Fixed Index Annuities – Interest Crediting Explained

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With the chosen index, interest crediting will generally be based on a formula that can include floors, caps, participation rates, spreads, and, less commonly, buffers. To explain these basic features, it helps to have a basic annuity design. We will consider an *annual reset one-year term point-to-point crediting method*.

Though it is a mouthful, an annual reset one-year term point-to-point crediting method is probably the most straightforward and intuitive way to understand and use an FIA. Allowing for longer term lengths to also be included in this category, it is likely the most common as well. The one-year term and the point-to-point method means that the changes in the index values on one-year contract anniversaries will be used to calculate interest. Annual point-to-point looks at the change in the index at two different dates, one year apart. The term could be longer, such as three, five, or seven years. Whatever the term length, it is the cumulative change in the index value over the term that is relevant for crediting interest. The term length is also important because at the end of each term, the insurance company may change these parameters (such as caps or participation rates) used to calculate interest for the following term.

As for the annual reset design, this reflects how interest crediting calculations start fresh for each term. If the index lost 10 percent in the previous term and credited 0 percent interest for that term, it is only the

new point-to-point change for the current term that matters to calculate the new term's interest. In other words, there is no need for cumulative gains to make up for previous losses when the annual reset provision is included.

Regarding interest calculations, the first step is to identify the *floor* on returns. This provides protection from downside risk and is generally a key feature of FIAs, except for ones using a buffer approach instead. The floor provides a minimum value that credited interest cannot fall below. Typically, it is 0 percent in order to provide full downside protection, but it could be less or more. If the floor is less than zero, then the annuity is technically a variable index annuity and maintains most characteristics of the FIA except that it is also regulated as a security because it can experience losses. If the index price return is less that this floor value, the interest credited will instead be equal to the floor.

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In terms of how an FIA works, a simple way to think about the downside protection with the guaranteed floor is that the insurance company buys enough bonds with the annuity contract value that the growth of that portion with interest will match the original contract value at the end of the term. Suppose the yield on the insurance company's general account is 4 percent, and I have $100 as a contract value in my FIA. Simplifying with an annual interest payment assumption, if the insurance company invests $96.15 in bonds, this amount will grow to $100 in a year with the 4 percent interest. The $96.15 investment fully protects my principal and creates a 0 percent return floor. It also leaves $3.85 for the insurance company to use for both covering their needs and providing upside potential.

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Note that if the floor is less than 0 percent, the amount of bonds needed to guarantee it would be less. For instance, if the FIA (or, technically, a variable index annuity in this case) guaranteed that returns will not be less than -2 percent, then $98 must be protected. That would require $94.23 growing at 4 percent, leaving $5.77 to be used for other purposes. Conversely, the floor return could be positive. With yields of 4 percent, the guaranteed floor could not be greater than 4 percent because sufficient assets are not available to guarantee a higher return. It requires the full $100 to guarantee a 4 percent return when yields are 4 percent.

Let's return to the 0 percent floor example, which takes $96.15 to protect if the general account assets are yielding 4 percent. No financial product is truly free. But many FIAs can be marketed as no-cost as there are no external fees quoted on the product. FIAs do not charge for mutual fund expenses or a mortality and expense charge on the contract value in the same way that a variable annuity does. But fees will be accounted for internally. Fees can only be observed by comparing the upside potential an FIA provides after creating its downside protection to the actuarial fair

upside potential possible if there were no internal charges to the contract value.

Fortunately, there is a simple way in practice to observe the yields on FIAs net of the internal fees for a participating company. We may not know the gross returns for the insurance company investments, but we can know the net amount after fees as based on the FIA's one-year fixed return option not linked to an index. In this example, suppose the insurance company separately offers a guaranteed fixed return option of 2 percent for the current term. It must be yielding more than this to cover its expenses and profit motives. With a 2 percent fixed return, it takes $98.04 to protect principal (or $100 to guarantee 2 percent growth). The $98.04 to protect principal, when it is based on the guaranteed fixed return option offered by the FIA, implies that the combined cost to support the floor and cover company expenses is $98.04. The remaining $1.96, which is the difference in the floor protection cost at the assumed general account gross yield, less the floor protection costs based on the net yield offered by the company's fixed interest option, is the options budget that remains to seek the upside growth for the FIA when it is linked to a volatile market index instead of accepting a fixed return.

Related to what the household can do on its own, that internal fee may be less on a net basis than what it seems. This is because the insurance company can earn higher returns from its fixed-income holdings than a household could independently achieve. The insurance company can receive institutional pricing for its purchases as a type of size discount, and its asset-liability matching emphasis allow for diversified long-term holdings. The insurance company can seek higher return premiums relative to a household from holding assets with longer maturity dates, greater credit risk, and less liquidity than a household can generally justify. Households using an FIA in place of holding bonds in taxable accounts can also benefit from the tax deferral aspect of the FIA.

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This is an excerpt from Wade Pfau's book, Safety-First Retirement Planning: An Integrated Approach for a Worry-Free Retirement. (The Retirement Researcher's Guide Series), available now on Amazon.

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