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Nest-egg planning can leave egg on your face

By Jim C. Otar

Many of our clients spend between 20 and 30 years in retirement. In our current retirement planning practice, we assume an "average" portfolio growth rate for the entire time horizon. The reality is, all asset values fluctuate daily. Many in the financial planning industry naively think that if they use historical averages, everything will be fine in the long run.

Unfortunately, this is not the case. There always is a permanent loss due to the fluctuations in a distribution portfolio. In many cases, this loss can cut the portfolio life by half of what a standard retirement calculator predicts using an "average" growth rate.

If there are no cash flows in or out of a portfolio and you lose 20%, you must eventually gain 25% to break even. The first table shows how much you need to gain to make up for various losses.

Can we use the same table if there is a periodic withdrawal from the portfolio? The answer is no. In distribution portfolios, you need significantly higher gains to break even. That is because not only do you need to recover the market losses, but you also need to recover the differential losses between the original plan and the actual portfolio value. That is why more and more pension funds are going into an irrecoverable downward spiral. They are blaming the markets for that, whereas the real reason is their lack of understanding of the concept of the time value of fluctuations.

We skip the formulas for the concept to keep things simple.

The second table shows how much you need to gain over a three-year time period for various loss and withdrawal rates, assuming a steady increase of the portfolio value after the initial loss and no indexation of withdrawals over time.

For example, if your initial withdrawal rate is 4% and your portfolio loses 20%, then it has to grow a total of 42% over the next three years just to break even.

The figures in this first table do not consider inflation, dividends and management costs. In real life, they are important. The following real-life example shows the effect of real-life time value of fluctuations for someone who retired at the end of 1999.

Bob retired at the end of 1999 at age 60. At that time, he had $1 million in his portfolio. He invested all this money in a Standard & Poor's 500 stock index fund with an annual management fee of 0.25%. The annualized growth rate of the S&P 500 between 1975 and 1999 was 17.2%. However, Bob used a more conservative growth rate of 10% when he prepared his retirement plan five years ago. He withdraws $60,000 from his portfolio each year indexed to the consumer price index. Bob assumed an annual average long-term inflation rate of 3% for his calculations.

Using a retirement calculator, Bob's original retirement plan projected that his $1 million would grow to almost $2 million over the next 15 years (Chart 1).

It is now five years later, January 2005. Bob's portfolio is down. He wants to know by how much the S&P 500 has to go up by the end of 2009 so that his portfolio can catch up with his original retirement plan projection. Chart 2 shows the actual performance of Bob's portfolio over the previous five years.

Going forward, he assumes a 3% inflation rate, 1.6% dividend yield and 0.25% annual management fees. Bob calculates how much the S&P 500 needs to go up by the end of 2009 to

TABLE 1

% loss	% Gain required to break even
5%	5.3%
10	11.1
20	25.0
30	42.9
50	100.0
80	400.0

TABLE 2

	Initial withdrawal rate			
	0%	4%	6%	8%
% loss	% gain required over 3 years			
10%	11%	26%	33%	41%
20	25	42	51	60
30	43	63	74	86
50	100	132	150	169
80	400	525	597	676

catch up with his original projection: It must go up by 32.8% per year for each of the next five years to catch up with the original retirement plan (not including exchange-rate losses). In other words, it must nearly quadruple from where it is now until the end of 2009 (Chart 3). Is this a reasonable expectation? Definitely not.

Bob now understands the time value of fluctuations. At this point, he decides that what is lost is lost and wants to make a fresh start. He decides to be more conservative, hold a balanced portfolio, and he assumes an average annual growth rate of 7%. Everything else being equal, what kind of longevity can Bob expect from his portfolio?

According to his revised retirement plan (Chart 4), his portfolio will run out of money in 10 years—at age 75—instead of being worth nearly $2 million as he originally forecast just five years ago. That is the price Bob has to pay for not considering the time value of fluctuations when he prepared his original retirement plan. For him, the game is over; he should definitely look into life annuities at this point.

Routine losses over a few years can ruin a retirement plan for good because of the time value of fluctuations. As a matter of fact, you don't need to have any losses at all in your portfolio to run out of money. If a portfolio grows less than the original projection just for one market cycle (typically four to five years) at the beginning of retirement, the likelihood of ever catching up with the original retirement projection will diminish to near zero. Compounding works for you during accumulation years and against you during distribution years. This is how the time value of fluctuations works.

For individual retirement accounts, your mission must be to preserve the capital, especially during the first four years of retirement.

The longevity of the retirement portfolio is exponentially proportional to how successful you are in accomplishing this task. For pension funds, the problem is a bit more complex, but it follows the same logic.

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CHART 1: ORIGINAL PROJECTION

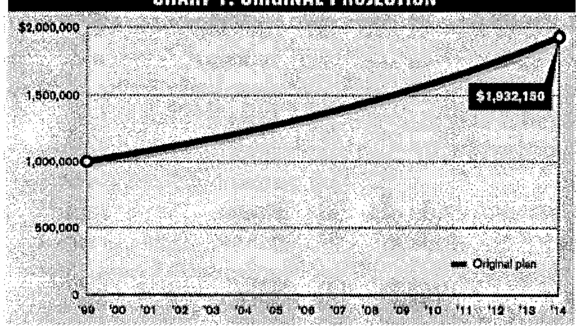

CHART 2: ACTUAL PERFORMANCE

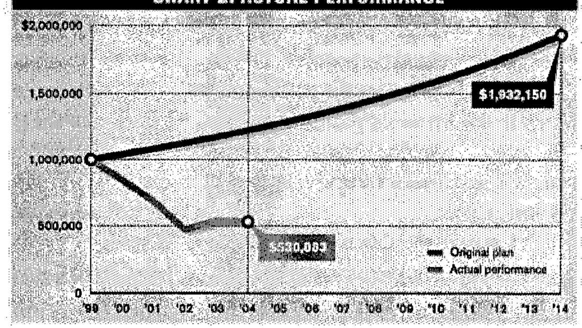

CHART 3: S&P 500 CATCH-UP PROJECTION 2005-09

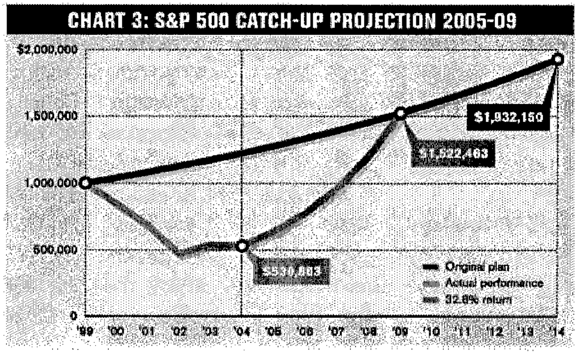

CHART 4: REVISED RETIREMENT PLAN, 2005-14