

Fixed Indexed Annuity Pricing [Part 1]

If you're a wholesaler, marketer or agent, have you ever been asked --- how exactly do insurance companies come up with the rates on the indexed annuities they offer? The Fed keeps raising interest rates, and they're slated to raise them another 75 bps in September. Bottom line, rates continue to go up, you're likely getting or sending emails and calls that rates in FIAs are going up ---so how exactly does the process work? Admittedly, there's a lot that goes into it, but in this short video, I'll explain all you need to know to have an informative conversation the next time it comes up.

In today's video, we're going to take high-level look at 3 things when it comes to pricing fixed indexed annuities:

1. What is an option?
2. How is an options budget determined by a carrier?
3. How does an options budget translate to the rates offered by a carrier?

What's an option?

When purchasing an indexed annuity and selecting an indexed interest crediting strategy, the client isn't actually investing the funds directly into the index, or even the underlying assets or equities that make up the index. Instead, they're simply linking their interest credits to the performance of the index, subject to certain guaranteed minimum values and non-guaranteed upside exposure.

How do life insurers provide the index-linked exposure? That's where options come into the mix. Options are market traded instruments that give exposure to an underlying asset --- in this case, an index --- without actually requiring an investment in the underlying asset itself.

In a fixed indexed annuity, life insurers purchase options that capture the growth of the index over a specified period of time. The options equal the index-linked interest that is due to the policyholder. This means that the life insurer's profitability isn't dependent on the performance of the index because there is a match between the asset --- the options --- and the liability --- the index-linked interest credit in the product.

But options have a cost, which leads us to the next topic --- the options budget.

How is an options budget determined by a carrier?

When an annuity policy is issued, a carrier will purchase assets, typically mid-duration fixed income securities or bonds, that match the expected liability of the policy. A 10-year bond would be purchased for a 10-year FIA for example. One of the best proxies you can use for what these types of securities or what carrier general accounts are yielding at a given time is Moody's Baa Corporate Bond Yield. *Show Moody's website with current yield is...5.51%. There's a direct correlation here between market interest rates and the yields on these types of securities.

From there, the life insurer deducts a spread to cover the costs for them to do business. This spread accounts for things like acquisition expenses, carrier overhead, and the required profit margin or cost of capital. For simple math, let's assume the carrier spread is 1%.

So if we take the spread, and subtract it from the yield we have...

$$5.51\% - 1\% = 4.51\%$$

In a traditional fixed deferred annuity, that 4.51% would be paid out as a fixed interest credit. But in FIA, the life insurer takes the 4.51% and uses it to provide index-linked exposure. We refer to the 4.51% as the “option budget” because it is the amount of money the life insurer has to spend on options.

There are other factors that come into play here, and the reasons why rates might vary across carriers, with either a higher yield or lower spread, affecting the baseline option budget.

Some carriers might have superior asset management capabilities to generate higher yields, they could require less of an IRR thus reducing the spread, or they might have less operational overhead for a lower spread, which will all translate to a higher options budget, and higher net crediting rate offered to the end client or consumer, which is what we’ll talk about next.

How does an options budget translate to the rates offered by a carrier?

A carrier goes to market with the option budget of 4.51% we determined above and finds out what kind of rates it can offer on its indexed annuity product. The goal is simple – to purchase options that have the exact fair-market value as the option budget. If the life insurer has 4.51% to spend, then it wants to buy options that cost 4.51% of the policy account value.

The carrier will start by buying what’s called an “at the money call option” on the S&P 500 using the options budget we determined above. *Draw graphic outlining this using 100 as a strike price and at the money call option at certain price and cost. The current cost is 10% for an at the money call option on the S&P 500. However, if you remember our option budget from before of 4.51%, this Option cost for an “At the money” call option on the S&P 500 exceeds it. The carrier doesn’t have enough of an option budget to provide unlimited upside on the S&P 500 with the 10% option cost, they only have 4.51%. They have to limit the upside exposure for the client in order to keep cost of options in line with the option budget.

The most common method for limiting upside exposure is to put a cap on the maximum interest credit. In order to that, they sell another option – one with a strike price equal to the limit, currently 109 (draw graphic). The net cost of the options – the one bought at the floor and sold at the cap – must be equal to the option budget.

In our example, an additional option at a 109 strike price is sold for 5.49% meaning any amount above the strike price is owed to the counterparty. But the carrier is able to establish a cap rate at 9% based on the 4.51% option budget we determined originally. Any amount between 100 and 109 is a payoff made to the insurance company from the investment bank, and interest is credited to the client. Anything above 109, the payoff between 100 and 109 is made to the carrier, and the excess is paid from the insurance company to the third party who purchased the call option above 109. The client receives the full index credit, up to the cap amount. (Use a graph here)

If the index is down, or below the 100 strike price, the carrier let’s the option expire essentially worthless, and the client receives a 0 interest credit for that term. With FIAs, zero is your hero.

In the end, the mechanics are pretty simple – life insurers earn a yield on their assets, they take a margin for their profitability, and the remainder is used to purchase options that provide exposure to index-linked returns. The options must match the index-linked credits – and the cost of the options must match the life insurer’s budget. This brings us back to the key question – why do rates in FIA products change? Because these are all moving targets. Asset yields and option prices changes regularly, therefore, so should FIA rates. But not always in the way you’d expect. You’ve probably noticed that cap rates have nearly doubled since the beginning of the year due to rising interest rates, but participation rates have been a laggard in comparison. Why is that?

In our next video, we’ll discuss what influences each and why they haven’t been in lock-step.