



## Ruminations on Variable Annuities vs. Taxable Accounts

To make a case for annuities, advisors often compare the most expensive, tax-inefficient mutual funds to the most inexpensive variable annuities. However, a competent advisor, comparing annuities to other taxable alternatives, will find that annuities appear to be poor choices in most cases.

To fairly compare the two (and remove compensation considerations), I used a 0.30% marginal cost gleaned from the cost of a Vanguard “no load” annuity. The 30 basis points are in addition to the underlying cost of the funds – vastly lower than the additional costs of most annuities.

Annuities made a lot more sense when the ordinary income and capital gains rates were the same. Now, annuities have to overcome both higher rates (ordinary income vs. capital gains) and higher expenses. Given a long enough time horizon, the 100% tax-deferral theoretically may overcome these disadvantages. Seeing if that is true is the point of this exercise.

Six factors impact the decision:

1. Rate of return – higher returns favor annuities; lower returns favor taxable accounts.
2. Ordinary income tax bracket – lower ordinary income tax brackets favor annuities; higher ones favor taxable accounts.
3. Capital gains tax bracket – higher capital gains rates favor annuities; lower ones favor taxable accounts.
4. Tax efficiency of taxable alternative – tax-inefficient, high-turnover investments favor annuities; low-turnover approaches favor taxable accounts.
5. Time horizon – long time horizons favor annuities; short horizons favor taxable accounts.
6. Annuity cost – the lower the marginal cost of the annuity over the comparable mutual fund investment, the better it will compare (obviously).

Also note that I am *not* talking about immediate annuities which can have a place in a portfolio as insurance against the additional costs of a long life.

Here is one example:

1. Investment rate of return – assume 10%, the long-term stock market average. (In reality, it would be somewhat lower due to the expense ratio of the subaccount/fund, but using this relatively high number should favor the annuity.)
2. Tax bracket – assume the most favorable case for an annuity, 25% ordinary income and 15% capital gains.
3. Tax efficiency – assume a 50% portfolio turnover. This is extremely inefficient and would favor the annuity. I have assumed that all gains are long-term, however. This implies an advisor would not be foolish enough to select funds for a taxable account that throw off short-term gains. (In reality, I think a 10% turnover in a taxable account is more reasonable for a competent advisor.)
4. Annuity cost – as mentioned earlier, I used a 30 bps *marginal* cost to the annuity. This attempts to remove compensation confusion from the analysis. In other words, if the total expenses are 1.15% for a fund, the annuity would be 1.45%. In this example, the net return ends up being 10.0% for the fund and 9.7% for the annuity.

In short, I have tried to use reasonable factors that would favor the annuity. Using the numbers above, we solve for the time horizon necessary to make the annuity a better investment than the taxable alternative. In this case the breakeven is 26 years. In other words, a rational investor should not place in an annuity any funds he or she will need within the next 26 years. If we change any one assumption, it just gets worse. For example:

1. If the portfolio turnover is 10%, a 49-year time horizon is required to favor the annuity.
2. If the net investment is 8% instead of 10%, the breakeven becomes 34 years.
3. If the ordinary income tax bracket is 35%, the breakeven is 42 years.
4. If the ordinary income tax bracket is 15% or lower, the breakeven is *never*.
5. If we make a conservative assumption that the market will return 8%, and our alternative is a passively managed investment with a 10% turnover (in essence combining 1 & 2 above), the breakeven is 62 years.

Some other factors:

1. In the case of death, the heirs are vastly better off with a taxable investment because of the step-up in basis. The odds of dying in the early years (when the investor would be likely to have losses) are trivial vs. the odds of dying in much later years (when the odds are in favor of huge gains). Remember, if there aren't big gains, the taxable investment will be better; it is therefore irrational to use an annuity for "protection" for the very small chance that someone will die when it will be worse if they live.
2. Taxable accounts allow tax loss harvesting much more easily and efficiently. Annuity losses have to exceed the 2% of AGI threshold, and the taxpayer must itemize.
3. If the investor needed the money early, he or she could be vastly worse off in three potential ways: 1) surrender charges, 2) the time period was too short to favor the annuity alternative, 3) early withdrawal penalties for pre-59½ distributions.
4. Using an annuity *increases* the standard deviation of returns relative to the taxable alternative. This is contrary to what is desired. In other words, for any given time horizon there is a rate of return where annuities and the taxable alternative are equivalent. If the investment experience has been *good* (i.e. better than breakeven), then the annuity will be the superior choice. If the investment experience has been *bad* (i.e. below breakeven), then the taxable alternative would have been better. In other words, when purchasing an annuity, very good returns get better, and very bad returns get worse. This is undesirable in most cases.
5. Finally, sometimes an advisor has placed an annuity inside of an account that is already tax advantaged. The rationale is that the client is risk-averse and wants this "protection" even with the higher costs. The expected payoff is computed by multiplying the average percentage the account is likely to be down (when it is at a loss), times the probability of being down, times the probability of dying. This figure would be compared to the marginal cost of the annuity vs. the alternative investment in the account. My calculations show this to be a bad bet because the probability of dying is too low – unless the annuity owner is in his or her nineties.

Let me dilate further on #1 above. The death benefit has a computable value that will be greatest the very first year of the annuity because the investment has a positive expected return. Even if some losses are bigger in years after the first one, the chance of them happening goes down even faster. Using a mortality table, we can compute what a rational investor should be willing to pay for the insurance. Still, that isn't the whole picture because if the annuity has increased in value, the heirs *lose* on the tax treatment, and the odds of being up are much higher than of being down.

So, no matter what the mortality is, *even* if the investor dies after the first year, the annuity “protection” is a small net loss unless future investment performance will be dramatically worse than history. And, if that assumption is valid, purchasing an annuity is not optimal because high returns are required for it to make sense if the investor lives. Note that that is the *best* year! After year one, it gets dramatically worse. This means the “protection” is on average worth much less than zero because of the adverse tax treatment.

If the annuity is purchased within an already tax-advantaged account, we can ignore the second part of the analysis above and simply look at the benefit vs. how much the annuity costs (the incremental cost over an alternative mutual fund). The downside protection is only worth the probability of being down, times the average magnitude, times the probability of death. There are no annuities inexpensive enough to make sense in a tax-advantaged account, unless life expectancy is less than about 5 years.

Finally, if an investor needs to hold very tax inefficient vehicles (REITs, High Yield Bonds, or other fixed-income investments), and does not have sufficient “room” in tax advantaged accounts, and does not need the income generated, annuities can be the correct solution to put a tax efficient “wrapper” around those inherently inefficient vehicles.

**Notes:**

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