

## Variable Annuities Part 2: Riders and Guarantees

VAs offer risk-averse investors lifetime guarantees of return and income, a death benefit, and tax advantages by top-rated insurance companies, benefits unavailable with mutual funds alone. In addition to the death benefit, VA contracts include provisions and riders that 1) permit penalty-free/tax-free withdrawals annually at a fixed percentage of the subaccount value and, 2) that guarantee a minimum growth rate on the contribution and 3) that guarantee an income for life. Over the past 30 or so years those benefits have made Variable Annuities a trillion-dollar industry with millions of policy holders each paying 2.5-3.5% annually.

Variable Annuities have two principal phases, Accumulation and Distribution. Accumulation speaks for itself, a period when assets in subaccounts grow. Distribution however specifically means Death or Annuitization. Death benefits are discussed in part 1. Annuitization requires the purchase of an annuity based upon mortality tables with a minimum payout of 10 years at 2%. Both the Death Benefit and the Annuity option require forfeiture of the sub-accounts and the termination of all life benefits.

Importantly, all the guarantees apply solely towards the purchase of an Annuity. Should the investor surrender the policy instead of annuitizing, he takes the portfolio only, no minimum guarantees apply. If an annuity is elected, the sub-accounts are forfeit and there is no ability to increase distributions or withdraw additional funds. There simply will be no estate. The annuity does have collateral value for lending purposes and could be sold at discount.

So how during the accumulation phase does a VA investor receive “income”? Most VAs include riders that permit withdrawals from the subaccounts without penalty based on broad actuarial assumptions to prevent account depletion. Investors age 70 and over may be able to take 7%, age 60 6%, age 50 5%, and so forth of the portfolio value each anniversary without having to annuitize. Unfortunately, most investors actually fix the withdrawal amount based upon initial contract value, \$50,000/year, 5%, on a \$1 million contribution for a 50-year-old male. This amount would then be budgeted annually and withdrawn monthly. This leads inevitably to complications for investors utilizing the withdrawal rider to take regular distributions.

Many investors erroneously believe that the \$50,000 distribution is a lifetime benefit based on 5% of \$1 million contributed guaranteed by the VA. It is not! Only the withdrawal rate is guaranteed, 5%, not the distribution amount, \$50,000 which is actually based on portfolio value not contract value. If the portfolio declines for any reason including withdrawals, the penalty-free withdrawal amount also declines. For example, if the Portfolio drops to \$800,000 in year 4, the guaranteed 5% penalty-free amount is \$40,000/year. Annual withdrawals of \$50,000 if continued are 6.25% of the portfolio or \$10,000 more than permitted. Penalties will apply on the \$10,000 excess and the excess withdrawal will be treated as a “partial surrender” reducing benefits proportionately.

It is common to see portfolio declines in VA's of 10-20% after 4-5 years of \$50,000 withdrawals (5% of initial contribution) even if the market rises. There are 5 correlating factors that explain this.

1. Hurdle Rate /High Costs: High annual VA expenses of 3% when added to the 5% (\$50,000) withdrawal aggregates to 8%, the initial hurdle rate for account growth. 8% is roughly the average geometric return (Internal Rate of Return) on the SP500 meaning that portfolio's burdened by 8% annual withdrawals hit a wall on growth. If the portfolio declines to \$700,000 after 6 or 7 years, a \$50,000 withdrawal amounts to 7.15% of the portfolio raising the hurdle to 10.1%, an impossible barrier to recovery.
2. Portfolio Allocation: VA contracts with withdrawal riders generally require about 20% in fixed income, which is readjusted periodically. Mutual Fund sub accounts provide for well diversified and balanced positions and high volatility funds are not offered or are restricted. Given a portfolio allocation that includes 20% fixed income, projected arithmetic returns are insufficient to sustain growth over the long-term. Geometric returns, aka "Wealth Effect" predict a slow erosion in portfolio value over the long-term at \$50,000 per year in withdrawals.
3. Cannibalization of Shares. Every share or unit is an engine of growth, a small enterprise that generates income or growth at identified risk. An 8-10% hurdle rate however, requires the liquidation of shares to fund distributions, something that is typically effected automatically each month regardless of stock performance. Once liquidated, those shares are no longer available to contribute to portfolio growth. Over the long-term, share depletion plays a significant role in a portfolio's recovery and typically when the market recovery does come, the share-depleted portfolio will not recover as distributions become unsustainable.
4. Sequence Risk<sup>1</sup>: Sequence Risk is unique to portfolios in distribution whereby portfolios even with modest declines in the early years of distribution will become prematurely unsustainable. Conversely, portfolios that experience early appreciation in the sequence of returns not only are sustainable but potentially profitable. The only way to avoid sequence risk is to cease withdrawals until the portfolio recovers, something most VA investors cannot do!
5. Financial Planning: Factors 1-4 are financial factors explaining portfolio declines in Variable Annuity sub-accounts over the long term to the point of unsustainability. Financial Planning is a behavioral contributor to the decline. When confronted with portfolio declines, either during recession or in combination with withdrawals, investors, relying on VA guarantees and armed with a financial plan, typically stay the course and continue their automatic distributions, liquidating shares and shortening payout by a decade or more.

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<sup>1</sup> See my article on "Late-Term" Investors, Monte Carlo Simulation, and Sequence Risk. Piaba Bar Journal Vol 21, No.3, 2014

Unfortunately, most have no choice as they have planned their lifestyle in reliance on monthly distributions and lack the reserves to continue without distributions for more than a month or two.

Financial plans have a second weakness. All projections are based on current variables among which is the principal value, life expectancy, volatility, interest rates, standard deviation, withdrawals, inflations etc. However, each of those variables can change significantly. If by year 3 the portfolio value has declined to \$800,000 there arguably is no difference from a second investor investing \$800,000 in that year and whose financial plan also promises sustainable distributions of 5% or \$40,000/yr. vs the \$50,000/yr. depleting the investor's identical portfolio.

Continuing \$50,000/yr annual withdrawals is excessive and accelerates the decline towards portfolio unsustainability. Withdrawals must be reduced or eliminated until the portfolio is restored. That could take years. Typically by year three or four the original financial plan is almost always stale and adhering to its projections ultimately contributes to early unsustainability. Whenever portfolio value is 10% below contribution, the plan must be revised, and new simulations run with the updated variables including distributions to stabilize further decline.

Partial Surrenders. One of the consequences of adhering to a financial plan's fixed monthly withdrawal regime when portfolio value falls below contract value is that it results in partial surrender reducing benefits proportionally. For example, the 5% penalty-free withdrawal on an \$800,000 portfolio is \$40,000. Should Investors continue fixed withdrawals of \$50,000/yr. there will be \$10,000 in excess withdrawal that is treated as a partial surrender and subject to penalties. If distributions continue, portfolio erosion will accelerate, the excess distributions will increase, and benefits will be reduced proportionately.

In my 40 years' experience in the securities industry, I have found that investors choose variable annuities instead of fixed annuities because they are promised a steady income for life with a minimum return guarantee, a death benefit, and market growth on the principal to provide an estate for heirs. Fixed annuities by contrast require surrender of principal in exchange for an actuarially determined income based on life expectancy. They grow principal at only 2% +/- and are self-extinguishing leaving nothing to pass on to heirs.

Variable Annuities have two types of benefits, living and death. Death benefits are discussed in Part 1. Living benefits however occur during the Accumulation phase and include withdrawal provisions. For example, a rider provision permitting 5% penalty-free withdrawals is calculated as a percentage of portfolio value that may be withdrawn annually without penalty or surrender, and not as a percentage of the contract value. It is not an income guarantee. Guarantees of minimum return and a lifetime income require annuitization, the forfeiture of the portfolio, and abandonment of an estate for heirs. Otherwise there are no income guarantees or principal protections whatsoever.

Investors intending to leave an estate are never able to annuitize but still pay costly premiums for benefits and guarantees that apply only towards the purchase of an annuity paying out over 10 years at 2%. And, if an investor did annuitize, the distributions likely will be far lower than budgeted in the financial plan and the estate disappears. In short if the Investor annuitizes, the projections in the financial plan go out the window. Consequently, investors expect the VA sub accounts to appreciate, provide income, and cover expenses perpetually. Given 8%-10% annual hurdle, volatility, sequence risk, share liquidations and normal markets, the probability of capital appreciation is dim at best and serious long-term principal erosion is a predictable outcome from day one. Sadly, most investors never come to realize this until portfolio erosion is irreversible and distributions unsustainable.