Why Prudential Sells the Most VAs

By Kerry Pechter *Wed, Dec 8, 2010*

Constant proportion portfolio insurance, or CPPI, has helped Prudential attract crowds to its Highest Daily VA. Now other insurers are wondering if they should employ CPPI.

When Prudential Financial introduced its Highest Daily variable annuity design in 2007, not a few annuity industry insiders scoffed that Prudential was just repackaging a familiar structured product idea called constant proportion portfolio insurance, or CPPI.

A CPPI product typically combines upside exposure to a risky asset with a principal guarantee. By definition, it's conservative. During a market downturn, the issuer shifts money from the risky asset to the safe asset to protect the guarantee. That deprives the owner or his advisor of control.

Financial advisors would never go for that, skeptics said. The conventional wisdom was that advisors were buying variable annuities only because they offered control over investment choices *and* lifetime income guarantees. Why would they want a product that took away their control?

"In all honesty, prior to the financial crisis it was a tough sell, and it was easy for others to sell against it," said Harvey Blake, vice president, Market Risk Management, at Prudential.

Then came the financial crisis. While other popular VA contracts lost up to 35% of their account values, exposing their issuers to huge potential losses, HD7 accounts fell by only about half as much. The perceived weakness of the Prudential product suddenly became a source of strength. (Yesterday, however, Prudential filed to reduce the product's benefits. See accompanying article.)

Having survived the crisis in relatively good shape, Prudential didn't have to cut back as much on contract benefits or sales capacity after the crash. Along with MetLife and Jackson National, it benefited from the flight to quality and security that occurred in the market rebound of the past 18 months.

In the first three quarters of 2010, Prudential sold $15.55 billion worth of variable annuities. That success has sparked new interest in CPPI. Indeed, at the Society of Actuaries' annual conference on equity-linked insurance guarantees in New York at the beginning of November, CPPI was the star of the show.

"At the SoA conference, [CPPI] was a topic that got a lot of attention," Deutsche Bank's Cornelia Spiegel, who spoke about CPPI at the conference, told *RIJ*. "Most of the conversation in the past has been around hedging techniques. This was the first year where the product design was the highlighted topic. Issuers are trying to find ways to offer these products without incurring too much risk. It's a tempting environment for CPPI."

Indeed, the SoA stacked the conference in CPPI's favor. "Our meeting planners thought it would be useful for the program to offer content on this issue and designed the program to reflect so," noted the SoA's Kim McKeown. "[We] intentionally offered more content on CPPI-type products because they are becoming popular with insurance companies.”

How CPPI works

Different types of CPPI-driven products have reported been around since the 1980s. Principal-protected, bank-issued savings products in Europe use a form of it as a risk management technique. In perhaps CPPI’s simplest form, the issuer will put 80% of the assets in a zero-coupon bond and the rest in risky assets. At worst, a client’s principal is guaranteed. In the U.S., fixed indexed annuities, an insurance product, does much the same thing.

The version of CPPI that was discussed at the recent Society of Actuaries meeting works a bit differently. Instead of putting 80% of the assets in the risk-free investment, the issuer might put as much as 80% of the money in the risky asset. If the risky asset loses value, the issuer moves money to the safe asset. The amount in the risky asset, added to the value of the safe asset at maturity, will always equal the principal.

Here’s a simplified example. Suppose someone bought a principal-guaranteed investment for $100. Suppose it would take $80 worth of zero-coupon bonds to return $100 at maturity. The client could then afford to lose $20 of his or her investment and still break even. By definition, the “cushion” is 20%.

To decide how much of the assets to risk, the issuer selects a factor, called the “multiplier,” which is based on the riskiness of the desired risky asset and the prevailing interest rates. Suppose that the multiplier is 4. Four times 20% equals 80%. So $80 goes into the risky asset and $20 goes into the safe asset.

If the value of the risky asset drops 10% (to $72), the account value is now $92. The cushion narrows to 13% (92 – 80/92). The new risky allocation will be 52% (4 x 13%). Of the remaining $92 account value, only 52% ($48) will stays in the risky asset. The rest ($44) will be in the safe asset. To rebalance, the issuer moves $24 from the risky asset to the safe asset.

This technique has a couple of vulnerabilities, however. In a market panic, the value of the risky asset could fall through its floor ($80) before the issuer could get sell it all. To honor the guarantee, the issuer would take a loss.

“One of the main risks for the manager of a CPPI strategy is “gap risk” when the price of the risky asset drops through the bond floor without enough time for the portfolio manager to reallocate enough funds into the riskless asset to maintain the guaranteed value of the strategy,” said Deutsche Bank’s Spiegel.

For the investor, there’s the danger of “knockout” or “lock-in.” If all the money goes into the safe asset during a downturn, it can’t easily get out. The investor can’t take advantage of an ensuing market upswing, and ends up with the equivalent of a very expensive bond or money market investment.

How Prudential uses CPPI

Prudential's VA/GLWB embeds a version of CPPI inside a variable annuity. The margin of safety provided by the CPPI, along with hedging strategies, enables the insurer to offer the product's seductive features at competitive prices. Those include as many as 16 different investment options, a potential daily mark-up in the benefit base, and the ability for those who avoid withdrawals for 10 years to double their minimum retirement payout, regardless of market performance.

"It's not pure CPPI," said Santosh Nabar of Barclays Capital, which works with insurance companies on managing variable annuity risk. "It's approximately CPPI."

When the contract's mutual funds lose value, an automated process reallocates money to the safe asset. The mechanism puts no more than 90% of the account value in the safe asset, leaving 10% exposed to risky assets. The 10% exposure is a critical feature that protects clients from knock-out. But it isn't necessarily enough to let them fully participate in a market rebound or for their account value or reach a new high water mark.

Prudential concedes that there's nothing revolutionary about their technique, which it inherited, along with a platform for administering it, when it acquired American Skandia. "CPPI is a broad concept that's been used for decades," said Harvey Blake. "We use an algorithmic solution on a policy-by-policy basis. We've been doing it since 2001. It was an American Skandia product at the time. There's no one single CPPI out there. If there are others similar to what we do, we're not aware of it."

"Part of the execution of our product involves lower control over asset allocation," Blake said. "You're giving up some control in return for downside protection." That's a drawback in a bull market, but an advantage in volatile markets. "Since the crisis, that aspect of the product has resonated in the retail space. People put a high value or premium on loss aversion, and that has played very well with our design."

Offering CPPI inside a variable annuity isn't necessarily easy. Prudential has to treat every one of its 80,000 or so in-force HD7 or HD6 contracts as a separate, micro-CPPI product, automatically fine-tuning the allocation to each client's choice of risky assets and the safe asset every day.

To copy Prudential or not

Insurers who have pulled back from the VA market since the financial crisis are now wondering how they might safely reenter the game. CPPI would be one route to take.

Prudential thinks it would be difficult for other VA issuers, especially those whose wholesalers sold against CPPI in the past, to follow its example.

"Our algorithm is in our prospectus, people have easily replicated it just for fun to see how it works," said Tom Diemer, Prudential's head of annuities financial management. "It's not the 'Coke secret formula.' But from what I've heard, there's still a philosophical objection to it around the issue of control. Folks who have sold against this in the past might be able to pivot, but it would be a big change."

"Companies have sold against it for years and for the distribution it would be difficult to turn around and try to promote it," added Blake. "And it would take time to build even if you wrote the check today. We've estimated that it would take 18 months to two years."