Annuities versus Systematic Withdrawals:
Understanding Tax Effects

By Joe Tomlinson
May 8, 2012

Given the complexity of most annuities, analysis of them typically only considers pre-tax results. But taxes matter. As we will see, tax impacts vary by the specific type of annuity you're considering, and will make the difference between annuities being cost effective or a drain on cash flow.

Over the past six months, Wade Pfau and I have published articles in *Advisor Perspectives* on various types of annuities.[1] In part, those articles have compared annuities to systematic withdrawals, with results shown pre-tax. But for non-qualified (or taxable) accounts, the tax rules for annuities and systematic withdrawals differ, so let's look at some examples to show the tax effects.

The easy case: qualified accounts

Before dealing with non-qualified accounts, I'll first discuss the simpler case of qualified accounts. For 401(k)s, traditional IRAs and other tax-deferred retirement accounts, funds withdrawn are taxed at ordinary income tax rates, whether the funds come from annuities or regular investments. For stock investments, it doesn't matter whether the withdrawals come from invested principal, dividends or capital gains. If we have an annuity strategy and a systematic withdrawal strategy that have the same before-tax cash flows, they will have the same after-tax cash flows.

It is still important, however, to incorporate taxes when doing financial projections for clients. For example, a 25% tax rate can turn a "safe" withdrawal rate of 4% before tax into just 3% after tax. This applies whether the funds are coming from annuities or regular investments.

For qualified plans involving Roth IRAs or Roth 401(k)s, the comparisons are even simpler, because the before-tax cash flows equal the after-tax cash flows.

For individual client situations, a number of special considerations may come into play when determining optimal timing of withdrawals from qualified accounts. Tax-bracket effects, expectations about future tax rates, and coordination with Social Security-claiming strategy are among these. When considering such strategies, just remember that taxes are the same for annuities and regular investments.

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[1] See the following: GLWBs: Retiree Protection or Money Illusion?, Flexible Strategies for Longevity Protection: Comparing Two Products, New Tools to Manage Longevity Risk, An Innovative Solution to Retirement Income, Income Annuities versus GLWBs: A Product Comparison and Sorting Out the Annuity Puzzle.

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Getting more complicated: non-qualified accounts

When we move to the realm of funds held in non-qualified accounts, more complex tax rules apply. For annuities, investors incur taxes when they receive funds. For investments other than annuities (such as those used to fund a systematic withdrawal plan), taxes are based on the interest, dividends and realized capital gains as they are accrue, so taxes apply even if no funds are being withdrawn. Annuities enjoy the benefit of tax deferral, but, on the other hand, investments in stocks (or stock funds) benefit from lower tax rates that apply to dividends and long-term capital gains.

When investors receive annuity payments, there are special rules to determine what portion of each payment represents taxable earnings, with the remainder treated as non-taxable return of principal. I'll get into the details as I discuss particular types of annuities.

SPIA example

In this and other examples, I set up cases where before-tax expected rates of returns (IRRs) are equal for annuities and systematic withdrawals, and then I show the effect of taxes. The examples are based on a 65-year-old female, and I assume that she lives to age 87. For this SPIA example, she could invest $100,000 in a single-premium immediate annuity (SPIA) and, based on rates from Income Solutions®, receive level lifetime annual payments of $6,401. The IRR on this payment stream for 22 years would be 3.20%.

If we assume that she could find bond investments with a return of 3.20%, she would have the alternative of using a 100% bond allocation and taking systematic withdrawals that would provide this same payment stream lasting until age 87. If these were taxable bonds, coupons would be taxed as ordinary income. After-tax IRRs for this systematic withdrawal strategy could be calculated using the formula: *After-tax IRR = Before-tax IRR*(1-tax rate)*.

Calculating the after-tax return for the SPIA is a bit more complicated. SPIA payments are split into taxable income and return of principal based on anticipated annuity payments over life expectancy, using IRS unisex tables. For a 65-year old, the IRS life expectancy is 21 years, so total expected payments for this $100,000 annuity come to $6,401*21 = $134,421. A portion of each payment over the first 21 years is treated as tax-free principal return based on an exclusion ratio calculated as $100,000/$134,421 = .7439. That means 25.61% of each annuity payment for the first 21 years is taxable. (Payments after 21 years are 100% taxable, because the principal has been fully recovered.) I fed this information into an IRR calculation, and I produced the following comparison, based on 25% and 35% assumed tax rates:

IRR Comparison: SPIAs versus Systematic Withdrawal				
	Systematic Withdrawal	Sys Wd Realized Tax Rate	SPIA	SPIA Realized Tax Rate
Before-Tax IRR	3.20%		3.20%	
After-Tax IRR (25% tax rate)	2.40%	25.0%	2.48%	22.5%
After-Tax IRR (35% tax rate)	2.08%	35.0%	2.17%	32.2%

There is a slight advantage for the SPIAs after tax, as is shown by the IRRs and "realized" tax rates, which are calculated as the difference between the before-tax and after-tax IRRs divided by the before-tax IRR: *(BT IRR – AT IRR)/BT IRR*. The SPIA does slightly better than systematic withdrawals because taxable earnings are level for the SPIA, but they are pushed to earlier years for systematic withdrawals, similar to a mortgage amortization. There is not a huge difference, however, between the before-tax and after-tax comparisons.

Deferred income annuity (DIA) example

DIAs are like SPIAs with long deferral periods (e.g., 20 years) before payments begin. They are treated like SPIAs for tax purposes, using an exclusion-ratio calculation. The tax advantage for all types of annuities increases with the length of payment deferral, and DIAs that delay payments for many years illustrate this effect. The following chart is based on a hypothetical DIA with payments delayed 20 years, but with payouts increased to produce the same 3.20% before-tax IRR as was used with the SPIA. Again the systematic withdrawal portfolio is assumed to be 100% bonds, with the same before-tax IRR.

IRR Comparison: DIAs versus Systematic Withdrawal				
	Systematic Withdrawal	Sys Wd Realized Tax Rate	DIA	DIA Realized Tax Rate
Before-Tax IRR	3.20%		3.20%	
After-Tax IRR (25% tax rate)	2.40%	25.0%	2.58%	19.4%
After-Tax IRR (35% tax rate)	2.08%	35.0%	2.31%	27.9%

The realized tax rates show the extra tax advantage from the greater deferral of income.

A higher-income example

The tax advantage of annuities is a function, not only of the number of years of deferral, but also of the level of income. The following illustration is based on a hypothetical high-interest rate environment, and it shows what happens if the 3.20% interest rate is increased to 10%.

IRR Comparison with High Income: DIAs versus Systematic Withdrawal				
	Systematic Withdrawal	Sys Wd Realized Tax Rate	Deferred Income Annuity	DIA Realized Tax Rate
Before-Tax IRR	10.00%		10.00%	
After-Tax IRR (25% tax rate)	7.50%	25.0%	8.76%	12.4%
After-Tax IRR (35% tax rate)	6.50%	35.0%	8.17%	18.3%

Now we see that realized tax rates are only about half the nominal tax rates.

Variable annuity with guaranteed lifetime withdrawal benefit considerations

In order to do an after-tax comparison of variable annuities with guaranteed lifetime withdrawal benefits (VA/GLWBs) to systematic withdrawal, we need to introduce some additional complexity. In both cases, portfolios include stocks and bonds, and, for the portfolios used for systematic withdrawal, lower tax rates (typically 15%) will apply to dividends and long-term capital gains, and gains will not be taxed until realized. The easiest way to do these calculations is to use financial planning software that can crunch the numbers based on inputs for expected returns, dividend rates, and turnover rates. I used Sungard's AllocationMaster.

The VA/GLWB will not enjoy these favorable tax rates, and ordinary income tax rates will apply. Monies taken out under VA/GLWB provisions are considered to be withdrawals rather than annuity payments, so the taxation is on an "earnings-first" basis. When a withdrawal is taken, if there are earnings in the underlying account of any sort (interest, dividends, or capital gains), those earnings will be taxed as ordinary income up to the amount of the withdrawal. If withdrawals exceed earnings in the account, those additional withdrawal amounts are considered a tax-free return of account value until the original investment has been fully returned. If the account value is depleted and guarantee payments kick in, those are fully taxable at ordinary income rates.

I made some adjustments to this example to get equal before-tax IRRs. I assumed bonds earned an average annual return of 3.20% (as in the earlier examples) and stocks earned 8.30%, based on the historical equity risk premium and current Treasury yields. I assumed that the VA/GLWB carried annual charges of 1.54% based on the Vanguard GLWB product, and that regular investments had annual charges of 0.15%. To make up for this difference in charges, I assumed that the portfolio supporting systematic withdrawals was allocated 35/65 to stocks and bonds and that the VA/GLWB portfolio was allocated inversely, 65/35. As such, the comparison is not apples-to-apples on volatility, but the pre-tax returns match so that the tax effects can be directly compared. (A further rationale for the higher stock allocation in the VA/GLWB is that investors may be more comfortable taking stock market risk because of the withdrawal guarantee.) Finally, with a conversion from arithmetic to geometric returns, I came up with equal before-tax returns of 4.62%. I assumed 5% level withdrawals ($5,000 per year, based on $100,000 initial investment), which, at the 22-year life expectancy, leaves an account value of $86,000.

This chart provides a comparison of outcomes:

IRR Comparison for Systematic Withdrawal versus VA/GLWB				
	Systematic Withdrawal	Sys Wd Realized Tax Rate	VA/GLWB	VA/GLWB Realized Tax Rate
Before-Tax IRR	4.62%		4.62%	
After-Tax IRR (25% tax rate)	3.73%	19.3%	3.47%	25.0%
After-Tax IRR (35% tax rate)	3.48%	24.7%	3.00%	35.0%

Now we have a reversal of fortunes – systematic withdrawal produces better realized tax rates than the annuity strategy. The 4.62% rate-of-return after fees is less than the 5% withdrawal rate, so earnings on the VA account end up being taxed on a current basis at ordinary income rates. There is no tax deferral advantage. The lower realized tax rates for systematic withdrawal reflect the 15% tax rate for dividends and realized capital gains.

The VA/GLWB will do better on an after-tax basis for strategies that involve deferring withdrawals, analogous to the DIA strategy. Deferring withdrawals allows earnings to build up and be taxed later. Here's an example based on a 12-year deferral and then taking 10 years of withdrawals at $10,000 per year, but keeping the before-tax IRR the same. The year-22 account value increases to $146,500.

IRR Comparison for Systematic Withdrawal versus VA/GLWB				
12-Year Deferral Case				
	Systematic Withdrawal	Sys Wd Realized Tax Rate	VA/GLWB	VA/GLWB Realized Tax Rate
Before-Tax IRR	4.62%		4.62%	
After-Tax IRR (25% tax rate)	3.73%	19.3%	3.73%	19.3%
After-Tax IRR (35% tax rate)	3.48%	24.7%	3.34%	27.7%

Because of the deferrals, the VA/GLWB realized tax rates are now lower, while the systematic withdrawal realized tax rates remain the same, since taxes are not deferred. At a 25% tax rate, the after-tax IRRs are equal for systematic withdrawal and the VA/GLWB. For this particular example, the lower tax rates for stocks underlying systematic withdrawal and the tax deferral for the VA exactly offset.

Conclusions

This has been a quick tour of the impact of taxes on systematic withdrawals and annuities. Remember these key conclusions:

- For systematic withdrawals, realized tax rates will mostly be a function of asset allocation, with higher stock allocations lowering rates toward the preferential rate for dividends and realized capital gains.

- For annuities, the impact on realized tax rates will be a function of both the length of deferral of payments and the level of investment returns.

I hope this analysis will lay the groundwork for incorporating taxes into more complex studies of investment strategies involving both annuities and regular investments. The results also highlight the importance of properly taking taxes into account when planning for clients.

Joe Tomlinson is an actuary and a financial planner and is managing director of Tomlinson Financial Planning, LLC in Greenville, Maine. His practice focuses on retirement planning. He also does research and writing on financial planning and investment topics.