# Plugging Leaks in VA Guarantees

By Kerry Pechter Tue, Jun 22, 2010

VA issuers can't keep bearing so many of the contract risks. Milliman's Ken Mungan (above) and Deep Patel suggest three ways to make VA manufacturing more sustainable.

Insurers need to make "fundamental changes" in the way it manufacturers variable annuity living benefits, according to Milliman, the global consulting firm that already provides hedging expertise to many if not all of the major VA manufacturers.

Those fundamental changes—Milliman suggests three in a recent white paper—involve sharing more of the product's exposures to market risk, interest rate risk and other risks with the clients, but doing it in a way that makes the product more, not less, attractive.

Without the changes, "it is not clear that the life insurance industry can continue to offer VAs," write Milliman actuaries Ken Mungan and Deep Patel in their paper, "Sustainable Manufacturing of Variable Annuities: Toward a new model."

"It is clear that there are significant changes underway in the VA market. We can expect a new market equilibrium to emerge over the next 12 to 24 months," the paper said. That's scary talk, but then hedges are insurance, and when you sell insurance you emphasize the worst case. In any case, here are the main elements of Milliman's Sustainable Manufacturing Model:

## Let the client buy the hedges

When market downturns occur and VA account values drop, the amount of money backing the guarantee drops. To blunt this effect, VA issuers buy capital market hedges, which rise in value as markets decline. Milliman proposes that the contract owners buy the hedges, along with stocks and bond funds, and hold them in the separate account.

The issuer would still ultimately be on the hook if the hedges failed to protect the account value, but it wouldn't get beat up by short-term volatility in hedge costs. This design change would also shift basis risk—market risk that plain-vanilla hedges can't cover—to clients. If insurers don't have that risk, Milliman says, they can offer a wider range actively managed funds.

### Design asset allocation models to target a specific volatility level

Instead of offering asset allocation models that include different percentages of equity investments, Milliman recommends, insurers should offer model portfolios that target a specific volatility level.

The technique sounds similar to the asset transfer method that Prudential uses to limit damage to the account value during a downturn. Prudential has an algorithm that automatically moves money out of equities and into bonds when equity prices fall. But Milliman suggests that managers of the model

portfolios re-allocate money when volatility rises, without waiting for prices to actually fall.

"As equity market volatility increases, fund managers shift assets from equities to bonds," Milliman's paper says. "Similarly, as market volatility declines, assets are shifted from bonds to equities. Managers adjust the allocation periodically to stay on target, by means of transfers among underlying funds or the use of a hedge overlay."

## Re-design products to reduce interest rate risk

Interest rate risk is a big problem for VA hedging operations. The Fed-engineered reduction in interest rates in 2008 caused a sharp rise in the costs of the hedges, which are like long-term put options.

Milliman recommends design changes that link the roll-up rates (automatic increases in the benefit base during the accumulation stage) and the withdrawal rates during the income stage to the 10-year Treasury rate, so that promises become less rich when rates fall.

On the other hand, the promises become more rich when rates rise, giving contract owners more incentive to keep their contracts rather than surrender them or exchange them for high-paying fixed rate annuities.

#### **Obstacles and benefits**

As you might guess, adopting the Sustainable Manufacturing Model probably won't be cheap. It "requires the creation of new types of VA subaccounts that contain hedge assets," which "will require the ongoing management of a hedge program, and the insurer will need to coordinate residual on-balance-sheet hedging," the paper says.

Strategic partners and intermediaries will also face a learning curve. "Traditional asset managers are generally not well positioned to manage hedge assets within VA subaccounts." "Buy-in from financial advisors" will also be needed, the authors wrote.

But there's an upside, Milliman argues. For clients who want more investment risk in their annuity portfolios, these changes will give them more of what they want. More importantly, they can reduce a VA manufacturer's risks and perhaps determine whether it's worth staying in the VA business at all.

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