Who Should Read This Insight:
Retirement investors, financial professionals

Institute Research Agenda Topic:
New takes on the annuity puzzle.

Insight: OPTIMIZING THE RETIREMENT PLANNING STRATEGY: A COMBINATION OF INVESTMENTS, WHOLE LIFE INSURANCE, AND ANNUITIES

Definitions of **bolded key terms** are at the end of this article.

BARRY KOZAK
JD, LLM, MPP, ChFC, RICP, works with individuals and families in aging with dignity, happiness, and purpose; and with financial, physical, and mental health. He also works with small employers on the design, education, and communication of their employee benefits programs, especially in the areas of financial wellness and retirement. He received his juris doctorate and master of laws in Employee Benefits Law degrees from The John Marshall Law School in Chicago, and his master's degree from the University of Chicago Harris School of Public Policy Studies.

Authors, Titles and Publication Dates of the Articles Addressed in the Insight
Wade D. Pfau. 2014. Optimizing Retirement Income by Combining Actuarial Science and Investments. Indianapolis, IN: OneAmerica Financial Partners. https://static.fmgsuite.com/media/documents/9b364d00-595a-4b3e-92e4-a531e608aa7c.pdf

Wade D. Pfau, Ph.D., CFA, is Professor of Retirement Income at The American College for Financial Services in Bryn Mawr, Pennsylvania. He also serves as a Principal and Director for McLean Asset Management and Solutions. To learn more, go to https://societyspeakers.cfainstitute.org/speaker/wade-pfau.

IDEAS IN THE INSIGHT YOU CAN PUT INTO ACTION

If a couple wants to have enough income during retirement, as well as enough accumulated wealth to leave as a bequest after both have died, there is a way for them to achieve those goals. Statistically their best strategy combines three elements: a 401(k) plan, a whole life insurance policy, and a single premium immediate annuity. During their working years they should contribute to an employer's 401(k) plan and pay premiums for the whole life insurance policy. At retirement they should purchase a single premium immediate annuity, while maintaining the insurance policy and taking systematic distributions from the 401(k) plan.

PRINCIPAL INSIGHTS

Historically, financial planning has centered around investing as a way to accumulate a certain amount of wealth by a certain age. A successful investment strategy will generally include diversifying assets among stocks and bonds. That strategy, in theory, should reduce the normal risks found in any economic state and in any individual investor's circumstances.

When individuals plan to fund their retirements and leave a **bequest** upon their deaths, in addition to the normal risks they also face others:

- ***Longevity risk*** is the risk of living longer than expected and so exhausting all available wealth before death.
- *Investment volatility* risk and ***sequence-of-return risk***, taken together, are the risks of experiencing low rates of return or an actual loss of principal in early retirement, a loss that retirees cannot recoup even with high rates of return they might experience in later retirement.
- *Inflation risk* is the risk that a fixed dollar amount will lose purchasing power over time.
- *Cognitive decline risk* is the risk that an individual's ability to understand sometimes complex financial matters and make reasonable financial decisions will decline with age.

Pfau's premise is that the best strategy to address these retirement income planning risks is to further diversify investments. One method of diversification while working is to pay **premiums** for whole life insurance (which is valuable as an investment throughout life) rather than for term life insurance (which is valuable only if the insured dies during the specific term of the policy). A comparable method of diversification during retirement is to receive an **annuity**, which can be accomplished either through electing to **annuitize** some accumulated wealth or through purchasing a **single-premium immediate annuity (SPIA)**. Since whole life insurance favors those who die earlier than expected and annuities favor those who live long lives, Pfau suggests that the combination of the two will provide an **actuarial bond**. Pfau believes that this strategy will provide the best chance of being successful—which in this case means to have enough income to maintain a desired lifestyle during retirement and then to leave a substantial bequest upon death.

The article uses two case studies of couples beginning their retirement planning: one couple age 35 and one couple age 50. Pfau applies sound mathematical modeling by comparing three distinct wealth accumulation and withdrawal strategies for each case study. Although there are other possible case studies and strategies, Pfau believes that these are the most logical, yet simplest, ways to test his theory.

He provides some of the results in tables for easy comparisons. The worst case shown is the 10th percentile, where the investor experiences bad luck due to poor investment returns: there is a 90 percent chance that this is the worst an individual can expect, but a 10 percent chance he could do worse. The average case shown is the 50th percentile, where the investor experiences predictable investment returns: there is a 50 percent chance for worse outcomes and a 50 percent chance for better outcomes. Finally, the best case shown is the 90th percentile, where the investor experiences good luck due to better-than-expected investment returns: only 10 percent of all investors should see such results for their investments.

Pfau makes the following assumptions for both case studies:

- One partner in the couple works until age 65, and then retires.
- While employed, the couple pays insurance premiums (for term or whole life policies) and elects to contribute a portion of salary into the employer's 401(k) savings plan.
- Upon retirement, the couple develops and follows a systematic withdrawal strategy from the 401(k) plan based on their Social Security benefits and other sources of fixed income, and decides whether to purchase a SPIA.
- If the couple does not spend all accumulated wealth during their lives, then the balance will be a bequest to their heirs.

In the first investment scenario the couple pays for term life insurance while working, and then, upon retirement and as that policy lapses, takes systematic withdrawals from the 401(k) plan. This scenario ignores the concept of an actuarial bond.

In the second scenario the couple pays for term life policy insurance while working, and then, upon retirement and as that policy lapses, purchases a SPIA (which provides a fixed amount of income during retirement while either spouse is alive) and takes systematic withdrawals from the 401(k) plan. This scenario uses only half of the actuarial bond concept.

In the third scenario the couple pays for a whole life insurance policy while working (instead of a term policy), and then, upon retirement, purchases a SPIA (which provides a fixed amount of income during retirement while only one spouse is alive), takes systematic withdrawals from the 401(k) plan, and maintains the whole life policy (which can be structured to require no further premiums). This scenario uses the complete actuarial bond concept, and Pfau believes it should yield the best results in the modeling. Within each case study, Pfau generated 50,000 possible outcomes for each investment strategy, and identified the 10th, 50th, and 90th percentiles.

Whether the couple begins retirement planning at age 35 or age 50, the results support Pfau's theory that a combination of traditional investment diversity and the actuarial bond diversity should provide the optimal strategy for retirement income planning.

According to Pfau, financial professionals who offer retirement income planning advice and products should understand the advantages and disadvantages of traditional investments, whole life insurance, and annuities (especially in the form of a SPIA), and should be able to suggest a balanced strategy tailored to each client's realities.

To learn more, visit the Retirement Income Institute at
www.protectedincome.org/retirement-income-institute

KEY TERMS ARE SOURCED FROM THE ALLIANCE FOR LIFETIME INCOME'S ANNUITIES LANGUAGE GLOSSARY AND INVESTOPEDIA

actuarial bond: *A financial product that combines whole life insurance and income annuities with an average maturity equal to life expectancy.*

annuitize: *When you turn part of your account balance or accumulated wealth into a series of guaranteed periodic income payments.*

annuity: *A financial product that can offer protected lifetime income and even potentially grow your money.*

bequest: *Any assets remaining upon death that are available to be gifted to individuals, charities, or other heirs.*

longevity risk: *The chance that you may live longer than your income will last.*

premium: *For most annuity types, this is the money you put into the annuity.*

sequence-of-return risk: *The potential for a market downturn early in retirement, which can have a disproportionately negative impact on your long-term account balance if withdrawals are already being taken.*

single-premium immediate annuity (SPIA): *A contract in which you pay an insurance company a lump sum of money up front, known as a single premium, in exchange for guaranteed, periodic payments for life or over a set period of time.*

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