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Income for the Retirement Years: The Role of Annuities

Traditional investments like stocks and bonds are the foundation of a typical retirement portfolio; however, annuities can play a valuable complementary role by hedging longevity risk, reducing market risk, and partially alleviating sequence of returns risk.

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What is an annuity?

An annuity is an insurance contract whereby a policyholder exchanges a premium payment for a stream of cash flows. Annuities can be structured in a variety of ways to address specific needs with respect to timeliness, flexibility and investment characteristics.

The role of annuities in a retirement portfolio

Annuities can play a complementary role in retirement portfolios by serving as a hedge against longevity risk, reducing market risk and reducing sequence-of-returns risk. It is important to note that high quality bond portfolios can provide some of these benefits as well, but they cannot provide a contractual hedge against longevity risk, which is why annuities can play an important role in a broader diversified portfolio.

While there is no optimal portfolio or annuity for all situations, alongside Social Security and traditional investment assets, an annuity offering lifetime income may help retirees achieve an improved retirement.

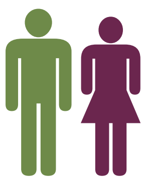
Hedging Longevity Risk

Most people underestimate how long they'll live*, subjecting them to the risk of outliving their assets. Understanding the odds is critical to designing a retirement portfolio and spending plan that will meet income needs over a lifetime. Aside from most defined benefit pensions and Social Security, an annuity is one of the few options that can guarantee an income stream into old age, helping to reduce longevity risk.

* "Underestimating Years in Retirement" (accessed 28 February 2021) Stanford Center on Longevity

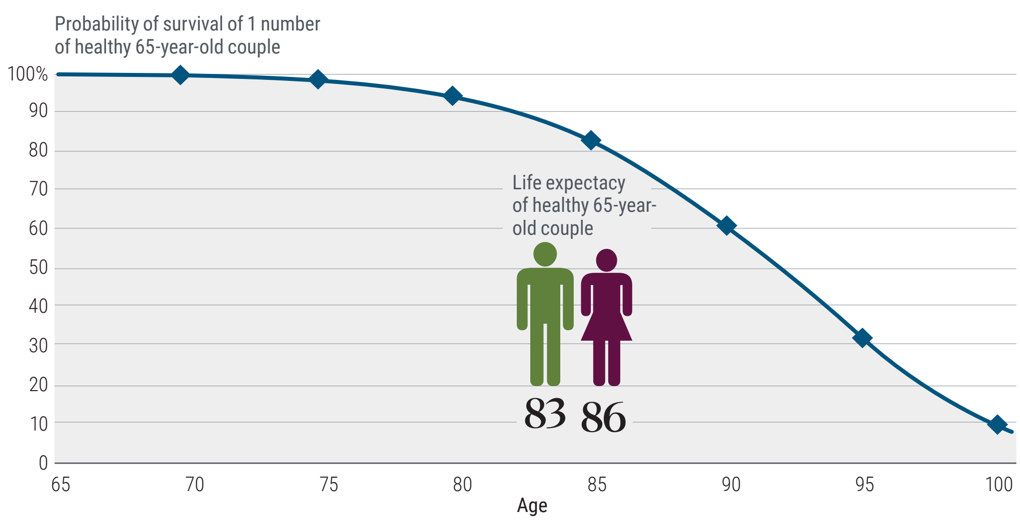
PEOPLE ARE LIVING LONGER:

HEALTHY 65-YEAR-OLD MALE AND FEMALE COUPLE:



50% chance at least one will live to age 93

BET ON A LONGER LIFE? PROBABILITY AT AGE 65, OF LIVING TO A SPECIFIC AGE



Source: IRI Retirement Factbook 2019
Social Security Administration 2020 Period Life Table (life expectancy for male and female)

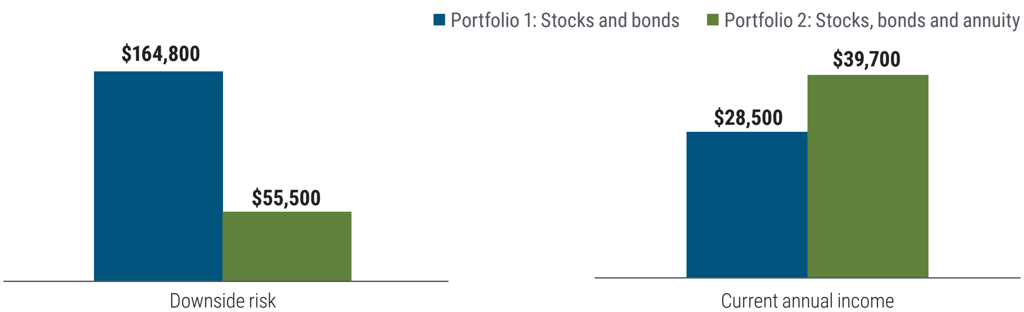
key takeaways…

Annuities offering lifetime income are one of the few options to hedge longevity risk. Compared to immediate annuities[1], deferred annuities may be more cost-effective as a pure longevity hedge, as they require a lower upfront premium for a given future level of income. Deferred annuity contracts that offer lifetime income benefits and tend to be more flexible include Fixed-Rate, Fixed-Indexed and Variable Annuities.

Reducing Market Risk

In addition to their longevity-hedging properties, annuities can provide a consistent income stream that is immune from the risk of falling stock and bond prices. Annuities are contractually guaranteed and must provide the stated benefit, subject to the claims-paying ability of the insurance company. Therefore, an annuity may reduce an investment portfolio's exposure to downside market risk, potentially at the cost of reduced upside participation.

ANNUITIES MAY REDUCE DOWNSIDE RISK(1) AND INCREASE INCOME



Hypothetical performance for illustrative purposes only. Hypothetical performance is not based on actual results, has certain inherent limitations and should not be relied upon as the sole basis for making an investment decision. Investors should carefully review the appendix for additional, important information about hypothetical performance. Source: PIMCO as of 31 December 2022. Portfolio 1 is comprised of $1M allocated to 60% S&P 500 Index (U.S. stocks) and 40% Bloomberg US Aggregate Bond Index (U.S. bonds). U.S. stocks have a current dividend yield of 1.7% and U.S. bonds have a current yield-to-worst of 4.7%. Portfolio 2 allocates $300,000 (30%) to an immediate annuity with an annual payout of 6.6%[2] and 70% to the same stock/bond mix as in Portfolio 1[(2)].

ANNUITIES GENERALLY SEEK TO SHIELD POLICYHOLDERS FROM DOWNSIDE RISK AND MAY OFFER SOME UPSIDE PARTICIPATION

	Income annuity	Fixed-rate annuity	Fixed-indexed annuity	Variable annuity
Exposure to market downside	None	None	None	Account value is exposed to downside, but the income benefit typically is not
Exposure to market upside	None	Account value and income benefit may have upside potential based on the insurer's ability to credit interest, e.g. if interest rates rise	Account value and income benefit may have upside potential based on performance of underlying index	Account value and income benefit may have upside potential based on performance of underlying fund investments

Source: PIMCO

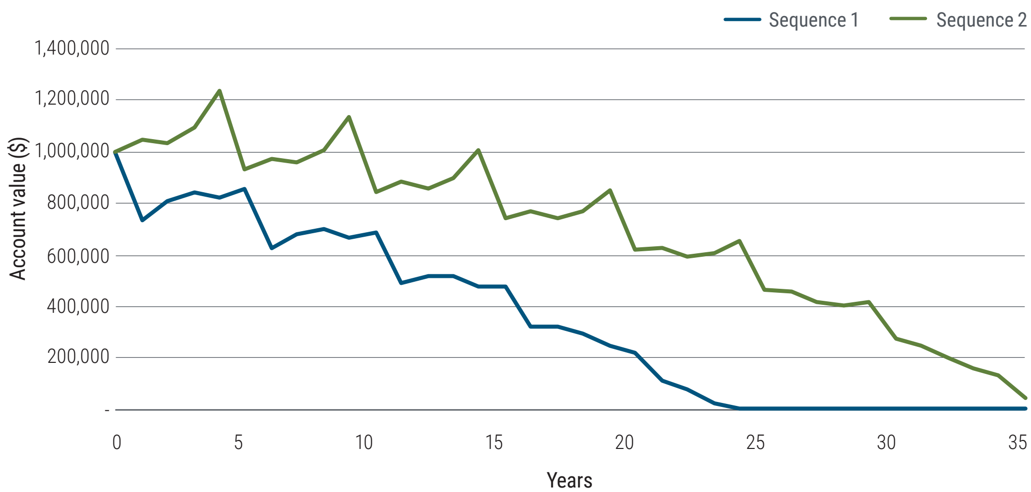
key takeaways...

Annuities may be used to help alleviate market risk. Other than Variable Annuities, most types of annuities are immune from the risk of falling stock and bond prices. In the case of variable annuities, account values may fluctuate and thus contribute to downside risk. However, even variable annuities can be used to reduce risk, as policyholders can often elect optional lifetime income benefits and death benefits that are immune from market declines.

Alleviating Sequence-of-Returns Risk

Upon retirement, investors may begin to withdraw a significant portion of their investment portfolio over a multi-decade period. Reliance on an investment portfolio for income may create sequence-of-returns risk – the threat that poor investment returns in early retirement lead to adverse outcomes later on, because the investor cannot fully reap the potential benefits of market recoveries.

SEQUENCE-OF-RETURNS RISK: THE ORDER OF RETURNS MATTERS WHEN WITHDRAWALS ARE TAKEN



Hypothetical performance for illustrative purposes only. Hypothetical performance is not based on actual results, has certain inherent limitations and should not be relied upon as the sole basis for making an investment decision. Investors should carefully review the appendix for additional, important information about hypothetical performance.

Source: PIMCO and Bloomberg as of 31 December 2022

Investment portfolio starts with $1,000,000 allocated 60% to the S&P 500 Index and 40% to the Bloomberg Barclays U.S. Aggregate Bond Index. We use realized annual returns from 2008 to 2012, and repeat these returns every five years for Sequence 1. Sequence 2 uses these same annual returns in reverse order. Each sequence has the same annualized buy-and-hold portfolio return of 4.1%. Annual year-end withdrawals are 6% of the initial portfolio value, or $60,000. If the chart were extended, the portfolio in Sequence 2 would be exhausted after year 35.

key takeaways...

Sequence-of-returns risk arises when a retiree begins taking withdrawals from a portfolio. An annuity's guaranteed income stream may reduce the income burden on traditional assets and help smooth income throughout a multi-decade retirement.

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1) We define "downside risk" as the portfolio decline in a 1-in-20-year worst-case scenario. More formally, we estimate the 95% conditional value-at-risk (CVar), or the average loss in the worst 5% of scenarios over a 12-month horizon. To model portfolio return, we use PIMCO's capital market assumptions, which are 6.8% for U.S. stocks and 4.5% for U.S. bonds. To model portfolio risk, we employ a block bootstrap methodology. We start by computing historical returns, from January 1997 through the current date, for the risk factors that underlie each index or portfolio. We then draw four sets of 3-month returns within the dataset to come up with an annual return number. This process is repeated 25,000 times to simulate a distribution of 25,000 annualized returns across all risk factors. We then use this distribution of outcomes to calculate the conditional value-at-risk for investment portfolios based on the current risk factor exposures for each index or portfolio.

(2) The immediate annuity is valued using the U.S.. Treasury yield curve as of 31 December 2022 and life expectancy data for a 65-year-old male from the 2019 period life table from the social security administration. We apply a 20% reduction to the "fair" annuity value to reflect real world pricing of annuities. The haircut we apply is based on Brown, Mitchell, and Poterba (2000), who show a money's-worth range of 0.75 to 0.87 for inflation-indexed and nominal annuities. Brown, Jeffrey, Olivia Mitchell, and James Poterba, "Mortality risk, inflation risk, and annuity products," NBER working paper, July 2000.

Bloomberg U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. It is not possible to invest directly in an unmanaged index.
S&P 500 Index is an unmanaged market index generally considered representative of the stock market as a whole. The Index focuses on the large-cap segment of the U.S. equities market.

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