VARIABLE LIFE INSURANCE POLICIES AND STOCK MARKET VOLATILITY

By Peter Katt

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The evil attacks on September 11 have informed us of at least two things: We have enemies in the world that will use any device to inflict massive destruction on us, and their actions can have an immediate impact on our economy and financial markets.

The stock market free-fall during the first week of trading following the attack may prove to be a temporary reaction to the attack, or an acceleration of the correction that had begun a year and a half before. Regardless, plunging equity values can cause damage much beyond the erosion of one's net worth. Most dramatically, a collapsing stock portfolio can trigger margin calls that require forced asset sales to obtain liquidity. Less dramatic, but equally problematic for those affected, tumbling stock values can cause poorly designed variable life policies to become so underfunded that they require the equivalent of a margin call—with either a resumption in premiums that were supposed to have terminated or an increase in what were supposed to be set premiums.

VARIABLE LIFE VARIABILITY

Variable life allows policyholders to control how their policies' premiums are invested by selecting from various mutual funds available. Most variable life buyers select equity funds. In contrast to variable life, whole and universal life policy premiums are mostly invested by the insurance company in investment-grade bonds held for yield. Therefore, investment results for whole life and universal life will change relatively slowly and are backed by a minimum guarantee, which means the cash value can never take a loss.

In contrast, variable life policies invested in equities will have investment results that are volatile and unpredictable, with occasional cash value losses that can be dramatic, causing unpredictable policy values. This should not be news to variable life policyholders—much of this paragraph is nearly a direct quote from one of my previous columns, "The Do's and Don'ts of Buying Variable Life Insurance Policies" [July 1999 *AAII Journal;* available at www.aaii.com]. Knowledge that variable life policies invested in equities are affected by stock market volatility isn't new, it is simply sensationally reinforced by the September 11 events.

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The major reason insurance folks have failed to recognize how different variable life is from whole and universal life is policy illustrations. Agents and buyers get their primary understanding about life insurance by viewing an illustration provided by the insurance company. Illustrations show how a policy is projected to perform, based on the premium pattern shown and pricing factors that remain constant throughout the illustration. The most

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important pricing factor is investment results, with mortality of less importance.

For whole life and universal life illustrations, companies use their current investment and mortality experience. Whole life and universal life policy performance will be different than what is illustrated, but changes are usually gradual and expected (for those paying attention) because we can see changes in fixed-income investment yields before they affect whole life and universal life policy performance. But the investment volatility of equities funding variable life policies is a completely different situation, as losses of 20% or even 50% can occur in a very short period of time, with no guarantee that subsequent gains will offset the losses any time soon. This variable life fact simply cannot be seen by viewing variable life illustrations, which are required by the SEC to use an assumed investment return that must remain constant for the duration of the illustration.

For stock investors, a collapsing stock portfolio may only mean that your net worth is lower, but for certain investors it can also provoke a disastrous margin call. Similarly, stock declines in a properly designed variable life insurance policy can have the relatively benign effect of reducing policy value, but in an improperly designed variable life policy it can set off solvency alarms. It is worth revisiting my 1999 column, which described two different policy designs that dictate rational and irrational variable life usage.

DEFINED-BENEFIT DESIGN

Broadly speaking, there are only two basic life insurance policy designs. One is a defined-benefit, and the other is a defined-contribution. (Note that the terms defined-benefit and defined-contribution that I use to describe the two basic permanent life insurance policy designs are not found in the life insurance business' vocabulary. Indeed, my use of these terms leaves insurance people bewildered and they tend to immediately discredit them—so don't think you are going to get knowing nods if you discuss this with your friendly insurance salesperson.)

A defined-benefit policy design features level-to-maturity death benefits. The presale illustration informs us of the premiums needed to maintain this level-to-maturity death benefit design. But this knowledge of premium costs is an illusion because permanent life insurance is priced to the market, with changes in investment and mortality experience changing policy values. If whole life and universal life aren't properly managed, they will gradually move to being either under- or overfunded without premium adjustments. If they are managed with premium adjustments, significant under- and overfunding can be avoided. But, premium management of level-to-maturity death benefits for variable life is unattainable because equities are so inherently volatile. Defined-benefit variable life policies will always be either under- or overfunded and that is why I refer to it as an improper design.

There are two alternatives to this improper variable life design. One is to use the alternative defined-contribution design. The other is to use what I will refer to as a modified defined-benefit or level-to-maturity death benefit design. Except for defined-benefit variable life insureds that are in very poor health, one of these variable life alternatives should be selected for the redesign of all defined-benefit variable life policies currently in place. (Insureds in very poor health will likely not live long enough for their policy's underfunding to matter, and their health status won't allow them to make the kind of adjustment needed for overfunding.)

DEFINED-CONTRIBUTION

Defined-contribution designed policies define the amount of premium cost with the minimum amount of initial death benefits that are projected to increase significantly over time. This ratio of minimum-initial-death-benefits-to-maximum-premiums (without creating a modified endowment contract, or MEC) practically eliminates underfunding and is intentionally overfunded because this causes the death benefits to also increase. This is in sharp contrast to a defined-benefit type of design where changing investment results affect premium payments. But defined-contribution designed policies' premiums are not affected; instead, changing investment performance affects their cash values and death benefits only. (A $1,000,000 defined-benefit variable life design for a 60-year-old male assuming an 8% yield has projected annual premiums of $23,000. The defined-contribution version of this would have initial increasing death benefits of $275,000, which would be expected to exceed $1,000,000 between age 75 and 80, have some 35% greater death benefits by life expectancy, and would be two-and-a-half times greater at age 100 without any practical underfunding risks.

Switching an existing defined-benefit policy to a defined-contribution design is fairly simple for insureds still in good health if the variable life is a universal life type. If it is a whole life type, the switch may be a bit more complicated, but it can be done. For variable universal life, just reduce the policy's death benefits to their lowest non-MEC amounts, either with a level or increasing death benefit, while keeping the premium at the original target amount for the much larger death benefits of the defined-benefit policy design. (If you use a level death benefit, your policy will be overfunded until the cash values begin forcing the death benefits up, at which point the policy will be nearly a pure investment, which is an excellent wealth-transfer estate planning strategy [see my column "Passing on Your Wealth: Gift

Planning and the Use of Life Insurance," August 1996 *AAII Journal;* available at www.aaii.com). But reducing current death benefits to rescue defined-benefit variable life policies raises the important issue of what to do if the policies are being used for estate-tax liquidity. Reducing the death benefits may not be desired, which is what the modified defined-benefit design alternative addresses. (Insureds in poor health have other issues that need to be addressed before deciding to reduce death benefits to achieve a defined-contribution design.)

MODIFIED POLICY DESIGNS

Owners of defined-benefit variable life policies who want to continue their level-to-maturity death benefit design regardless that they will be constantly under- and overfunding have four choices:

- Pretend the problem doesn't exist and call on divine guidance to protect your policy's solvency without too much overfunding through undulating market returns;
- Attempt to adjust premiums to keep up with these market oscillations. It may make you feel better to make such an attempt, but it hasn't worked in numerous simulations I have tried;
- Replace the variable life policy with whole life or universal life, giving you a much better chance at managing the premium costs; or
- Use the modified defined-benefit design (which isn't presently known to insurance folks, so don't bother asking them about it).

The first three require no further explanation, and the modified level-to-maturity death benefits or defined-benefit explanation may be less than satisfactory because it is complicated. In addition to this description, I am directing you to my Web site (www.peterkatt.com) for additional information, including spreadsheet simulations.

The modified level-to-maturity death benefit design works ideally with variable universal life. Whether modified level-to-maturity death benefits can be used with variable whole life is a policy-by-policy situation. Modified level-to-maturity death benefits is an attempt to manage the significant amounts of over-and underfunding inherent in variable life policies without having to make wild adjustments to premiums. Over- and underfunding is defined by the difference between a policy's actual cash value and its benchmark cash value needed to keep a level-to-maturity death benefit designed policy on track to become paid-up at maturity. For example, the benchmark cash value for a $1,000,000 policy with an issue age of 60 and an insured now age 75 is around $330,000, assuming an 8% yield. Investment volatility may cause the actual cash value to be $530,000, causing the policy to be overfunded. That is, if the insured dies at this point he will have overpaid by $200,000 because a level-to-maturity death benefit policy only pays out the death benefit, regardless of the amount of cash value. Conversely, following a big market correction the cash value is $130,000. This policy is significantly underfunded by $200,000 and will need much higher premiums to catch up. Adding to the difficulties, the cash value benchmark also changes as the investment yield assumption is changed.

As noted, the purpose of the modified level-to-maturity death benefit system is to avoid significant under-and overfunding while also avoiding wild premium-cost swings. The key to the modified level-to-maturity death benefit system is establishing target premiums and benchmark cash values using a very conservative investment yield assumption while not causing substantial overfunding. This is done by using increasing death benefits (usually referred to as Option B for variable universal life policies) and then reducing the death benefit each year by the increase in the benchmark cash value. Except for especially volatile market results, this system allows for a controlled adjustment of death benefits without significant policy under- or overfunding occurring while maintaining a constant premium cost.

Alternatively, premium adjustments or combinations of death benefit and premium adjustments can be made instead. If the actual investment results are, as expected, greater than the conservative yield used to establish the modified level-to-maturity death benefit design, the death benefits will increase gradually and give full value for the premium costs. This design isn't perfect and works much better with universal life than with variable universal life. But, for those who insist on continuing with level-to-maturity death benefits for existing variable universal life policies or for new ones, this modified level-to-maturity death benefit design is a significant improvement.

CONCLUSION

The recent drop in stock prices isn't the cause of problems with defined-benefit variable life, it is only the spectacular backdrop to remind you that variable life has potential advantages when used properly, but has significant inherent problems when used improperly.

Unfortunately, the life insurance business has not noticed the problems they have and are creating when selling defined-benefit style variable life policies. However, existing defined-benefit variable life policies can be rescued, and new policies can use a modified design to accomplish nearly the same thing. ✦