

An Interview with Wharton Professor David Babbel

This is the first part of an interview with Wharton Professor David Babbel.

Professor Babbel led the fixed indexed annuity study that is discussed in several previous posts on Annuity Digest.

Annuity Digest: If you had a friend who knew very little about annuities or investing, how would you communicate the gist of this study and its results to that person? In other words, the study was presumably developed for an industry and academic audience. What would you want or expect a consumer audience to take from the study? Is there a sort of distilled message that could be drawn from the study for a consumer audience?

Professor Babbel: The genesis of the study is as follows. There has been a lot of misinformation in the popular press regarding FIAs. The vast majority of newspaper and magazine accounts vilify FIAs based on the results of alleged academic studies. The in-depth studies we conducted took over two years to complete and involved six Ph.D. financial economists and a pair of very well-known senior actuaries. Our studies show that the products of at least some of the companies in this field are viable – indeed, rather attractive products. Our findings regarding actual products show that since their inception in 1995, they have performed quite well – in fact, some have performed better than many alternative investment classes (corporate and government bonds, equity funds, money markets) in any combination.

Annuity Digest: What was the catalyst for the study? What drove your curiosity? Was it the seeming disconnect between conventional financial media coverage of FIAs and what you thought might exist from a performance standpoint?

Professor Babbel: FIAs hit the market like a storm and soon become one of the most popular insurance products. I had done several studies on deferred annuities prior to the arrival of FIAs in 1995, and had a natural curiosity to study the structure, behavior and performance of these new varieties.

Annuity Digest: Asset decumulation is front and center for a number of reasons— including demographics, social security/public policy, the financial crisis, etc. What role can professionals in academia play in changing the manner in which consumers are informed about annuity products and in overcoming some of the misperceptions and behavioral hurdles that exist in the industry?

Professor Babbel: On the one hand, you have sales people and insurance marketing efforts to describe FIAs in a favorable light. On the other hand you have class action attorneys who do what they can to vilify FIAs. State regulatory bodies, appropriately, do not typically take a stand, one way or the other, except with regard to whether the products comply with regulations and whether the sponsoring companies meet solvency requirements. The Federal Government and FINRA have never regulated

these products and currently have no expertise to comment, credibly, about the merits or defects in these products. Academicians generally “do not have a dog in this fight” and can look at the products dispassionately. They are not seeking to sell any products, nor expand their regulatory empires. Their studies are peer reviewed by disinterested experts. Therefore, the studies done in academia should not be fraught with bias one way or the other. Typically, academicians take years to study products such as these, and one can see the literature meandering back and forth as greater understanding and more intelligent and appropriate analytical tools are employed to study the instruments. The main problems with academic studies are that they typically take a long time to get published, many of the best ones are not readable by a lay audience, and it typically takes an academician with expertise to sort through the varying methodologies and findings to make sense of them.

Annuity Digest: Asset decumulation and the annuity industry typically involve products that are heavily intermediated and sold rather than bought. How might investment professional use the information in your study to better serve their clients, and how might consumers use the information to better inform/prepare themselves for a very important decision and purchase?

Professor Babbel: Our studies do not make predictions about how well FIAs will perform in the future. Rather, they undertake a rigorous analysis of the products and the alleged defects in the products. They found in the products that were examined in depth, they operated the way they were designed to operate and over the period of their existence, performed well.

Annuity Digest: Has the industry—either trade groups or marketing/wholesale organizations—approached you about the study? If not, why do you believe this might be the case?

Professor Babbel: Yes, but I have thought it best not to write and publish a sponsored study on FIAs because of the litigation surrounding the issue. Rather, from time to time I have presented our findings in academic conferences and will ultimately publish something on the subject when I find time. Recently, some other academic articles have been written that largely corroborate our studies, and with an expanded purview and alternative methodology.

Annuity Digest: Why, in your opinion, has the FIA industry not jumped on this PR and marketing opportunity? It seems that either trade groups or asset managers within other asset classes would, to say the least, leverage a report like this from a marketing and PR standpoint?

Professor Babbel: I do not undertake research to help market any company’s specific products, nor do I endorse a product of a particular company publicly. I do, however, look at a genre of products, including average features and average pricing, and comment on the entire genre. For example, I may research whole life insurance contracts, participating and nonparticipating, and comment on their pricing and performance, but I won’t comment publicly on a particular company’s product.

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Annuity Digest: Which study results were most surprising to you? I assume you went into the study with firm views on the non-normality of asset returns. Given that, was it: a) short-run comparative results, b) long-run results, c) valuation results, or d) performance in light of the risk tolerance overlay?

Professor Babbel: I was not surprised by the positive stochastic dominance results or the mean-variance results, both of which showed that the returns on FIAs historically, when adjusted for risk, performed quite well relative to alternatives. Indeed, for most levels of risk aversion, they have dominated the alternatives. However, what surprised me was that the returns on FIAs outperformed the alternatives over the lifetime of their existence (since 1995) for every year that they have been issued. This relates to 9-year FIAs and 14-year FIAs, held through maturity. This superior performance prevailed EVEN BEFORE there was any adjustment for risk, which adjustments typically reduce the risk-adjusted returns of the alternatives to FIAs, thereby boosting even more the FIA relative returns. The second finding that surprised me was that when the observed non-Normality of asset returns was taken into account, it was about twice as likely to have FIAs crediting medium and high rates than what would occur under an assumed Normal distribution. I suspected that non-Normality might have some effect, but never thought that it would be as dramatic as it is.

Annuity Digest: In a world of high volatility and asset returns that are not normally distributed, isn't there a very strong case to be made for a product that captures part of the market upside while having a floor of protection for large downside possibilities?

Professor Babbel: Yes, as long as the pricing is appropriate and not gouging.

Annuity Digest: Is the case for the FIA over any time period pretty much made by high volatility and asymmetric asset returns? Would this case be undermined in a low volatility environment?

Professor Babbel: Yes, but it would again depend on appropriate (competitive) pricing. The case is not necessarily undermined in a low volatility environment. The reason is that the crediting rate caps and participation rates depend on volatility, because higher volatility makes it more expensive for the insurer to hedge the promises and guarantees in the contract. Indeed, the most generous contractual provisions can occur when interest rates are high and volatility is low. Of course, more generous crediting rate caps and participation rates do not imply a better product, because it would then be less likely to make high FIA returns due to the lower volatility.

Annuity Digest: The sequence of returns effect is starkly evident. Can you talk a bit about this in light of some of the highly volatile periods we have experienced in the capital markets over the past 15 years or so—and also possibly on a forward looking basis in light of asymmetric asset returns?

Professor Babbel: No, because I have not studied this.

Annuity Digest: Can you capture the essence of the valuation argument for our **consumer** audience?

Professor Babbel: The FIA can be a product particularly suited to people with moderate to high risk aversion, yet who still wish to have some exposure to equity returns.

Annuity Digest: Can you talk a bit—again, if possible, for a consumer audience—about what goes into expected utility and also the risk aversion coefficient?

Professor Babbel: Utility analysis is at the heart of all economics. It involves models of human behavior and happiness/satisfaction. In all economic models, "utility" or happiness/satisfaction increases as wealth/consumption increases. Conversely, "utility" falls when wealth/consumption falls. If a \$10,000 increase in wealth gives you additional utility, then a \$10,000 loss in wealth would create in the risk-

averse consumer a decrease in utility of an even greater amount. For example, if an increase in your wealth of \$10,000 raises your utility by, say 10 “utils” (units of happiness/satisfaction), than a similar decrease of \$10,000 would injure the risk-averse consumer by, say 12 “utils” or 30 “utils” or even more, depending on how risk averse the individual is. Many studies have been done that show this pattern among most consumers. It is not uncommon for an individual to require a much higher possible payoff on an investment that has a chance of losing money. The index of risk aversion that is typically used in economics studies ranges from 0 for no risk aversion to 90 for extreme risk aversion. Once risk aversion goes above a 2 or 3, the FIAs begin to shine relative to their investment alternatives. Recent studies show that most consumers have risk aversion levels well above those levels, although those who invest directly in stocks often show risk aversion levels in the 0 to 2.5 range.

Annuity Digest: Can you provide some clarification—ideally for a consumer audience—on the implications of actual/historical crediting rates versus simulated crediting rates? Is it the asymmetric aspect of the historical crediting rates that work in favor of annuity comparative performance?

Professor Babbel: The main advice would be that the consumer (1) is comfortable with the quality of the company standing behind the contract, examine carefully the structure of the FIA and see whether it (2) provides them with satisfactory downside protection and (3) an upside potential that is sufficiently attractive. In looking at historical crediting rates, keep in mind that they will depend on two things beyond the contract’s structure and initial parameters: what actually happened to the index to which the interest credits are linked, and what changes did the company make over time in the caps or participation rates. The company cannot control what happens to the index but can control the caps or participation rates that it periodically revises. It is not generally an indication of profiteering on the company’s part to reduce the caps or participation rates – it may be occasioned simply by the cost of **hedging** having increased due to higher market volatility. There is likely an annual budget available embedded within the contract for the hedging costs, and the budget will stretch further when the hedges are cheap, which typically happens when volatility is reduced. The company cannot control market volatility as it evolves over the life of a contract, so some resetting of contract levers is prudent and to be expected. Nonetheless, some useful information can be gleaned from a historical review of crediting rates.