

Protected Lifetime Income

A New Formula and Category for Today's Modern Retirement Plan

How the unique benefits of risk-pooling in an annuity can enhance a truly diversified retirement-income planning process

*By Wade Pfau, Research Fellow, Alliance for Lifetime Income
Professor of Retirement Income, The American College of Financial Services and
Emilio Pardo, Co-Chairman, Operating Committee, Alliance for Lifetime Income*

Introduction

Retirees face a variety of risks after they exit the labor force and are no longer funding their living expenses from their regular wages. They must find a way to convert their financial resources into a stream of income and spending power that will last the remainder of their lives. To accomplish this, they must manage both longevity risk (the risk of outliving their retirement income) and market risk (the risk of losing income due to market downturns), among other challenges. But, to date, they have had to deal with conflicting advice about how to best ac-

complish this task.

To better cut through the conflicting views about retirement income planning, this paper uses a straightforward illustration to show how protected lifetime income from an annuity – that has an optional protected lifetime income benefit – compares with other retirement strategies. An annuity with such an optional benefit may help mitigate both longevity risk and market risk by providing a protected lifetime income advantage, which also increases spending power.

Americans are living longer, so those retiring today and in the future must plan for a longer period of spending than previous generations. With improving longevity, retirees may increasingly need to consider the possibility of living to 100 or beyond. Society of Actuaries data on annuity purchases suggests that a 65-year-old woman has a 10 percent chance of living beyond age 100. Unfortunately, old rules of thumb about retirement spending were never designed to last for more than 30 years.

Amplified market risk is another key challenge facing retirees. Unfortunately for retirees, a bear market occurring at or around the beginning of a person's retirement may cause portfolio losses that are difficult to make up – even if the

overall market eventually recovers. Losses in early retirement can be exacerbated because a retiree many need to spend an increasing percentage of the money they have left on retirement expenses.

This differs greatly from the wealth accumulation phase of someone's life, when most individuals accept some market risk to grow their nest egg for retirement. But when a consumer retires and begins to take distributions from their nest egg, their market risk not only changes but also increases. It's critical to understand this dichotomy, because sequence of returns risk is an important pitfall that consumers face. Overall retirement outcomes are driven by how a retiree's portfolio performs in the early years of retirement.

A WAY FORWARD: MITIGATING RISK THROUGH POOLING

In the past, retirees were more likely to have traditional defined-benefit company pensions to manage longevity and market risks. But traditional pensions have virtually disappeared, with many employers having frozen or phased out their pensions. Instead, employees and employers now tend to contribute to various defined-contribution plans, primarily 401(k)s, where the employee accepts longevity and market risk and must make investment decisions. Indeed, 401(k) plans shift the risks and responsibility to employees to bear on their own rather than pooling these risks through a pension fund. Longevity and market risk are therefore bigger concerns for today's retirees and

their 401(k) assets.

Annuities, however, offer consumers an alternative, a way to pool risk in a way that no single individual can. And, annuities take advantage of the benefits of risk pooling to provide that all-important protected lifetime income.

AN ILLUSTRATION: THE ADVANTAGES OF RISK POOLING IN RETIREMENT

Let’s look at a simple example to gain a better understanding about the role of risk pooling in retirement income planning. Consider a 65-year old female retiree who has accumulated a \$1 million portfolio to fund her retirement expenses.

There are three basic ways for her to build a retirement income strategy.

Option 1: She could invest her money in bonds, with interest and maturing bonds supporting spending for each year in retirement.

Option 2: She could invest her nest egg in a diversified investment portfolio of stocks and bonds with the hope of being able to spend more because of the historical propensity for stocks to provide a higher rate of return over time than bonds. In this scenario, the expectation is that an investment portfolio can manage longevity risk and sequence-of-returns risk because outsized market returns can be expected.

Option 3: She could use her savings to purchase an annuity with an optional benefit that provides a protected income stream for the rest of her life. The protected lifetime income from her annuity will allow her to spend more of her nest egg during retirement – and most likely derive more enjoyment from her retirement – than her bond portfolio would because the annuity provides an overlay of risk pooling that protects her ability to spend no matter how long she lives.

Risk pooling is a very competitive source of returns to support retirement income that is unavailable to invest-

ments. With the risk pooling benefit of an annuity, everyone in the pool receives protected income for life because those who live longer collect subsidized payments (via the insurer managing the annuity) from those in the risk pool who did not live as long. This allows everyone to enjoy a higher standard of living than they might have by withdrawing money from their own nest egg. Retirees managing their own withdrawals often feel obligated to spend at a lower rate to help ensure their money lasts longer. When they pool their risk, however, retirees have a license to spend more on their retirement needs and wants because they have the comfort of knowing these payments will continue for life.

Simply put, risk pooling allows individuals to spend their retirement savings as though they will live to average life expectancy – and beyond – and not have to be concerned that below-average market returns will degrade their retirement income. This can provide a higher standard

of living, or otherwise meet a spending goal more efficiently, than via an investment portfolio that makes a retiree feel obligated to take withdrawals and spend at a lower rate to help ensure the money lasts longer.

Now let’s examine how our 65-year-old woman’s retirement outcomes compare using our three retirement options. Note that for the purposes of this illustration, it’s assumed that our retiree uses all of her \$1 million to purchase a typical lifetime annuity. It should be clear that generally no one would or should place their entire nest egg in an annuity. Our purpose is to simply illustrate the impact of an annuity on retirement-income planning.

OPTION 1 (BOND PORTFOLIO) VS. AN ANNUITY WITH RISK POOLING

Exhibit 1 shows our retiree’s income plan out to age 100. She decides that if she must accept longevity risk, she wants to plan for her money to last to 100 where there is only a 10-percent chance she will

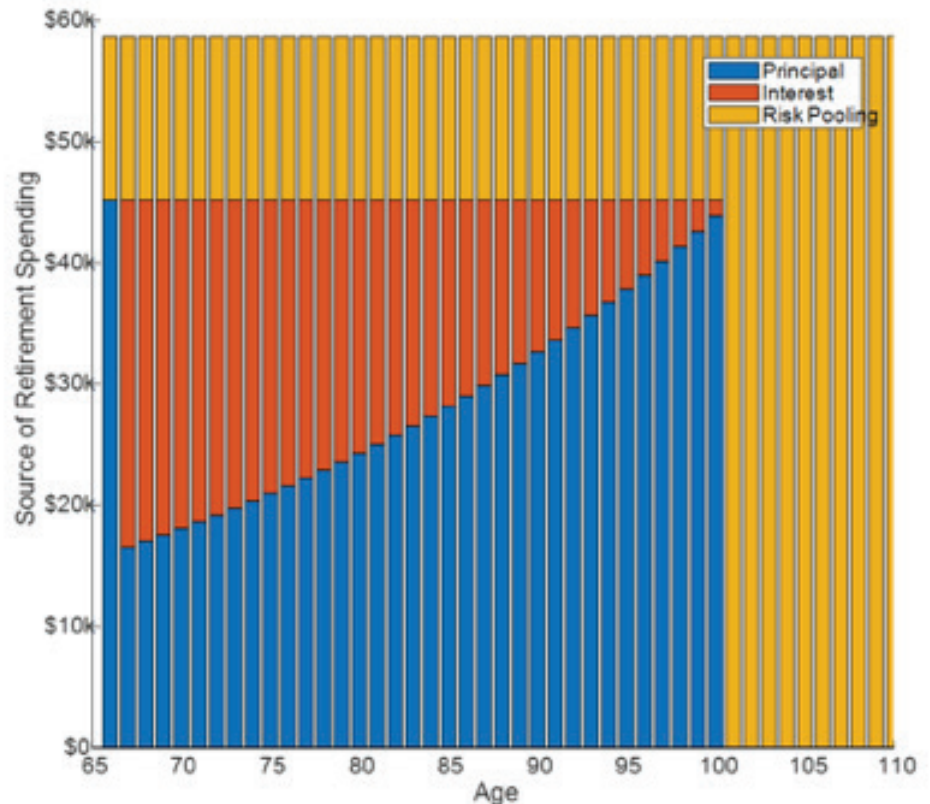


Exhibit 1: Sources of Spending Power in Retirement with Bonds and with an Income Guarantee for 65-Year Old Woman.

still outlive her income.

In red and blue, we see the sources of her retirement income for the \$1 million saved by our retiree. Red shows the interest from the bonds she holds. Blue shows how much of her initial \$1 million asset base she spends each year. This illustration assumes the interest rate on her bonds is 3 percent.

At this interest rate, she can spend \$45,184 annually. This also assumes her spending will not need to increase to compensate for inflation, but the need for spending adjustments would impact any spending strategy in a similar way.

If instead she purchased an income annuity with her \$1 million, we see in yellow that she could sustain \$58,704 of annual spending for as long as she lives. Of course, if she desired a lower level of protected lifetime income, she could use less than her \$1 million to purchase an annuity. We will assume the insurance company can purchase the same bonds at 3 percent and will price the annuity using the Society of Actuaries mortality data mentioned. Given this, let's calculate how much spending power the annuity can provide. The income guarantee supports 30-percent more spending power than bonds for her retirement. This is the advantage of risk pooling.

OPTION 2 (TRADITIONAL DIVERSIFIED PORTFOLIO) VS. AN ANNUITY WITH RISK POOLING

Next, Exhibit 2 investigates the probability for a traditional diversified investment portfolio to match the spending power provided by the annuity through the desired planning age of our retiree. Again, we assume a steady 3-percent interest rate for her bonds. Stocks, meanwhile, are volatile. Since the 1920s, large-capitalization stocks in the United States have averaged 6-percent-age-points higher returns than long-term U.S. government bonds with a 20-percent

annual volatility. Though many people worry that the relative outperformance of stocks will be lower in the future, we'll keep this historical number and assume stocks will average 9 percent total returns (6 percentage points more than bonds) with the same volatility.

We already know that the annuity supports 30 percent more spending than using bonds alone. Using bonds to try to match the annuity leads to definite failure for our retiree. This explains why, in the lower left of the graph, a 0-percent allocation to stocks (and 100 percent to bonds) offers a 0-percent probability of success for her. The only chance for the investment portfolio to match the annuity is to become more aggressive with the stock allocation. In fact, a 100-percent allocation to stocks provides the best opportunity for the investment portfolio to sustain the same retirement income as the annuity can provide through risk pooling.

However, a total allocation to stocks is able to match the annuity income (\$58,704 annually) in only 64 percent of cases, even with the historical risk pre-

mium of 6 percent for the stock market. Clearly, few retirees would be comfortable using a 100-percent stock allocation in retirement. Considering a more realistic case, if the retiree is willing to hold 50 percent in stocks, she would be able to bring the success rate to 54 percent. The odds that an investments-only strategy can match the spending power of the annuity are not much better than a coin flip. The notion that a diversified investment portfolio can easily outperform annuities is incorrect.

IN CLOSING

Many advocates for investment-only retirement strategies have not fully accounted for the additional risks created by investments – particularly longevity risk and sequence-of-returns risk – when transitioning from pre-retirement savings to post-retirement distributions. As a greater appreciation develops about these risks, it is critical that the conversation evolve to include the important role that the options for protected lifetime income can play in building reliable and efficient retirement plans.

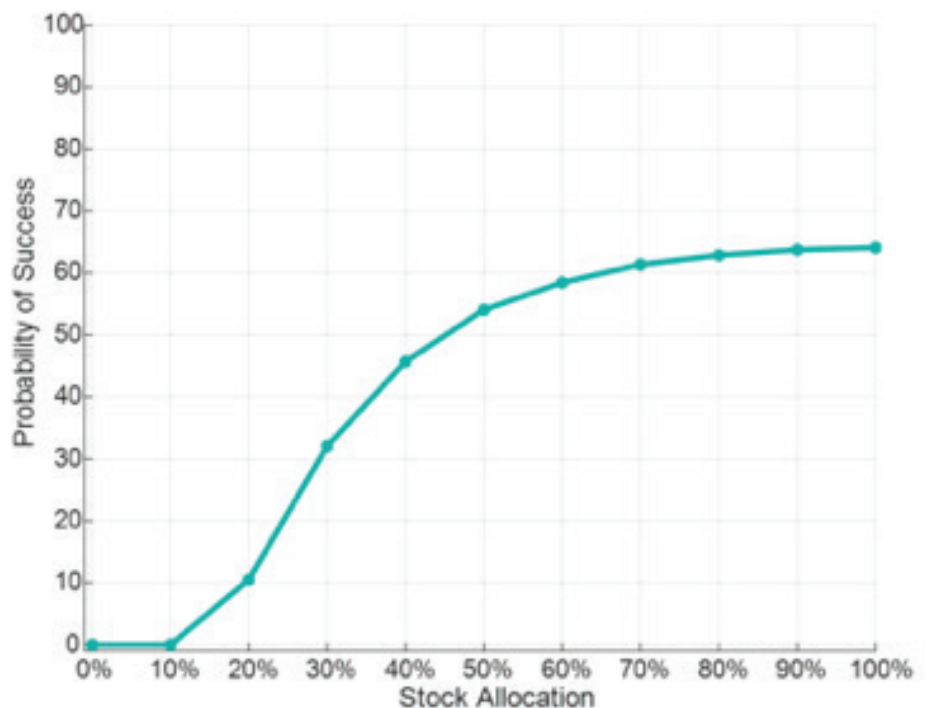


Exhibit 2: Probability of Success for Investments-Only Strategy Seeking to Match the Spending Power of the Annuity