

INCOME ANNUITIES: Explaining and Measuring Return

By Lowell Aronoff

PART ONE

An income annuity or a pension has some elements similar to an investment. Like a bond, you give an insurance company a sum of money in exchange for a regular check. The insurance product also provides an important benefit. Typically, the insurance company promises to pay you a guaranteed income for the rest of your life, no matter how long you live. This two-part article will try to quantify the value of an income annuity by comparing it to more common investment products and strategies.

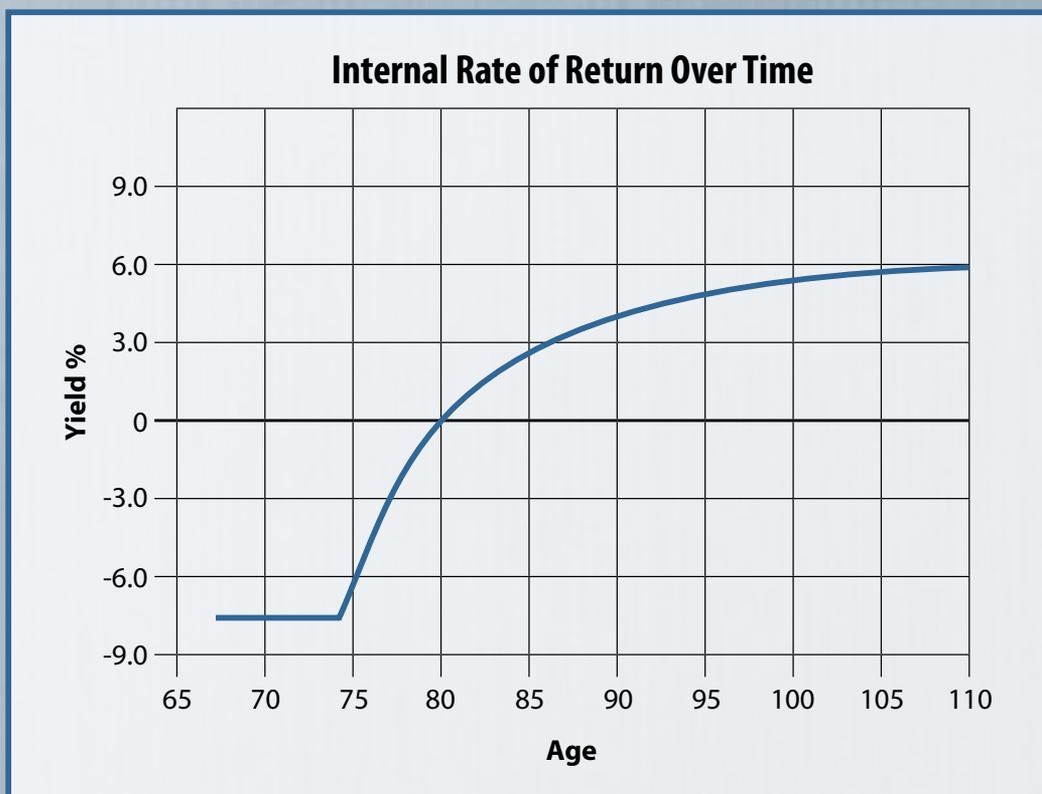
To many consumers, an income annuity feels more like an investment product – like a bond or fixed income fund – because it provides them with a monthly check. Investment products are almost universally measured by their yield. It's disingenuous to say that we cannot tell you what the yield is because we do not know how long you will live. This may be the truth but to the client it will feel evasive. We need a better way to explain this to clients.

In June 2014, a healthy 65-year-old woman with \$100,000 could purchase an income annuity that includes a guaranteed payout for life, with 10-year period certain, that would pay the client about \$525¹ per month. We do not know how long

she will live, yet this information is needed to determine the final yield of her premium in an income annuity. We can, however, graph the client's future yield against various ages when she may die, as shown below.

Clearly the longer the client lives,

healthy 65-year-old women, we can say that, on average, they will live for 25 years.² This is known as the client's life expectancy. If she lived to exactly age 90, the yield (net of commission and expenses) on her income annuity would be 4.03%. There are a couple



the higher her yield will be. When a client inquires about the yield from an income annuity, she is typically looking for a definitive number that she can compare to other investments. Although the client may not be interested in a graph, we can use statistics to delve deeper.

If we start with a large group of

of important things to point out with this number:

1. Very few clients live to their life expectancy. Remember that life expectancy is simply an average. In fact, there is more variability in a client's longevity than in the S&P 500.³
2. While this is unlikely to be the



yield the client receives, it is still a useful number to the insurance company that underwrites the income annuity because it is close to the average yield that they will pay. In other words, this yield is not useful for determining if the client made a good choice in purchasing the annuity. It is instead useful in determining if the insurance company that underwrites the investment is generating excessive profit.

This yield compares favorably to what a bond could provide for a similar level of security. But the question is not whether this is a good deal for the insurance company; the real question is whether this is a good decision for the client.

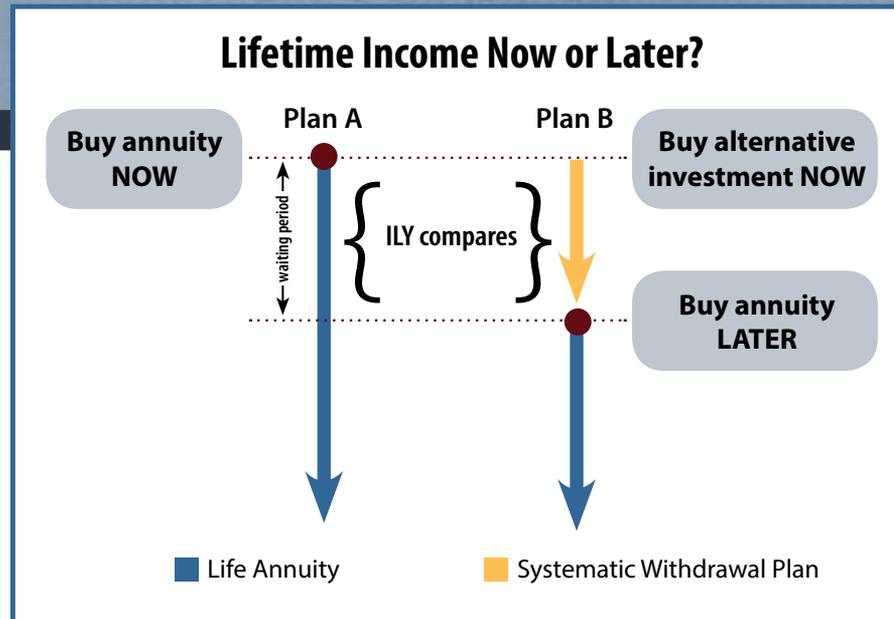
A key reason for purchasing the annuity is that the client may live longer and wants peace of mind in knowing that she will receive a paycheck until the day she dies. In other words, the insurance benefit – the guarantee to pay this client for the rest of her life – is very important. Since there is no significant difference between the yield that the client could receive from a bond fund consisting of underlying investments as secure as the general account of a highly rated insurance company, the insurance element of an annuity comes at no financial cost.

The client ‘pays’ for the insurance element in a different

way. In exchange for a guarantee of a monthly check for life, the client agrees to keep this annuity for their life – no matter how long or short (beyond the 10-year guarantee). Some people will live longer than others and the income annuity is a vehicle that allows those with a shorter life span to subsidize the retirement income of those that will live longer. No one knows if they will outlive the average or not. The key point is that if the client lives longer than average, she increases her risk of depleting her income generating assets. An income annuity allows the client to transfer this risk to an insurance company.

While the yield at life expectancy is not a valid statistic to compare against other products because it eliminates the insurance aspect of the annuity, we can subtly rephrase the question to make it valid. If the client wants a guarantee of income for life, she will eventually need to consider purchasing an annuity. Should she buy an income annuity now or purchase a different product now in anticipation of buying the annuity at some future date when it is cheaper because she's older? We can determine the answer to that by looking at a statistic called the Implied Longevity Yield or ILY™.

Most people have trouble planning for the rest of their lives, so let's pick a seven-year horizon. A valid question might be whether the client should purchase an income annuity now (shown as Plan A above). Or, would she be better off buying an alternative investment that pays the same monthly income for seven years and delay the annuity purchase until later when it will be cheaper (higher monthly income) because she will be seven years older (shown as Plan B above)? Another way to express this question is: What yield would I need to earn from



an alternative investment that would pay me the same monthly income as an annuity for the next seven years and leave me exactly enough money to purchase the same stream of income seven years from now?

While the math required to answer this question is not straightforward, a tool that provides the answer is readily available. In this case, the answer is that the client would need a guaranteed yield (net of commission and expenses) of 4.6% from a source that is as financially strong as an insurance company every year for the next seven years to justify waiting seven years to purchase an income annuity. In general, it is difficult for a 65-year-old to financially justify waiting to purchase an income annuity and the case for income annuities becomes more compelling as the client ages.

This is not to say that every 65-year-old should buy an income annuity immediately. Some clients are in no real danger of depleting their retirement assets because they spend less than three percent of these assets per year and they have an aversion to being locked into anything for the rest of their lives. Other clients might be sure that interest rates will rise soon. So, should they purchase an income annuity now?

In Part 2 of this article, we will examine the sensitivity of a purchase

decision to future interest rates with a simple question: If the client believes that the yield curve will rise to its highest level in the next ten years, should she wait to buy an income annuity? We will then introduce a cost/benefit analysis to determine if the income annuity adds value to our client.

¹ Average of five competitive rates from CANNEX

² SOA A2000 Mortality Table with 1% improvement

³ Variable of life expectancy = 56%; of S&P 500 = 54% – Source: Milevsky, Yahoo Finance, QWeMA division of Cannex” to read “Variable of life expectancy = 56% of S&P 500 = 54%. Source: Milevsky, Yahoo Finance, QWeM, a division of Cannex

⁴ For example: VWESX fund has a duration of 12.6 years and a yield of 4.14%; this annuity has a duration of 12 years

Lowell Aronoff is CEO of CANNEX Financial Exchanges Limited, an organization that facilitates the sale of a variety of financial products. CANNEX



compiles data and calculations about a variety of financial products and makes that information available to subscribers. Lowell focuses most of his energies on fixed income annuities and how they fit into a client's holistic income plan. For more information, visit www.cannex.com.

Explaining and Measuring Return

FROM AN INCOME ANNUITY

PART TWO

By Lowell Aronoff



In this final article of a two-part series, we'll discuss quantifying the value of an income annuity by comparing it to more common investment products and strategies.

As you know, many retiring clients have spent their financial lives accumulating a nest egg. These retiring clients may feel that allocating a portion of their retirement savings toward a product that pays them a check every month is an investment. So it's natural to utilize accumulation metrics such as "yield" to compare different products. In the first part of this series, we included a hypothetical example showing how a lifetime income annuity could benefit a healthy 65-year-old woman with a \$100,000 premium. As you may recall, the lifetime income annuity with a 10-year guarantee would pay about \$525¹ per month, and we could graph the client's future yield against various ages when she might die.

We showed that her yield at life expectancy was very close to the yield (net of commission and expenses) of that of a similar high-quality, long-term bond fund. This ignores, however, the insurance element of income annuities. Instead it's asking: Should our client...

1. Buy an income annuity or purchase a different product now?
2. Buy an annuity at a future date when it is "cheaper" because she's older?

Also, in the previous article, we showed how — by using the Implied Longevity Yield™ (ILY) tool — it is hard to beat the return from

an income annuity for a 65-year-old client. Keep in mind that ILY assumes future interest rates will not change from their current lows. So another question may arise: If the client feels interest rates will increase in the next few years, should she purchase an income annuity now or wait?

Income annuity rates are driven by a yield curve not dissimilar from the Treasury Yield Curve. Let's examine a case where we assume that in five years, the client will be able to purchase an annuity based on a yield curve that is as good as the best rate that has been available in the past 10 years. CANNEX publishes an index of income annuity rates called the CANNEX Payout Annuity Yield Index (PAY)TM. In the past 10 years, PAYTM rates peaked in 2009 according to this index, as shown in the chart below.

The client will be five years older when these hypothetical (assumed and fictitious) rates become available. Would she be better off waiting?

1. \$100,000 of retirement savings would be allocated for the purchase.
2. The monthly withdrawal amount would be the same at \$525.

At the end of May 2014, the Treasury was showing a yield curve for one-, five-, 10- and 30-year rates of approximately 0.25%, 1.5%, 2.5% and 3.5%, respectively. We will assume that the client chooses to invest in the five-year Treasury while waiting. Remember that Treasury rates peaked in June 2008 at approximately 2.5%, 3.75%, 4.25% and 4.75%, respectively, as shown in the "Projected" rates on the next page. In other words, would the client regret her decision to wait five years to purchase an income annuity if rates at that time were more favorable than they have been in the past 10 years?

The math is difficult, but the tools to calculate these "what if" scenarios are

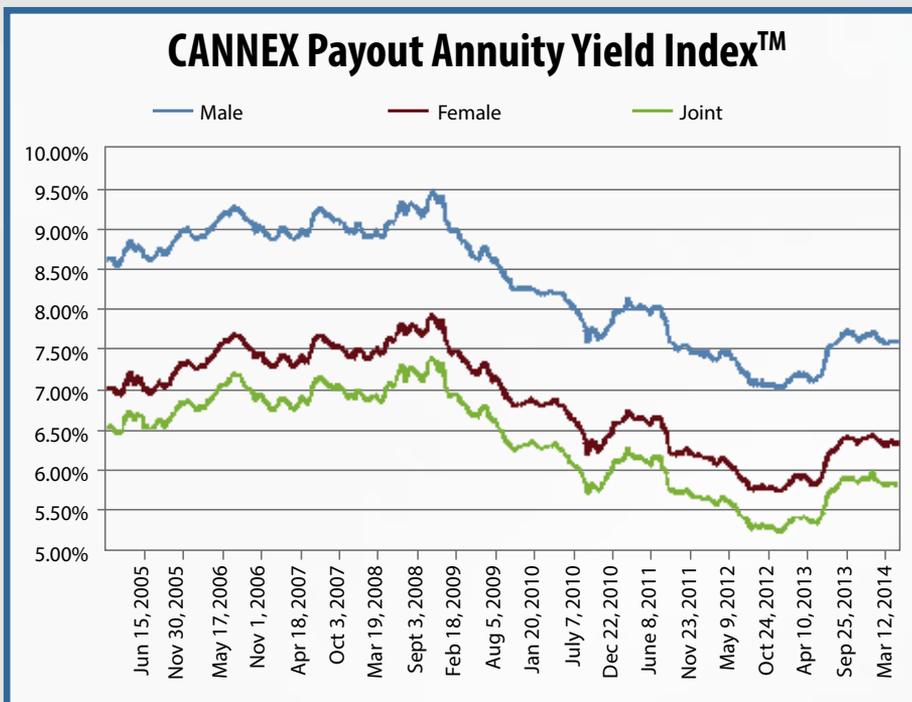
carrier, flexible enough to allow monthly withdrawals, and paid 2% while she waits, she may be slightly better off waiting.

Based on the hypothetical example on the next page, it is clear that the yield generated by an income annuity should not deter a 65-year-old client from purchasing an income annuity. Yield is an intangible concept that is very useful in the client's accumulation years. Once retired, she will probably be more concerned about tangible concepts like having a large enough monthly check to cover her needs. In other words, the client should be less interested in knowing what the yield is on her investment and more focused on knowing whether her overall strategy can and will continue to generate the income she needs and meet her other objectives.

The most common strategy in use today is a Systematic Withdrawal Plan (SWP). A consideration that is far more tangible than yield is whether adding an income annuity improves the outlook of an SWP that pays 4% per year, increasing with inflation.

Let's go back to our example and suppose that the client has \$400,000 in investable assets in a 60% (equities)/40% (bond) portfolio. She wants to know whether the purchase of a \$100,000 income annuity can help her improve her retirement. For the purpose of this illustration, we will assume that her return from equities will be consistent at 5%. We'll also assume that her bonds will yield a consistent 2.5% and inflation will run at 1.5%.

Purchasing the income annuity involves a trade-off, as does purchasing any investment or insurance product. Because she has transferred the risk of depleting \$100,000 of assets to an insurance company, and the annuity provides \$6,300 per year — substantially more than the \$4,000 — she could withdraw from that portion



There are a few more assumptions needed to round out this. To make the scenarios fair, we need to assume a few factors in both cases (buying now versus waiting):

available. In this case the client would be slightly better off purchasing the annuity now. However, if she could find an investment that is as secure as a guarantee offered by an insurance

What If I Wait — Analyzing the Annuity Decision

Joint	Client	Spouse
Current Age	65	
Gender	Female	
Period Certain (Years)	10	
Percent Continuation		
Amount Available to Annuitize	\$100,000	
Best Monthly Income (CANNEX Quote)	\$525	
Expected Return While Waiting	1.50%	
Monthly Withdrawals While Waiting	\$525	
Yield Curve	Current	Projected
1 Year	0.25%	2.50%
5 Year	1.50%	3.75%
10 Year	2.50%	4.25%
30 Year	3.50%	4.75%
Waiting Period Before Annuity Purchase	60 Months	
Projected Monthly Income If You Wait	\$518.26	

of the SWP. She can spend more in retirement without increasing her risk of depleting assets. This additional amount that the client can spend accumulates with time and is highlighted by the blue line below. However, if the client ends up living a short life, her estate will be less

valuable than it would have been had she not purchased the annuity. This decrease in her estate is represented by the red line below. As you can see, the longer the client lives, the smaller the cost to her estate will be for purchasing an income annuity.

The distance between the two lines

represents the financial benefit (on the right side of the graph) or financial loss (on the left) from the purchase of the income annuity. In other words, if the client lives 20 years (where the lines meet) or more, there would be a financial benefit to

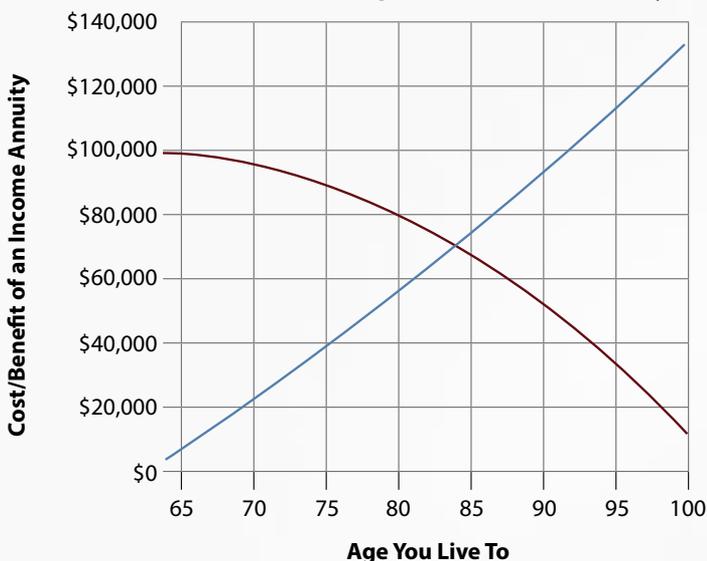
owning the income annuity. Statistics tell us that if this client is in good health, the likelihood that she will live another 20 years is 68%.

While the income annuity provides clients with a very competitive yield, a far more important financial consideration is whether it provides the client with the ability to safely withdraw more money from her portfolio. In this case, it does. There are also nonfinancial considerations. Would the income benefits guaranteed by a financially strong insurance company help give the client peace of mind? Do her children have valid concerns about having to support a potentially penniless mother? Will she maintain her ability to make financial decisions as she enters extreme old age? Would the reduced need to worry about where her money comes from lead to a potentially happier retirement? If the answer to some of these questions is yes, then it's time to consider an income annuity.

¹ Average of five competitive rates from CANNEX.

² SOA A200 Mortality Table with 1% improvement per year.

The Cost/Benefit of Using an Income Annuity



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