ADVISORRESEARCH

Mind the Gap

The lower the growth projection the better for a retirement portfolio

BY JIM OTAR

Last time I spoke to a group of financial professionals about advanced retirement planning, I asked a simple question: "When you design a retirement plan for your clients, what portfolio growth rate do you assume?" Answers ranged from 7% to 11%. When I asked why these numbers, most responses had something to do with "average historic growth rates."

I changed my career from engineering to financial planning more than 10 years ago. The following ritual amazes me as much now as it did then: An advisor assumes an "average" portfolio growth rate and an "average" inflation, plugs these numbers into a retirement calculator and call this process "designing a retirement plan."

Imagine a civil engineer saying, "The average wind speed in Miami is six miles per hour. Therefore, I will design this building in Miami for a wind load of six mph." This engineer would be fired on the spot for incompetence! What happens to that building when a hurricane hits?

PLANNING FOR ALL SEASONS

Moving from civil engineering back to retirement planning, here is a typical example: Steve, 65, is retiring this year. His retirement savings are $1 million. He needs $60,000 income each year from this portfolio, indexed to inflation. He assumes 8% "average" portfolio growth rate and 3% "average" inflation. Here is his asset projection using a standard retirement calculator as indicated by the red line (*see Planned Portfolio Value, right*).

According to our friendly retirement calculator (available freely at most financial websites) and our assumptions, after 30 years, Steve's portfolio is supposed to have about $900,000. Wonderful, isn't it?

Well, how about a reality check? Let's assume Steve's asset allocation is 40% equities and 60% fixed income, a reasonably conservative asset mix, and assume his equity portfolio outperforms the index by 2% annually. I plug in these numbers into my retirement calculator, which is based on pure market history.

Each thin line shows the portfolio value if Steve were to start his retirement in any one of the years since 1900: By plotting each of these lines on the same chart as the original retirement plan, we can compare them to the red line – our projection using a steady growth rate and inflation (*see Possible Portfolio Values, right*).

Here is the reality: Unlike the projection of the standard retirement calculator, the probability of depleting his portfolio by the 30th year was 72%. In only seven out of 75 years, the portfolio value exceeded the value projected by the standard retirement calculator at the 30th year.

Why the discrepancy? It has to do with the time value of fluctuations. For more on this topic please refer to my last article "Wealth Hazards" in the January 2006 issue.

DESIGN GROWTH RATE

When I prepare a retirement plan, I look at historic outcomes and then use the bottom decile. Bottom decile is the line where only 10% of portfolios did worse. In other words, the bottom decile indicates a 90% survival. This is an acceptable "design growth rate" for me. If things don't go well for the client, it gives me sufficient time to buy a life annuity and that may save the day for the client (and for me as the advisor).

The table (*see Initial Withdrawal Rate, above, left*) depicts the design growth rates based on market history since 1900. They have been calculated using 3% inflation. If you are using a standard retirement calculator, enter 3% for the "assumed" inflation. Then enter the design growth rate from the table as your "assumed" portfolio growth. The resulting asset projection will then illustrate a 90% survival rate.

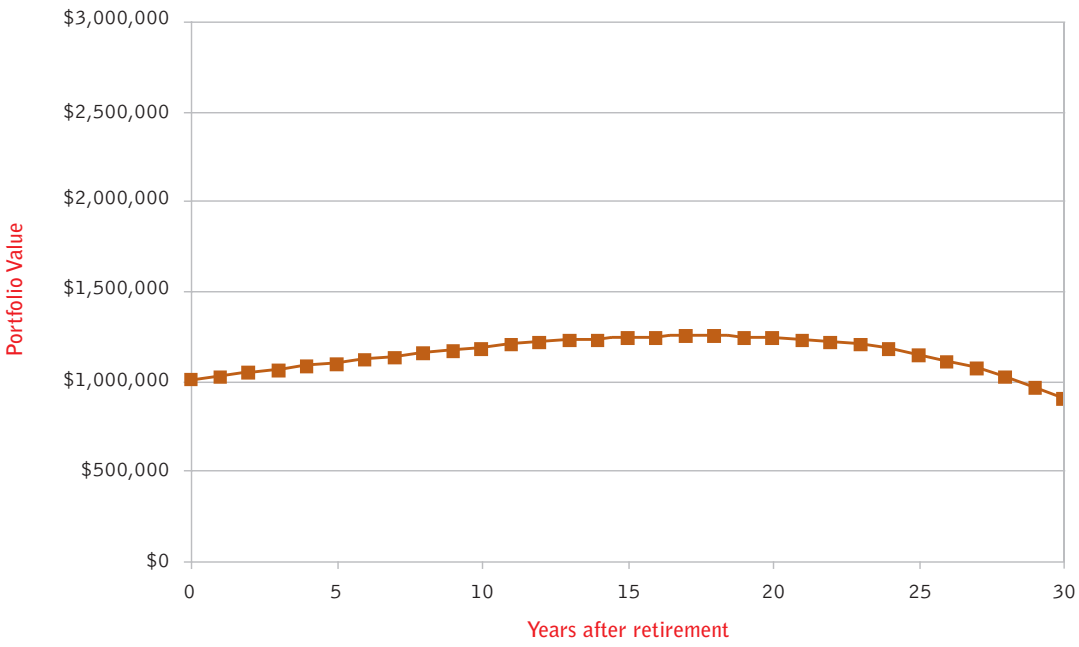
Keep in mind, these figures apply only to individual distribution portfolios. Don't use these figures for accumulation portfolios or pooled funds (pensions); they are entirely different.

By following this methodology, not only do you design robust retirement plans but you are also bulletproofing your practice, as your clients cannot blame you for using unrealistic growth rates.

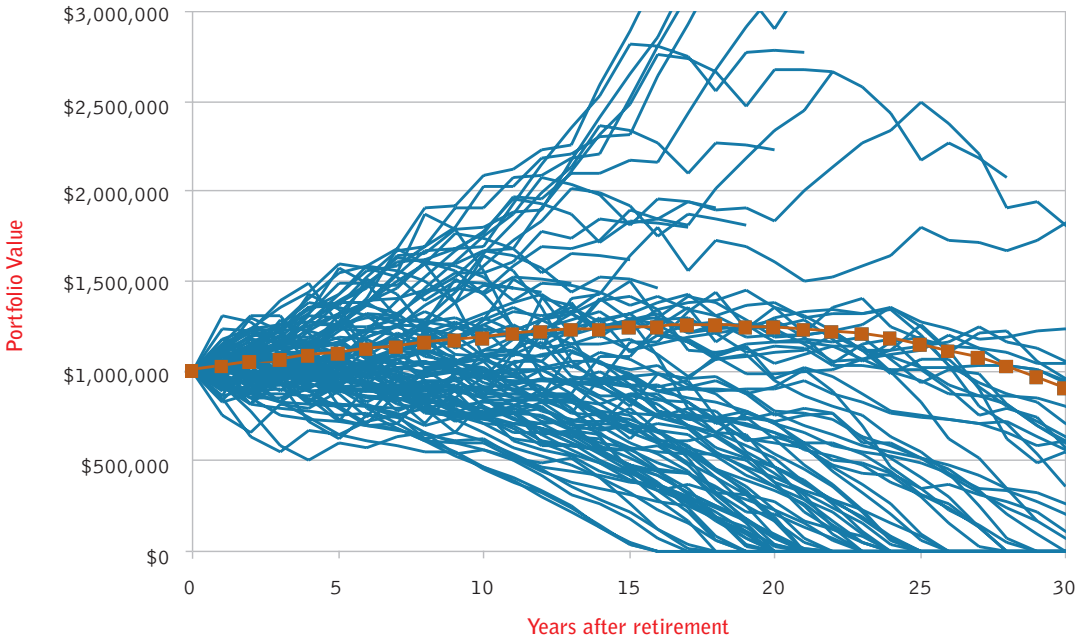
You may want to review your clients' existing retirement plans. What "average" growth rate did you assume? If you notice a shortfall, make sure your client knows about it. There are other remedies to fix the problem such as life annuities. Don't let your clients' retirement dreams turn into retirement nightmares. AER

Jim Otar, CMT, CFP, is a financial planner, a professional engineer, a market technician, a financial writer and the founder of retirementoptimizer.com. Feel free to download the retirement calculator that is based on market history. His past articles on retirement planning won the CFP Board Article Awards in 2001 and 2002. He is the author of High Expectation and False Dreams – One Hundred Years of Stock Market History Applied to Retirement Planning. *This article is excerpted from his upcoming book* Mathematics of Retirement. *Your comments are welcome: jimotar@rogers.com*

PLANNED PORTFOLIO VALUE



POSSIBLE PORTFOLIO VALUES



INITIAL WITHDRAWAL RATE

	2%	4%	6%	8%
Design growth rate	5.8%	5.2%	4.0%	2.4%

INCOME IN RETIREMENT: WHAT STATSCAN SHOWS

Average total income*

(1999 to 2003)	1999	2000	2001	2002	2003
All elderly families†	$49,100	$49,400	$49,600	$50,200	$50,200
Married couples only	$48,400	$47,900	$48,700	$48,700	$49,300
All other elderly families	$51,500	$54,700	$52,900	$56,000	$53,900

Average market income (minus government transfers)*

(1999 to 2003)	1999	2000	2001	2002	2003
All elderly families†	$28,100	$28,800	$28,600	$29,600	$29,300
Married couples only	$27,500	$27,200	$27,900	$28,200	$28,400
All other elderly families	$30,000	$34,600	$31,500	$34,900	$32,600

Average income after taxes (plus government transfers)*

(1999 to 2003)	1999	2000	2001	2002	2003
All elderly families†	$42,100	$41,800	$43,200	$43,800	$43,800
Married couples only	$41,300	$40,600	$42,200	$42,500	$42,800
All other elderly families	$45,300	$46,300	$47,200	$48,900	$47,500

*in constant 2003 dollars

†Elderly families are those where the major income earner is 65 or older.