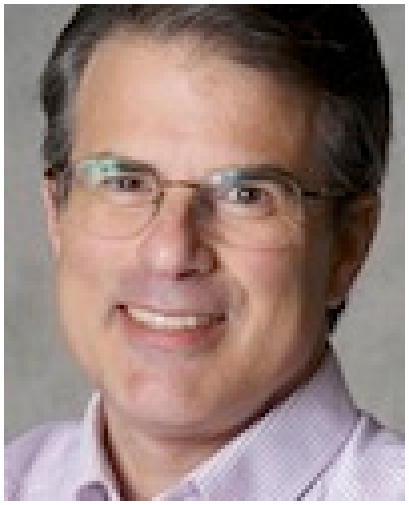
Morningstar's Take on Income Annuities

By Kerry Pechter *Thu, Jan 18, 2018*

In a recent article, Morningstar's Canadian research director shows, mathematically, how one might use term life insurance and income annuities (in sequence) to cope with one of life's known unknowns: the date of our own death.

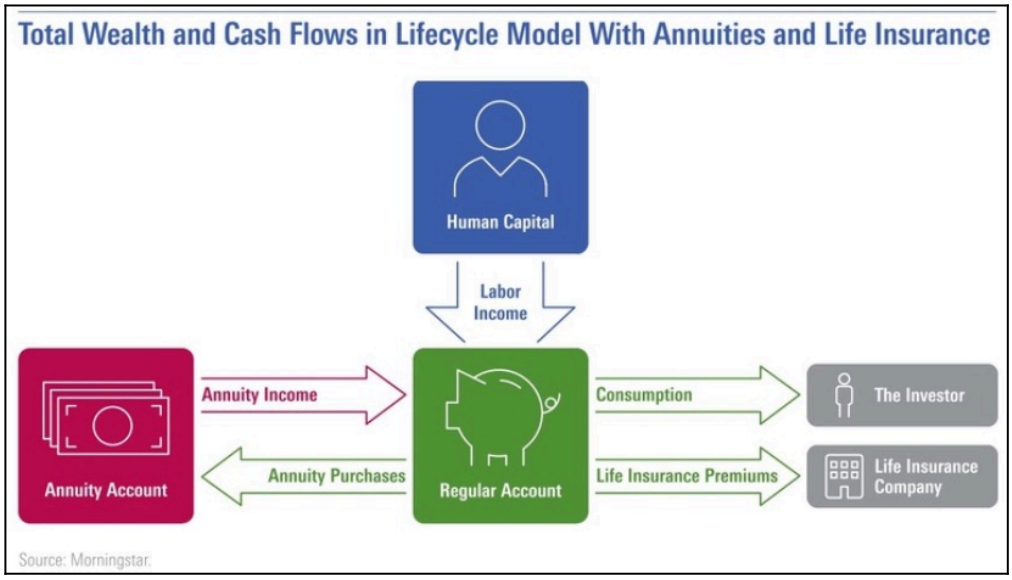


When we think of Morningstar Inc., we think of mutual funds, not annuities. The Chicago-based aggregator of mutual fund data does publish a quarterly report on the sales of variable annuities (VAs). But VAs are, essentially, a tax-deferred extension of the mutual fund business.

So it was a little surprising and very heartening to see an article in praise of plain vanilla income annuities in the December/January issue of Morningstar magazine. Morningstar's Canadian research chief, Paul Kaplan, wrote it as an installment of his regular Quant U column.

Kaplan wanted to illustrate, primarily through mathematical formulas, the way an typical investor going through a typical head-of-household might use insurance products to manage his or her mortality and longevity risk over what economists like to call "the lifecycle."

"It's kind of a walk through of some principles about mortality and longevity," Kaplan told RIJ during a recent interview. "We all have to deal with the fact that we don't know when we are going to die. In earlier years, if you die too soon, you want to leave your heirs something, and term life is a way to do that.



"When you get older, you have the opposite problem: You don't know how long you will live," he added. I

kept it very simplified, to make a point. The point is that that you should use term life and payout annuities to manage the risks that you face with respect to not knowing when you would die."

We'll focus on the principles here, rather than the math. Kaplan (below left) imagines an abstract investor, 30 years old, who earns $50,000 a year. He or she has a bequest wish (he presumably has a family to protect) as well as a need for income in retirement (at age 60 in this case) to supplement whatever social insurance he has.

Our 30-year-old breadwinner wants his or her family to have at least $500,000 if death or disability strikes prematurely. To fund a $500,000 bequest, he starts putting money away (earning an average 4% per year) and makes up the difference between savings and the $500,000 goal with purchases of term life insurance.

As the savings grow, the investor gradually reduces his purchases of term life insurance. After 23 years, at age 53, the investor reaches a tipping point. His savings are steadily compounding toward the goal of $500,000. No longer worried about mortality risk, his or her thoughts turn to longevity risk—the risk of outliving his life expectancy (age 86) and savings.

So, at 53, he stops buying term life and starts buying a series of immediate income annuities over the next seven years—enough to reach produce a fixed income of $20,000 a year starting at age 60. During those seven years, any surplus income (from earnings, annuities or investments) goes into the savings account.

At age 60, our archetypical family-oriented investor retires from 30 years of work. He or she (and spouse perhaps) then live for an indefinite number of years on a $20,000 annuity income, earnings from the investment account and, presumably) social insurance (left out of the article for the sake of simplicity).

"The idea is that if I have built up this half million dollars, it has returns. I can use those to fund my retirement needs. If I want additional income, that's where the payout annuities come in," Kaplan told *RIJ*.

Real adult life, needless to say, tends to pass less smoothly than it does in this example. Lots of surprises occur along the way (like financial crises, job interruptions, illness, divorce, unexpected children and college expenses) to mess up the math. But Kaplan is interested in principles here, not case histories, and the principles ring true.

So why is there an "annuity puzzle"? If annuities make so much sense, why don't more people use them? "People just don't like the scenario, 'I go to my advisor, I put $100,000 into an immediate annuity, and I get

run over by a bus."

But if you want to eliminate longevity risk, Kaplan said, a ladder of single premium income annuities is the right tool for the job. Sounding like a master woodworker who would never stoop to buy pre-fab cabinetry, he would rather build his own financial furniture than use a bundled product like an indexed or variable annuity with a lifetime income guarantee and death benefit. "When you use [annuities], use them in their simplest form, don't go for a lot of bells and whistles," he said.

With this possible exception: Kaplan likes that unicorn in the annuity family known as an IVA, or immediate variable annuity. Rarely manufactured or sold, IVA pay out a fixed number of *units* in retirement. Vanguard used to sell a white-label version of these products. Peng Chen, formerly of Morningstar, has demonstrated their virtues. A company called Achaean Financial has talked from time to time about issuing one.

The units of an IVA are initially valued at an AIR (assumed interest rate) of 3% to 5%, and then fluctuate in value based on the performance of the underlying investments. "When I was trying to create a model plan for an investor who faces mortality and market risk, the math just kind of made it all fall into place and I said, 'I'm looking at an IVA.' It works really nicely," Kaplan told RIJ. "I've been interested in this for a really long time."

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