulation value when the contract is surrendered during the surrender-charge period.[19] Depending on the actual size of the surrender charge as well as the magnitude of any market value adjustment that is applied, cash surrender of an EIA contract may trigger a partial or full loss of any previously granted premium bonuses and interest credits, in addition to a partial loss of premium.

A review of EIAs listed on www.indexannuity.org –a Web site sponsored by Advantage Compendium— discloses many different patterns of surrender charges included in EIAs.[20] Below are several examples chosen to illustrate the variety in both the size of the surrender charges and the length of the period during which these charges are imposed.[21]

7-year period: 8%, 7%, 7%, 6%, 6%, 5%, 5%
7-year period: 10%, 9%, 8%, 8%, 6%, 5%, 3%

10-year period: 10%, 9%, 8%, 7%, 6% 5%, 4%, 3%, 2%, 1%
10-year period: 12%, 12%, 12%, 11%, 10%, 9%, 8%, 7%, 6%, 4%

12-year period: 15% for each of the first five years, then decreasing to zero
12-year period: 20% first year, then decreasing to zero

The numbers and percentages of EIA products, classified according to the length of their surrender-charge period, are noted later in this report. Suffice it to say at this point, however, that 70 percent of EIA products currently being marketed incorporate a surrender-charge period of 7 to 12 years inclusive,

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[19] See later section of this report, titled "Other Features," for a discussion of MVAs.

[20] Advantage Compendium describes itself as an independent (non-producer) research and consulting firm. The organization is based in Maryland Heights, Missouri and regularly conducts research on equity-indexed annuities. Its publication, *Advantage Index Product and Sales Report,* provides quarterly reports on EIA sales and product characteristics.

[21] A new surrender-charge period may apply to each new premium payment under some EIA contracts.

with the highest percentages at 10 years (22 percent) and 7 years (20 percent). In addition, a small number of EIAs require that, ultimately, the accumulation value be annuitized and these contracts impose penalties—similar to those described above that apply upon cash surrender—if a contract owner does not comply with the annuitization requirements.

Most EIAs do not assess a surrender charge in those instances where the EIA is cashed in as the result of the death of the contract owner. But before "signing on the dotted line," or at the very least prior to the end of any "free-look period," purchasers of EIAs—and other annuity and life insurance contracts, for that matter—are advised to acquire a full understanding of all contract provisions that pertain to surrenders, partial withdrawals and the imposition of surrender charges.[22]

Minimum Guarantees. As is the case with all fixed annuities, issuers of EIAs provide purchasers with several different types of guarantees, most notably: (a) a guarantee of principal (i.e., paid premium), (b) a guaranteed minimum interest credit, and (c) a set (or table) of guaranteed "annuity purchase rates." Annuity purchase rates specify the amount of monthly income payable, per $1000 of accumulation value, when the contract owner elects one of the annuitization options (e.g., single life annuity, joint and survivor annuity, etc.). The following discussion focuses on the other two types of contractual guarantees—namely, guarantees of principal and minimum interest credits.

The fundamental "principal guarantee" contained in EIAs and other fixed annuities means that the issuing insurer makes a promise to the annuity owner that he or she, at all times, is entitled to an "accumulation value" that is at least equal to the premiums paid into the annuity contract. This contractual promise applies even if the issuing insurer experiences a significant decline in the market value of the (general account) assets that underlie the issuer's portfolio of annuity contracts. Uniquely to EIAs, however, a guarantee of principal also means that the contract owner is protected against downside market risk in the event that the tied external index declines in value between the date of purchase and some later point when the owner cashes in the policy or annuitizes the contract. Notwithstanding this "principal guarantee," as was noted in the preceding section, purchasers of EIAs (as well as traditional fixed-rate annuities) may receive some amount less than the full premium if the contract is surrendered for its cash value prior to the end of the surrender-charge period.

Issues relating to "principal and interest guarantees" may be more easily understood by recognizing that an equity-indexed annuity actually has three separate (contract) values. These three values are:

- Accumulation Value
- Cash Surrender Value
- Guaranteed Minimum Value

The EIA purchaser is entitled to only one of these three values at any point in time. However, the specific value received will depend on when, and in what form, the owner takes money from the annuity. For example, the contract owner is entitled to the full **accumulation value** only if the contract remains in force through the end of the surrender-charge period. If surrendered prior to this point in time, the EIA owner will receive the policy's **cash surrender value**—an amount that is likely to be less than the policy's accumulation value due to the deduction of a surrender charge and, possibly, the

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[22] Most states require that purchasers of annuity and life insurance contracts be provided a "free-look period" (e.g., 10 days) during which they can read and examine the contract and, if they desire, return the policy to the insurer and receive a full refund of their premium.

application of a market value adjustment (MVA).[23] By law, however, surrender charges and any other adjustments, including MVAs, cannot cause the policy's cash surrender value to fall below the contract's **guaranteed minimum value**.

An EIA's **accumulation value** typically is the highest of the three values. At any point in time, the accumulation value consists of all premiums paid into the contract, plus any premium bonuses, plus index-linked interest credits and/or fixed interest credits, less any prior withdrawals. It is the policy's accumulation value to which the insurer's "premium guarantee" applies. As such, an EIA's accumulation value will always be at least as large as the sum of all premiums paid into the contract. Furthermore, once bonuses and interest are credited to an EIA's accumulation value, these amounts—like premiums—can not be lost due to a future decline in the external market index, although they may be lost if the policy is surrendered for its cash value.

The **cash surrender value** under an EIA contract is equal to the policy's accumulation value less any surrender charges, plus or minus any market value adjustment (MVA) that is applied. Surrender charges generally decline over time and are expressed as a percentage of the accumulation value or, in some instances, as a percentage of paid premiums. EIAs that incorporate an MVA frequently apply the adjustment only during the surrender-charge period. Surrender charges and/or a (negative) MVA may trigger a partial loss of premium and a partial or full loss of any premium bonus and index-linked and/or fixed interest previously credited under the contract.

Let's consider the following hypothetical example to further illustrate the relationship between accumulation values and cash surrender values. For simplicity, we will assume that the contract does not call for an MVA at the time of surrender.

> **Assume the following:**
> - Premiums paid into the contract equal $10,000
> - A "bonus" of 10 percent of paid premiums (i.e., $1,000) is credited to the contract's accumulation value[24]
> - $2,000 of index-linked interest (and fixed interest) has been credited to the accumulation value prior to contract surrender
> - At time of surrender, a surrender charge of 8 percent is applied to the contract's accumulation value

In the above scenario, the EIA contract's accumulation value, immediately prior to surrender, equals $13,000—an amount well in excess of the premiums paid into the contract. However, if the owner chooses to surrender the EIA contract at this time, he or she will be entitled to the lesser cash surrender value amount of $11,960 (92 percent of $13,000) due to the imposition of the 8 percent surrender penalty. In this example, the cash surrender value of $11,960 is still in excess of the $10,000 in paid premiums. This will not be the case in all scenarios, however. The simplest way to illustrate this fact is to modify the above example by assuming that there is no "premium bonus" and that there have been no interest credits (to the accumulation value) to date. Under this revised scenario, the accumulation value is $10,000 and the cash surrender value is $9,200 (92 percent of $10,000). The revised scenario illustrates the important point that even in situations where no premium bonus is paid

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[23] An MVA can be greater or less than 1.0, depending on market conditions. In the event that it is significantly larger than 1.0, it is possible that the resulting upward adjustment exceeds the surrender charge deduction, in which case the cash surrender value will exceed the contract's accumulation value.

[24] For a discussion of "bonuses" (i.e., "premium bonuses") see the section entitled "Other Features" that appears later in this report.

and there have been no interest credits to date (possibly due to an environment where the external index consistently declined in value between the purchase date and the date of contract surrender), the accumulation value will still equal paid premiums—thus, meeting the "principal guarantee." The cash surrender value in the revised scenario, however, is less than paid premiums, which is entirely possible since the contract's "premium guarantee" does not apply to the cash surrender value.

It is exceedingly important to note that any downward adjustments to the accumulation value, triggered by a policy surrender during the surrender-charge period, cannot cause the EIA's cash surrender value to fall below a **guaranteed minimum value** specified in the contract. In states that have adopted recently revised nonforfeiture regulations, the guaranteed minimum values under newly issued contracts must be at least 87.5 percent of all premiums paid (less withdrawals), accumulated at an interest rate between one percent and three percent (inclusive), compounded annually. In-force EIA policies, issued prior to the adoption of the new nonforfeiture regulations, may have guaranteed minimum values based on a percentage of the premium that is lower than 87.5. Insurers are permitted by state law to offer EIA policies with guaranteed minimum values based on a percentage of the premium in excess of 87.5, and they frequently do so. In fact, some insurers base their guaranteed minimum values on 100 percent of paid premiums, at least for some of their EIA products.

When the stated guaranteed interest rate (in determining guaranteed minimum values) is applied to some amount less than the full premium—the usual situation—the effective interest rate is lower than the stated, or guaranteed, rate. For this reason it is critically important for insurers and their representatives to always express the minimum guarantees in terms of both the stated interest rate and the percentage of premium to which the guaranteed rate applies. In instances where the guaranteed interest rate applies to something less than 100 percent of the premium, statements that specify only the guaranteed rate of interest are misleading and will likely create confusion and misunderstanding on the part of EIA purchasers.[25]

Table 1 depicts actual guarantees contained in several EIA contracts previously listed on the www.indexannuity.org Web site. Many other possibilities also exist. Although many of the stated guarantees illustrated in Table 1 have no practical relevance to newly issued EIA contracts due to the recent change in nonforfeiture regulations,[26] they are illustrative of minimum guarantees contained in many in-force EIA contracts issued prior to this regulatory change. Further, even though the "guaranteed minimum values" and "annual effective interest rates" shown in Table 1 are calculated as of the end of the surrender-charge period, it should be pointed out that the guarantees illustrated in Table 1 continue to apply to the calculation of guaranteed minimum values beyond the end of the surrender-charge period.

The guaranteed minimum values contained in Table 1 are based on an initial premium of $1,000, assuming annual compounding of interest.[27] Total interest credits (i.e., guaranteed minimum values minus the $1,000 initial premium) at the end of the respective surrender-charge periods are of modest size for all nine contracts and are reflective of the fact that the stated guaranteed interest rate is applied to an amount less than 100 percent of the premium. The "guaranteed minimum values" not only serve as floors (or minimums) for the EIA's cash surrender values but also as floors/minimums for an EIA's accumulation values at the end of the surrender-charge period. Also note that the guaranteed minimum values (and, consequently, the guaranteed minimum accumulation values) at the end of the surrender-charge period for all nine illustrated contracts are at least as large as the paid premium of $1,000. Thus,

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[25] It is also important to note that a similar type of misunderstanding may occur, for example, with regard to the performance of "front-end" loaded mutual funds since the front-end loads are not included in the standard calculations of the mutual fund's performance.

[26] Namely, contracts B, C, E, F and H.

while accumulation values are always guaranteed to be at least equal to paid premium (both during and after the surrender-charge period), guaranteed minimum values are always as large as paid premium at the end of the surrender-charge period.

Table 1
Stated Guarantees, Guaranteed Minimum Values and Effective Interest Rates

Equity-Indexed Annuity Contract	Stated Guarantee	Length of Surrender-Charge Period	Guaranteed Minimum Value at End of Surrender Period	Annual Effective Interest Rate
A	3 percent on 90 percent of the premium	5 years	$1,043.35	0.85%
B	3 percent on 80 percent of the premium	10 years	$1,075.13	0.73%
C	3 percent on 75 percent of the premium	14 years	$1,134.44	0.91%
D	2.25 percent on 90 percent of the premium	8 years	$1,075.35	0.91%
E	2.25 percent on 85 percent of the premium	12 years	$1,110.14	0.87%
F	2.25 percent on 80 percent of the premium	17 years	$1,167.79	0.92%
G	2 percent on 90 percent of the premium	12 years	$1,141.42	1.11%
H	2 percent on 86.5 percent of the premium	15 years	$1,164.18	1.02%
I	1.75 percent on 90 percent of the premium	7 years	$1,016.21	0.23%

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[27] An initial premium of $1,000 is assumed for ease of calculation and interpretation. Most EIAs, however, require an initial premium of $5,000 or $10,000, or $2,000 if part of a qualified plan—IRA, 401(k), 403(b), 457, Keogh, etc.

The "effective" interest rates, based on the minimum guarantees, are shown in the last column of Table 1. Effective interest rates are the annual interest-rate-equivalents calculated on 100 percent of the premium (i.e., $1,000) and are derived according to the following formula:

Effective rate of interest = $\{[(1 + r)^n \times \text{(percentage of premium)}]^{1/n} - 1\}$
Where r = stated interest rate and n = number of years

Example—"A" in Table 1:
Assumptions: r = .03, n = 5, percentage of premium to which the stated rate is applied = 90 percent

$$\text{Effective rate of interest} = \{[(1.03)^5 \times (.90)]^{1/5} - 1\}$$
$$= \{[(1.03) \times (.90)^{1/5}] - 1\}$$
$$= \{[(1.03) \times (.97915)] - 1\}$$
$$= \{1.0085 - 1\}$$
$$= .0085 \text{ or } 0.85 \text{ percent}$$

Each of the annual effective interest rates shown in Table 1 is quite small and well below the corresponding stated guaranteed interest rate. All but two of the nine <u>effective</u> interest rates are below 1.0 percent even though all of the <u>stated</u>, or <u>guaranteed,</u> interest rates are between 1.75 percent and 3.0 percent, inclusive. The effective rate will equal the stated interest rate only when the stated interest rate is applied to 100 percent of the premium. Some EIAs do apply their interest rate guarantee to the full premium, although the majority of EIA contracts provide for the crediting of the guaranteed rate to an amount that is less than 100 percent of the premium.

Great care should be exercised when comparing the annual effective interest rates for competing EIA products, especially when the effective rates are calculated over different time periods. To illustrate, let's compare contracts A and E in Table 1. E's annual effective interest rate of 0.92 percent is slightly higher than A's effective interest rate of 0.85 percent. This appears counter-intuitive since E's stated minimum guarantee of "2.25 percent on 80 percent of the premium" is clearly of lesser value than A's stated minimum guarantee of "3.0 percent on 90 percent of the premium."

This apparent inconsistency is due to the differing time periods over which the effective rates are calculated. The longer (17-year) compounding period in E provides a significant boost to E's effective interest rate. For example, if 5 years—the period used for A—had been used in the calculations for E, the effective interest rate would be negative.[28] Similarly, if 17 years—the period used for E—had been used in the calculations for A, the effective interest rate would be 2.36 percent.[29] Generally speaking, the longer the compounding period in these situations, the higher the (annual) effective interest rate and the closer the effective rate becomes to the "stated interest rate." In summary, when the interest guarantee applies to an amount less than the full premium, it is inappropriate to compare effective interest rates across competing EIA products unless the two compounding periods are of the same

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[28] $\{[1.0225)^5 \times (.80)]^{1/5} - 1\} = \{[1.0225) \times (.80)^{1/5} - 1]\} = .9779 - 1 = $ a negative 2.21 percent. [Note: Although the annual effective interest rate is negative at the end of 5 years in this example, readers should remember that we're talking about the annual effective interest rates associated with **guaranteed minimum values**. The guaranteed minimum **accumulation value** at the end of 5 years is 100 percent of the premium, or $1,000, as a result of the contract's "premium guarantee" feature that applies to accumulation values.]

[29] $\{[(1.03)^{17} \times (.90)]^{1/17} - 1\} = \{[(1.03) \times (.90)^{1/17} - 1]\} = .0236$ or 2.36 percent.

length. As we have just seen, a higher effective rate for a longer time period isn't necessarily preferred to a lower effective rate over a shorter period of time.

 Similarly, due to the differing lengths of time over which the various guaranteed minimum values are calculated in Table 1, it is also inappropriate to compare and contrast these values across the nine scenarios—except for E and G where the surrender-charge periods are of the same length. In this instance, the minimum interest guarantee in G is superior to the guarantee contained in E even though its stated guaranteed interest rate is smaller (2 percent vs. 2.25 percent). Generally, the determination of which contract's "guarantee" is better is made easier when the surrender-charge periods are identical. And the determination is easily and quickly made when either the stated interest rates or the " premium percentages" are also identical. To illustrate, if both "premium percentages" are the same and the surrender-charge periods are identical, the better minimum guarantee is the one with the higher stated interest rate. On the other hand, if both stated interest rates and both surrender-charge periods are identical, the better guarantee is the one with the higher "premium percentage."

We have given a considerable amount of attention to **guaranteed minimum values** and the role they play in equity-indexed annuities. However, we need to be careful to not over-emphasize their overall significance in the EIA purchasing decision, especially considering the many other important product features embodied in EIAs. After all, if the main objective of the annuity purchase is the assurance of guaranteed interest, then a traditional fixed-rate annuity is likely to be a better choice over an equity-indexed annuity.

 It is also important to recognize that "principal," "minimum interest" and other guarantees embedded in fixed annuities (including EIAs) are always contingent on the continued financial viability of the issuing insurer.[30] To the extent that an insurer encounters serious financial difficulties, it may not be able to meet all of its contractual obligations. While a rare occurrence, some life insurers in the past have faced bankruptcy or forced liquidation and their policy owners have lost money as a result. In the event the insurer becomes insolvent, policy owners may be eligible to receive partial or full reimbursement for their losses from a state guaranty fund, depending on the nature of the loss and the specifics of the guaranty fund itself. However, neither federal financial guarantees nor federal insurance programs (such as the FDIC) provide protection to owners of annuity and life insurance contracts in the event of an insurer bankruptcy.

Prior to purchasing an EIA or any other annuity or insurance contract, it is strongly recommended that prospective buyers obtain information about the financial strength and claims paying ability of the insurer(s) under consideration. Several commercial companies including A. M. Best Co., Standard & Poor's, Moody's Investors Service, Duff & Phelps Credit Rating Organization and Weiss Research assess (or rate) insurers' financial strength. Ratings information on a specific insurer can usually be obtained from an agent or financial planner, from the insurance company, or directly from the rating companies.[31]

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[30] Principal and interest rate guarantees on certificates-of-deposit (CDs), money market funds and similar financial products offered by banks, savings and loan associations, and brokerage firms are also conditioned on the continuing viability of the issuing organization. Federal insurance programs, including FDIC, FSLIC and SIPC provide consumers with important protection in these instances, up to a maximum limit.

[31] For further information about these rating agencies, the factors examined in the rating process and the actual ratings themselves, the reader is referred to the following company specific Web sites: www.ambest.com, www2.standardandpoors.com, www.moodys.com, www.dcrco.com, and www.weissratings.com, respectively. The reader is also directed to the Insurance Information Institute's Web site, www.iii.org/individuals/life/buying/strength/, and to Black and Skipper, pp. 264-266 for comparisons of the rating scales used by these five rating organizations.

In addition to private rating agencies, state insurance departments and the National Association of Insurance Commissioners (NAIC) also can be sources of insurer financial information. As part of the NAIC's Insurance Regulatory Information System (IRIS), prospective purchasers of EIAs and other annuity and insurance products can obtain "financial ratio" information on specific insurers computed from data submitted annually by these companies to the insurance regulatory authorities in the states in which the insurers are licensed to conduct business. Financial information about (publicly held) *stock* insurers is contained in their 10-K filings with the Securities and Exchange Commission (SEC). These filings are available in many public libraries. Requests can be made directly to insurers, for information on any 10-K filings, ratings by the various rating agencies, as well as IRIS information including the publicly available financial ratios and whether these ratios are such that the insurer's financial situation has been targeted for further review by the appropriate state insurance regulatory authority.

A certain amount of financial sophistication is necessary to comprehend the significance of specific IRIS ratios and the information contained in 10-K filings. It is anticipated that most purchasers of annuity and insurance products will need assistance from a competent advisor in sorting through, and making sense out of, the available financial information on insurance companies, including the ratings assigned by various rating organizations.[32]

Participation Rate. The index-linked interest rate credited to an EIA's accumulation value invariably is lower than the full gain in the tied index over the duration of the interest-crediting period. This is usually accomplished in one or more of the following ways: (1) by applying a "participation rate" to the total index gain; (2) by deducting a stated percentage, or "yield spread," from the otherwise calculated interest-crediting rate; and/or (3) by placing a ceiling or cap on the interest-crediting rate. An EIA's participation rate is multiplied by the gain in the tied index in determining the index-linked interest that will be credited to the EIA's accumulation value. Participation rates are usually 80, 90 or 100 percent but they could be set at some other percentage. Some variations in this and other EIA policy features are not permitted in some states.[33] In addition, some EIA contracts incorporate two participation rates, with a higher rate applied to the initial index gain and a somewhat lower rate applied to any additional gains. As described below, after applying the participation rate to the gain in the tied index, the index-linked interest-crediting rate may be further reduced by a "yield spread" or limited by an interest rate cap.

Yield Spread /Margin/Asset Fee. Some EIA products deduct a percentage (e.g., 2 percent) from the index gain in calculating the index-linked interest-crediting rate.[34] This percentage deduction is commonly known as a yield spread, but it is also sometimes referred to as a margin or asset fee.[35] A yield spread can be used in lieu of, or in combination with, participation rates and/or interest rate caps. Only a handful of insurers currently market EIA products that deduct yield spreads in determining index-lined interest credits, and EIAs incorporating yield spreads account for only a small percentage of total EIA sales. At the time of the writing of this report, approximately one-half of the yield spreads listed on the www.indexannuity.org Web site equaled 2 percent, with a range of 1 percent to 4.5 percent.

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[32]For an extensive treatment of the various sources of financial information about life insurers (including rating agencies, the IRIS system and other sources), see Black and Skipper, pp. 264-274.

[33] For example, at least one state, New York, currently requires that the participation rate be 100 percent on EIAs sold in the state.

[34] When the resulting amount is zero or negative, the index-linked crediting rate is set at zero.

[35] It is important to note that a "yield spread" feature in an EIA contract operates quite differently from how mutual-fund-type asset fees are applied (with which readers may be familiar). Due to its common usage in the EIA marketplace and, more importantly, to minimize the possibility of confusion on the part of the reader, the term "yield spread" will be used throughout the remainder of this report, in lieu of "margin" or "asset fee," when referring to this feature.

Interest Rate Cap/Ceiling Rate. Many EIAs specify an interest rate cap, or ceiling rate, that establishes an upper limit on the amount of index-linked interest that will be credited to the accumulation value. The cap may be expressed as a monthly limit (e.g., 3 percent), an annual limit (e.g., 7 percent) or as a ceiling on the total amount of index-linked interest credited over the entire contract term (e.g., 50 percent). A review of the www.indexannuity.org website shows a large number of annual interest rate caps between 6.5 percent and 8.5 percent, inclusive. Some of the listed cap rates are as high as 12 percent.[36] It is also noted that interest rate caps appear with much greater frequency on this Web site than do yield spreads (nearly a 2 ½ -to-1 ratio).

When permitted by state law, insurers typically reserve the right, by contract, to change the size (up or down) of their participation rates, yield spreads and interest rate caps, subject to some guaranteed amount (a minimum or "floor" for participation rates and interest rate caps, and a maximum in the case of yield spreads).[37] Such changes (in percentages) usually can be made only once a year on the contract's anniversary date and remain in effect for the entirety of the next policy year.[38] Since they may be subject to change by the insurer, participation rates, yield spreads and interest rate caps frequently are referred to as "moving parts." [39] It should be noted that, when more than one of these features is included in a specific EIA contract, only one of the provisions is subject to change and the other provisions are fixed throughout the duration of the contract. For example, if the issuing insurer reserves the right to change the participation rate, any yield spread and/or interest rate cap included in the EIA will be guaranteed for the life of the contract. These contract provisions, used individually or in tandem with each other, play a significant role in determining the ultimate amount of index-linked interest that will be credited under a specific interest-crediting structure. As will be seen shortly, the three approaches affect the financial performance of EIAs in slightly different ways. However, they all serve a common purpose and, to that extent, the three separate types of "moving parts" are somewhat interchangeable with each other (see "Rationale . . ." section below).

When an interest rate cap is included in an EIA contract, the cap is applied after the total index gain is reduced by any participation rate (less than 100 percent) or by a yield spread. A variation in cap design occurs when, instead of capping the annual interest-crediting rate, an upper bound (e.g., 15 percent) is placed on the total percentage (annual) gain in the tied index that is used to calculate the index-linked interest-crediting rate.

It is instructive to consider the following two examples that illustrate the combined use of a participation rate and an interest rate cap (or a variation thereof):

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[36] Typically, these annual limits on index-linked interest-crediting rates are associated with the *Annual Reset* method of measuring index-linked gains discussed in detail later in this paper.

[37] For all practical purposes, the discussion in this paragraph refers only to the *Annual Reset* type of index-linked interest-crediting structures since the index term (i.e., interest-crediting period) is one year in length. In contrast, *Point-to-Point* and *High Water Mark* approaches use a multi-year period in determining index-linked interest credits and these methods guarantee their participation rates, caps and yield spreads for the entire index term. See later section of this report for an extensive treatment of Annual Reset, Point-to-Point and High Water Mark interest-crediting structures.

[38] It is interesting to note that changing the participation rate, the yield spread, or the rate cap annually under an EIA contract is similar to how insurers declare, on each policy anniversary, the interest rate that will be credited during the next contract year on accumulation values in traditional fixed-rate annuities. The declared interest rate in fixed-rate annuities—and the declared participation rate, yield spread or rate cap in EIAs—for the following contract year is disclosed to the contract owner on his or her annual statement.

[39] Arguably, when the level of index participation is not guaranteed for the life of the contract, then such participation ought to be higher than in contracts where index participation is fixed at a set rate for the duration of the contract.

Example #1

Assume that the (annual) gain in the index is 20 percent and that the EIA contains a participation rate of 80 percent. The index-linked interest-crediting rate under this scenario is 16 percent (.20 x .80), assuming no other reductions. If, however, the EIA also includes an interest rate cap of 10 percent, then the final index-linked interest-crediting rate will be set at 10 percent. On the other hand, if the index gain is 11 percent, then the index-linked crediting rate will be 8.8 percent (11 percent x .80) since this amount is less than the interest rate cap of 10 percent.

Example #2

As in Example #1, assume that the (annual) gain in the tied index is 20 percent and the participation rate is 80 percent. Now, however, assume that there is a ceiling of 15 percent placed on the amount of gain in the index that can be considered in calculating the interest-crediting rate. In this case, the index-linked interest-crediting rate is limited to 12 percent (15 percent multiplied by the 80 percent participation rate).

Other Features. Equity-indexed annuities frequently contain other contractual features in addition to those described above. For example, the majority of EIA sales today provide for an instant "**bonus**" (e.g., 5 or 10 percent of the premium) credited to the contract's accumulation value. Bonuses might be paid only on the initial premium or, for example, on premiums paid during the first five contract years. Surrendering the policy for its cash value during the surrender-charge period, however, may trigger a forfeiture of part, or all, of the bonus. Annuities paying premium bonuses may contain higher surrender charges and/or longer surrender-charge periods, lower participation rates and/or lower interest rate caps, requirements specifying that the accumulation value be annuitized, or other restrictions in comparison to EIAs that do not offer a bonus feature.

Approximately one-fourth of the insurers currently issuing EIAs (including many of the largest writers) apply **market value adjustments (MVAs)** to cash surrender values in some or all of their EIA products. An inverse relationship exists between a MVA and the change in interest rates between the time the premium is paid and when the policy is surrendered. Hence, if interest rates at time of withdrawal exceed those in effect at time of purchase, the MVA will result in a decrease in the cash surrender value; but such downward adjustments cannot cause the cash surrender value to drop below the policy's guaranteed minimum value. On the other hand, if market interest rates at the time of withdrawal are below those at time of issuance, the cash surrender value will be increased accordingly under a market value adjustment. MVAs are designed to reflect the changes in the market value of the underlying assets supporting the annuity product portfolio—typically bonds or other fixed income instruments—and to protect the insurer against financial disintermediation that might otherwise occur if the contract did not contain an MVA.[40] MVAs are not unique to equity-indexed annuities. Traditional fixed-rate annuities that guarantee a specified interest rate over a prescribed time period also frequently apply a market value adjustment (either upward or downward) when withdrawals are made from the contract prior to the end of the guarantee period.

Other benefits or riders may also be included in EIA contracts. For example, a **nursing home benefit** is frequently provided that permits an accelerated distribution of the EIA's accumulation value over a relatively short period of time if certain requirements are met.

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[40] For further discussion, see Black and Skipper, p. 172.

Rationale for Participation Rates, Yield Spreads, Caps and Interest Guarantees Applied to an Amount Less Than 100 Percent of the Premium

A common rationale underlies the inclusion in EIAs of participation rates, yield spreads, caps and a minimum interest rate guarantee that applies to an amount less than the full premium. One obvious reason is that insurers need income or revenue sources to reimburse them for sales (including agent commissions) and other marketing-related costs, other policy issuance costs, taxes (e.g., state premium taxes and federal income taxes), general administrative overhead, and to achieve a profit margin (or return on invested capital). Other not-so-obvious reasons are often overlooked and possibly misunderstood.

For example, there is always a "cost" associated with guarantees embedded in annuity and insurance contracts (and other financial contracts as well). Insurer guarantees of principal and a minimum rate of return—risk-reducing features that are integral to the appeal of EIAs—are not "free," nor is a guarantee of a minimum lifetime payout amount in the event of annuitization. There is an economic cost to the insurer arising from the transfer of these risks from the purchaser to the insurance company. If the insurer's (general account) investment portfolio suffers a decline in value, the insurer is still obligated to fulfill its principal and rate of return guarantees under its annuity and insurance contracts. Similarly, in those situations where the accumulation values in these contracts are annuitized, the insurer is financially obligated to provide the guaranteed payout amount for the life of each annuitant. In these instances, annuitants transfer the longevity risk to the insurer. Under traditional fixed annuity and non-variable life insurance contracts, insurers plan to pay for the costs of these risks by achieving returns on their (general account) investment portfolio that exceed the amounts credited (both guaranteed and any excess interest credits) to their in-force annuity and life insurance contracts.

Under equity-indexed annuities, however, insurers typically attempt to recover the cost of the embedded guarantees from purchasers by specifying a participation rate (applied to the index gain) that is less than 100 percent. Alternatively, the cost of EIA guarantees can be "repaid" to the insurer by deducting a yield spread from the index-linked gain or by imposing a cap on the index-linked interest-crediting rate.[41] Each of these contract features can be used separately, or in combination with one or more of the other provisions, to reimburse the insurer for the cost of guarantees included in EIAs.[42]

Additionally, it is important to be explore why EIA contracts incorporate a participation rate, yield spread and/or cap and why they typically apply their interest rate guarantee to only a portion (e.g., 90 percent) of the initial premium. As part of this process, we will also examine possible "trade-offs" among these separate contract provisions. To simplify the analysis, we will remove ourselves from the real world for the moment and assume that there are no sales, marketing, administrative, etc., costs or insurer profit or risk charges. This will allow us to focus on the essential mechanics of how equity-indexed annuities work. To enhance our understanding of EIAs and their unique aspects, it is useful to review briefly the basics of traditional fixed-rate annuities.

Traditional fixed-rate annuities provide contract owners with guarantees of principal and a minimum rate of return. While excess interest credits (above the guaranteed interest rate) also are typically paid,

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[41] It is also possible that insurers can attempt to recover part of the cost of contractual guarantees from charges imposed when an EIA contract is surrendered for its cash value prior to the end of the term. It is unknown, however, as to what extent (if at all) insurers incorporate a "risk charge" as part of an EIA's surrender charges to cover the cost of contractual guarantees.

[42] Of course, as stated earlier, each of these contractual provisions can, and frequently do, serve as a source of funds to reimburse the issuing insurer for its sales and related marketing costs and general administrative overhead and to provide a source of profit to the company.

these credits are not tied in any way to an external market index. Insurers invest all, or nearly all, of their (general account) assets backing their fixed-rate annuity products in fixed-income instruments— most notably, bonds and mortgages. In most instances, the income (interest income and realized gains from asset sales) earned on these investments is sufficient, in the aggregate, to enable the insurer to both meet its guaranteed obligations and pay excess interest under these contracts.

With EIA products, however, a lesser percentage of investable assets—usually 85 to 90 percent—is placed in bonds and mortgages, with the remaining funds used to purchase options on the market index specified in the EIA contract (e.g., S&P 500). The insurer uses the portion invested in fixed-income instruments to meet or "cover" its contractual principal and interest guarantees. For each $1,000 of premium, some amount less than $1,000 is required to be invested in an interest-bearing asset (e.g., bonds or mortgages) to meet these guarantees. The amount of funds available to spend on index options, together with option prices, are the primary determinants of the amount of index participation—that is, the size of the participation rate, interest rate cap and/or yield spread—in an EIA product.

We can illustrate this concept by referring back to contract "A" in Table 1 (see the earlier "Minimum Guarantees" section). This EIA contract specifies a guarantee of "3 percent (compounded annually) on 90 percent of the premium." At the end of the five-year surrender-charge period, the guaranteed minimum value was shown to be $1,043.35. The issuing insurer can meet this guarantee, for example, through the purchase of a five-year zero-coupon bond with a face (or principal) value of $817.49, assuming an annual compounded rate of return of 5 percent.[43] The $182.51 difference between the $1,000 premium and the $817.49 "cost" to cover the guarantee is available to the insurer to invest in index options that serve as the source for the payment of index-linked interest under the contract.

Now, let's turn to the issue of "trade-offs." If the EIA in the above example were to offer a higher guarantee of "3 percent (compounded annually) on 100 percent of the premium," then the guaranteed minimum value at the end of five years becomes $1,159.27 instead of $1,043.35.[44] Again assuming a 5 percent annual yield, the cost of a five-year zero-coupon bond to cover this higher guaranteed amount is $908.32.[45] This new cost is $90.83 more than the cost to cover the earlier guarantee of "3 percent on 90 percent of the premium," resulting in fewer available funds (namely, $90.83) to purchase index options. These two examples clearly illustrate the positive correlation that exists between the "size (or value)" of a guarantee and its "cost." They also illustrate a type of trade-off that is possible in EIA contract design. Specifically, designing an EIA product to offer a smaller guaranteed minimum value permits a greater portion of the premium to be invested in options on the tied market index and, *ceteris paribus*, provides the EIA purchaser with the opportunity for greater participation in any index-linked gains.

Of course, trade-offs also are possible among participation rates, yield spreads and interest rate caps since all three mechanisms limit, or restrict, the portion of the index gain that is credited to the contract's accumulation value. For example, an interest rate cap could be used either singularly or in conjunction with a yield spread, in lieu of using a participation rate below 100 percent. Alternatively, incorporating a lower participation rate (e.g., 85 percent instead of 100 percent), in theory, should lessen the need to include an interest rate cap. Other similar examples of trade-offs are possible— which is likely a primary reason why we see such a variety of EIA products in the marketplace today.

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[43] $1,043.35 divided by $(1.05)^5$ equals $817.49.

[44] $[(1.03)^5 \text{ x } 1.00 \text{ x } \$1,000] = \$1,159.27$.

[45] $1,159.27 divided by $(1.05)^5$ equals $908.32.

Now, let's consider the effects that interest rates have on EIA pricing and contract provisions. Referring back to our earlier example, if the insurer is able to purchase a five-year zero-coupon bond yielding an annual compounded rate of return of 6 percent (instead of the previously assumed 5 percent), then it will cost only $779.65 to purchase a zero-coupon bond that pays $1,043.35 five years later (to cover the guarantee).[46] The extra $37.84 ($817.49 minus $779.65) is available to the insurer to purchase more options on the tied market index, thereby allowing the insurer to offer a higher participation rate (or a higher interest rate cap or a lower yield spread) so that the EIA purchaser can participate more fully in any index gains.[47]

Generally speaking, when prevailing market interest rates are high a smaller percentage of EIA premiums is required by the insurer to assure that the guaranteed minimum values will be met. Since less money is spent on bonds, greater portions of the premiums are available to purchase index options. The converse, of course, also holds true. Both market interest rates and the cost of index options fluctuate daily (as well as throughout the day). As market interest rates rise and/or option prices fall, insurers are able to purchase more options, providing EIA purchasers with greater index participation. Similarly, as interest rates fall and/or option prices rise, fewer options can be purchased thereby reducing the level of index participation that can be provided in an EIA contract.

Insurers change the size of "moving parts" (e.g., increase/reduce the participation rate by 5 percent, or increase/reduce the annual interest rate cap by 0.5 percent) in newly issued EIAs on a fairly regular basis.[48] In theory, such changes could occur on a weekly, or even daily, basis. Generally, however, insurers do not change their participation rates, interest rate caps, etc., on newly issued policies more frequently than monthly due to the administrative costs associated with making these changes. However, because such changes affecting index participation do occur on a frequent basis, the insurer offering the most attractive (and competitive) EIA product today may not be the insurer with the most attractive EIA product tomorrow. Similarly, two individuals who purchase an EIA a month or so apart from the same insurer may experience different rates of return—not only as a result of differing starting (and ending) index values but also possibly due to different participation rates, caps or yield spreads incorporated in their contracts.

Index-Linked Interest-Crediting Structures

There are two major steps involved in the calculation of index-linked interest under equity-indexed annuities. The initial, or first, step is to measure the amount of gain, expressed as a percentage, in the tied external index. A variety of indexing methods have been developed for measuring the amount of index gain under EIAs. Traditionally, these methods have been grouped into one of three categories: *Point-to-Point, High Water Mark,* and *Annual Reset.* In addition, several variations exist within this primary classification scheme creating several dozen different approaches to measuring index gains.

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[46] $1,043.35 divided by $(1.06)^5$ equals $779.65.

[47] Although surrender charges are not specifically addressed in this section, trade-offs are possible between the length of an EIA's surrender-charge period and the amount of index participation. Specifically, insurers marketing EIA products with longer surrender-charge periods may decide to take a longer position (i.e., greater average maturity) on their underlying bond portfolios. If they are able to achieve higher returns as a result, then more funds are available to purchase options thereby providing EIA purchasers with greater participation in any index gains.

[48] It should be pointed out that changes such as these that affect financial performance are not unique to EIA contracts. For example, insurers change the interest-crediting rates under traditional fixed-rate annuities (both in-force and new issues) when warranted by changing market conditions.

While the following discussion is extensive, it is not intended to be an exhaustive treatment of all methods for measuring index gains as many of these methods account for only a very small percentage of total industry-wide EIA sales.[49]

One popular variation entails the use of averaged index values, rather than the actual value on a specified date, in measuring the amount of index gain. Averaging smoothes out changes in index values and provides EIA purchasers with some protection against "downside risk" in situations where the market index declines in the last few days or months prior to the specified date on which the index gain is to be measured. As described later, an averaging process can be especially valuable to purchasers of EIAs that incorporate a Point-to-Point design in measuring index-linked gains. While providing some downside protection, an averaging process will also typically limit, or reduce, the otherwise calculated index gain in a period of generally rising index values.

The second, and equally important, step in this process is to determine the "index-linked interest-crediting rate"—that is, the <u>portion</u> of any index gain that will be credited to the EIA's accumulation value. This entails applying the contract's participation rate, interest rate cap, and/or yield spread to the percentage index gain determined in step one. The two steps taken together create a "structure" for crediting index-linked interest in EIAs. A multitude of index-linked interest-crediting structures can, and do, exist since each of the various methods for measuring index gains can be combined with any one of a number of possible participation rates, interest rate caps, and/or yield spreads.

Collectively, Annual Reset methods constitute, by far, the most popular approach to measuring movement in the tied index under EIA contracts sold in the U.S. today. Despite their lesser prominence, significant attention is given below to Point-to-Point and High Water Mark methods (1) to assist interested readers in attaining a fuller understanding of these methods and (2) to provide a basis for comparing and contrasting all three major approaches in terms of their relative advantages and disadvantages.

Point-to-Point. This method measures the change in the tied market index between two points that cover a time period greater than one or two years. The beginning point is usually the purchase date of the EIA contract and the ending point is typically the end of the multi-year index term. If there is a decrease in the market index between the beginning and end points, the change is recorded as zero. Point-to-Point is the simplest approach to measuring index gain over the life of the contract and, possibly, also the easiest for agents and other financial advisors to explain to prospective EIA purchasers. Under this design no index-linked interest is credited prior to the end of the index term. Unlike what typically occurs with traditional fixed-rate annuities and many other types of interest-bearing products, interest is not calculated and credited annually (or more frequently) under a Point-to-Point EIA product.

This approach is sometimes referred to as the *European* method since recognizing the index gain only at the end of the index term is characteristic of options trading that occurs in many European equities markets. *European* options can be exercised (or "recognized") only on their expiration date and not at any earlier time. This is in direct contrast to the typical *American* stock option where the option can be exercised at any time up to, and including, the expiration date. For obvious reasons, the Point-to-Point

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[49] For additional discussion and evaluation of index-linked crediting-methods, the reader is referred to Marrion (2003), pp. 38-99.

method is also known as the "term-end point," "end of term," "term point-to-point," or "long-term point-to-point" design.[50]

The first step in determining the amount of index-linked interest to be credited to the EIA's accumulation value is to subtract the beginning index value from the endpoint value. If the result is negative (i.e., the market index declined in value from the beginning to the end of the index term), it is recorded as zero and the EIA's accumulation value is credited with the minimum guaranteed return.

Positive index gains are divided by the beginning index value to arrive at a percentage gain. The percentage gain is then multiplied by a participation rate. The product of these two numbers is then multiplied by the amount of money invested in the contract (i.e., premiums plus any bonuses) and then added to this principal amount to arrive at the contract's accumulation value. At the end of the index term, the contract owner is entitled to the larger of the accumulation value and the guaranteed minimum value.

It is useful to consider a couple of examples. In both examples it is assumed that the EIA is purchased with a single premium and that there are no premium bonuses.

Example #1

Assume an EIA with an index term of seven years where the:
- Premium is $20,000
- Beginning index value is 1000
- Ending index value is 1600
- Participation rate is 80 percent
- Guaranteed minimum value (at end of index term) equal to 90 percent of the premium accumulated at 3 percent interest, compounded annually, for seven years

The accumulation value at the end of the seven-year term is calculated as follows. First, the index gain of 600 (1600 – 1000) is divided by the beginning index value of 1000, generating a percentage gain of 60 percent over the seven-year term. This full 60 percent gain when multiplied by the 0.80 participation rate yields an index-linked interest-crediting rate of 48 percent. Forty-eight percent multiplied by the $20,000 premium generates an index-linked interest credit of $9,600.

The next step is to compute the guaranteed minimum value under this contract at the end of the seven-year term. A 3 percent interest rate compounded for seven years generates a factor of 1.23.[51] This factor is then multiplied by $18,000 (the $20,000 premium multiplied by 90 percent). The resulting product is $22,138 (rounded to the nearest dollar). Since the initial $20,000 premium plus the index-linked interest-crediting amount of $9,600, or $29,600, exceeds the guaranteed minimum value of $22,138, the owner is entitled to $29,600 at the end of the seven-

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[50]The phrase "long-term point-to-point" is frequently used when the purpose is to contrast the Point-to-Point method with the Annual Reset approach (see below). The Annual Reset method, in essence, is a "short-term point-to-point" (and, more specifically, an "annual point-to-point") design since it typically uses annual changes in the tied market index—from the beginning of each year to the end of each year—in determining index-linked interest credits. For additional discussion, see Cascarelli, pp. 42-43.

[51] That is, $(1.03)^7 = 1.23$ (rounded to the nearest hundredth).

year term.[52] At this point the owner has several options. The owner may: (a) cash-in the annuity and receive the $29,600 accumulation value, (b) if permitted by contract, leave the accumulation value in the contract (with the index-linked interest now locked-in) for a second index term—with a new principal of $29,600), or (c) annuitize the accumulation value and begin receiving periodic income payments.

Example #2

This example is identical to Example #1 except that the ending index value is lowered to 1100. The 100-point gain divided by the starting index value of 1000 equals a percentage gain of 10 percent. This percentage multiplied by the .80 participation rate leads to an index-linked interest-crediting rate of 8 percent. The $20,000 premium multiplied by 1.08 generates an index-linked accumulation value of $21,600. This amount is less than the guaranteed minimum value of $22,138 (unchanged from Example #1). Under this new scenario, the owner would be entitled to $22,138 at the end of the seven-year term.

Both examples reflect market reality in that something less than the full index gain, measured from the date of purchase to the end of the index term, is available to be credited to the EIA's accumulation value. Specifically, both examples assume an 80 percent participation rate. Other participation rates are possible with this index-linked interest-crediting method, although participation rates of 80 to 90 percent are fairly common.[53] In addition, the Point-to-Point method can apply a cap (or maximum) to the credited index-linked interest rate or compute the index-linked interest-crediting rate by subtracting a yield spread from the overall index gain. Any of these approaches could be used in combination with a participation rate to determine the portion of the index gain to be credited to the EIA accumulation value.

A potential, yet significant, drawback to purchasers of EIAs incorporating the traditional Point-to-Point structure results from the fact that the index-linked interest-credit depends on a single index value—the value at the end of the index term. All other index values throughout the term of the contract are completely irrelevant under this design (other than the beginning index value, of course). This situation may not be troublesome to EIA purchasers so long as the index trend is generally upward throughout the contract term or the index value, while experiencing several "ups" and "downs," is significantly higher at the end of the contract term than at the beginning. However, a pattern of equity returns that leads to generally higher index values over time, followed by a sudden and significant decline in the external index in the last few days, weeks or months just prior to the end of the index term may lead to significant disappointment on the part of contract owners in the financial performance of their EIA.

To address this concern, most EIAs using the Point-to-Point method incorporate an averaging process into the design of the interest-crediting mechanism. Commonly referred to as the *Asian-end,* or *average-end,* design, this interest crediting method calculates the ending index value as the average of a series of index values—typically daily, weekly or monthly values occurring during the last year of the index term. To illustrate, the ending index value might be defined as the average of the index values on the last business day of each month for the 12 months prior to the end of the term. Alternatively, the ending index value might be computed as the average of the index values over the last few days, few

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[52] Note: In this example, the accumulation value at the end of the index term would not change even if the "3 percent interest guarantee" were to be applied to 100 percent of the initial premium. In this case the guaranteed minimum value at the end of the seven-year period is $24,600—still less than $29,600.

[53] It should be remembered that the amount of index participation in all EIA contracts, including Point-to-Point products, is directly reflective of the cost of the index options and the amount of available funds that the insurer has to purchase these options.

weeks, or the last three months in the last year of the index term. Of course, other averaging possibilities exist.

The index gain is computed as the difference between the "average" ending index value and the index value at the time the EIA was issued. Clearly, the Asian-end variation is designed to mitigate the negative effects on the contract's financial performance that otherwise would result from a significant decline or a series of declines in the tied index during the last few days, weeks or months of the index term. One might expect that an EIA purchaser who is risk averse would prefer an Asian-end averaging method or even an entirely different structure, e.g., Annual Reset, to the traditional Point-to-Point method for crediting index-linked interest. The Point-to-Point design (with or without averaging) may be preferred, however, since it is "less costly" to the insurer due to lower option prices and, as a result, typically provides for greater index participation in comparison with Annual Reset methods.

In addition to the traditional and Asian-end designs, a third Point-to-Point (i.e., term-end point) approach to measuring gain in the external index is the *Term Yield Spread* indexing method. This type of structure:

      (a) computes the total index gain for the entire term;
      (b) converts the total gain into an annualized compounded rate of return;
      (c) subtracts a yield spread from the annual rate of return; and then
      (d) recalculates the total index gain for the entire term by compounding the "net" annualized rate.

To illustrate, assume that the tied external index increased from a beginning index value of 1000 to an index value of 1800 at the end of a six-year term. This 80 percent total gain is equal to an annualized compounded rate of return of 10.3 percent (rounded to the nearest tenth of one percent).[54] Assuming an annual yield spread of 1.8 percent, the net annualized rate equals 8.5 percent. The total index gain credited to the policy's accumulation value is equal to 8.5 percent compounded over six years, or 63.1 percent (rounded).[55]

Under Point-to-Point designs significant increases in index values during the early or middle years of the contract term will not automatically result in large index-linked interest credits at the point where it really matters—that is, at the end of the term when index gains are measured and index-linked interest is credited to the EIA's accumulation value—since many or all of these early gains could vanish prior to the end of the index term. Consequently, purchasers of Point-to-Point EIAs are unable to measure or otherwise ascertain the periodic growth in their accumulation values. This can be a significant drawback since the typical Point-to-Point EIA has an index term of five, seven, 10 years or longer. The absence of periodic index-linked interest credits increases the uncertainty as to the values—both current and future—that should be placed on this asset as part of an overall financial plan. This can pose serious planning issues if the EIA comprises a significant portion of the individual's total financial portfolio.

Another potentially significant disadvantage of the Point-to-Point approach concerns the period— frequently the entire index term—during which surrender charges are imposed. Since any index-linked interest earnings under the Point-to-Point method are credited to the contract's accumulation value only at the end of the index term, the purchaser is generally not entitled to any index-linked interest credits whatsoever if the EIA is cashed-in prior to the end of the surrender-charge period. Most likely, in this instance, the contract owner will be entitled to a return of premiums paid plus any guaranteed interest

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[54] $[(1.80)^{1/6} - 1] = 0.10292$ or 10.3 percent (rounded).

[55] $[(1.085)^{6} - 1] = 0.63147$ or 63.1 percent (rounded).

less the surrender penalties, subject to the guaranteed minimum value "floor." It is possible that surrender charges will exceed any guaranteed interest credits, thereby creating a financial loss to the EIA purchaser.

High Water Mark. The High Water Mark method for measuring index movement is essentially a variation of the traditional Point-to-Point design. Both approaches incorporate a multi-year index term. However, EIAs using a High Water Mark approach generally credit index-linked interest each time a new index "high" is reached.

The primary difference between the Point-to-Point and High Water Mark approaches is in how they determine the "ending" index value. As we have just seen, the ending index value under the Point-to-Point design is either the value of the index on the last day of the contract term or, more likely, an average of a series of daily, weekly or monthly values during the last year of the term. In contrast, the "ending" index value under the High Water Mark design is the highest—or peak—value that the index attains on any "sampling date" throughout the entire index term.[56]

In most other respects, the Point-to-Point and High Water Mark designs are quite similar. Both methods measure the total index gain as the difference between the beginning and ending index values. This difference is then divided by the beginning index value to determine the percentage gain in the index. The percentage index gain is then multiplied by a participation rate and it may be further reduced by a rate cap or yield spread in deriving the index-linked interest-crediting rate. The final step in the process is to compare the guaranteed minimum value at the end of the index term with the paid premiums (and, possibly, premium bonuses) augmented by the index-linked interest credit. The larger of these two amounts becomes the EIA accumulation value at the end of the term. The two examples illustrated in the preceding section apply equally to the High Water Mark design with one change—the ending index values are now "peak" values.

The sampling frequency is stated in the EIA policy and is typically daily, monthly, or annually on each policy anniversary. Greater sampling frequency enhances the possibility of a higher peak value. A higher peak value translates into a larger index gain. This explains why a High Water Mark structure with greater sampling frequency (e.g., monthly instead of annually) has higher options costs,[57] and why contracts with greater sampling frequency often contain lower participation rates, larger yield spreads or lower interest rate caps to compensate for the additional cost.

EIA purchasers may prefer the High Water Mark structure over the traditional Point-to-Point design since higher index values in the early or middle part of the term do, in fact, establish a minimum amount as to the size of the index gain used in determining the index-linked interest crediting rate—unlike the situation under Point-to-Point approaches. This information is beneficial to contract owners as they periodically review their financial goals and the progress made toward achieving these goals.

The High Water Mark method is also sometimes referred to as the "no regret" or "term-high" design. It is also known as the "lookback" method since, at the end of the index term, the insurer and the purchaser look back over the entire term to identify the peak value of the index.

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[56] A High Water Mark, or peak, value can also be used in establishing the "ending" index value under the Term Yield Spread method described above.
[57] See Lin and Tan, p. 82.

Annual Reset. The fundamental difference between this interest-crediting mechanism and the Point-to-Point and High Water Mark designs is that under Annual Reset an index-linked interest-crediting rate is determined each and every year the contract is in force. The index-linked interest-crediting rate is calculated by comparing the value of the tied market index at the end of each contract year (i.e., on the policy anniversary date) with the index value at the beginning of the year. In years where gains in the tied index are negative, a "0" is recorded.[58] Consequently, while there can be "flat" years—with no index gains—under Annual Reset EIAs, it is impossible to have a "down" year. Accumulation values will either grow or remain steady from one year to the next, regardless of the amount of volatility in the underlying market index.

Positive gains are divided by the index value at the beginning of the year to determine a percentage amount. Depending on the specific EIA contract, this percentage may be reduced by a participation rate less than 100 percent, a yield spread and/or a cap in determining the index-linked interest-crediting rate. The index-linked rate multiplied by the beginning-of-year accumulation value generates the dollar amount of index-linked interest for the year. Once interest is credited to the accumulation value, it is locked-in and the accumulation value will never decrease from that level regardless of the future performance of the tied index.

The annual crediting of interest and the corresponding protection against market declines in future years is a primary reason underlying the popularity of Annual Reset EIAs. Once locked-in, index-linked interest gains can never be lost due to a subsequent downturn in the tied index. A related advantage is that the annual locked-in interest credits provide the purchaser with periodic "progress reports" of the EIA's financial performance. The accumulation value at any point in time can serve as a partial predictor of what the total financial gain might be at the end of the contract term. Thus, one of the major drawbacks of the traditional Point-to-Point method is eliminated under the Annual Reset design.

An important reason why many EIA purchasers find this method to be more appealing than either the Point-to-Point or the High Water Mark design is that the "beginning" index level used to measure each year's growth in the index is <u>reset</u>[59] at the beginning of each policy year to equal the index value at the end of the preceding year. This feature is especially valuable to contract owners when there is considerable volatility ("ups" and "downs") in the equities markets over a multi-year timeframe.

To illustrate, let's assume that an individual purchased an Annual Reset EIA with a four-year surrender period.[60] Further assume that the tied market index declines from a beginning value of 1000 to 800 at the end of the first contract year. In this case, no interest is credited to the accumulation value in the first year. However, the index value at the beginning of the second year is reset at 800 and any growth in the index during the second year will be measured from this lower amount. If the tied index increases again to 1000 at the end of the second year, the index gain is 25 percent for this year.[61] Let's now assume that this exact pattern is repeated in years three and four. Under this scenario, zero gain will be

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[58] Some might question why the guaranteed minimum interest rate isn't credited to the account value in these years. The reason is that the minimum interest guarantee embedded in EIAs generally takes effect at the end of the contract term. At that time the EIA contract holder is entitled to the larger of (a) the initial premium, plus any bonuses, augmented by all index-linked interest credits, and (b) the guaranteed minimum value. To replace each "0" with the guaranteed interest rate would result in "double-counting."

[59] Nonguaranteed participation rates, yield spreads and interest rate caps are also commonly "reset" annually to apply to the following policy year.
[60] This is an arbitrary assumption and four years was chosen simply for ease of illustration. Most, if not all, EIAs have surrender-charge periods of five years or longer.
[61] The index gain is 200 (1000 - 800). The gain of 200 divided by the beginning index value of 800 equals 25 percent.

recorded in the third year since the index declined in value from 1000 to 800. And, another 25 percent gain will be recorded in the fourth year since the beginning-of-year index value was reset to 800, and the index value at the end of the fourth year is assumed to have reached 1000 again.

In summary, the index gains for this four-year Annual Reset EIA are: 0, 25 percent, 0, and 25 percent. Assuming a $1,000 initial premium, a participation rate of 0.60 and annual compounding of interest, the accumulation value at the end of the four-years is $1,322.50.[62] In contrast, if this EIA were either a Point-to-Point or High Water Mark product, there would be no index-linked interest credits since (a) there was no gain in the index between the beginning and ending dates of the term, and (b) the index value never exceeded the index value at the date of purchase.[63] Differences among Point-to-Point, High Water Mark, and Annual Reset methods can be further illustrated by examining three hypothetical patterns of index movement depicted in Tables 2A, 2B and 2C.

To simplify the illustrations in Tables 2A, 2B, and 2C, we will ignore the existence of any participation rates, interest rate caps and yield spreads and concentrate solely on the measured index gains. In Table 2A both the Point-to-Point and High Water Mark methods show gains over the six-year period of 60 percent [(1600/1000) – 1]. The total six-year gain under the Annual Reset method is also 60 percent, assuming the annual compounding of index-linked gains—the usual case. Under Annual Reset all of the annual factors are multiplied together. In this situation the numerator of the previous year cancels out exactly the denominator of the succeeding year, and the factor at the end of year 6 becomes 1600/1000—which is identical to the result under the Point-to-Point and High Water Mark designs.

Table 2A
Index Movement: Increase of 100 Each Year

Year	Ending Index Value	Point-to-Point	High Water Mark	Annual Reset
0	1000			---
1	1100			1100/1000
2	1200			1200/1100
3	1300			1300/1200
4	1400			1400/1300
5	1500			1500/1400
6	1600	1600/1000	1600/1000	1600/1500

Under the pattern of index movement depicted in Table 2B, Point-to-Point has no index gain over the six-year period while High Water Mark has a 30 percent gain [(1300/1000) – 1]. The total gain for the six-year period under Annual Reset is also 30 percent. Again, with respect to the Annual Reset method, the numerator of each previous year cancels out the denominator of the succeeding year, and the factor at the end of year 6 becomes 1300/1000 for a total gain of 30 percent.

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[62] ($1,000) x (1) x [1 + (.25) x (.60)] x (1) x [1 + (.25) x (.60)] = ($1,000) x $(1.15)^2$ = $1,322.50.

[63] This assumes that (1) the Point-to-Point EIA defines the ending index value as the value on the last day of the contract—that is, an average value is not used, and (2) the High Water Mark uses annual anniversary dates as its "sampling points." If (1) is not true, then index values during the last year of the term that exceed the beginning index value could result in an "average" ending index value that also exceeds the beginning value, thereby generating a gain in the index under the Point-to-Point method. Similarly, if (2) is not true such that quarterly (or monthly) sampling points are used, then it is possible that one or more of these more frequent sampling points produced a "peak" value that exceeds the beginning index value, thereby generating an index gain under the High Water Mark approach.

Table 2B
Index Movement: Increase of 100 During Each of the First Three Years
Followed by a Decrease of 100 During Each of the last Three Years

Year	Ending Index Value	Point-to-Point	High Water Mark	Annual Reset
0	1000			---
1	1100			1100/1000
2	1200			1200/1100
3	1300			1300/1200
4	1200			---
5	1100			---
6	1000	1000/1000	1300/1000	---

Table 2C shows a pattern of substantial volatility in the external index. Since the index value at the end of year 6 is identical to the index value at the beginning of the measurement period, there is no gain under Point-to-Point. High Water Mark has a total six-year gain of 10 percent $[(1100/1000) - 1]$. The three years of gains under Annual Reset create a total gain for the six-year period of 33.1 percent $[(1100/1000)^3 - 1]$.

Table 2C
Index Movement: Increases of 100 During the First, Third and Fifth Years with
Decreases of 100 During the Second, Fourth and Sixth Years

Year	Ending Index Value	Point-to-Point	High Water Mark	Annual Reset
0	1000			---
1	1100			1100/1000
2	1000			---
3	1100			1100/1000
4	1000			---
5	1100			1100/1000
6	1000	1000/1000	1100/1000	---

Although clearly hypothetical in nature, the above examples may explain some of the popularity currently enjoyed by the Annual Reset method in the EIA marketplace. In the above illustrations, the index gain measured under the Annual Reset design is always at least as large as the measured gain under the other two methods. Further, during periods when equity markets are characterized by significant volatility, the Annual Reset method is likely to generate larger index-linked gains than what occurs under the Point-to-Point and High Water Mark approaches. However, it must be remembered that the size of any index gain is only "half of the story." The amount of index participation (i.e., size of the participation rate, yield spread, and/or rate cap) is likely to vary among these three designs due to differing options costs.

Specifically, Annual Reset methods typically have the highest options costs, followed by High Water Mark designs and Point-to-Point designs, in that order. As a result, we would expect the level of index participation to be the lowest under Annual Reset designs, followed by High Water Mark methods and Point-to-Point approaches, in that order. For example, considering only participation rates (to the exclusion of yield spreads and rate caps), in the current EIA marketplace we might find participation rates of 55-60 percent in Annual Reset products, somewhat higher participation rates of 70 percent or

more in High Water Mark designs, and the highest participation rates of 80-90 percent in Point-to-Point products.

Having an awareness of competing interest-crediting methods and how each one functions can be of considerable value to prospective purchasers in making a decision as to which EIA product to buy. For example, purchasers who believe that the external index will generally increase over the next several years with little volatility, and who aren't bothered by the lack of annual crediting and locking-in of index-linked interest, potentially should buy a Point-to-Point (i.e., term-end point) product since such products are likely to provide for the greatest amount of index participation. Conversely, if purchasers attach great importance to the annual locking-in of index-linked interest credits or they expect significant volatility to occur in the equities market, then an Annual Reset EIA may be preferable even though its level of index participation is likely to be lower than that of competing Point-to-Point and High Water Mark products.

Similar to other major crediting methods, the Annual Reset design is known by several names—most notably, "ratchet" or "cliquet."[64] Also, as mentioned in an earlier section of this report, the Annual Reset method occasionally is referred to as an "annual point-to-point" design since it calculates index-linked interest credits every year. It should also be noted that a large percentage of Annual Reset EIAs use an averaging approach in determining annual index gains rather than basing these gains solely on the beginning and ending index values. Finally, while Annual Reset has proven to be a popular interest-crediting approach, some EIAs now incorporate a *Biennial Reset* where index-linked interest is calculated and credited every two years rather than annually.[65]

The *Advantage Index Product Sales Report* presents sales data classified according to three major versions of the Annual Reset method:

- Annual Reset—No Averaging
- Annual Reset—Averaging
- Annual Reset—Monthly Cap Gain

Currently, the Annual Reset—Monthly Cap Gain design is the most popular indexing method, accounting for more than 40 percent of new EIA sales (in premium dollars). The other two Annual Reset methods, together with Point-to-Point (including High Water Mark) designs, account for the remainder of contemporary EIA sales.

The Annual Reset—No Averaging indexing method is the traditional Annual (Point-to-Point) Reset method illustrated earlier where index gains are measured as the difference between the end-of-year index value and the beginning-of-year index value. The index-linked crediting rate is recorded as "zero" in years where the year-end index value is lower than the beginning-of-year index value. Positive annual gains are divided by the beginning-of-year index value to determine the percentage gain. The participation rate, any yield spread deduction and any maximum rate cap are then applied to the percentage gain to determine the index-linked interest rate to be credited to the contract's accumulation value at the end of the year.

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[64] "Cliquet" is the French word for ratchet.

[65] Prices for "2-year options" generally should be less than the combined cost of two successive "1-year options" such that the level of index participation provided under a Biennial Reset EIA is usually higher than under a comparable Annual Reset product.

The Annual Reset—Averaging design is a slight variation of the traditional Annual Reset approach to the extent that the end-of-year index value is defined as the average of the twelve end-of-month index values throughout the policy year.[66] The first step in determining the index-linked interest-crediting rate is to sum together the month-end index values and divide this number by 12. This monthly average becomes the end-of-year index value, and the index-linked interest-crediting rate is calculated in the manner described in the preceding paragraph with respect to the Annual Reset—No Averaging method. These two interest-crediting structures are illustrated below:

Assume the following:
- An EIA contract was purchased on September 25, 2004 with a one-time premium.
- The tied external index is the S&P 500 whose monthly anniversary values are as follows.

Date[67]	S&P 500[68]
09/25/04	1110.11 (beginning-of-year value)
10/25/04	1094.80
11/25/04	1181.76
12/25/04	1210.13
01/25/05	1168.41
02/25/05	1211.37
03/25/05	1171.42
04/25/05	1162.10
05/25/05	1190.01
06/25/05	1191.57
07/25/05	1229.03
08/25/05	1212.37
09/25/05	1215.29

Sum of the index values between 10/25/04 and 9/25/05, inclusive = 14,238.26

The index gain under the Annual Reset—No Averaging method is the 9/25/05 index value of 1215.29 minus the beginning-of-year index value of 1110.11, or 105.18. Dividing this gain by the starting value of 1110.11equals 9.5 percent. In contrast, under Annual Reset—Averaging we sum the twelve monthly values starting at 10/25/04 and ending with 9/25/05, which equals 14,238.26. This total, divided by twelve, equals 1186.52. This number is the end-of-year value used to calculate the annual gain under the Annual Reset—Averaging method. Subtracting the beginning index value of 1110.11 from 1186.52 equals 76.41. Dividing this annual gain by the beginning-of-year value of 1110.11 equals 6.9 percent. It should be noted that had a different time period been chosen, the relative sizes of the two percentages might have been reversed.

The participation rate and any interest rate cap or yield spread must now be applied to determine the actual interest-crediting rates under these two methods. For simplicity, we will assume a 100 percent participation rate (and no yield spreads) for both designs. We will assume a 6.5 percent interest rate cap for the Annual Reset—No Averaging method and, since averaging generally lessens the index gain, we will assume a somewhat higher rate cap of 8.5 percent for the Annual Reset—Averaging

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[66] The "month-end" or "end-of-month" values do not refer to calendar months but rather to monthly periods measured on the same day each month equal to the day of the month on which the policy was issued.

[67] When the markets were closed on this day, the last day prior to this date on which the markets were open is the date used.

[68] These values were obtained from the www.finance.yahoo.com website.

design.[69] Table 3 below shows the calculation of the index-linked crediting rates under these assumptions.

Table 3
Index-Linked Crediting Rates Assuming a 100 Percent Participation Rate
and Annual Interest Rate Caps of 6.5 Percent and 8.5 Percent

Interest-Crediting Method	Annual Interest Rate Cap	Calculation	Index-Linked Crediting Rate
Annual Reset—No Averaging	6.5 percent	Lesser of 9.5 percent and 6.5 percent	6.5 percent
Annual Reset—Averaging	8.5 percent	Lesser of 6.9 percent and 8.5 percent	6.9 percent

Alternatively, let's assume that the annual rate caps are 7.0 percent and 9.0 percent, respectively, for the "no averaging" and "averaging" methods. Table 4 shows the revised calculations for the index-linked crediting rates based on the new interest rate caps.

Table 4
Index-Linked Crediting Rates Assuming a 100 Percent Participation Rate
and Annual Interest Rate Caps of 7.0 Percent and 9.0 Percent

Interest-Crediting Method	Annual Interest Rate Cap	Calculation	Index-Linked Crediting Rate
Annual Reset—No Averaging	7.0 percent	Lesser of 9.5 percent and 7.0 percent	7.0 percent
Annual Reset—Averaging	9.0 percent	Lesser of 6.9 percent and 9.0 percent	6.9 percent

The Annual Reset—Monthly Cap Gain structure measures index gains monthly.[70] Positive monthly gains are subject to a cap (e.g., 2.5 – 3.0 percent) while negative monthly gains are uncapped. The sum of the capped positive monthly gains and uncapped negative monthly gains equal the annual index rate which, when applied to the policy's accumulation value generates the index-linked interest credits for the year.[71]

This interest-crediting structure is illustrated in Table 5 below where the monthly gains (positive and negative) are calculated based on the S&P 500 index values presented above. A 3.0 percent monthly rate cap is assumed together with a 100 percent participation rate. It is further assumed that there is no yield spread. The annual index rate is then computed under the Annual Reset—Monthly Cap Gain method. Monthly gains impacted by the cap are shown in **boldface**.

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[69] Since, generally, "averaging" tends to dampen the ending index value and thus reduce the total index gain, it should be a "less expensive" method than a comparable "no averaging" design. Consequently, we would expect, *ceteris paribus*, a participation rate or an interest rate cap to be higher under an "averaging" method to compensate the EIA purchaser for the less expensive, or lower value, "averaging" design.

[70] This is a monthly point-to-point method with index changes measured from the end of the previous month to the end of the current month.

[71] These credits are locked-in and cannot be lost due to a subsequent market downturn. A portion or all of these credits could be lost, however, in the event that the contract is surrendered for its cash value.

Table 5
Monthly Index Rates Assuming a 100 Percent Participation Rate
and a Monthly Rate Cap of 3.0 Percent

Month	1	2	3	4	5	6	7	8	9	10	11	12
Monthly Index Change (%)	-1.4	**7.9**	2.4	-3.4	**3.7**	-3.3	-0.8	2.4	0.1	**3.1**	-1.4	0.2
Monthly Cap Rate (%)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Monthly Index Rate (%)	-1.4	**3.0**	2.4	-3.4	**3.0**	-3.3	-0.8	2.4	0.1	**3.0**	-1.4	0.2

As shown in Table 5, each monthly index rate is the lesser of the monthly cap rate and the monthly index change—where each negative change, regardless of its magnitude, becomes the index rate for that month. The 12 individual monthly index rates are summed together to determine the annual index rate, as follows:

- 1.4 + 3.0 + 2.4 – 3.4 + 3.0 - 3.3 – 0.8 + 2.4 + 0.1 + 3.0 – 1.4 + 0.2 = 3.8 percent

The annual index rate of 3.8 percent becomes the index-linked interest-crediting rate for the year under the Annual Reset—Monthly Cap Gain method. If the sum of the monthly index rates had been less than zero, the annual index rate would be recorded as zero. For this particular 12-month period, the Annual Reset—Monthly Cap Gain index-crediting rate is considerably smaller than the rates calculated above for the other two popular Annual Reset methods. This example shows how under the Monthly Cap Gain structure one or more relatively large uncapped negative monthly returns (see months 4 and 6 in Table 5) can offset, or negate, several months of positive gains especially when large increases are capped (e.g., 7.9 percent reduced to 3.0 percent in month 2). In this instance the Monthly Cap Gain method credited a relatively modest return of 3.8 percent for the 9/25/04 – 9/25/05 period even though the S&P 500 (excluding dividends) increased a healthy 9.5 percent over the same time period.[72]

Although it may be tempting to do so, readers should not base any decision as to which Annual Reset method might be preferred based solely on the interest-crediting rates derived in the above examples. Although actual S&P 500 index values are used in the illustrations, had a different time period been chosen, both the pattern of monthly index values as well as the actual values themselves certainly would have differed from those in the 9/25/04 – 9/25/05 time period. Under a different scenario the results could be reversed—the Monthly Cap Gain method may outperform the other two Annual Reset methods. In addition, although the interest rate caps used in the above examples are realistic and representative of the caps observed in today's marketplace, different interest rate caps can lead to different results, both in absolute and relative terms.

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[72] Generally, under the Annual Reset—Monthly Cap Gain structure, actual index-linked interest credits may be lower, or possibly zero, when the external index declines in value from any one month to the next even though the index experiences a gain for the entire policy year.

The Equity-Indexed Annuity Marketplace

It is instructive to examine available market-related information pertaining to equity-indexed annuities and, in certain instances, to compare EIA market data with industry-wide data on annuities (both fixed and variable annuities). Advantage Compendium, Ltd. and LIMRA International, Inc. are the sources of market data presented in this section. Information is provided on each of the following:

      (1)   Sales (Premium Volume)
             (a) Total Sales
             (b) Average Premium
             (c) Market Shares
             (d) Qualified vs. Nonqualified
      (2)   Number of Insurers
      (3)   Minimum Guarantees
      (4)   External (Tied) Index
      (5)   Interest-Crediting Methods
      (6)   Number of Product Variations
      (7)   Premium Bonuses
      (8)   Surrender-Charge Periods
      (9)   Penalty-Free Withdrawals
      (10)   Products with Market Value Adjustments (MVAs)
      (11)   Distribution Channels
      (12)   Commissions
      (13)   Maximum Age at Issue
      (14)   Minimum Premiums

Recent growth in the sales of equity-indexed annuities has been nothing short of phenomenal. Annual sales of EIAs during the period 1999-2004 are shown in Table 6 below.[73] During the past five years the annual growth rate in EIA sales ranged from 10 percent to 74 percent, and there were $23.1 billion in EIA sales just in 2004 alone. In contrast to the 60 percent increase in EIA sales from 2003 to 2004, there were decreases of 17 percent and 16 percent, respectively in the sales of fixed deferred "book value" and "market value adjusted" annuities over the same time period.[74]

Table 6
Sales of Equity-Indexed Annuities, 1999-2004
(Dollars in Billions)

Year	1999	2000	2001	2002	2003	2004
Sales	$5.0	$5.5	$6.8	$11.8	$14.4	$23.1
%Change*	-	10%	24%	74%	22%	60%

*From preceding year.
Source: LIMRA

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[73] Data in Table 6 and Table 7 were derived from Table 1 in Beatrice and Drinkwater, p. 9. Further, these data represent sales of individual (not group) annuities. See pp. 61-62 of this LIMRA report for a definition of individual annuities.

[74] "Market value adjusted" annuities are annuities whose surrender values fluctuate according to changes in the market interest rate in comparison to the contract's guaranteed interest rate, subject to a minimum guaranteed cash surrender value. "Book value" annuities are traditional fixed annuities whose cash surrender values are guaranteed and are not subject to market value adjustments.

Table 7 shows that EIAs accounted for 30 percent of the total sales ($ amount) of all individual fixed deferred annuity products (i.e., book value, market value adjusted, plus equity-indexed annuities) during 2004. In the previous five years the EIA share of the total fixed deferred annuity market ranged from 11 percent to 18 percent.

Table 7
Equity-Indexed Annuities as a Percent of Total (Individual)
Fixed Deferred Annuities, 1999-2004

Year	1999	2000	2001	2002	2003	2004
Percent	14%	12%	11%	13%	18%	30%

Source: LIMRA

Table 8 shows annual EIA sales as a percent of total individual annuity sales (including variable annuities, fixed deferred and immediate annuities, and structured settlements).[75] As shown, the EIA share of the total individual annuity market has been steadily increasing since 2001 and reached 11 percent in 2004.

Table 8
Equity-Indexed Annuities as a Percent of Total (Individual)
Annuity Sales 1999-2004*

Year	1999	2000	2001	2002	2003	2004
Percent	3%	3%	4%	5%	7%	11%

*Includes data for EIA products that are registered as variable annuities ($0.2 Billion in 2004). Source: LIMRA

The data in the above three tables clearly demonstrate the increasing importance of equity-indexed annuities. At the time of the initial writing of this report, 2005 data for EIA and other individual annuity sales were available through the end of the 3rd Quarter. Through the first nine months of 2005, EIA sales totaled $20.8 billion—a 27 percent increase over EIA sales during the first nine months of 2004.[76] Annualized, this would equate to approximately $27.7 billion in EIA sales for 2005. However, final EIA numbers for 2005 may turn out to be lower than this annualized estimate since 3rd Quarter 2005 EIA sales of $6.9 billion were 8 percent less than 2nd Quarter 2005 sales of $7.5 billion and nearly 3 percent less than year-earlier (3rd Quarter 2004) sales of $7.1 billion. In any event, it is expected that EIA sales during 2005 will exceed the record-setting 2004 sales of $23.1 billion.

Although EIA sales declined during 3rd Quarter 2005 in comparison to year-earlier numbers, sales of other individual fixed deferred annuities (book value and MVA) declined by even greater percentages. As a result, EIA market shares increased over year-earlier percentages. Specifically, the $20.8 billion of EIA sales through the end of 3rd Quarter 2005 accounted for 40 percent of the $52.3 billion in total sales of individual fixed deferred annuities and equaled 13 percent of total individual annuity sales (including variable annuities, *et al.)* of $162.5 billion during this time period.[77] These percentages are in contrast to EIA's 30 percent market share of individual fixed deferred annuities and its 11 percent market share of total individual annuity sales during 2004 (as shown above).

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[75] Percentages in this table were derived from data contained in Table 1 (p. 9) and Table 15 (p. 16) of Beatrice and Drinkwater.
[76] Beatrice, 2005, Table 1, p. 1.
[77] Derived from data contained in Table 1, p. 1 of Beatrice, 2005.

Let's now examine selected EIA information gathered by Advantage Compendium, Ltd. Advantage Compendium's periodic publications include a monthly newsletter, *Index Compendium*, and a quarterly *Advantage Index Product Sales & Market Report*.[78] Part 1 of the *Product Sales & Market Report* contains survey information on industry-wide sales (premium volume) for both indexed annuities and indexed life insurance products. EIA sales data are further broken down by

(1) tied index
(2) index-linked interest-crediting methodology,
(3) qualified vs. nonqualified annuities,
(4) length of the surrender-charge period,
(5) distribution channel,
(6) commission rate, and
(7) whether a premium bonus is paid.

A number of key statistics from the *3rd Quarter 2005 Sales Report*[79] are highlighted below:

- **Number of Insurers:** 43 manufacturers of indexed annuity products responded to some or all of the survey questions.[80]

- **Market Shares:** Through the 3rd Quarter of 2005, Allianz Life was the largest writer of indexed annuities with nearly $7 billion in year-to-date sales (33.4 percent market share). The "Top 5" insurers (Allianz, American Equity, Old Mutual, AmerUs Group and ING) had a combined market share of nearly 68 percent while the "Top 10" carriers [previous five insurers, plus Midland National, Sun (Keyport) Life, Jackson National, Jefferson-Pilot and EquiTrust] had a combined 85 percent market share.

- **Average Premium:** The average premium of indexed annuities sold during the 3rd Quarter 2005 is $50,585, compared to approximately $34,000 five years earlier (3rd Quarter 2000). The average EIA premium of $50,585 exceeded the average premium on traditional fixed annuities sold by responding insurers by approximately $9,400.

- **Tied Index:** S&P 500 accounted for 95 percent of EIA sales during 3rd Quarter 2005. Eleven insurers issue products with other tied indices (either equity or bond).

- **Index-Linked Interest-Crediting Methods:** EIAs using 36 different interest-crediting methods are available in the marketplace (this is a 20 percent reduction from a previous high of 45).[81] Various Annual Reset crediting methods accounted for slightly more than 94 percent of EIA sales volume during 3rd Quarter 2005. The most popular method was Annual Reset—Monthly Cap Gain at 42 percent, followed by Annual Reset—No Averaging at 27 percent, and Annual Reset—Averaging at 25 percent. The remaining nearly 6 percent of EIA sales during this quarter came from various Point-to-Point products, including "averaging" (to determine the ending index value), High Water Mark and other structures. Compared to

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[78] Jack Marrion, *Advantage Index Product Sales & Market Report* (Advantage Compendium, Ltd.: Maryland Heights, MO).

[79] Jack Marrion, *Advantage Index Product 3rd Quarter 2005 Sales Report—Part 1,* 2005, (Advantage Compendium, Ltd.: Maryland Heights, MO), 14 pp.

[80] Part 2 of this report indicates that there currently are 47 active writers of equity-indexed annuities—see below.

[81] These 36 variations fall into one of the three broad categories of interest-crediting methods described earlier (i.e., Point-to-Point, High Water Mark and Annual Reset). These variations arise due to different averaging periods (i.e., daily, weekly or monthly), deduction of a yield spread, inclusion of an index cap or interest rate cap, biennial vs. annual reset, and so forth.

year-earlier numbers, Point-to-Point is lower by about 11 percentage points, Annual Reset—No Averaging and Annual Reset—Averaging are higher by about 5 points each, and Annual Reset—Monthly Cap Gain is one percentage point higher.

- **_Qualified vs. Nonqualified Sales_:** Index annuity sales during 3rd Quarter 2005 are almost evenly split between qualified (52 percent) and nonqualified (48 percent) annuities; however, the shares of qualified sales for individual insurers ranged from 10 percent to 91 percent.

- **_Surrender-Charge Periods_:** Table 9 shows EIA market shares (for 3rd Quarter 2005 sales) according to surrender-charge period. Only 3 percent of EIA premiums went into contracts with a surrender period shorter than 7 years. Seventy-four percent of EIA premiums went into contracts that had 10 or more years of surrender charges or required that the accumulation value be annuitized.

Table 9
Surrender-Charge Periods and Market Shares

Surrender-Charge Period	5 Yrs	6 Yrs	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 or more Yrs	Annuitize
Market Share*	2%	1%	12%	2%	9%	14%	38%	22%

*To the nearest percent.

- **_Distribution Channels_:** Independent agents (PPGAs, life brokers and other independent producers) continue to sell the vast majority of EIA products, accounting for approximately 92 percent of 3rd Quarter 2005 sales of index annuities. Only small percentages of EIA sales currently take place through the career agency distribution system, banks and broker-dealers. During 3rd Quarter 2005, banks, career agents[82] and broker-dealers accounted for approximately 4 percent, 3 percent and 1 percent of EIA sales, respectively.

- **_Commissions_:** Agent commissions averaged 8.41 percent of premium during 3rd Quarter 2005. This average has fluctuated around 7.5 – 8.5 percent during the past several years. Table 10 shows the breakdown of 3rd Quarter EIA sales (i.e., premium volume) by commission rate.

Table 10
Commission Rates and Market Shares

Commission Rate	5%-6%	7%-8%	9%-10%	11% or more
Market Share	13%	20%	63%	4%

- **_Premium Bonuses_:** EIAs paying a premium bonus captured 60.7 percent of total EIA sales (premium volume) during 3rd Quarter 2005.

As we have just seen, Part 1 of the _Advantage Index Product Sales & Market Report_ reports on quarterly EIA sales (premium volume) and breaks down these sales in a number of important ways. In contrast, Part 2 of this report contains contract-specific information on individual indexed annuity

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[82] Career agents may now be taking a more active interest in EIAs since the 3rd Quarter 2005 percentage for the career agency channel of 2.8 percent was more than double its 1.2 percent market share one year earlier.

products (as well as indexed life insurance policies).[83] Carriers operating in the EIA market are identified together with their indexed products. Specific product names are listed (by issuing company) and categorized according to the length of their surrender-charge periods. Commission rates and interest-crediting methods also are listed for each product (and insurer). Other carrier- and product-specific information contained in Part 2 include

> (a) size of any premium bonuses,
> (b) maximum age at issue,
> (c) minimum guarantees,
> (d) participation rates, caps and yield spreads

General information (not specific as to insurer or product) is provided on "penalty-free" withdrawals and minimum premiums.

Part 2 constitutes an excellent source for individual company- and product-specific information pertaining to EIA contract design. Market share information contained in this report is expressed in terms of the number (or percentage) of products possessing a specific characteristic. The reader should look to Part 1 of the *Advantage Index Product Sales & Market Report* for aggregate sales data and market shares associated with specific carriers, specific product design features, etc. Selected information from Part 2 appears below:

- *Number of Insurers*: As of November 2005, 47 insurers offered index annuities—14 carriers offered only one EIA product; seven insurers offered 10 or more products; the largest number of EIA products issued by a single insurer was 19.

- *Number of Product Variations*: The report identifies 221 separate EIA products (by name) with a total of 825 different strategies (created by variations in the external index used and the length of the interest-crediting duration).

- *Surrender-Charge Periods*: One indexed annuity product imposes no surrender charge while four EIAs—all manufactured by the same insurer—require annuitization. Generally, however, the length of the surrender-charge period ranges from five years to 18 years, with the heaviest concentrations at seven years and 10 years. As shown in Table 11 below, 70 percent of the products incorporate a surrender period of seven to 12 years, inclusive. Multiple EIA products issued by the same carrier frequently have different surrender-charge periods.

Table 11
EIA Products (Number & Percent of Total) According to Length of
Surrender-Charge Period

# of Years	4 or fewer	5-6	7	8-9	10	12	13-24	15	16-18	Annuitize
# of Products	3	18	44	31	48	30	20	19	4	4
%	1%	8%	20%	14%	22%	14%	9%	9%	2%	2%

*Includes one product that imposes no surrender charge.

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[83] Jack Marrion, *Advantage November 2005 Index Product Report—Part 2*, 2005, (Advantage Compendium, Ltd.: Maryland Heights, MO), 47 pp.

- *Market Value Adjustments (MVAs)*: Many of the largest writers of index annuities issue one or more EIA contracts that provide for market value adjustments to surrender values. Six insurers use MVAs on all of their EIAs. Five other carriers use MVAs on some of their products, including two insurers that use MVAs on their registered EIAs.

- *Commissions*: For EIA products currently offered in the marketplace, first-year commissions range from 1 percent to 13 percent, with 6 percent, 7 percent and 9 percent being the most common commission rates applied to the initial premium. As shown in Table 12 below, 70 percent of all EIA products pay a first-year commission between 5 percent and 9 percent. [Note: Table 10, which breaks down commission rates according to sales volume, shows that 67 percent of EIA sales during 3rd Quarter 2005 carried a commission rate of 9 percent or higher. Clearly, the more commonly sold EIA products are the ones paying higher commissions.]

Table 12
EIA Products (Number & Percent of Total) According to
First-Year Commission Rate

Commission Level	Under 5%	5%-6%	7%	8%-9%	10%	Over 10%
# of Products	31	59	29	55	23	7
Percentage	15%	29%	14%	27%	11%	3%

Commission rates are generally lower at higher issue ages (e.g., ages 76 and above)—typically by two percentage points or more; sometimes a two-step process is used—e.g., a two percent reduction for ages 76-80, followed by another two percent reduction at issue ages 81 and above. In addition, many EIA products offer agents a choice between the standard commission on the initial premium and a reduced first-year commission coupled with trail (i.e., asset-based) compensation—e.g., ½ or 1 percent—that usually begins in the second year of the contract. To illustrate, one leading writer of EIAs—on one of its more popular products—offers agents the following three compensation choices (for issue ages 0-75) with respect to initial premiums:[84]

(a) 9% (first-year), no trail
(b) 7% (first-year) plus 0.50% trail
(c) 4.5% (first-year) plus 1.00% trail

Trail compensation provides agents with a direct financial incentive to conserve existing annuity business since it is paid only as long as the contract remains in force.

- *Premium Bonuses*: The payment of premium bonuses is becoming an increasingly popular tool in the marketing of EIAs. More than 80 products in the marketplace today pay a premium bonus that ranges from a low of 1 percent to a high of 13 percent. The most common premium bonus is 5 percent. Premium bonuses are typically paid on the first-year premium, but payment of bonuses on successive years' of premiums, or cumulative

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[84] Commissions on premiums paid after the first year are frequently lower than commission rates paid on the initial premium.

premiums, is becoming more common. Frequently, agent commissions are reduced to partly compensate the insurer for the added cost of the premium bonus.

- ▪ **Penalty-Free Withdrawals:** Nearly all EIAs allow partial withdrawals prior to the end of the surrender-charge period without the imposition of any penalty. The majority of these contracts contain a 10 percent annual withdrawal feature (up to some maximum, e.g., 50 percent of total premiums paid) that takes effect after the first year.

- ▪ **Maximum Age at Issue:** Nearly all non-qualified indexed annuities specify a maximum age at issue—typically either 75, 80 or 85. A small number of EIA products have a maximum issue age of 90. During 3rd Quarter 2005, three prominent writers of EIAs lowered their maximum issue ages, possibly as a result of recent negative publicity surrounding sales of EIAs in the seniors market.

- ▪ **Minimum Guarantees:**

  Approximately
  - One-fifth of EIAs apply their stated interest rate guarantee to 100 percent of the premium
  - One-third of EIAs apply their stated interest rate guarantee to 90 percent of the premium
  - One-third of EIAs apply their stated interest rate guarantee to 87.5 percent of the premium

- ▪ **Minimum Premiums:** A substantial majority of EIAs specify a minimum premium of $5,000 for nonqualified monies and $2,000 for qualified funds. Most other EIAs specify a $10,000 minimum premium for both nonqualified and qualified monies. Two products (issued by the same insurer) specify a minimum premium of $100,000, and a couple of carriers market EIAs with $1,000 minimum premiums.

Issues Surrounding Equity-Indexed Annuities—Assertions and Analysis

Proponents of equity-indexed annuities claim that these financial products enjoy a number of relative advantages over other savings and accumulation vehicles. Advocates most often contrast EIA characteristics with those of certificates of deposits (CDs) and mutual funds. Of course, comparisons with other financial products are also possible, including comparisons with variable annuities and traditional fixed-rate annuities as we saw at the beginning of this report.

A number of criticisms have also been leveled against EIAs and individuals marketing these products. Some of these criticisms come from individuals within the insurance industry, while others come from consumerists, regulators and individuals from other sectors of the broader financial services industry. Moreover, some of the criticisms leveled against EIAs are really criticisms of a broader category of financial products of which EIAs are merely a part.

The purpose of this section is to briefly describe and analyze many of the claims and criticisms that have been made relative to equity-indexed annuities. This section is not intended to be exhaustive in its treatment, however, and there may be other claims and criticisms relative to EIAs that are not addressed here. The seven topics covered in this section are:

- Protection/Return of Principal
- Tax Deferral
- Lifetime Income
- Upside Potential
- Sales Commissions
- Product Suitability (including issues of product understanding, liquidity, and risk and return characteristics)
- Marketing of EIAs "as an Investment"

Protection/Return of Principal

In comparison to equities (including mutual funds), EIA proponents correctly claim that principal (i.e., premiums) together with credited interest are protected against downside market risk inherent in the equities that comprise the underlying external index (e.g., S&P 500). However, this important EIA characteristic does not mean that an EIA purchaser cannot lose money by purchasing an EIA, nor that the purchaser is always entitled to a full return of principal, or that the principal is fully protected or fully guaranteed against loss. At least two important reasons underlie why "protection against downside market risk" is not the same as a "full guarantee (or return) of principal."

First, and most importantly, in order to benefit from the EIA's principal guarantee, the owner must keep the policy in force at least until the end of the contract's surrender-charge period. While the principal guarantee that applies to the contract's accumulation value actually takes effect at the beginning of the contract, cash surrender of an EIA during the surrender-charge period will create a financial loss (i.e., a partial loss of principal) for the EIA purchaser to the extent that the surrender charges exceed any index-linked interest (and possibly fixed interest) and premium bonuses previously credited to the policy's accumulation value.[85] Despite the presence of surrender charges, EIA owners, at a minimum, are always entitled to the contract's guaranteed minimum value, as required by state law.[86] Guaranteed minimum values are expressed as a percentage of paid-in premiums, accumulated at a stated interest rate.

These observations are not limited to equity-indexed annuities. Other annuity products, including traditional fixed-rate and variable annuity contracts, generally also impose surrender charges during an initial period. These charges may also create a partial loss of principal to purchasers in an early-surrender scenario.

A second qualifier to the "principal (and minimum interest) guarantees" embodied in EIAs and other fixed annuities is that the guarantee is contingent on the continued financial viability of the issuing insurer. Due at least partly to an insurance regulatory system that emphasizes solvency-oriented financial accounting and reporting, life insurers rarely become insolvent and unable to meet their financial obligations. The risk of financial loss to the consumer from insurer insolvency is further mitigated by the presence of a system of state guaranty funds. To further shrink this risk, however, consumers should choose EIAs and other insurance and annuity products from among companies with high ratings from one or more of the major independent ratings agencies. Nevertheless, despite all

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[85] As seen earlier in the section entitled "Other Features," downward Market Value Adjustments (MVAs) can also cause the cash surrender value to fall below the sum of paid-in premiums, thereby triggering a partial loss of principal.
[86] See section entitled "Minimum Guarantees" earlier in this report.

these protections, prospective EIA purchasers should not conclude that their risk of financial loss arising from insurer insolvency is zero.

In summary, despite protection against downside (equities) market risk, there is a strong likelihood that EIA purchasers will suffer a partial loss of principal in the event that they surrender their policies within the surrender-charge period and, in addition, may suffer loss of principal in the event of insurer bankruptcy.

Tax Deferral

The Internal Revenue Code provides purchasers of all annuities, including EIAs, with deferral of income taxation on interest and investment gains credited to account
values until these funds are withdrawn. Savings accounts, CDs, and individual stock mutual funds do not enjoy this tax advantage unless they are part of an individual retirement account (IRA) or other tax-qualified plan. Annuity purchasers, however, need to be cognizant of the fact that an IRS-imposed penalty applies to "premature distributions" from annuity contracts, including EIAs.[87] The penalty is independent of any surrender charges that the annuity contract may impose.

However, while deferral of income taxation is an important benefit of annuity ownership, all distributions from annuities are taxed at ordinary income rates and are not eligible for long-term capital gains tax treatment. Distribution of investment gains from the sale of stocks, bonds and mutual funds are eligible for the more favorable long-term capital gains tax treatment if the required holding period has been met. In addition, investment gains are not given the step-up in basis at death under annuities, in contrast to non-annuity investments such as CDs, individual stocks, and mutual funds.

In summary, while EIAs and other annuities enjoy certain tax advantages—namely, tax deferral—not possessed by other financial instruments, these products are not eligible for long-term capital gains tax treatment or a stepped-up cost basis at death. Consequently, when comparing EIAs with other financial products, purchasers should give careful consideration to their differential tax effects prior to making a purchasing decision.

Lifetime Income

The ability to annuitize accumulation values and receive income for life is an important feature of EIAs and other annuity contracts. Despite its relatively infrequent use to date, annuitization remains a valuable option in these contracts. It should be pointed out, however, that annuity purchase rates that are guaranteed in EIAs and other annuity contracts at the time of contract issuance may or may not be attractive at a later date when an annuitization decision is actually made. For example, the interest rate used by an insurer in pricing immediate annuities at the time of annuitization may be higher than the interest rate used by the same insurer in pricing the guaranteed annuity purchase rates included in an EIA (or any deferred annuity contract) purchased decades earlier. Similarly, any increase in longevity may turn out to be less than what was assumed in the original pricing of the guaranteed annuity purchase rates. Either of these scenarios could lead to a situation where, at the time of annuitization, immediate annuity purchase rates are more favorable than guaranteed annuity purchase rates

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[87]The penalty applies if funds are withdrawn from an annuity prior to the year in which the annuity owner attains age 59½, with certain exceptions related to the reason for the withdrawal. The penalty also applies to non-annuity investments if they are in an IRA or other tax-qualified vehicle.

contained in annuity contracts sold many years earlier. Notwithstanding this possibility, guaranteed annuity purchase rates remain a valuable feature of EIAs and other annuity products.

Upside Potential

Proponents correctly claim that in an economic environment of rising stock prices EIAs have the potential to earn higher returns than are likely to be credited under traditional fixed-rate annuities, CDs and money market funds. Furthermore, as we saw earlier, Annual Reset EIAs even have "upside potential" in a "choppy" or volatile equities market as a result of its reset feature. However, the "upside potential" in EIAs is not as great as what exists in the typical variable annuity or mutual fund. This stems from the exclusion of dividends in the tied index and the "haircut" that occurs under EIAs resulting from a participation rate that is less than 100 percent, the deduction of a yield spread and/or the presence of an interest rate cap. As pointed out earlier, there is a cost associated with an EIA's minimum guarantees and this cost directly affects the size of the "haircut" and limits the upside potential of these financial instruments.

It should be clear that EIAs have the potential to credit an interest rate that is greater than that credited by traditional fixed-rate annuities. It should be equally clear that, particularly in "up" markets, EIAs are certain not to generate returns as high as an investment that fully participates in equity returns. If the factors that affect an EIA's crediting rate are explained to prospective buyers in terms they can understand, and if the explanations do not include potentially misleading language (such as "equity-like returns"), then statements indicating that EIAs offer "upside potential" should not be a source of confusion.

Sales (Agent) Commissions

Information was presented earlier in this report on commissions paid to agents on the sale of equity-indexed annuities. These commissions have been the subject of significant commentary and criticism in recent years. This should not be surprising as the size of agent commissions paid on cash value life insurance and annuity products, in general, have been the subject of much debate and criticism for many years.[88]

On an industry-wide basis, commissions paid to selling agents on EIA products possibly are higher than agent commissions paid on the sale of other annuity products. But it also might be the case that we don't have a perfect "apples to apples" comparison. A primary reason for higher commissions could be a direct result of the distribution systems (channels) used. Independent agents (PPGAs, life brokers and other independent producers) sell the substantial majority of EIAs, accounting for more than 90 percent of total premium volume. The personal-producing general agent (PPGA) distribution channel, traditionally, has been characterized by higher (first-year) commissions on the sale of both life insurance and annuity products in comparison to, for example, commissions paid to the selling agent under the "career agency" system. Several reasons underlie this differential in first-year commissions, including:

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[88] To keep things in perspective, it is important to remember that criticisms also have been leveled over the years at high front-end and back-end fees on mutual fund shares as well as high (annual) management fees charged by some mutual funds. For recent examples, see Chapter 8 of Swenson.

- The absence in the PPGA system of a separate "override" commission that typically is payable to a "general agent" or branch manager under the career agency system.
- The lack of, or reduced, recruiting and training costs and office expense support in the PPGA system which may be substantial in the career agency system.[89]
- Many insurers utilizing the career agency system are licensed in the State of New York which restricts the size of first-year commissions (and other distribution costs).

Insurers tend to pay higher commission rates as an inducement to PPGAs to sell their own products instead of products manufactured by other competing insurers. It is important to note, however, that the typical payment of higher first-year commissions to personal-producing general agents does not necessarily mean that the independent agent distribution channel—including life brokers and other independent producers in addition to PPGAs—is more expensive, overall, than the career agency system due to the aforementioned differences.

On the other hand, it may be that commissions received by independent agents on the sale of EIAs are greater than commissions paid to independent agents when selling other annuity products. Earlier in the report it was seen that, over the past several years, first-year commissions paid to agents on EIAs have averaged around 7.5 percent to 8.5 percent (based on sales volume, or market share, figures). In contrast, recent LIMRA data indicate that independent agents received an average 6.3 percent base compensation rate (and an average total compensation rate of 6.6 percent) on the sale of deferred variable annuity contracts with compensation rates for individual variable annuity contracts ranging from around 4.5 percent to 8.0 percent.[90] Caution should be exercised in any attempt to directly compare these data since the EIA averages are based on sales volume while the variable annuity data are based on averages of individual contract (commission) percentages.[91] In addition, the groups of insurers surveyed are different between the two data sources. As such, the commission data presented here do not definitively, or conclusively, demonstrate that EIA products pay higher agent commission rates than do variable annuity products. The data, however, are suggestive of this possibility and additional inquiry into this area may be warranted. As illustrated below, one or more important concerns may arise in the event that a specific insurer pays significantly higher commission rates on its EIAs than it pays on its variable annuity or traditional fixed-rate annuity products when marketing these products through the same distribution channel.

To summarize, our research is not conclusive as to whether commissions paid on EIA products are higher than commissions paid on variable and other annuity products, although there is some evidence that this may be the case. Also, even if average commissions on EIA products are higher, this does not

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[89] The career agency system has significant "agency building" and on-going "agency support" costs that either do not exist, or exist at much smaller levels, under the independent agent distribution channel. Agency building and agency support costs in a career agency system include expenses related to the training and supervising of newly recruited agents as well as costs associated with the provision of ongoing educational, administrative support, office space, and additional forms of compensation such as employee benefits, bonuses and (award) trips for both recently recruited and experienced agents. Although sometimes provided in the independent agent channel (especially under PPGA contracts), bonus payments, the provision of expense support, the awarding of trips (and other sales awards), and the payment of other "forms of compensation" are generally more extensive under the career agency system. The extra support payments and incentives in the career agency system likely explain, at least partly, why the average sales commission is lower in this distribution channel than in the independent agent channel.

[90] See Landsberg and Montminy, pp.16-18.

[91] That is, the LIMRA data consist of averages of compensation rates on individual variable annuity contracts and are not based on sales volume. It should also be pointed out that the LIMRA compensation data are for "B share" variable annuity products—i.e., "back-end loaded" products that impose surrender charges similar to what occurs under equity-indexed annuities.

necessarily mean that commissions paid on <u>every</u> EIA product is higher than commissions paid on <u>all</u> variable and traditional fixed-rate annuity products. In fact, this is unlikely to be the case.

Furthermore, it can be argued that the most important aspect of agent commissions is not their size, but rather their disclosure to prospective purchasers. Consumers should recognize that a "conflict of interest" may exist in that an agent's specific product recommendation might be based, at least partly, on the size of the commission that will be paid on the sale of that product. Commission disclosure is especially important in situations where a prospective purchaser is considering two or more competing annuity products offered by the same sales representative.[92] Currently, the disclosure of agent commissions on the sale of annuity (or life insurance) contracts is not required in the U.S.

The conflict of interest issue isn't confined to annuity purchases. Prospective purchasers of these contracts and/or competing non-annuity investments are encouraged to ask their sales representatives about commissions payable (and other forms of compensation), especially in those situations where the purchaser is deciding between two or more competing products that, potentially, may provide for differing amounts of agent compensation. However, absent a "conflict of interest" issue, consumers and others are cautioned against focusing too much attention on the size of the sales commission as it may cause them to lose sight of what is surely one of the most important aspects of any annuity or similar instrument—that is, its anticipated financial performance. EIAs that potentially offer the best financial performance may or may not be the products that pay the lowest commissions. Many factors, in addition to agent commissions, underlie the cost structure of any specific equity-indexed annuity product.

Product Suitability

An increasing area of concern for the annuity industry has been the "suitability" of sales. While the suitability, or appropriateness, of annuities is an issue that should apply equally to all forms of annuities and competing investments as well as to all annuity purchasers, recent regulatory and media attention has been directed specifically to the suitability of EIAs purchased by older customers. While the popular press has recently reported individual cases of alleged "unsuitability" of annuity sales, the extent of such practices is unclear.

For a number of years, the Securities and Exchange Commission (SEC) and the National Association of Securities Dealers (NASD) have addressed the suitability of variable annuity sales as part of their overall regulation of these investment products. Federal suitability guidelines, however, do not apply to the sale of fixed annuity products, including equity-indexed annuities, unless such products have been "registered" with the SEC. Very few EIAs have been registered with the SEC to date. And, consequently, the substantial majority of EIAs are regulated solely at the state level by the appropriate insurance regulatory authority. In an effort to address at least partly the issue of annuity product suitability, in 2003 the National Association of Insurance Commissioners (NAIC) adopted the *Senior Protection in Annuity Transactions Model Regulation*.[93] This model regulation addresses the suitability of annuity sales in the seniors market, defined as individuals aged 65 and over. Several, although not all, states have enacted suitability legislation patterned after this model regulation.

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[92] An identical argument would apply to situations involving the sale of other competing financial products (life insurance, stocks, mutual funds, etc.) marketed by the same sales representative.

[93] See Drinkwater and Beatrice for additional discussion regarding the requirements of this model regulation and, furthermore, how insurers are responding to the "senior suitability" issue.

The question of annuity product suitability is not an issue that should be restricted to the seniors market. Rather, a case can be made that product suitability issues are universal in nature and should be addressed in all markets, regardless of the age of the purchaser.[94] Furthermore, it is recommended that every assessment of annuity product suitability address, at a minimum, the following three questions:

- Does the purchaser fully understand the major product characteristics?
- Does the buyer have sufficient (asset) liquidity such that it is highly unlikely that the annuity will have to be surrendered for its cash value during the surrender-charge period?
- Are the product's "risk and return" characteristics consistent with the purchaser's risk tolerance and return objectives?

Product Understanding

Many, if not most, financial products possess certain elements of complexity that may pose obstacles to consumers in their efforts to understand fully the nature of these products and their many features. Annuities in general, and equity-indexed annuities in particular, are no exceptions to this statement. Research shows that deferred annuities contain multiple contract features that are frequently misunderstood by consumers.[95] It is incumbent on insurers and their sales representatives to ensure that all their communications with prospective purchasers—both oral and written—be clear and not misleading or deceptive in any way. It is equally incumbent on prospective purchasers themselves to expend the necessary time and effort to learn as much as possible about the financial products which they are considering purchasing prior to the actual purchase, or in the case of insurance and annuity products no later than the expiration of the "free-look" period (e.g., 10 days) that state insurance regulations typically mandate for purchasers of these products.

For all deferred fixed annuity products including EIAs, at a minimum, prospective buyers need to understand the following:

- Minimum guarantees as to principal, interest and annuitization.
- The circumstances under which surrender charges are assessed against the contract's accumulation values.
- Any circumstances under which a market value adjustment (MVA) may be applied to the contract's accumulation value.
- Riders (e.g., Long-Term Care Insurance) attached to the contract and the conditions under which benefits are payable under these riders.

In addition, in the case of equity-indexed annuities it is important that purchasers also understand, at a minimum, the following contract features:

- The specific external index (e.g., S&P 500) used in the contract and that index gains do not include dividends paid on the underlying stocks that comprise the index.
- The specific indexing method (e.g., Annual Reset—Averaging) used to measure change in the external market index.

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[94] It is interesting to note that as of this writing the NAIC has a draft of a revised Senior Protection Model Regulation that deletes all references to seniors. It is possible that a new model regulation will be voted on by the full NAIC membership sometime during 2006.
[95] See, for example, Drinkwater, Chamerda and Weston, pp.27-29.

- The contract's participation rate, interest rate cap, and/or yield spread and the extent of any guarantees that apply to these so-called "moving parts."

The essence of an equity-indexed annuity—the tying, or linking, of interest credits to an external market index—is rather simple. However, EIA product complexity increases as options and features are added as is true for other financial (and non-financial) products. No doubt, product innovation and increased competition among insurers in the EIA marketplace have led to a variety of product offerings as insurers attempt to better meet customers' objectives and also to differentiate their EIA products from those of their competitors. Today, however, the EIA marketplace is characterized by hundreds of variations in EIA product design that differ according to:

- The extent of the "principal and minimum interest guarantees."
- The general indexing method used (i.e., Point-to-Point or Annual Reset) as well as whether a single value or an average of monthly (or annual) values is used in determining the ending-value for measuring change in the external index.
- Which "moving part(s)," and the size(s) of these moving parts, are used to determine index-linked interest-crediting rates. Some EIAs incorporate only a participation rate, while others use an interest rate cap or yield spread either singularly or in combination with a participation rate of less than 100 percent. All three "moving parts" are designed to accomplish the same objective, but they do so in different ways. The existence of three different approaches, however, adds to the complexity of the EIA marketplace.
- The types and sizes of surrender penalties and the length of the surrender-charge period.

"Comparison shopping" for financially-savvy individuals who wish to do so—whether this is done by prospective purchasers themselves or by their advisors—is made much more difficult due to the proliferation of EIA product designs with differing index-linked interest-crediting structures, varying levels of minimum guarantees, and differing surrender-charge penalties. On the other hand, many prospective purchasers, undoubtedly, only look at a single EIA product or consider only EIA products issued by a single insurer before making a purchasing decision.[96] In these instances, the existence of numerous product offerings may have little or no impact on this individual's ability to fully understand the nature of what is being purchased. However, the majority of consumers are likely to rely on the advice of an agent or other advisor in making an EIA purchasing decision. In these instances, an extensive array of product designs increases the likelihood that the advisor will be less than fully informed about all the product offerings in the EIA marketplace and their various complexities.[97]

Liquidity

Potentially, one of the most significant suitability issues surrounding the purchase of EIAs and other annuities pertains to the liquidity-constrained nature of these contracts' accumulation values during the surrender-charge period. As we saw earlier, approximately 75 percent of the total premium volume for EIAs sold during 3rd Quarter 2005 went into contracts that impose surrender charges for 10 or more years or require that the accumulation value be annuitized.[98] Earlier, we also saw that some EIA products impose surrender charges that start out as high as 15 to 20 percent and then decline

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[96] Although possibly not representative of EIA purchasers, recent research indicates that ¾ of annuity owners did not "shop around" by examining other insurers' annuity contracts when making their annuity purchasing decision. See Drinkwater, Chamerda and Weston, p. 25.
[97] Several "EIA calculators" exist in the marketplace and can be utilized by agents (and others) for comparison-shopping purposes. We have not attempted to assess how beneficial these calculators are, however, and are unaware of any published research that has done so.
[98] Although rare, some EIA products impose surrender charges for periods as long as 16 to 18 years.

gradually over the remainder of the surrender-charge period. Higher surrender charges and longer surrender-charge periods may provide EIA purchasers with additional policy benefits including premium bonuses and greater index participation. However, these additional benefits may be partially or totally lost to the purchaser if the contract is cash surrendered within the surrender-charge period.

To provide additional liquidity to these products, many EIAs provide for "free withdrawals" with no surrender charges applied (up to an overall maximum). EIAs also typically contain loan provisions that allow owners additional penalty-free access to accumulation values.[99] In addition, state insurance laws and regulations require that EIAs and other fixed annuity contracts offer cash surrender values that equal or exceed guaranteed minimum amounts. Guaranteed minimum values provide a "floor" below which the cash surrender value cannot drop, even after deducting all surrender penalties.

In summary, because of the significant penalties that are likely to be imposed upon an early surrender of an EIA contract, EIAs should never be purchased as a short-term savings or accumulation vehicle. Doing so may trigger situations (i.e., early cash surrenders) where EIA purchasers receive less money back than the amount put into the contract, despite the presence of contractual guarantees. And the loss becomes greater when the "time value of money" is taken into account. Prospective purchasers should limit their consideration of EIA products to those that contain a surrender-charge period that is no longer than the maximum length of time they believe that these funds will not be needed to meet daily living expenses or emergencies. An argument can be made that EIA purchasers should place only discretionary funds in EIAs, especially in contracts that contain surrender-charge periods of eight years, 10 years or longer. It is exceedingly difficult, if not impossible, for most individuals to accurately forecast their income and other financial needs for periods more than five to seven years in the future. In fact, many of us are unable to make reasonably accurate financial forecasts over even shorter time periods.

While the statements contained in the preceding paragraph are also equally applicable to traditional fixed-rate and variable annuities, these other annuity products frequently incorporate shorter surrender-charge periods and, possibly, lower surrender charges than are commonly found in EIAs. For example, variable annuity ("B share") products rarely incorporate a surrender-charge period that is greater than seven to nine years in length even when providing for the payment of premium bonuses. In addition, the typical first-year surrender charge contained in variable annuity products ranges from 6 to 9 percent.[100] A common surrender-charge schedule (seven years) in B share variable annuities is 7%, 6%, 5%, 4%, 3%, 2%, 1%. Similarly, it is believed that traditional fixed-rate annuities sold in the U.S. typically include shorter surrender-charge periods than those commonly found in equity-indexed annuities. A recent study showed that surrender-charge periods of five to seven years in length are fairly common in traditional fixed-rate annuities.[101]

Risk and Return Characteristics

All financial products (stocks, bonds, CDs, annuities, etc.) face some type of risk and, therefore, no financial product should be viewed as entirely risk-free. Various financial products, however, may be subject to different categories of risk or to differing degrees of the same risk. Generally speaking, financial risks can be classified as follows:

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[99] When an EIA is used as a funding vehicle in an Individual Retirement Account (IRA) or in other "tax-qualified" retirement plans, minimum distributions required by the Internal Revenue Code (IRC) are not subject to a surrender-charge penalty.

[100] See Landsberg and Montminy, p.27.

[101] See Beatrice, 2004. Caution should be exercised, however, in making industry-wide generalizations based on the findings reported in this study since only nine insurers participated in the survey.

- Market risk
- Liquidity risk
- Inflation risk
- Credit risk

The purpose of this section is to describe the extent to which purchasers of equity-indexed annuities are subject to the types of risk identified above.

As stated earlier, due to the presence of principal and minimum interest guarantees, EIAs are not exposed to downside market risk that is characteristic of equities markets even though EIA products link their interest credits to an equity index. The presence of these guarantees and their associated "costs," however, limit somewhat the amount of index participation and, consequently, the level of index-linked interest credits that are possible under these contracts. Therefore, while not exposed to downside market risk, expected returns under EIAs over the long term will be lower than expected returns resulting from the direct ownership of the equity market index itself or the individual stocks that comprise the equity index. Further, while protected against downside (equities) market risk, EIAs are subject to interest rate risk to the extent that the contract applies a Market Value Adjustment (MVA) to accumulation values upon cash surrender. A MVA can lead to either a decrease or an increase in the cash surrender value depending on whether market interest rates at the time of policy surrender are higher or lower, respectively, than market rates at the time the EIA was purchased.

Liquidity risk is present when an amount less than the full principal (including accrued interest) is payable at the time funds are withdrawn. Owners of CDs typically face a liquidity risk due to the partial, or total, loss of interest upon early termination of the contract. As seen above, most annuity purchasers, including EIA owners, also face a liquidity risk during the contract's surrender-charge period.

Most financial products other than inflation-protected bonds (and similar securities) are confronted with inflation risk. Savings accounts, money market funds, CDs, most bonds and traditional fixed-rate annuities are all exposed to inflation risk. In addition, EIAs, variable annuities, individual stocks and stock mutual funds are also exposed to some inflation risk, although to a lesser extent than are most other financial products. A primary objective of most equity (or stock) investing is to provide protection against inflation, and, historically, stocks have performed pretty well over the long run in achieving this objective. However, there is no guarantee that stock returns will, in fact, equal or exceed the rate of inflation, especially during the short-run.

Credit risk exists when there is a possibility of financial loss to consumers arising from the inability of an institution (e.g., bank, insurance company, etc.) to meet all of its contractual obligations. Annuity and insurance products are not covered by the FDIC or by similar federal insurance programs, although a system of state insurance guaranty funds has been developed to mitigate the credit risk borne by purchasers of these products. A small possibility remains, however, that EIA purchasers may suffer some financial loss due to credit risk. A financial loss could occur if the issuing insurer becomes bankrupt and the loss is not eligible for full reimbursement from a state insurance guaranty fund.

Marketed as an "Investment"

Some EIA detractors claim that equity-indexed annuities are frequently marketed as an equity investment and, therefore, should be regulated as such. Any evidence to support this claim appears to be anecdotal in nature, with no formal research into this issue having yet appeared in the public

domain. The detractors typically cite one or more examples and imply that the practice is common and widespread but offer no substantiating proof. This issue is of some concern to state insurance regulators, the National Association of Securities Dealers (NASD) and the Securities and Exchange Commission (SEC). Eventually, this regulatory issue should work itself out in one way or another.

The most important aspect of this issue should not be *who* regulates EIAs but, rather, that the regulatory process ensure that EIA purchasers be provided with appropriate, clear and accurate information about these products and that the regulation of these products and their marketing practices not be unduly burdensome. If there is no assurance that consumers are provided with accurate and complete information, then there can be no assurance that purchasers are making appropriate decisions. Similarly, if the regulatory process becomes overly costly and burdensome, a likely result is that these popular products will become more expensive and/or that fewer insurers may choose to offer EIAs. Either of these outcomes would be unfortunate.

It appears that much of the criticism about the marketing of EIAs is coming from those who are marketing, or regulating, competing equity investments. Although it is beyond the scope of this paper to consider the effectiveness of disclosure requirements for equity investors today, it seems reasonable to suggest that investors in individual stocks, bonds and mutual funds might not always understand the risks, expense and transaction charges, and tax implications of those investments as well as they ought to, and that any changes to improve the decision-making of prospective EIA purchasers apply to competing financial products as well. It is hoped that whatever regulatory process emerges will be one that puts the interests of consumers above the interests of insurers, broker-dealers, sales representatives, and the regulatory agencies themselves.

Specific Recommendations

A number of specific recommendations are developed from the research undertaken in this endeavor and presented below. The following discussion contains some specific recommendations that are alluded to earlier in this document in addition to several recommendations that are appearing in the report for the first time. The report's recommendations are classified into three categories:

- Recommendations for Insurers/Insurance Industry
- Recommendations for Regulators
- Recommendations for Prospective Purchasers

Recommendations for Insurers/Insurance Industry

1) Eliminate, where possible, the word "equity" in all future references to "indexed annuities." Other commentators also recommend simply calling these products "index or indexed annuities" and leaving out all reference to the word "equity."[102] It does not appear that there is any useful descriptive value or explanatory benefit to be gained by including the word "equity" in the labeling of these products. On the other hand, it does seem that referring to these products as "equity-indexed annuities" can lead to confusion on the part of consumers and regulators alike. Inclusion of the word "equity" may

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[102] For example, "index annuities" is used consistently throughout Jack Marrion's book, *Index Annuities—Power & Protection.* "Index annuities" or "indexed annuities" is also the preferred label of the National Association for Fixed Annuities (NAFA) for these annuity products, as indicated in their educational materials describing the basics of index annuities and other related materials that appear on their Web site at www.nafa.us. No doubt, many other individuals and organizations operating in the annuity field prefer "index annuity" or "indexed annuity" to "equity-indexed annuity."

form part of the underlying rationale why some EIA critics argue that EIAs are sometimes marketed as investments, and the usage of this term in the labeling of these products may also be one of the reasons why the NASD and the SEC have recently shown increased interest in EIAs. Consistent with this recommendation, either "index annuity" or "indexed annuity" will be used in identifying these products throughout the remainder of this document.

2) Ensure that all Indexed Annuity (IA) product-performance claims and related statements used in marketing brochures, related sales literature and sales presentations are accurate, complete and not misleading. It is especially important in the IA product arena that statements such as "no downside risk," "principal is guaranteed (or safety of principal)," or "guaranteed minimum return of 'x' percent" be avoided. The first two statements are misleading and incomplete without additional wording pointing out the circumstances under which surrender charges are applied and, in these instances, how it is possible that the purchaser will receive some amount less than the full principal.

In addition, a concisely worded statement that the IA provides a "guaranteed return of 3 (or some other) percent" is incomplete and misleading unless this 3 percent interest credit is applied to the full amount (i.e., 100 percent) of the premium—atypical for most IA products currently being sold in the U.S. Furthermore, minimum guarantees expressed as " 'x' percent on 'y' percent of the premium" may even lead to confusion and misunderstanding on the part of prospective IA purchasers when "y" is less than 100 percent. Instead of stating the minimum guarantee, for example, as "3 percent on 90 percent of the premium," it is probably clearer and less confusing to consumers if guaranteed minimum values are stated in dollar amounts, or expressed as a percentage of the paid premium, and illustrated at appropriate policy anniversary dates throughout the potential life of the contract. Consumers may also benefit from having the "effective" annual compounded rates of interest listed along with the guaranteed minimum values on selected policy anniversary dates. And, finally, to facilitate better consumer understanding of minimum contract values, both sales illustrations and contract provisions could include minimum values on various policy anniversaries under two separate scenarios—(1) assuming cash surrender, and (2) assuming no cash surrender.

3) Reassess the rationale underlying the offering of products with excessively long surrender-charge periods. "Excessively long" can be defined differently by different individuals, and for that reason we have chosen not to suggest here an exact number of years that surrender-charge periods should not exceed. However, it was noted earlier that only 15 percent of IA sales (premium dollars) during 3rd Quarter 2005 were for index annuities with surrender-charge periods of seven years or less[103]—a common length of surrender-charge periods in variable annuity products.[104] Furthermore, 74 percent of IA sales volume during this time period was for products that had surrender-charge periods of 10 or more years or that required annuitization.

While products containing surrender-charge periods of 10 or more years may provide purchasers with additional policy benefits including premium bonuses and greater index participation, it is difficult to comprehend how financial products with such features can be appropriate for such a large percentage of IA buyers, particularly in nonqualified markets.[105] Macroeconomic forces alter the financial

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[103] See Table 9 earlier in this report.

[104] See Landsberg and Montminy, p. 27. As noted earlier, eight and nine years are also frequently used surrender-charge periods in variable annuities. Furthermore, surrender-charge periods of five to seven years in length are commonly found in traditional fixed-rate annuities (see Beatrice, 2004).

[105] It should be noted that the Internal Revenue Service (IRS) imposes "surrender charges" on certain withdrawals from both tax-qualified and non-tax-qualified annuities including IAs. The IRS "surrender charge" is in the form of a 10 percent penalty tax on withdrawals made prior to the year in which the annuity owner attains age 59½. Consequently, for individuals who purchase annuities at younger ages (e.g.,

landscape over time, individual economic circumstances change, and new and possibly more competitively priced products are introduced into the financial marketplace on a fairly regular basis. Any of these developments could easily create a logical rationale for surrendering an indexed annuity or other financial product if not for the presence of surrender charges.

On the other hand, to the extent that purchasers fully understand the nature and potential impact of surrender penalties and feel comfortable in their ability to handle the significant liquidity risk that naturally accompanies products with lengthy surrender-charge periods, then "suitability" may not be an issue at least as it relates to surrender charges. After all, in the absence of deceptive or misleading sales presentations, consumers should accept a certain amount of responsibility for acquiring sufficient product knowledge about the key features along with the relative advantages and disadvantages of annuity and insurance products, CDs, individual stocks and bonds, mutual funds and other financial products prior to purchasing such products.

4) Simplify the index annuity marketplace. To quote one leading expert on annuities, " . . . index annuities are a wonderfully simple concept made complicated by insurance companies."[106] While the index annuity concept is a reasonably simple one, the IA marketplace has become overly complex due to the presence of 16 distinct index-linked interest-crediting structures, in excess of 200 index annuities (segmented by product name) and more than 800 index annuity "strategies" (segmented by index and crediting duration).[107] No doubt, competition among IA carriers and from other complex financial products (also possessing great variation in product design) has contributed to the multitude of product offerings in the IA marketplace.

Simplification in the IA marketplace is probably impossible without some significant movement toward standardization in IA product design. A recommendation of greater IA product standardization is not made lightly. Continued product development and innovation are always important, no matter what type of business or industry is involved. The purpose of this recommendation is not to stifle innovative product development but rather to simply reduce the overall complexity of the IA marketplace created by the hundreds of distinct products currently being offered. The extensive variety in product design makes it substantially more difficult for consumers to acquire a full understanding of the various product offerings and likely is a potential source of confusion and misunderstanding. No doubt, the exceedingly large number of IA product designs also complicates the process of arriving at fair and complete assessments of competing IA products both in qualitative and quantitative terms.

One of the more important and interesting questions is: "Why do multiple types of "moving parts" exist in the IA marketplace since they all share a common purpose?" Participation rates, interest rate caps and yield spreads (each in their own way) limit the amount of index participation provided by the contract. It is understood that varying movements in the tied index will affect financial performance differently according to the type and size of the "moving part(s)" included in an IA contract. However, should the IA industry gravitate toward the use of a single type of "moving part" in order to reduce market complexity? Are there underlying financial or economic reasons supporting the existence of multiple "moving parts" that outweigh the need to reduce market complexity? This report has made no attempt to answer these questions; but these questions may be in need of further study to see whether

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ages 49 and below), the IRS-imposed surrender-charge <u>period</u>, in effect, is also longer than 10 years. IRS "surrender charges" are also imposed on withdrawals from Individual Retirement Accounts (IRAs) and similar tax-favored retirement vehicles when the withdrawals do not meet certain requirements. In contrast to insurer-imposed surrender charges, however, IRS-imposed penalties can be avoided through a transfer of the withdrawn funds to another qualifying contract so long as certain conditions are met.

[106] Jack Marrion, 2003, p. 1.

[107] Jack Marrion, *Advantage November 2005 Index Product Report—Part 2*, 2005, p. 2.

it makes sense to try to achieve greater IA product standardization as it relates to the use of "moving parts." There is no question, however, that the industry's use of a single type of "moving part" would facilitate the assessment of alternative, competing IA products. Although several IA calculators exist to assist agents and consumers in their efforts to compare alternative IA products under differing "what if" economic scenarios, the question then becomes "Which IA calculator is best for the specific purpose at hand?" or, alternatively, "Which IA calculator provides the most trustworthy results?"

A marketplace that consists of a host of IA product designs, each with slightly different features, also makes it more difficult and time-consuming for agents to fully grasp the nuances of each and every IA product. As we have seen, currently, most IA sales are made by independent agents with the ability to place business with multiple insurers. The majority of IA purchasers rely on the advice of an agent in making their purchasing decision. An overly extensive array of product choices increases the likelihood that the agent will be less than fully informed about all relevant product offerings in the IA marketplace. In addition, a more knowledgeable advisor can result in a more knowledgeable consumer—a very worthwhile objective in any purchasing decision. Furthermore, numerous IA product offerings by the same insurer may be an added source of expense for these insurers, considering the additional training and marketing materials that are required.

Indexed annuity products have been in the marketplace for more than a decade now. Significant evolution in product design has occurred during this period. A point may have been reached in the IA product development cycle where greater simplicity and commonality in product design may produce significant benefits. The benefits to agents and consumers could be substantial, possibly expanding the market and sales of these products. In contrast, continuation of current trends risks creating even greater confusion, greater misunderstanding and criticism from consumers, regulators and others outside the IA industry, possibly leading to a decline in IA sales. An argument can be made that "Simplicity Sells." Maybe it is time for IA carriers to take note of the significant trend that has taken place recently with respect to the design of many 401(k) plans where many employers are now offering fewer investment choices to their employees, thereby simplifying their decision-making process.[108] Sometimes, too many options create confusion in the minds of consumers such that they choose to make no purchasing decision at all.

5) Consider increasing the portion, or percentage, of total agent compensation that comes from trail compensation. While this recommendation is made here in the context of indexed annuities, it applies equally to other annuity and life insurance products. Recent trends show that, with respect to their IA products, many insurers are beginning to offer optional compensation schemes under which upfront, or first-year, commissions are reduced with a simultaneous increase in trail, or renewal, compensation. A more level commission structure on IA products may mitigate or soften some of the criticism that is currently coming from those who believe that first-year commissions on IA products are too high. Significant trail compensation also has the potential to provide other benefits to the issuing insurer and to the client/customer as well. Greater amounts of trail compensation provide agents with a direct financial incentive to maintain ongoing client contact and to be responsive to client service needs that, in turn, may lead to increased persistency and profitability for insurers on their IA product portfolios.[109]

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[108] It is interesting to note that, when offered, many employees choose a "life cycle fund" that eliminates the need for employees to make future decisions concerning "asset mix," or portfolio rebalancing, in their 401(k) accounts as they approach, and subsequently enter, the retirement phase of their lives.

[109] See Landsberg and Montminy, p. 21, for claimed advantages of offering significant trail compensation in deferred variable annuity products.

Recommendations for Regulators

Regulation of index annuities has not been a primary focus of this paper. As such, only a few recommendations are made in this section. The following recommendations relate specifically to issues examined in this report. Currently, several states are conducting an extensive review of index annuities and their regulation. For example, the Iowa Insurance Division is working with the Insurance Marketplace Standards Association (IMSA) to closely examine current marketing and sales standards relating to IA products to determine whether changes should be made to existing standards.[110] This initiative will examine several issues including consumer disclosure and agent training. State insurance regulatory review ultimately may lead to important changes impacting the future sale and distribution of IAs.

1) Examine further the issues raised in Recommendations (2), (3) and (4) in the preceding section. It is anticipated that state insurance regulators will have a keen interest in these issues as they all relate, in some way, to sales and marketing practices, agent training, consumer protection and product "suitability"—"market conduct" subject matter that, historically, has received significant attention from state insurance regulators. One state has already placed a maximum on the length of the surrender-charge period included in tax-deferred annuities, including index annuities. In June of 2005, New Jersey limited surrender charges on annuities sold within the state to the later of 10 years or the attainment of age 70.[111] Also, as described earlier, New York currently requires a 100 percent participation rate in index annuities sold within the state. In general, greater uniformity in IA contract design will likely contribute to the simplification of the IA marketplace and should lead to a better understanding of these products by agents and consumers alike.

Furthermore, absent a significant reduction in the complexity of the IA marketplace, it may be appropriate (a) for states to require agents selling indexed annuity products to meet additional licensing requirements and/or (b) that an independent (non-regulatory) organization offer a credentialing program that can attest to an agent having sufficient knowledge about indexed annuities and the IA marketplace. Without such additional licensing or credentialing, how will prospective IA buyers know who's knowledgeable and who's not?

2) Develop a new NAIC *Buyer's Guide to Index Annuities*. The current National Association of Insurance Commissioners' (NAIC) *Buyer's Guide to Equity-Indexed Annuities*[112] should be revised to be more reflective of current market conditions. Specific recommendations include eliminating the use of the word "equity" in the labeling of these products and providing much greater explanation and detail on today's most popular indexing methods (namely, Annual Reset—No Averaging, Annual Reset—Averaging, and Annual Reset—Monthly Cap Gain). Also, considering the potential confusion and misunderstanding that can surround *accumulation values* and *cash surrender values* and their differing guarantees, it may be beneficial to include additional discussion and explanation of this topic in a revised *Buyer's Guide*.

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[110] March 14, 2006 News Release, Insurance Marketplace Standards Association (www.imsaethics.org).
[111] *Wall Street Journal*, "Why Big Insurers Are Staying Away From This Year's Hot Investment Product," December 14, 2005, page D1. Visit http://www.state.nj.us/dobi/bullet05.shtml to read the New Jersey Insurance Department's two bulletins on the new law.
[112] The current NAIC *Buyer's Guide to Equity-Indexed Annuities* can be viewed at the Web site of the Illinois Division of Insurance (http://www.idfpr.com/DOI/Life_Annuities/equityindex.asp).

Recommendations for Prospective Index Annuity (IA) Purchasers

1) Identify, and rely on, a knowledgeable and trustworthy advisor. Like many other financial products, indexed annuities are not necessarily easy to understand. Although the concept is relatively simple—tying the contract's rate of return to an external market index—specific IA products can appear complicated due to (a) their minimum guarantees, (b) surrender charges and other penalties imposed upon early cash surrender, and (c) the totality of the index-linked interest-crediting structure including the presence of "moving parts" (i.e., participation rates, interest rate caps, and/or yield spreads). The potential for confusion can increase when consumers consider several alternative IA products that incorporate different minimum guarantees, surrender penalties, and index-linked interest-crediting mechanisms. Given the tremendous variety of IA products that currently exists in the marketplace, it is imperative that IA purchasers utilize the services of a professional advisor who is experienced, trustworthy and knowledgeable with respect to IA product design.

U.S. laws and regulations generally do not require the disclosure of commissions and other forms of compensation on the sale of financial products. However, consumers are not prevented from asking their advisors about the type and amount of compensation these advisors expect to receive in these situations. At least some knowledge of the type and amount of compensation payable is especially important when the purchaser is considering competing financial products or services (including asset management) offered by the same representative. Having such knowledge allows prospective purchasers to make an assessment as to whether they believe the salesperson's recommendation(s) is/are unbiased. Once the customer is satisfied that bias is not an issue, the customer can have greater confidence in the representative's advice. The client is then able to rely on the advisor's knowledge and expertise in selecting the specific IA or other financial product that offers the most attractive features and best meets the client's needs and objectives.

2) Consider only IA products issued by highly rated insurers. Historically, policy owners have suffered financial losses only on rare occasions due to the bankruptcy or liquidation of a life insurance company. This possibility does exist, however. Prospective purchasers can minimize this (credit) risk by restricting purchasing decisions to only highly-rated insurers. Knowledgeable sales representatives and other advisors can provide information and advice concerning the financial strength and "claims-paying ability" ratings of insurance companies. In addition, prospective purchasers can obtain information on insurer ratings directly by going to one or more of the following insurer rating organization Web sites: **www.ambest.com**, **www2.standardandpoors.com**, **www.moodys.com**, **www.dcrco.com**, and **www.weissratings.com**.

3) In consultation with your advisor, carefully follow a step-by-step process in making and implementing your purchasing decision. A process that focuses on key IA product features and other critical decisions is recommended. One such multi-step process is presented below; others are also possible. The following step-by-step process assumes that you have already made the determination that the purchase of an index annuity fits into your long-term financial plans and that the only remaining decisions are those relating to which IA product features you want and from which insurer the IA should be purchased.

> **Step One: Specify the tied external market index (e.g., S&P 500) that is desired.** As part of this decision, you can also consider whether you want a contract that permits the transfer (usually on policy anniversary dates) of funds between two (or more) external market indices (e.g., between the S&P 500 index and the NASDAQ 100 index) or between an external market index and a fixed interest rate option.

Step Two: Assess your personal appetite for liquidity risk. Some individuals may attach little importance to the size of an IA's guaranteed minimum (cash surrender) values. For others, larger guaranteed minimum values may carry greater weight in the overall decision-making process. In any case, however, all prospective IA purchasers should carefully assess their personal "liquidity situation" in arriving at a maximum period of time where it can be safely assumed that the funds placed in an IA will not be needed. The purchasing decision should be restricted to only those IA products whose surrender-charge period does not exceed this "maximum period." Of course, the actual sizes of the surrender charges themselves are also an important part of the decision-making process.

Step Three: Choose an indexing method (e.g., Annual Reset, Point-to-Point, High Water Mark). Some might argue that Annual Reset indexing methods generally are preferable since, as we saw earlier, positive index gains are possible under this method in a greater variety of stock market scenarios. [113] Specifically, significant index gains are possible in an Annual Reset product when equity markets are "choppy" as well as during periods of generally rising stock prices. However, both traditional Point-to-Point and High Water Mark structures are likely to provide greater index participation (e.g., higher participation rates) than is offered under Annual Reset designs. Another factor to consider is that Annual Reset products provide for annual crediting of index-linked interest whereas the traditional Point-to-Point product credits interest only at the end of a multi-year term. In addition to selecting a specific indexing method, you will also have to determine whether you want an "averaging" or "no-averaging" approach to calculating index gains.

Step Four: Identify a small group of insurers—probably no more than five to seven (at the maximum) in order to keep the evaluation process manageable—that offer one or more IA products that meet the criteria established in Steps 1-3 above <u>AND</u> that have strong financial ratings.

Step Five: Evaluate and assess the IA products under consideration in terms of key product criteria, including:

- Guaranteed minimum values.
- The size of the participation rate, interest rate cap, and/or yield spread and any guarantees associated with these "moving parts." [Note: Prospective purchasers also should ask for information on each insurer's track record as to the frequency and size of changes made to "moving parts" in similar IA contracts issued at an earlier time.]
- Any premium bonuses.
- Surrender penalties and the length of the surrender-charge period. [Note: The decision was made in Step 3 to consider only those IA products whose surrender-charge period did not extend beyond the maximum period during which it was assumed these funds would not be needed. However, there still exists some possibility that unforeseen future events could trigger a need for these funds thereby necessitating a cash surrender of the IA—hence, the importance of evaluating the size of the penalties and the length of the surrender-charge periods across the various IA products still being considered.]

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[113] As we saw earlier in this report, the Annual Reset approach, consisting of several variations, currently accounts for nearly 95 percent of all IA sales (based on premium volume).

If possible, undertake this comparative evaluation of competing IA products assuming several alternative economic scenarios. The financial performance of the various IAs still under consideration may differ depending on the exact movements of the tied index. The use of an IA calculator is likely to be helpful here.

Step Six: Make a decision and implement it. [Note: This may be the most difficult step of all!] Then use the "free-look" period (e.g., 10 days) to carefully review the written contract.

Summary and Conclusions

Since their introduction in 1995 index annuities have enjoyed tremendous popularity as measured by sales volume (premium dollars). A primary reason for their popularity over the past ten-plus years, no doubt, is due to consumers being concerned about the inherent volatility in the equities markets and their displeasure with the low rates of interest payable during the past several years on most fixed income instruments including CDs, treasury bills and money market funds. Index annuities offer the potential for higher returns than those available from other interest-oriented savings instruments, while still protecting principal against downside (equities) market risk. Index annuity purchasers have demonstrated a certain willingness to forgo a portion of stock market gains in return for this protection.

Individuals should not put all of their monies into indexed annuities, just as it is usually not advisable for persons to place all of their funds in any other single financial product. Rather, IAs should be viewed as just one component in a diversified portfolio of financial products that a consumer assembles to, collectively, best serve his or her needs and objectives. However, it is not unusual for consumers to alter their view of what constitutes their ideal portfolio as market conditions change. Over the past several years, we have seen what might be considered to be ideal market conditions for the sale of IAs, which probably explains much of their popularity to date. Going forward, however, with short-term fixed income instruments now paying higher interest rates and many corporations increasing their dividend payouts, we will have to take a "wait and see' attitude to see how these economic changes will impact new sales of index annuities.[114]

Index annuities have a lot of appeal both intrinsically and as measured by their phenomenal growth since their introduction. However, as with traditional fixed-rate deferred annuities, interest-crediting risk exists with respect to index annuities. If index-linked interest credits are small or nonexistent, an IA's financial performance may be solely a function of the guaranteed interest credits. Where permitted by state law, an IA's stated interest rate guarantee generally is applied to something less than the full premium.[115] This leads to "effective" (guaranteed) interest rates that are typically quite small. If guaranteed minimum returns exceed the index-linked interest credits, it is quite likely that the IA's overall rate of return will be less than what would have been attainable had the funds been placed in other interest-earning savings or accumulation vehicles such as CDs, treasury bills and money market funds. Of course, "hindsight is always 20-20." Another important risk, of course, is that the purchaser will find it necessary, for one or more reasons, to cash-surrender the IA contract prior to the expiration of the surrender-charge period. This action may trigger a partial or total loss of any premium bonuses

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[114] The increase in short-term interest rates and corporate dividend payouts may increase the relative attractiveness of CDs, treasury bills and money market funds, in comparison to fixed-rate and indexed annuities. However, a corresponding increase in medium and long-term interest rates can increase the attractiveness of index annuities since this lessens the cost to the insurer of providing the principal and minimum interest guarantees—freeing up more of the premium that can be devoted to purchasing index options used in generating index-linked returns.

[115] For newly issued policies, this percentage cannot be less than 87.5.

and index-linked interest credits in addition to a partial loss of paid premium due to the imposition of surrender charges.

The index annuity marketplace currently is rather complex, and advisors and clients alike may have a difficult time fully comprehending the variety of IA products and features offered. A significant portion of the marketplace's complexity, no doubt, is the result of differences in the minimum guarantees offered, the disparity among surrender charges and surrender-charge periods, whether premium bonuses are paid, the variety of methods used to measure index gains, and whether participation rates, rate caps and/or yield spreads are incorporated into the product's design.

While evolution in product design is an important and natural part of the product development process—for both financial and non-financial products alike—the time may have arrived in the IA product life cycle where the insurance industry can and should embrace a move toward greater product standardization. The difficult issue to address here, of course, is whether any movement toward standardization in IA product design should occur naturally and voluntarily according to its own timetable—with no impetus or requirement from regulatory agencies—or whether regulators should encourage, initiate, or even dictate certain forms of standardization in product design. A risk inherent in the "voluntary" approach is that increased standardization may occur only slowly—possibly, over many years. A risk inherent in the latter approach is that any regulatory initiative may generate a "standardized" product that is neither the best of all possible product designs nor one that is embraced by the consuming public.

The intensity of the spotlight on index annuities increased in August of 2005 when the NASD issued its Notice to Members 05-50 entitled "Equity-Indexed Annuities: Member Responsibilities for Supervising Sales of Unregistered Equity-Indexed Annuities."[116] This generated a lot of media attention focused on index annuities and some anxiety among NASD member firms, annuity companies that sell index annuities, and state insurance regulators. Even though Notice 05-50 conceded that "unregistered EIAs may be appropriate for some retail investors," it stated that "the question of whether a particular EIA is an insurance product or a security is complicated." Questions about who should regulate index annuities hung in the air.

The substantial majority of recommended changes in this manuscript, however, aren't inherently regulatory in nature. As we've noted, voluntary action by IA sellers, particularly if it's prompt, can diminish many of the concerns that have been expressed. Moreover, regulatory action hasn't succeeded in producing a fully transparent marketplace with fully knowledgeable consumers for other financial products such as mutual funds,[117] so there may be little reason to believe that it would do so for IAs.

Wherever it originates, some increase in IA product standardization should bring along with it enhanced understanding on the part of agents and brokers and a commensurate increase in their interest in marketing index annuities since less time will be required to comprehend fewer product design alternatives. Similarly, an increase in consumer understanding can also result from greater uniformity in IA product design, particularly in situations where the prospective purchaser is considering alternative IAs either from the same issuing insurer or from competing insurers. Enhanced consumer understanding can also potentially lead to an even further increase in the demand for IA products, with

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[116]http://www.nasd.com/web/groups/rules_regs/documents/notice_to_members/nasdw_014821.pdf
[117]For example, see Swenson, Chapter 8.

the corollary advantage of a likely decrease in complaints and criticisms coming from consumers, regulators and others.

In making an index annuity purchasing decision, individuals should not focus on only one or two aspects of IA product design (e.g., minimum guarantees, participation rate, etc.), but, rather, each and every key aspect should be evaluated. In examining the totality of IA product design, it should be remembered that any one of many different interest-crediting structures can potentially generate the highest returns for the purchaser, given the right set of circumstances. Which particular IA product will perform the best in an unknown future will be a function of the product's design features and the actual market conditions that occur. Whether a Point-to-Point or Annual Reset method will credit greater amounts of interest or whether an averaging approach will outperform a "no averaging" approach depends entirely on the movements of the external market index, any caps placed on the interest credited, the size of any yield spread, and the relative sizes of the participation rates contained in these products. Like many other financial products, considerable uncertainty surrounds the size of future returns under index annuities. Prior to purchasing an IA or any other financial product, individuals should make sure that the product's risk and return characteristics are consistent with their financial objectives.

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Insurer Rating Agency Web sites

www.ambest.com
www2.standardandpoors.com
www.moodys.com
www.dcrco.com
www.weissratings.com

Selected EIA Product-Related Web sites

www.indexannuity.org
www.safeharborfinancial.com
www.AnnuitySpecs.com