

## Retirement Planning: Minimizing Bad Luck

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In my previous article, "The Importance of Asset Allocation" (September 2004), we have seen that asset allocation contributes very little to the success of an individual retirement portfolio, especially at higher withdrawal rates. We quantified the contribution of luck to the success of a retirement plan. In this article, I will discuss strategies to minimize the bad luck.

When we talk about "luck", invariably we talk about insurance products. One way of minimizing the effect of luck is pooling the retirement capital for a lifelong income. Life annuities were originally created to meet this need. The key question is: "How much life annuity do I need to buy to eliminate the adverse effects of luck?" In other words, we are trying to find the "Perfect Mix" of annuities and investments to provide lifelong income. To answer this question we need to ask three questions:

The first question is to the **retiree**: "How much money do you want each year from your portfolio?" We will call this the "Required Withdrawal Rate" (RWR). For example assume that if you need to withdraw \$30,000 during the first year of your retirement, indexed to inflation each year thereafter. You have \$500,000 in retirement savings. Your RWR is 6%, calculated as \$30,000 divided by \$500,000 expressed in percentage.

The second question is to the **market**: "If I invest all this money in an optimum asset mix of equities and bonds, how much can you, -the market-, give me for as long as I live?" We call this the "Sustainable Withdrawal Rate" (SWR). The table shows the SWR for various retirement ages.

Retirement Age	Sustainable Withdrawal Rate	
	Age of Death: 95	Age of Death: 85
55	2.9%	3.6%
60	3.1%	4.1%
65	3.6%	4.7%
70	4.1%	5.8%
75	4.7%	8.2%

For example, if you are retiring at age 65 and expect to live until 95, your SWR is 3.6%. If you have saved one million dollars for retirement, you can take out \$36,000 at age 65 and index this amount until age 95 without running out of money.

The third question is to the **insurance company**: "If I give you \$100,000, how much are you willing to pay me for as long as I live?" We call this the "Annuity Rate" (AR). For example if \$100,000 single premium buys a lifelong income of \$500 each and every month then the AR is 6%, calculated as  $(\$500 \times 12) / \$100,000$ . Ask for indexed annuity to make sure that the inflation risk is eliminated.

In almost all cases, you will find that annuity rate is higher than the historic sustainable withdrawal rate. That is mainly because the annuity money is pooled and therefore the luck factor is minimized. The importance of pooled money cannot be overestimated: I have seen far too many retirees who took out the commuted value of their pension on false expectations. As time goes on, many of them are finding out that they may outlive their money.

Now we have all three numbers, we can calculate the minimum amount of annuity (MA) required to eliminate the probability of premature portfolio depletion due to the Luck Factor. It is calculated using the following formula developed by the writer:

$$MA = 100 \times (RWR - SWR) / (AR - SWR)$$

### **Interpreting the Formula Results:**

The value of MA can be either less than zero, or between 0 and 100, or larger than 100. Each of these outcomes points to a different strategy:

- MA is less than zero: Congratulations! You have **abundant** savings. You have more than enough to finance your retirement *and* to finance the Luck Factor. With proper use, your balanced investment portfolio will give you lifelong income. If it makes you feel better, you can buy a life annuity but you don't have to.
- MA is between 0 and 100: Congratulations! You have **sufficient** savings for retirement. However, while your savings are enough to finance your retirement, it is not enough to finance the Luck Factor. To overcome this, you need to buy some annuity. How much? If the calculated value of MA is 35 then you need to take 35% of your retirement savings and use that money to purchase an indexed life annuity. Now you have a lifelong income, some from the annuity and some from the investment portfolio.
- MA is larger than 100: Regretfully, your savings are **insufficient**. Your savings are neither enough to finance your retirement nor the Luck Factor. Your options are working longer, spending less, or working part-time after your retirement. In any case, your only choice in retirement planning is to use all your savings to buy a life annuity. You have no place in the investment world as it is highly likely that you will run out of money during your lifetime. You will have lifelong income but it is less than what you want.

In all cases, whether you are in abundant, sufficient or insufficient savings category, you can expect a lifelong income. As an advisor, by following these guidelines, you would also be bulletproofing your practice, as your clients will have fewer reasons to take legal action against you. Keep in mind that my analysis is based on 104 years of market history. Future performance of markets may lie outside its historic boundaries.

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