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Reflecting Rider Charges in GAAP Income for Indexed Annuities

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Indexed annuity financial reporting has been called many things, but a few adjectives seldom used to describe it include "simple," "straightforward" and "intuitive." This article will focus on GAAP accounting for indexed products with riders. Specifically, how should the associated rider charges be considered when calculating FAS 133 reserves, estimated gross profits (EGPs) in a FAS 97 context, and the company financial statements?

The last few years have been kind to agents selling indexed annuities as sales continue to climb. Companies increasingly attach riders to the base indexed annuity to differentiate their product from those of their competitors. The most popular of these riders is the guaranteed minimum withdrawal benefit (GMWB), also referred to as a guaranteed lifetime withdrawal benefit (GLWB) or guaranteed lifetime income rider (GLIR). For purposes of this article, we'll stick with the term "GMWB."

Though not as popular as the GMWB, indexed annuities are also sold with other riders. Guaranteed minimum death benefits (GMDBs) attached to an indexed annuity are gaining popularity despite the fact that most product designs, unlike a variable annuity, have a built-in floor below which the account value/death benefit cannot drop. The GMDB adds an extra "layer" of protection against poor equity performance. Less prevalent than the GMDB but not unheard of, guaranteed minimum income benefit (GMIB) and guaranteed minimum accumulation benefit (GMAB) riders can also be found attached to a base indexed annuity chassis.

RESERVE CALCULATION

The GAAP balance sheet reserve for an indexed annuity is different from a fixed credited rate deferred annuity or a variable annuity. That's an understatement. For a fixed credited rate deferred annuity or variable annuity, the GAAP balance sheet reserve is simply the account value. The reserve for an indexed annuity is the sum of two pieces—a host contract reserve defined by FAS 91, and a value of embedded derivative (VED) defined by FAS 133. In general, the host contract represents the reserve for the guaranteed elements of the contract. The VED represents the reserve for any excess benefits projected to be paid over and above the guarantees—in other words, benefits due to growth in the underlying index.

At time zero, the reserve is equal to the initial indexed premium so there is no gain/loss at issue:

- VED (0) = present value of projected excess benefits at time 0
- Host (0) = initial indexed premium – (VED at time 0)

At time t > 0, recalculate VED prospectively using updated assumptions. Host balance is accrued from issue at an internal rate of return (IRR) so that at maturity, host remaining = guaranteed minimum surrender value (GMSV) remaining on the contract.

- VED (t) = present value of projected excess benefits at time t
- Host (t) =
    - o Host (t–1) * (1 + IRR) –
    - o Guaranteed benefits paid (t) +
    - o Indexed premium (t) –
    - o VED on indexed premium (t).
- After the initial premium date, the sum of the host + VED is not subject to any explicit floor (i.e., cash value) or ceiling.

When calculating the VED, we are present valuing the excess benefits. The excess benefits are the total indexed benefits paid at each future date minus the portion of those indexed benefits paid that were guaranteed. For a simple example, if a contract has a GMSV of $100 and an indexed account value of $120, and we project a full surrender next month, then the excess benefits = $120 – $100 = $20. The present value of $20 with one month of discount becomes the VED. In reality, the amounts released in each month of the projection are based on partial withdrawal, lapse and mortality rates which cause only a fraction of the indexed fund value to be released each month. The sum of all of these discounted pieces of indexed excess benefits released one month, two months, three months, etc. from the projection date is the VED.

Indexed annuity product designs include riders with associated rider charges, as mentioned above. These rider charges are projected and decrease the indexed

funds available for withdrawal; however, many product designs stipulate that rider charges do NOT decrease the GMSV. In this case the VED at time zero is much less than the VED of an identical product without any rider charges, since the rider charges reduced the projected fund value (but not the GMSV). Therefore, if the VED at time zero is smaller, then the host at time zero will be greater (to avoid a gain or loss at issue) and have a lower associated IRR.

The complication here is that when the calculation of the VED was done at time zero, the VED anticipated that the rider charges would reduce the indexed funds. As the policy moves forward in time and rider charges are actually paid, there is no mechanism to reduce the GAAP reserve, since:

- Host contract is based on the GMSV, which is not impacted by rider charges, and
- VED is not impacted by the rider charges because it is a prospective calculation (i.e., when it was calculated prior to the rider charges, it anticipated that they would be paid). Rider charges are reflected in the VED before they are actually paid.

Unlike a fixed or variable annuity, where rider charges cause a drop in the account value and thus an equal drop in GAAP reserve, there is no drop in GAAP reserves on indexed funds when rider charges are assessed! The application of FAS 133/FAS 91 methodology to indexed annuity GAAP reserves likely did not contemplate modern product designs with a variety of attached riders and associated charges.

GAAP BALANCE SHEET AND INCOME STATEMENT

One of the components of GAAP surplus is the GAAP benefit reserve. For indexed funds in a deferred annuity, the GAAP benefit reserve is equal to the host plus VED. For fixed funds, the GAAP benefit reserve is equal to the account value. It follows that any change in the indexed fund GAAP benefit reserve (host + VED) or the fixed fund GAAP benefit reserve (account value) will be reflected as a change in the GAAP surplus. This is basic insurance accounting.

Rider charges are generally recognized as income in the GAAP income statement. In addition, paragraph 23 of FAS 97 states that EGPs need to include an estimate of expected rider charges. For money in a fixed credited rate fund, there is no inconsistency between GAAP income and the GAAP surplus—any rider charges included as income will be mirrored as a decrease in GAAP benefit reserves, and thus an increase in the GAAP surplus.

THE PROBLEM

The problem, as you may have guessed by now, occurs when rider charges are assessed against funds in an indexed account. When rider charges are subtracted from the indexed account value, there is no associated drop in the base contract reserve (host + VED). Therefore, the change in GAAP surplus is not equal

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to GAAP income. This should raise a red flag to any aspiring accountants reading this article … the change in GAAP surplus needs to equal GAAP income. If not, then the GAAP balance sheet and income statement are out of sync.

It is worth noting that the riders themselves are not typically considered to be fundamentally related to the base contract. Therefore, the rider reserve is carved out and calculated as a stand-alone reserve under SOP 03-1 or FAS 133 methodology. Under neither SOP 03-1 nor FAS 133 methodology does the rider charge assessment result in a drop in the rider reserve equal to the rider charge.

SOLUTIONS

PROPOSED SOLUTION #1: REMOVE RIDER CHARGES ON INDEXED FUNDS FROM GAAP INCOME.

Details and analysis of Solution #1: This solution aims to put the GAAP balance sheet and income statement back in sync by removing rider charges on indexed funds from income. One drawback to this solution is that it treats rider charges attached to fixed funds as income, while rider charges attached to indexed funds are not included in income. Other than that inconsistency, this adjustment is very doable by just making a minor adjustment to GAAP revenue.

To remove rider charges on indexed funds only from GAAP income, create a new GAAP revenue item. You can call it "GAAP miscellaneous revenue" or something similar. The adjustment to make is the following:

GAAP miscellaneous revenue =
- A. Change in indexed AV –
- B. Change in indexed reserve +
- C. Interest on host contract reserve +
- D. Increase in value of embedded derivative –
- E. Equity index credits

This adjustment item, GAAP miscellaneous revenue, will equal zero when there are no rider charges on indexed funds. This is because items A and E and items B, C, and D cancel each other out. When there are rider charges on indexed funds, GAAP miscellaneous revenue will be equal to (–1) * (indexed rider charges), effectively removing indexed rider charges from the income statement.

Another item to consider is FAS 97 EGPs. FAS 97 EGPs are used to amortize DAC and sales inducement assets (SIAs) attached to indexed annuities. With this solution, it is clear that indexed rider charges will not be in GAAP income. But should the indexed rider charges continue to be included as a revenue item for EGP purposes? The answer to this can be debated but generally one would think of the income statement and EGPs moving together. Your calculation platform should be flexible enough to make the adjustment to GAAP income only, or GAAP income as well as EGPs depending on what your company and auditors decide. Finally, what occurs when/if policyholders discontinue their riders? Because the benefits paid will increase in the projection, the VED will increase by the PV of the rider charges. This can lead to a large increase in the VED that doesn't seem appropriate considering there is no reduction in the host.

PROPOSED SOLUTION #2: INCLUDE RIDER CHARGES ON INDEXED FUNDS AS AN INCREASE IN GAAP SURPLUS.

Details and analysis of Solution #2: If we could somehow force rider charges to be reflected as an increase in GAAP surplus, whether they are attached to a fixed or an indexed fund, then the GAAP balance sheet and income statement would be back in sync. The problem is we have to find a mechanism for doing so. Under existing actuarial practice, this mechanism has not yet been invented. So … let's invent one!

Consider how the indexed annuity reserve is calculated. It is the VED plus the host contract. Recall that at time zero, the (host + VED) is equal to the indexed premium to avoid gain/loss. Also recall that all other things being equal, a contract with a rider will have a higher host contract and a lower VED at issue than an identical contract without a rider. The sum will still be equal to the initial indexed premium.

As we march along through time, the host contract value accrues to maturity at a FAS 91 internal rate of return. The VED is recalculated prospectively based on updated market assumptions and index values at each future valuation date. The VED anticipates the payment of rider charges coming out of the account value but not reducing the GMSV for the contract.

What if we fundamentally changed the calculation of the VED to **reflect rider charges as excess benefits?** Doing so would accomplish the following:

1. The VED at time zero would be higher and host at time zero would be lower, and thus more in line with the VED and host for the same contract without an attached rider. Also if policyholders elected to discontinue their riders, there would be little change in the VED/host unlike Solution #1.
2. When the policyholder reaches a date when rider charges are due, the indexed rider charges paid would reduce the VED (as would a partial withdrawal or other benefit) because:
   a. The VED is a prospective calculation of the present value of future excess benefits and
   b. Once rider charges are paid, they are in the past and no longer part of the prospective VED calculation.
3. The payment of these rider charges will result in a drop in the VED without affecting the host. It follows that GAAP benefit reserves will realize a drop equal to the amount of the indexed rider charge. This drop will be reflected in GAAP surplus.
4. The decrease in GAAP reserve/increase in GAAP surplus will now be in sync with the increase in GAAP income due to the indexed rider charges.

In order to justify including indexed rider charges as excess benefits when calculating the VED, the definition of a "benefit" would need to be more than a cash payment and include the rider charge. The rider charge can be interpreted as a partial withdrawal from the indexed account. However, this partial withdrawal is never mailed to the policyholder in the form of a check. Instead, the policyholder has agreed (by purchasing the rider) to immediately turn around and give this money back to the insurer in exchange for continuing the rider.

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There are other situations where either proposed solution (or GAAP reserving in general) tends to struggle. For example, what happens when the GMSV exceeds the fund value? What happens if projected rider charges are higher than projected index credits? How is the GMSV allocated between fixed and indexed funds? Our proposed solutions aren't meant to solve all of the inconsistencies and problems in FAS 133, but simply to address this disconnect between the balance sheet and the income statement/EGP stream.

In the authors' opinion, including indexed rider charges as excess benefits when calculating the VED is an elegant solution. It puts the GAAP balance sheet and income statements back in balance as well as making the initial host and VED more in line with the host and VED for a contract without rider charges. The main drawback of this method is that it is not accepted practice to consider rider charges a "benefit" to the policyholder.

CONCLUSION

The application of FAS 133/FAS 91 methodology to indexed annuity GAAP reserves likely did not contemplate modern product designs. The fact is, indexed annuities with riders are very popular in today's annuity market. The purpose of this article was to outline the problem (an inconsistency between the GAAP balance sheet and income statement) and propose a solution or two (to put them back in sync). The authors of this article acknowledge that there are likely other ways to address this issue, and we are interested in hearing about them. But in our opinion, if your company has not already done so, it should consider taking action to correctly re-align the balance sheet and income statement. ■