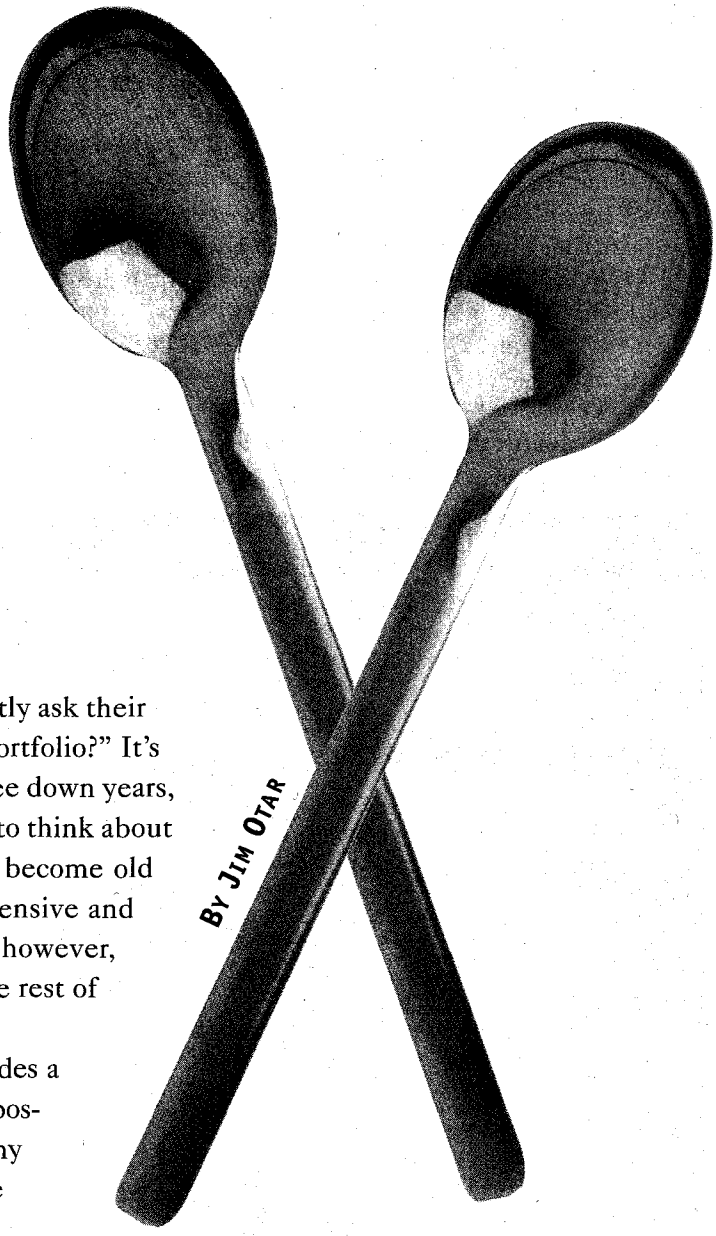
The Perfect mi



Take a life annuity ladder, add an investment portfolio, and stir. The result is a lifelong income stream, access to your capital, and a greater estate value.

By Jim Otar

One of the questions clients most frequently ask their planners is, "Am I going to outlive my portfolio?" It's always a relevant question, and after three down years, it's more pertinent than ever. Planners may want to think about answering this question with a product that has become old but not venerable: the annuity. Maligned as expensive and unsophisticated, annuities can be just the ticket, however, when laddered and properly coordinated with the rest of the financial plan.

An annuity has one obvious advantage—it provides a steady stream of income until death, removing the possibility of outliving one's money. However, in many cases there is no estate value upon death. On the other hand, a typical investment portfolio provides a retirement income, and upon death it passes on to the estate. Of course, it may run out of money prematurely, leaving little or nothing to heirs.

Ideally, if your clients want to keep control of their money and maximize their estate value, you have to help them buy just enough of an annuity to protect them from running out of income prematurely. You want a perfect mix. >>>

Part of reaching that goal is laddering, which is more effective than buying the annuity all at once. Benefits of laddering include the following:

- The older you are, the higher the payout. As you add new rungs to your annuity ladder, you receive higher payouts for the same amount of premium.
- Laddering reduces interest rate risk; the interest rate will be blended over time.
- Portfolio value may go up, providing more funds to buy more annuity over time.
- You have control of your money for a longer time period.

The first step is to calculate your client's own withdrawal rate (OWR). OWR is the total annual income requirement from the portfolio expressed as a percentage of the portfolio value. For example, if your client has saved $500,000 for retirement and wants $24,000 in annual income, then her OWR is 4.8%.

Next, establish the sustainable initial withdrawal rate (IWR) from an investment portfolio (see top chart in the box below). For example, the sustainable IWR for a 65-year old client is 4%. Therefore, with retirement savings of $500,000, her annual withdrawals should not exceed $20,000 at age 65 (4% of $500,000), adjusted each year for inflation.

The IWR percentages are based on 100 years of market history and assume that the asset mix is 60% fixed income and 40% equities, the projected age of death is 95, and equities in the portfolio outperform the Dow Jones Industrial Average by 2% annually. Two percent may seem unrealistic now, but it signifies the average dividend yield going forward. Different assumptions will change the IWR values, of course.

Next, get quotes for a life annuity for your client. Calculate the annuity payout rate (AR), which is the annual annuity payment divided by the single premium paid to buy the annuity. If your client is a married couple, get quotes for a joint annuity. If for a single premium of $500,000 the quote provides $40,000 of annual income, your client's AR is 8%.

Building an annuity ladder involves weighing the benefits of buying an annuity now against buying it in the future. If you could know for sure that your client would have less money in her portfolio to buy the same annuity income stream in the future, then you would have her buy the annuity now. Conversely, if you knew for sure that she would have more money in her portfolio in the future, you would delay the purchase. Following this logic, the client must buy each rung of the annuity ladder based on the probability of having less money in the investment portfolio in a future year.

It's possible to calculate the probability of having less money to buy the same income stream (adjusted for inflation and annuitant's age) for different levels of OWR. The bottom chart in the box at left shows this probability (P%), based on 100 years of market history for a 60% fixed income/40% equity asset mix.

Now you have all the data you need to design the perfect mix and an optimum annuity ladder for your client. Based on how much retirement savings your client has accumulated, he or she will fit in one of the following categories:

1. Insufficient savings, if OWR is greater than AR;
2. Sufficient savings, if OWR is between IWR and AR; or
3. Abundant savings, if OWR is smaller than IWR.

- **Insufficient Savings:** If your client is in this category, then his expectations are too high. He will need to adjust his lifestyle or reconsider his retirement age. Otherwise, his portfolio will likely expire before he does.

Some advisers will recommend taking higher risk. While this may work in a mega-bull market, it will fail in flat or bear markets. It is too much of a gamble trying to generate this income from an investment portfolio. The prudent solution is to purchase an annuity with all of his retirement savings.

Since the certainty of running out of money is high, you need to build the annuity ladder in one-year intervals. Each

The Right Ingredients

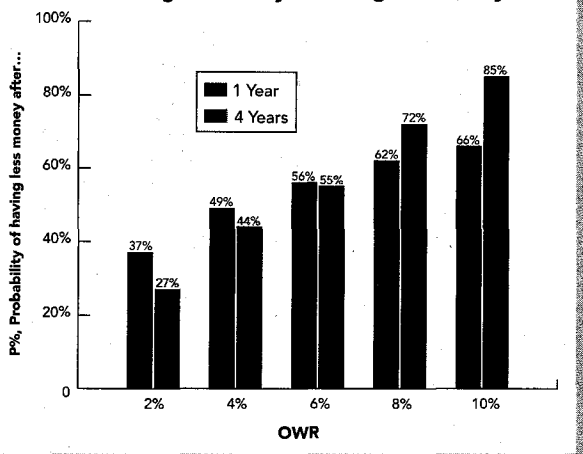
In order to determine the perfect percentage of annuities in a portfolio, you must calculate the sustainable initial withdrawal rate (IWR) and the probability of having less money to buy the same income stream, among other factors.

Calculating IWR

Retirement Age	IWR
55	3.5%
60	3.8%
65	4.0%
70	4.5%
75	5.1%

Based on 100 years of market history, assume that equities in the portfolio outperform the Dow Jones Industrial Average by 2% annually; asset mix is 60% fixed income and 40% equities; and the projected age of death is 95.

Calculating Probability of Having Less Money



Based on 100 years of market history for a 60% fixed income/40% equity asset mix.

year, take an amount equal to the one-year P% of your client's retirement savings and buy an annuity. The ladder will likely be completed within two years.

For example, assume a 65-year old client has a total of $300,000 saved for his retirement. He wants $30,000 of yearly income. His OWR is 10% ($30,000 divided by $300,000). Your best annuity quote pays $24,000 annually for a $300,000 single premium contract. This works out to an 8% AR. The one-year P% is 66%. The dollar amount of the first rung is $198,000 (66% of $300,000). Buy this annuity now. Next year, buy another annuity for the lesser of the same amount or remainder of the money in the investment portfolio.

In the final analysis, your client will probably not get the $30,000 yearly income that he originally sought. He will need to adjust his lifestyle. If at all possible, delaying retirement can make a big difference.

▪ **Sufficient Savings:** If your client is in this category, then her savings should likely be sufficient for her retirement needs. You need to design a blend of an investment portfolio and annuity ladder. Calculate the percent of annuity in your client's "perfect mix" using the following equation:

$$A\% = \frac{OWR - IWR}{AR - IWR} \times 100\%$$

This formula ensures that withdrawals from the investment portfolio are exactly at the sustainable IWR.

For example, assume your client is 65, has $800,000 in her portfolio, and needs $48,000 annually. Her OWR is 6% ($48,000 divided by $800,000), her IWR is 4%, and her AR is 8.4% (from the annuity quote). Now, calculate the annuity percent (A%) in her perfect mix:

$$A\% = \frac{6.0 - 4.0}{8.4 - 4.0} \times 100\% = 45.5\%$$

Her perfect mix consists of $364,000 of annuity (45.5% of $800,000) and $436,000 of investment portfolio ($800,000 minus $436,000). If she bought the entire annuity at once, her annuity would provide $30,576 of annual income (8.4% of $364,000). Her investment portfolio would provide $17,424 ($48,000 minus $30,576) at a sustainable IWR of 4% of the $436,000.

However, for reasons mentioned earlier, it is wiser to ladder the annuity. The first rung of the ladder is purchased immediately. The second rung is purchased in four years, the third rung—if required—is purchased in eight years, and so on.

Using the four-year P%, calculate the percentage of her money allocated to annuity. This is the dollar amount of the first rung of her annuity ladder. Since P% is 55% in this example, the first rung would be for $200,200 (55% of $364,000).

In four years, the market value of her investment portfolio, as well as her OWR, AR, and IWR, will change. Recalculate A% and P% and the dollar value of the second rung based on the new numbers. Repeat again four years later, and so on.

▪ **Abundant Savings:** If your client is in this category, then he has enough money to last him at least until age 95 and leave an estate. The lower his OWR, the more significant the estate will be. A properly balanced and diversified investment portfolio should do just fine.

If he wants to buy an annuity for peace of mind, he can immediately purchase the first rung of the ladder and the subsequent rungs every four years. For the dollar amount, using the four-year P%, calculate the percent of the money that needs to be allocated to annuity. Separately, obtain a life annuity quote for his required income. The dollar amount of the first rung of the ladder is the lower of these two numbers.

For example, assume a 65-year old client has $1,000,000 saved for his retirement and needs $20,000 from this portfolio annually. His OWR is 2%. He does not need an annuity, but he likes the certainty of annuity income. His four-year P% is 27%. The dollar amount is $270,000 (27% of $1,000,000). His annuity quote indicates that the single premium needed to provide him with $20,000 in annual income is $238,000. Use $238,000 as the dollar amount of his first rung, since it is the lower of these two amounts. Review his needs and recalculate for the second rung in four years.

Clients have to buy each rung of the annuity ladder based on the probability of having less money in the investment portfolio in a future year.

The ladder technique can help clients get the most out of their retirement funds. Recently, I worked with a client who needed $24,000 annually from his investment portfolio of $500,000. His asset mix is 40% fixed income and 60% equities, rebalanced each year. Market history shows that in the worst case during the last century, he would have run out of money within 16.7 years. His average portfolio life is 30.6 years. After optimization, the minimum portfolio life extended to 24 years, a 44% improvement. The average portfolio life increased to 36.3 years, a 19% improvement.

The optimization process increases portfolio life, improves estate value, enhances income security, and reduces investment portfolio volatility. In this economy, that's a lot. **FP**

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