How Can I Use a Contingent Deferred Annuity in My Client's Retirement Portfolio?

Goal of Analysis

The following is a comparison of a retiree's income profile, when all of the retiree's assets are invested in a mutual fund versus when a Contingent Deferred Annuity (CDA) is added to 30% of the retiree's mutual fund portfolio. Two market scenarios will be analyzed: a hypothetical down market scenario and a historical up market scenario.

The analysis provided focuses on how the inclusion of a CDA impacts a typical retiree's income profile. An efficient frontier methodology was used to determine where allocations between a mutual fund with a systematic withdrawal program and a portfolio with a CDA would lie on the efficient frontier and hence create an optimal allocation. In this analysis, we modeled mortality on a stochastic basis, with 87% of the Annuity 2000 table as the base assumption and included a stochastic improvement factor.

CASE STUDY PROFILE

Male age 55, retiring age 65

Starting Level of Assets: $1 million

Longevity Assumption: Lives to age 100

Income Goals

- Desired annual income of $70,000 starting at age 65 growing at 2.0% per year
- Required income of $15,000 per year

A Tale of Two Portfolios

The analysis compares two portfolios for the investor to consider in reaching the income goal selected in the case study above. The portfolios were chosen to have a 7.5% weighted failure rate where failure is defined as failure to reach desired income levels while still alive. The weights given to failure rates incorporate partial failures. (See the report "Analysis of Inclusion of Contingent Deferred Annuity Benefits on Retirees' Efficient Frontier" for further details.) Taking systematic withdrawals from a mutual fund only portfolio that features a large cap equity fund and an investment grade bond fund, our analysis could not achieve a 7.5% weighted failure rate. In fact, the lowest weighted failure rate was 11%. When the CDA was added to the investor's mutual fund portfolio, the desired 7.5% weighted failure rate was produced by allocating 30% to the CDA and 70% to a mutual fund with a 65% equity/35% bond split.

MUTUAL FUND ONLY PORTFOLIO

55% Equity Allocation to S&P 500
45% Bond Allocation to Salomon Broad Investment Grade Index

Results: **Weighted Failure Rate = 11%**
Investor IRR = 5.9%
Average Legacy = $2,122,000

PORTFOLIO WITH CDA

70% of assets in Mutual Fund only
30% in Mutual Fund with a CDA
Mutual Fund Allocation: 65% S&P 500 / 35% Bond
CDA Allocation: 40% S&P 500, 15% International Equity, 10% Small Cap Equity and 35% Bond

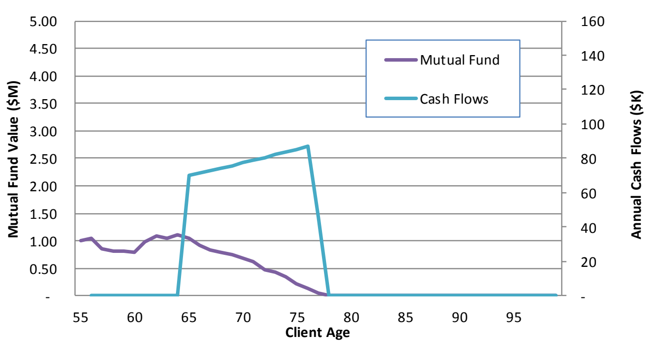
Results: **Weighted Failure Rate = 7.5%**
Investor IRR = 6.3%
Average Legacy = $2,511, 000

This analysis is based on independent research conducted by Milliman, Inc. to demonstrate and quantify the impact of incorporating a contingent deferred annuity within a retirement income plan.

How Does the CDA Help My Client's Retirement Portfolio?

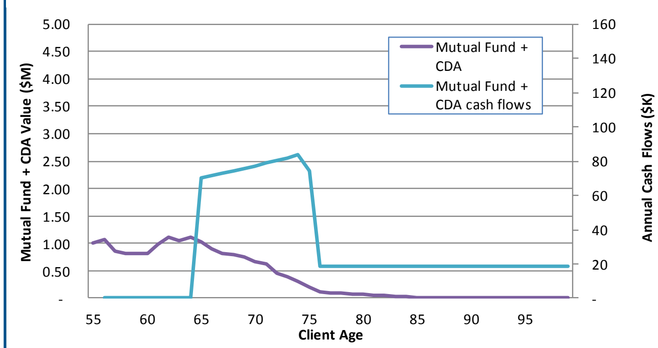
To examine this, let's take a look at two sample return scenarios. The first is a down/flat scenario and was chosen from the stochastic scenarios used in the analysis. The second is the historic period of 1967 to 2012.

Mutual Fund Only: Down Scenario



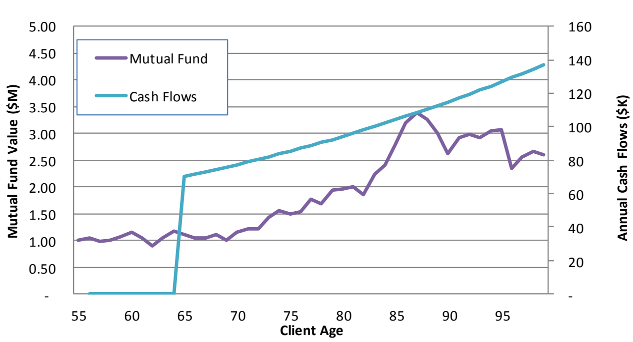
- 100% of client's annual income goal is achieved for 22 years, through age 77.
- At age 78, client receives annual income of only $45,567, compared to goal of $88,777.
- During the year the client turns 78, the balance in the mutual fund falls to zero, and the client will no longer receive any annual income until his death at age 100; a little over 22 years with no income from his original mutual fund investment of $1 million!
- In total, the client will have received income of $984,414 on his original investment of $1 million.

Mutual Fund with CDA: Down Scenario



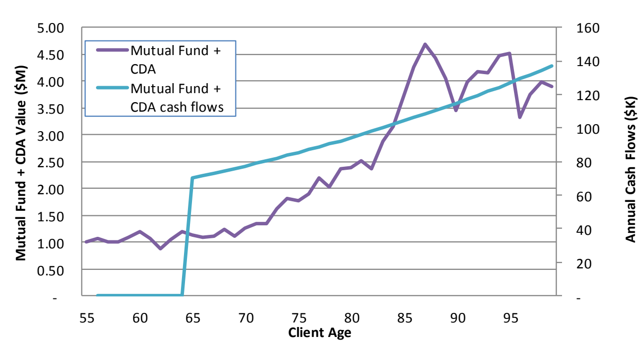
- 100% of client's annual income goal is achieved for 20 years, through age 75.
- At age 76, client receives annual income of $74,398, compared to his goal of $85,330.
- Starting the year the client turns 77, the client will receive $18,353 in annual income until his death at age 100.
- In total, if the client lives to age 100, he will have received income of $1,281,340 on his original investment of $1 million.
- **This is a 30% increase in income relative to the mutual fund only portfolio.**

Mutual Fund Only: Up Scenario



- 100% of client's annual income goal is achieved for the full 35 years, through age 100.
- In total, the client who lives to age 100 will have received income of $3,399,613 on an original investment of $1 million through age 100.
- In addition, the legacy benefit for heirs that remains at age 100 is $2,597,829.

Mutual Fund with CDA: Up Scenario



- 100% of client's annual income goal is achieved for the full 35 years, through age 100.
- In total, the client who lives to age 100 will have received income of $3,399,613 on an original investment of $1 million through age 100.
- In addition, investing 30% of funds in the CDA allows for the remaining 70% in the mutual fund to be invested with a higher equity exposure than the mutual fund only portfolio (65%, versus 55% with the mutual fund only portfolio).
- The higher upside potential results in a legacy benefit for heirs at age 100 of $3,910,498. **This legacy benefit is 51% higher than under the mutual fund only strategy.**