Does stock volatility rule

out systematic withdrawals?

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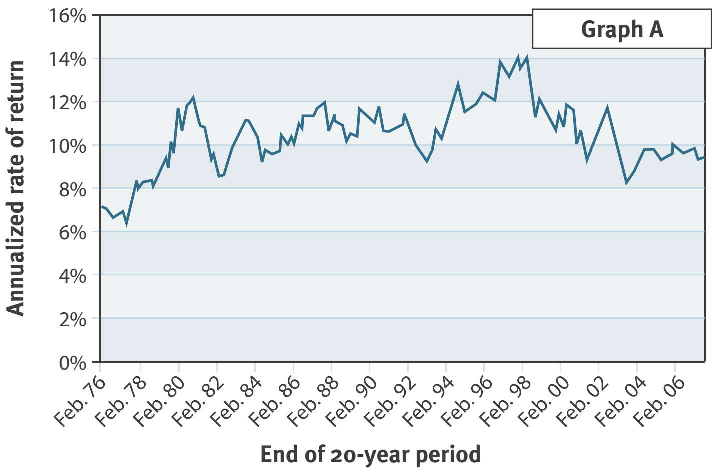
Historical data on Canadian equities show that during an accumulation phase without any deposits or withdrawals, all 20 year periods since February 1956 have positive generated returns, ranging from 6% to 14% (Graph A).

The average of these 378 moving periods (ending on dates from February 1976 through July 2007) was 10.5% with a standard deviation of 1.5%. For comparative purposes, the standard deviation for one-year periods is approximately 18%.

Short-term volatility risk seems to be well under control over longer investment horizons.



But what happens to risk exposure during a withdrawal phase? We take a 20-year horizon to be a representative period for many retirees at age 60. The likelihood that they will still be alive at 80 is 56% for men and 75% for women. Couples have an 89% probability that at least one of the partners will still be alive at 80.

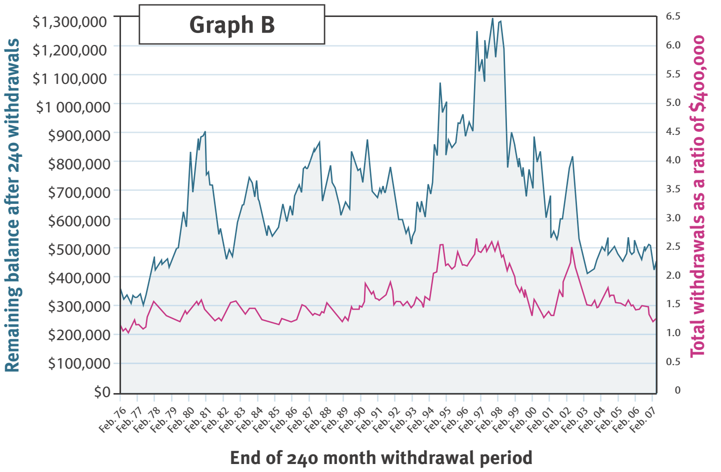
Having time on your side...

To illustrate this point, we tracked changes in an RRSP with an initial principal of $400,000, consisting solely of equities, with minimum monthly withdrawals of 0.417% (5% per year) of the balance at the beginning of each month. In addition to these withdrawals, 1.38% (on an annualized basis) of the balance was deducted to simulate management fees. In order to provide a certain regularity to the withdrawals, we applied the condition that all monthly withdrawals had to be at least equal to the amount withdrawn the preceding month. Monthly withdrawals can thus only increase, unless the principal is totally depleted.

By applying this rule of systematic withdrawals for all 378 of the 20-year periods (240 months), we measured the final balance and the amount of the withdrawals over 20 years as a ratio of the amount invested.

As shown in Graph B, the investments would not be depleted at any time, despite increasing withdrawals. In fact, except for the 20-year periods ending in 1976-77 at the height of the oil crisis, the principal invested would grow despite the withdrawals, even reaching a $1.3 million peak for the periods ending in the late 90s. What's more, the amounts withdrawn would have totalled an average of 150% of the amount invested (red line), or $600,000 (these monthly withdrawals are greater than $5,000 for all the periods ending after 1998, or 0.417% of the peak reached at that point).

When we perform the same calculations using withdrawals of 6% or 7% (instead of 5%) on an annualized basis, we also discover that the principal would not be depleted. When we increase withdrawals to 8% or more, we there notice that principal depletion starts to occur in some periods.



In a nutshell...

Provided that your withdrawals are controlled (e.g., 5% per annum), the risk of premature depletion of your principal appears very low. Moreover, by adding a percentage of foreign equities, volatility would have been reduced without affecting long-term return. Obviously, a portfolio is never built of equities alone, and adding bonds further reduces volatility. Nevertheless, retirees who include equities in their portfolio must have an investor profile providing for such risk tolerance.

It is rather reassuring that the results we obtained even apply to the period beginning in January 1987. According to Graph B, the balance after 240 months exceeds $200,000 in January 2007. And yet, this 20-year period included the stock market crash of October 1987 (-22.5%), the correction in 1990 (14.8%), the Asian crisis of August 1998 (-20.1%) and the bursting of the tech bubble and ensuing doldrums from September 2000 to October 2002 (-43.2%).

Any questions? Ask your advisor. He or she will be happy to assist.

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