Income Planning in an Inflationary Time

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Inflation and Retirement Spending

In the 30 years between 1991 and 2020, the average rate of inflation in the United States was 2.2%. Low rates of inflation mean that the lifestyle a retiree can buy with their savings falls gradually over time. In fact, the modest decline in purchasing power experienced by retirees was the lowest in the last 100 years. The 7.0% inflation increase in 2021 marked the return of a significant risk of a rapid decline in the cost of creating a retirement lifestyle.

Imagine an employee who retired in 1966 with a pension of $10,000 per year. $10,000 may not sound like a generous income, but it is the equivalent of $90,215 in 2022. Imagine retiring today with a pension of $90,000. If you experienced the same rates of inflation as the 1966 retiree, the $90,000 pension income would only buy $24,300 worth of expenses in 20 years.

None of us know when we retire how much of a lifestyle our money will buy 5, 10, or 20 years in the future. An income source such as Social Security increases with the rate of inflation to maintain purchasing power over time, but for most Americans the income benefit they receive will not cover the majority of their retirement expenses.

This exposes retirees to a risk just as significant as the risk of an investment loss.

Key Takeaways

2021 marked the end of a 30-year span with an average inflation rate of 2.2%. Low rates of inflation mean that the lifestyle a retiree can buy with their savings falls gradually over time.

A sequence of high inflation rates early in retirement creates a significant jump in prices that remains throughout retirement. It's possible for two retirees to lose an identical amount of purchasing power over 20 years, yet one retiree will experience a significantly higher cost of spending because they experienced higher inflation earlier in retirement.

Not only does a retiree not know what the rate of inflation will be in the future, they also don't know how long their savings will need to last. Fortunately, a retiree can transfer this risk to an institution that provides a lifetime income guarantee. By buying an annuity through an insurance company, retirees can pool longevity risk to both increase annual spending and reduce the risk of running out of savings.

Can an annuity protect against the risks of both longevity and inflation? Although an income annuity protects against longevity risk, it is possible that a stable lifetime income guarantee will not allow a retiree to maintain a desired lifestyle if prices rise. Inflation risk can be addressed through the use of an annuity with a guaranteed minimum withdrawal benefit that rises as prices increase.

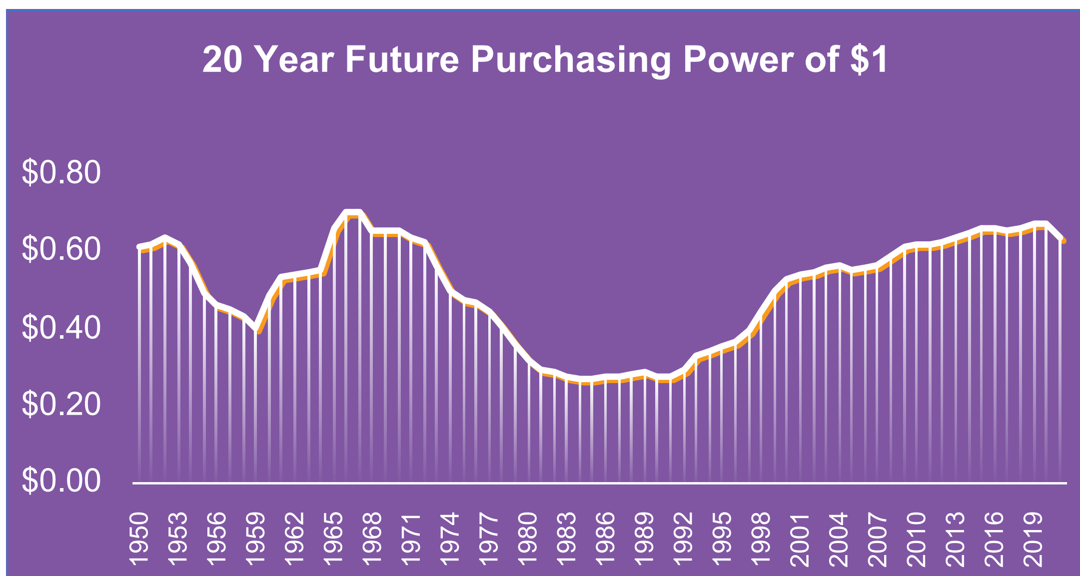
For example, an investor who held $20,000 in intermediate-term corporate bonds saw their balance fall to $19,600 in 2021. However, they could only buy $18,228 in goods and services from their $19,600. The loss from inflation was even more severe than the investment loss. Even traditionally safe investments such as CDs lost a significant amount of purchasing power.

Understanding Inflation Risk

Figure 1 shows the 20-year impact of inflation on the purchasing power of each dollar of retirement savings between 1950 and 2021 (beginning January 1931). In many historical periods, the decline in purchasing power of each dollar was relatively modest. A $30,000 pension that began on January 1, 1947 could still buy $21,000 worth of goods and services by the end of 1966.

However, the 20-year purchasing power was highly volatile. Between 1940 and the end of 1959, a retiree could buy only $16,000 worth of goods and services with their $30,000 pension after 20 years. Someone who retired any year in the 1960s saw their purchasing power fall to between $8,100 and $9,600 over 20 years.

Figure 1: Historical 20-Year Change in Purchasing Power



Source: Ibbotson SBBI® Annual US Inflation data from 1931-2021. Chart may not reflect current data available.

Inflation risk is particularly important when using less volatile investments such as savings accounts, CDs or bonds to pay for basic expenses such as food, utilities, property taxes, insurance or healthcare. This is because safe investments are most vulnerable to losing purchasing power over time, even if they are more appropriate than risky investments, such as stocks, when funding inflexible spending categories.

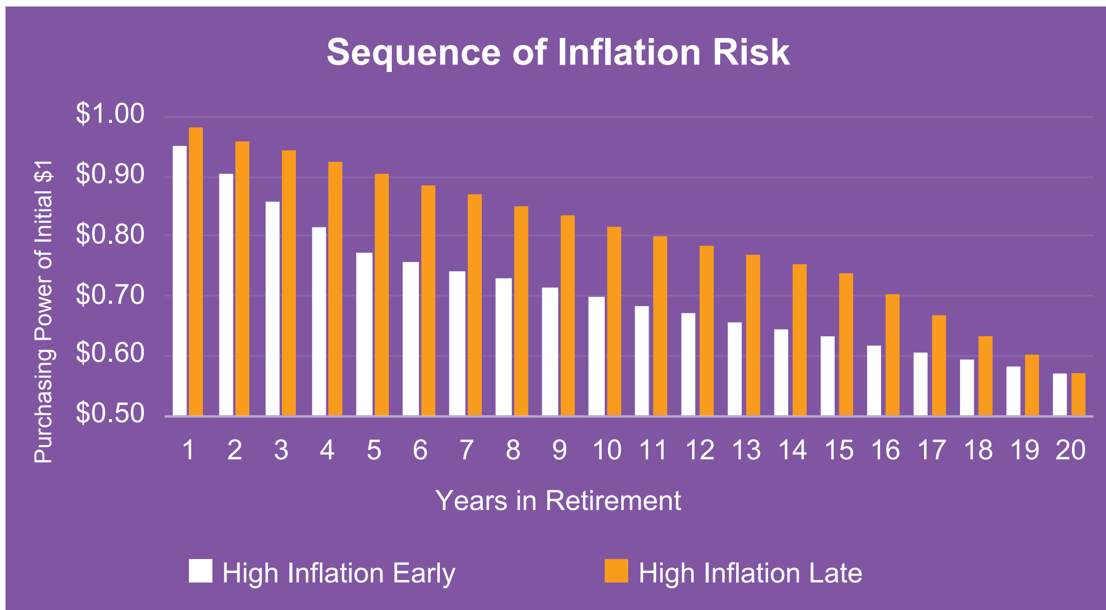
Sequence of Inflation Risk

Purchasing power is not just affected by average inflation rates during retirement. It is possible for two retirees to lose an identical amount of purchasing power over 20 years, yet one retiree will experience a significantly higher cost of spending because they experienced higher inflation earlier in retirement.

A sequence of high inflation rates early in retirement creates a significant jump in prices that remains throughout retirement. Consider the following example of a retiree who sees 5% inflation in each of the first 5 years of retirement, followed by a period of 2% inflation for the next 15 years. What if the same retiree experiences the opposite sequence of inflation: 2% for the first 15 years, and 5% from years 15 through 20?

A sequence of 5% inflation for the first 5 years decreases a retiree's purchasing power from $1 to 77 cents in 5 years. The retiree with 2% inflation the first 5 years saw her purchasing power decline to just 90 cents after 5 years. In year 6, both retirees experience 2% inflation but the retiree with the high inflation sequence sees her purchasing power fall to 75.8 cents while the retiree with low initial inflation sees her spending power fall to 88.6 cents. Between years 5 and 15, the retiree with the high early inflation sequence can spend 16.8% less per dollar of savings compared to the retiree with the low inflation early sequence. When inflation rises later in retirement, they have still enjoyed 20 years of higher purchasing power.

Figure 2: Change in Purchasing Power of an Early and Late Increase in Inflation



The Risk of Unknown Longevity

Not only does a retiree not know what the rate of inflation will be in the future, they also don't know how long their savings will need to last. This risk is particularly important when building a base of spending to support essential lifestyle expenses. Nobody wants to see their savings begin to dwindle when they reach their 85th birthday.

A healthy 65-year old woman has a 50% chance of living beyond age 90, a 25% chance of living to age 95, and a nearly 10% chance of living to age 100. If she spends down her savings at a rate that would run out at age 90, she faces a 50% chance of either having to cut back in her 80s or depleting her savings.

If she spreads her savings out to age 95, she still faces a significant risk that her savings will not support her expected lifestyle.

A retiree who doesn't want to face the risk of running out will need to spread her savings over a large number of years. Spreading out savings to age 100 will mean spending significantly less than if she spread her savings out to age 90. Caution motivates her to cut back on expenses to address the risk of unknown longevity.

Fortunately, a retiree can transfer this risk to an institution that provides a lifetime income guarantee.

A life insurance company can estimate the average longevity of a group of retirees and provide an income guarantee based on the average expected lifespan. This gives a cautious retiree the ability to spend more each year than if they spread their savings out to an age at which they have a relatively low probability of survival.

Retirees can pool longevity risk to both increase annual spending and reduce the risk of running out of savings through an insurance company by buying an annuity. Just as insurance companies can allow a homeowner to worry less by protecting against a potential loss, an annuity allows a retiree to protect against the risk of an expensive retirement. Think of an annuity as long-life income insurance.

Protecting Against Inflation and Longevity Risk

Can an annuity protect against the risks of both longevity and inflation? Annuities that provide a stream of lifetime income that does not decline are referred to as fixed annuities. A fixed annuity with a guaranteed minimum withdrawal benefit allows a retiree to continue to withdraw income from the annuity account and then continue to receive a lifetime income payment even if the account value of the annuity falls to 0.

An F&G Safe Income Advantage® fixed indexed annuity (FIA) incorporates a unique minimum withdrawal benefit that increases with inflation up to a maximum of 5% per year as long as there is a positive account value. The ability to increase withdrawals from the annuity while maintaining lifetime income protection allows a retiree to adjust their spending to match a rising cost of retirement expenses without fear that by increasing spending they are increasing the risk of running out of savings.

Why is this protection so valuable? Consider two retirees. One chooses to fund basic retirement expenses using less volatile investments such as bonds. The other uses the F&G Safe Income Advantage FIA to address the risks of unknown longevity and inflation.

In the following examples, we will use current rates of return on U.S. Treasury bonds and compare them to current income guarantees and product characteristics of the F&G Safe Income Advantage FIA.

We will begin with a 65-year-old new retiree who has set aside $200,000 to fund basic retirement expenses. She can invest in government bonds and withdraw spending each year from her savings to pay for

expenses. The bond investment grows by today's bond yield and she adjusts spending up to 5% each year to keep pace with the rate of inflation.

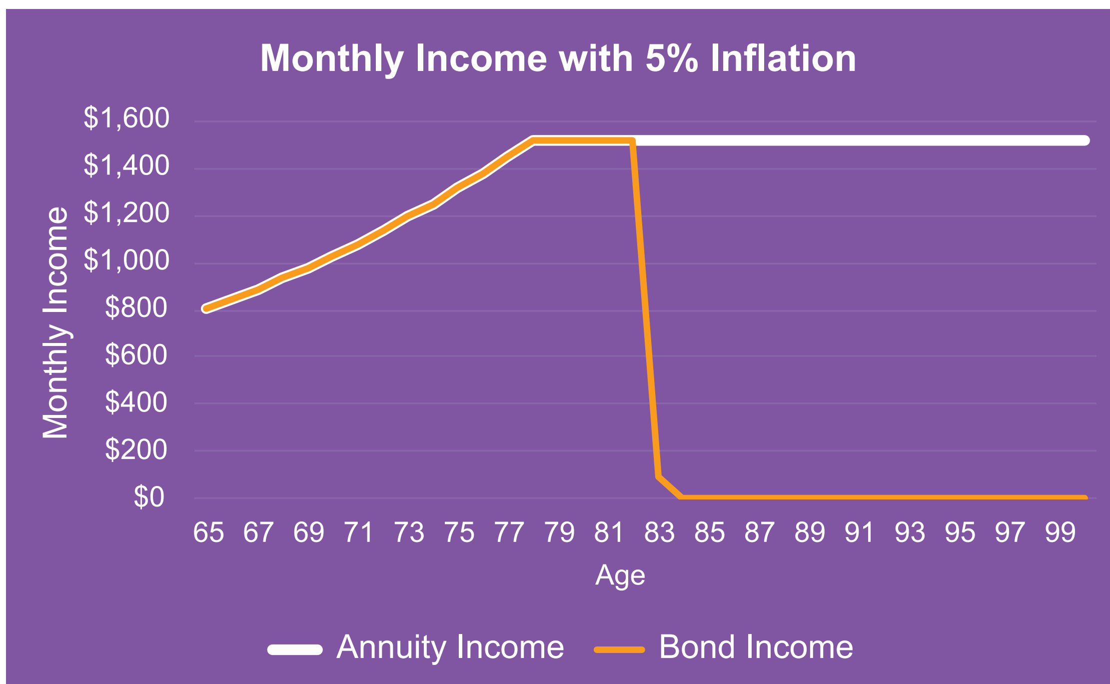
The retiree who buys the F&G Safe Income Advantage FIA can withdraw the initial guaranteed minimum withdrawal benefit of $807 per month. The retiree who invests in bonds also withdraws $807 per month from her investment account.

If inflation rises by 5% during the first 5 years of retirement, by age 70 she is now withdrawing $1,030 each month to keep pace with rising prices. If inflation continues to be 5% per year, her spending will rise to $1,314 by age 75.

Because she is taking more income out of her savings, she begins to see the balance of her bond investments fall to $113,437 by age 75. If she continues to try to match the income of the F&G Safe Income Advantage FIA her savings will be wiped out by age 83. At age 83, there is a 70% chance that she has outlived her investments.

Figure 3 compares the income paths of a retiree spending from bonds to a retiree withdrawing the minimum lifetime withdrawal benefit amount from the F&G Safe Income Advantage FIA when the retirement inflation rate is 5%.

Figure 3: Income Comparison of Bonds and the F&G Safe Income Advantage FIA Purchased at Age 65 in a 5% Inflation Environment



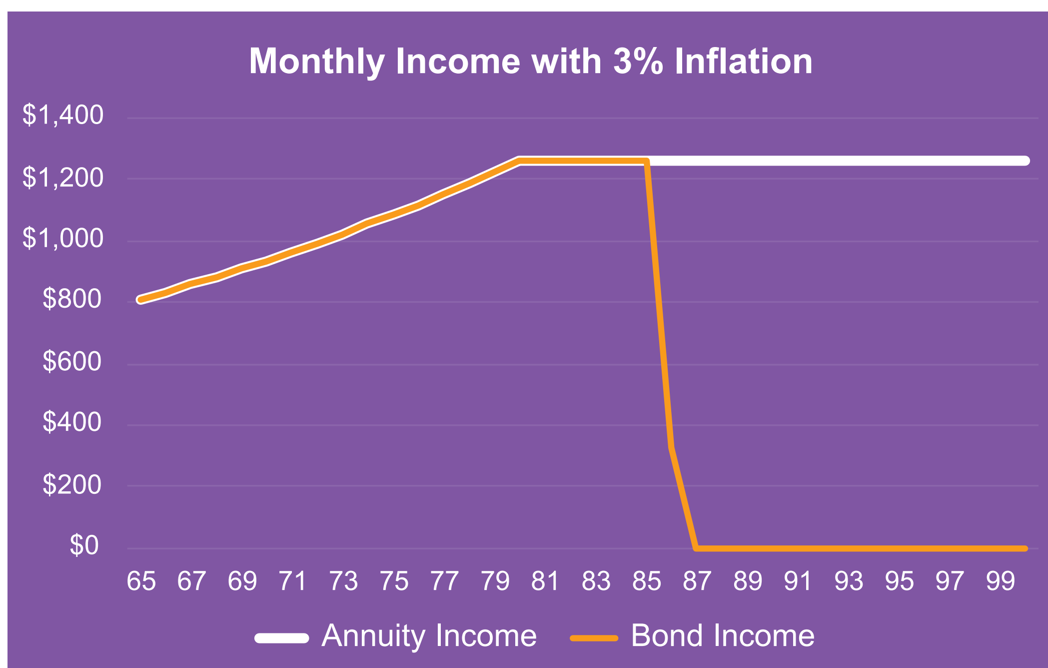
Data: US Treasury yield curve on June 3, 2022. Federal Reserve economic data. FIA crediting rate based on 50th percentile of Monte Carlo analysis simulations. Chart may not reflect current data available.

A retiree pays for the minimum withdrawal benefit through a 1.15% annual deduction from the value of the annuity account. This is the cost of lifetime income protection and is used by the insurance company to provide the lifetime income guarantee even if the retiree runs out of annuity savings. Figure 3 shows how quickly an investment account balance can fall to $0 if the retiree both lives to an advanced age and experiences a sustained increase in prices throughout retirement.

What happens if inflation is a more modest 3% per year? Since the retiree will withdraw less each year from their bonds to keep pace with inflation, her investment account will last longer than if inflation was 5%. Figure 4 illustrates what happens when she begins withdrawing the same $807 per month from her $200,000 bond portfolio, and increases this amount each year by 3% to match the among she can spend from the F&G Safe Income Advantage FIA guaranteed minimum withdrawal benefit.

Figure 4 looks similar to Figure 3; however, the age at which bond investments fall to 0 increases from 83 to 87. If the retiree is fortunate enough to experience a lower inflation rate of 3%, her savings will last longer. Unfortunately, even though she was lucky enough to avoid inflation she still faces the risk of running out of savings by living into her late 80s. She still has just over a 50% probability of outliving her bond savings when inflation is a steady 3%, while the retiree who owns the annuity continues to receive a lifetime income.

Figure 4: Income Comparison of Bonds and the F&G Safe Income Advantage FIA Purchased at Age 65 in a 3% Inflation Environment



What if a retiree experiences 5% inflation the first 5 years of retirement, followed by a 2% rise in prices each following year? Her bond investments will run out by age 85, or just two years longer than if inflation remained 5% after age 70. An unfortunate inflation sequence results in an increase in prices that remains even if subsequent inflation is modest.

To fund the cost of providing lifetime protected income, and insurance company deducts a rider charge from the annuity cash account of 1.15%. This rider charge will decrease the liquidation value of the annuity over time in order to provide the funds needed to continue to make payments after the account is depleted. The cash account depletes more rapidly during periods of high inflation, but the higher protected income amount never falls even in advanced age.

Protecting Future Retirement Income

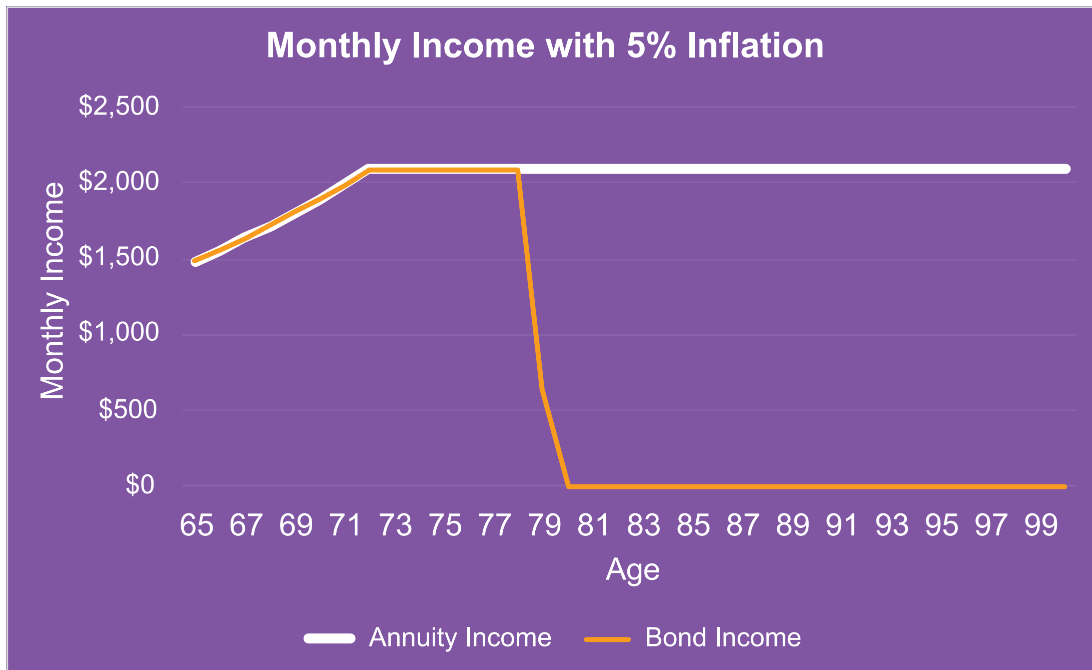
Can a retiree protect against future longevity and inflation risk through the purchase of an annuity before retirement? The following examples illustrate the potential growth in future income from bond investments and an F&G Safe Income Advantage FIA purchased at age 55 in order to begin providing income at age 65.

A $200,000 investment in bonds will grow to $267,741 at current 10-year Treasury bond yields. The retiree can then begin withdrawing from her savings in 10 years to fund expenses.

Alternatively, the annuity will increase its income guarantee so that the account from which a minimum lifetime withdrawal benefit is calculated has risen to an estimated $400,846. The significantly higher income benefit occurs because the 7.20% annual roll-up is higher than rates of return on less volatile bond investments. A retiree who takes advantage of the 10-year deferral period on the F&G Safe Income Advantage FIA is able to generate a higher income in retirement, resulting in an even more favorable income advantage over safe investments.

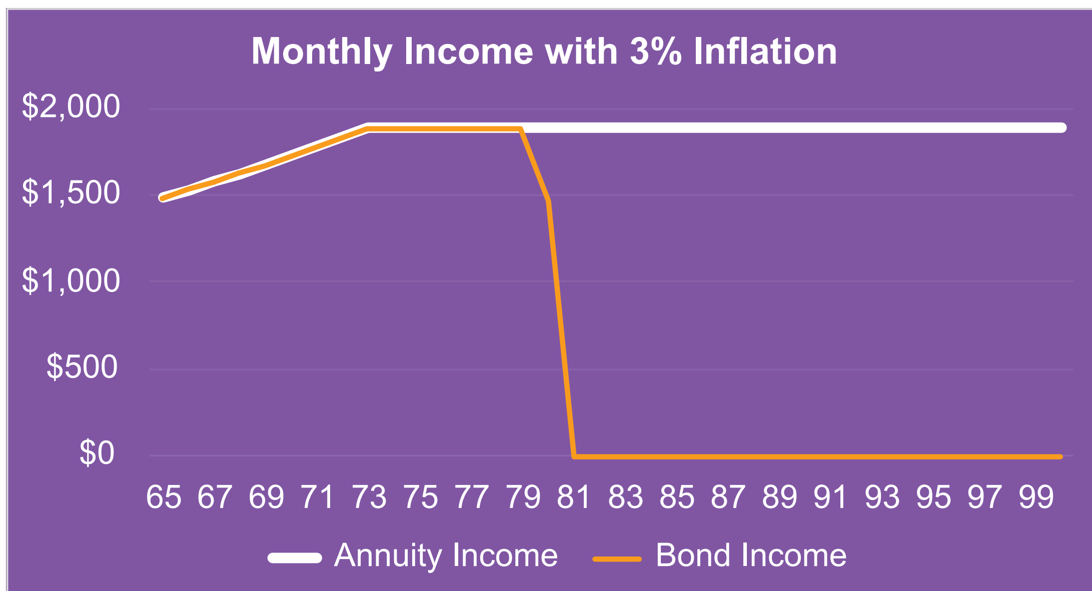
Figure 5 shows the benefit of selecting the F&G Safe Income Advantage FIA before retirement and allowing the income base to rise before taking the guaranteed minimum withdrawal benefit. If inflation is 5% at age 65, matching the income from the annuity would deplete bond investments by age 79. A woman has a 79% chance of outliving her bond savings at this spending rate if she attempts to fund inflation-adjusted retirement spending with bonds instead of the annuity.

Figure 5: Income Comparison of Bonds and the F&G Safe Income Advantage FIA Purchased at Age 55 in a 5% Inflation Environment



If inflation is a more modest 3%, then the bond portfolio can match the income from the F&G Safe Income Advantage FIA through age 81. A healthy woman has a 73% chance of outliving her bond investments if she runs out of bonds at age 81. The annuity continues to make income payments as long as the retiree is alive.

Figure 6: Income Comparison of Bonds and the F&G Safe Income Advantage FIA Purchased at Age 55 in a 3% Inflation Environment



In an environment in which the retiree experience 5% inflation the first 5 years of retirement and 2% inflation for the remainder of retirement, she will run out of bond savings at age 80 (or one year later than if inflation was 5% throughout retirement. She has a 76% percent chance of living beyond age 80.

Conclusions

Retirees hoping to fund a steady lifestyle in retirement to supplement Social Security face the dual risks of not knowing how long retirement will last and not knowing how much prices will rise after they retire.

Annuities with lifetime income protection address the risk of an unknown time horizon. A retiree who purchases an annuity with a minimum withdrawal guarantee knows that she does not face the risk of outliving savings even if she tries to maintain spending from into her 80s and 90s. Other less volatile investments, such as bonds or CDs, will eventually run out if a retiree enjoys a long life.

Although an income annuity protects against longevity risk, it is possible that a stable lifetime income guarantee will not allow a retiree to maintain a desired lifestyle if prices rise. A retiree is most at risk of inflation if it occurs during the first few years of retirement as a result of sequence of inflation risk. Inflation risk can be addressed through the use of an annuity with a guaranteed minimum withdrawal benefit that rises as prices increase.

Comparisons of bond investments at today's yields with the guaranteed minimum income that can be withdrawn from the F&G Safe Income Advantage FIA show that a female retiree would run out of savings before reaching her expected average lifespan if she used bond investments to fund the same income that could be withdrawn from the annuity. She would run out of money far earlier using bond investments if inflation is high, while the inflation-adjusted minimum withdrawal benefit from the annuity continues to pay income for a lifetime long after investments have depleted.

The benefit of protection against longevity and inflation risk is peace of mind. A retiree knows that the two primary unknown risks of funding basic expenses in retirement are addressed through the use of an insurance product whose purpose is to fund lifetime income. The annuity allows a retiree to spend without concern that factors out of her control will impact her lifestyle in the future.

About the Author

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He leads the O. Alfred Granum Center for Financial Security at the American College and is a Research Fellow at the Retirement Income Institute, and a member of the Defined Contribution Institutional Investment Association Academic Advisory Council. He is a nationally known researcher in the areas of retirement income planning, retirement spending, life satisfaction, and cognitive aging. He is a frequent speaker at financial planning conferences and was named one of the 25 most influential people in the field of investment advising in 2020 and 2021 by Investment Advisor Magazine.

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