

Equity-Indexed Annuities – Look Before You Leap

by Dr. John R. Brock

Does an equity-indexed annuity (EIA) offer the elusive free lunch for investors by providing both protection of principal **and** meaningful investment growth at the same time? After all, EIAs are sometimes promoted by sales agents with the following seemingly persuasive pitch: *Participate in the stock market's upside while escaping its downside.* Sounds like a free lunch to me! This pitch may appear attractive to some people who, having experienced the Great Recession and accompanying stock market drop, are still fearful of equities. Why not purchase an EIA to garner some fixed-income stability and the superior growth of stocks? This may sound tempting, but investors should think twice before taking the plunge into an EIA.

In this study I compared the average annual return of a hypothetical equity-indexed annuity offering typical EIA features with two alternative portfolios invested in (i) the S&P 500 index, and (ii) U.S. Treasury bills. The results may surprise you: While the hypothetical EIA does reduce downside risk, it comes with a substantial opportunity cost in the form of a significantly lower return than stocks. The funds invested in my hypothetical EIA appeared to act more like a Treasury bill investment, with low volatility and low returns, than an equity investment with greater long-run returns.

What is an Equity-Indexed Annuity?

An EIA is typically a contract issued by an insurance company. The customer pays an amount of money (the premium) and in return the company promises to make periodic payments to the insured starting at some future date. (An insured can opt for immediate returns, but I considered a deferred-returns policy.) The investment return of the EIA is based in part on the gain in the index to which the annuity is linked, usually the S&P 500. However, the method used to calculate the investment return can be quite complicated and varies widely among insurance companies. The Financial Industry Regulatory Authority (FINRA) noted that EIA products are:

... anything but easy to understand ... unlike some products, when you've seen one, you've seen them all, with equity-indexed annuities, when you've seen one, you've seen one. Placed side by side, it's hard to tell where there are similarities and differences between the two different products.



J. V. Bruni and Company

1528 North Tejon Street

Colorado Springs, CO 80907

(719) 575-9880 • www.jvbruni.com • (800) 748-3409

Common Equity-Indexed Annuity Provisions and a Representative EIA for This Study

Rather than attempting to address all the complexities and differences in the world of EIAs, in this study I created one hypothetical EIA that is representative of a typical equity-indexed annuity product. The most common EIA features and the way in which I modeled them in this study are:

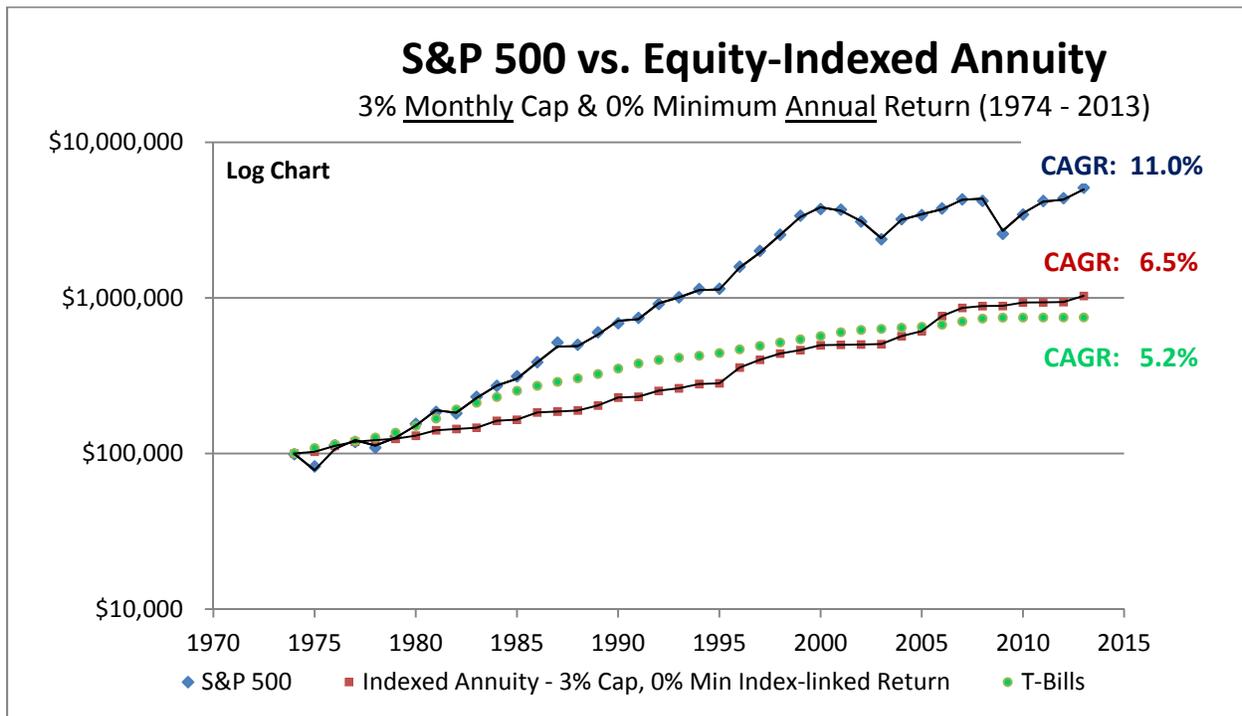
- **S&P 500 Return:** The amount of money an insurance company credits to the insured person's annuity account is usually based on the S&P 500 index. (It is important to note that "based on" is usually not the same as "equal to.") However, many investors overlook that it is quite typical for EIA contracts to specify that the annuity return be determined on the basis of capital appreciation (or price appreciation) only, **excluding** dividends. While the annual dividend contribution to stocks' total return has varied over the 40-year period of this study, it has typically been in the 2 – 4% range. Thus, excluding dividends from the index causes investors to miss out on a sizable portion of equity returns.
 - In this study, I followed the usual convention of excluding dividends from the S&P 500 return in calculating the annual amount credited to the annuity returns.
- **Participation Rate:** A participation rate determines how much of the gain in the index will be credited to the annuity. Participation rates typically range from 80% to 100%. For example, if the insurance company sets the participation rate at 80%, then if the S&P 500 (excluding dividends) rises by 10% in a given period, 8% (80% of the gain) will be credited to the EIA account.
 - In this study, I assumed a 100% participation rate, which is more generous to the policyholder than many EIA contracts.
- **Rate of Return Cap:** Many EIAs put a cap (upper limit) on the return over a certain period of time. For example, if the index returns 10%, but the EIA has a cap of 3%, then the investor will only receive a 3% rate of return.
 - In this study, I assumed a monthly cap of 3%, which is representative of many EIA contracts. You might not think so at first blush, but such a cap significantly reduces returns below equity returns. Out of the 480 months covered by this study, the 3% monthly cap was binding (i.e., reduced the monthly rate of return) 151 times, or nearly one-third of the months. In 20 of these months, the reduction in the rate of return exceeded 5%, and for nine of these months the reduction was greater than 9%. Such single-month reductions significantly slow the rate of growth of the annuity portfolio.
- **Downside Protection:** One of the main selling points of EIAs is the downside protection offered. Typically, EIA contracts include a minimum annual index-linked return. The most common such minimum is 0% applied to the total annual return. For example, if the S&P 500 declines by 5% over a year, then the index-linked return that the policyholder earns for that year will be zero and not negative.
 - In this study, the index-linked return floor was set at 0% **annual** return, a common provision in EIA contracts.
- **Guaranteed Minimum Return:** State insurance laws often require a guaranteed minimum return applied to the premium paid. The guaranteed minimum rate of return

on many EIA contracts is about 1 – 3% on 90% of the value of the premium paid. For example, if the premium paid is \$100,000, then 3% of \$90,000 (90% of premium paid) is \$2,700. In this case, if the index-linked return for a given year falls below \$2,700, then this provision is triggered, increasing the year's return to \$2,700. The guaranteed minimum rate is typically computed **only on the original premium paid** and does not consider subsequent returns credited to the account.

- In this study, a minimum return of 3% on 90% of the premium paid was the guaranteed minimum annual return.
- **Annual Reset:** Additional downside protection applies to index-linked returns and guaranteed minimum returns, which are typically credited to an account at the end of each policy year. Once the return is credited, it cannot be taken away in a subsequent down year. This provision essentially “locks in” any previously credited premium or returns.
 - In this study, an annual reset provision was used – previously credited returns could not be reduced by future decreases in the index.
- **Spread, Margin or Asset Fee:** Some EIAs include a spread fee which is an annual percentage charge that may be subtracted from the index-linked return of the annuity. For example, if the index gains 10% and the spread fee is 3%, then the return credited to the annuity will be 7%. Spread fees provide yet another way in which the policy issuer can lower the rate of return of the EIA.
 - In this study, the hypothetical EIA had no spread fee, which is more generous than some EIA contracts.

Comparison: Hypothetical EIA, Treasury Bills, and the S&P 500

Given the equity-indexed annuity provisions specified above, how did the EIA perform over the long run in comparison with the S&P 500 and with a portfolio invested in Treasury bills? While EIAs would not usually have 40-year policy terms, in order to capture a long-term record of relative performance, I computed a 40-year return history: 1974 through 2013. As shown in the figure below, the EIA did reduce volatility of the portfolio, but it did so with a substantial reduction in the return on the portfolio compared to the S&P 500.



Using actual historical data for the S&P 500 and T-bills and starting with a \$100,000 initial value (i.e., premium paid) in January 1974, the hypothetical EIA increased in value over 40 years to \$1,242,551 by year-end 2013, providing a 6.5% compound annual growth rate (CAGR). As can be seen in the figure by the line marked with red squares, the volatility was reduced compared with the S&P 500 portfolio, shown in blue diamonds. However, had the same \$100,000 been invested in the S&P 500 index in 1974, it would have grown to \$6,438,480—over **five times** the value of the EIA. The S&P 500 portfolio grew at a CAGR of 11%, almost double that of the EIA.

The hypothetical EIA growth line shown in the figure looks strikingly similar to the green-dot growth path that represents a portfolio invested in Treasury bills. A \$100,000 initial investment in T-bills would have grown at a CAGR of 5.2%, ending with a portfolio value of \$750,516. Note that the T-bill portfolio outdistanced the EIA over the 1974 – 2005 period, with the EIA moving ahead of the T-bill portfolio only in recent years, due in part to historically low T-bill rates. As interest rates in the U.S. economy increase to more normal levels, future relative performance of an EIA may more closely approximate the first 32 years of the sample period than the last eight years.

Additional Concerns with Equity-Indexed Annuities

This study has addressed the key issue involved with equity-indexed annuities—the tradeoff between volatility risk and rate of return. In short, EIAs often feature much less short-term volatility than stocks, but typically at the cost of much lower returns. T-bills, a far less complicated investment, have featured comparable reductions in volatility and return. However, there are some additional issues with EIAs that were not directly part of this study, but which prospective buyers of annuities should consider.

- **Contract Changes:** The EIA is a complex insurance product with many moving parts, to include cap rates, participation rates, spread fees, and other provisions that may apply over varying time periods. Further, insurance companies sometimes retain the right to change these contract provisions, usually on an annual basis, during the period of the contract. Thus, they can make changes that lower net returns (e.g., lower the participation rate or the cap)—creating uncertainty for the policyholder.
- **Surrender Fees:** While EIAs usually do not have an upfront sales charge, there are often significant surrender fees—charges the policyholder pays to access funds from the account before the contractually-specified surrender period ends. While EIA contracts vary, 10 – 13 year surrender periods are common—substantially increasing the cost of withdrawing funds from an account during the surrender period. Although there may not be an upfront sales charge for an EIA, the insurance agent (sometimes referred to as a financial adviser or consultant) may still be paid a sizeable commission, commonly in the 3 – 10% range, sometimes higher than other types of annuities. (With a typical 5% commission, that's \$50,000 for a \$1 million premium.) One reason for surrender charges is that when the EIA purchaser surrenders his or her EIA before the insurance company has earned enough through fees and return limits to afford its payments to the sales agent and other costs/profit, the insurance company needs another way to recoup its expenses. It should not be surprising, then, that longer surrender charge periods sometimes support higher sales commissions.

Conclusion

Using a hypothetical EIA that included representative-to-generous contract provisions, my analysis showed that equity-indexed annuities do appear to offer the promised reduction in volatility compared with stocks. The real question for potential buyers of these products seems to be whether the reduction in volatility is worth the corresponding price paid in lower returns. One clear observation from this study is that investors interested in an equity-indexed annuity should recognize that these products are best characterized as insurance policies rather than equity investments. While they do have the potential to capture some of the stock index returns, the caps, participation rates, and other moving parts severely limit that benefit. As one analyst put it, “The upside to an equity-indexed annuity is that there is no downside. The downside to an equity-indexed annuity is that there is very limited upside.” With a 40-year compound annual growth rate that is significantly lower than the S&P 500 and only marginally higher than T-bills, investors might consider the EIA along with other fixed investment alternatives, but not in the same league with equity investments.

The author of this article is not employed by and does not receive commissions or compensation from any insurance company, and this article is not intended as insurance advice. Further, J. V. Bruni and Company does not sell any insurance products. While it is possible for consumers to receive adequate explanations and recommendations from insurance agents, we feel the case for unbiased and insightful analysis is stronger when consumers are provided appropriate definitions, analysis, comparisons and disclosure unencumbered with industry jargon and sales literature.