

# Retirement Planning:

## Part 7: Years of Cash Method and Growth Rate Averaging Method

JIM OTAR

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Some investors put aside enough cash to meet their income needs for a specific number of years. The rest of their portfolio is invested in equities. The income is taken out of the cash portion of the portfolio. As the value of the equity holdings rises, the growth is used to replenish the cash holdings. We'll call this "Years of Cash" (YOC) method.

I studied YOC technique for all the years between 1900 and 1999. I analyzed holding 0, 2, 4, 6, 8, and 10 years of cash. It appeared that putting aside eight years of cash gave the optimum portfolio life in most cases. For each year of cash, the portfolio life increased by six to ten months compared to an all equity portfolio.

In all cases, a portfolio based on an optimum strategic asset allocation with optimum rebalancing method (see my previous articles) gave better results than the YOC method. The YOC technique may force you to have too much or too little equity in your portfolio in the beginning (depending on your withdrawal rate), and it had too much cash towards the end. It seemed to work well only if the equity side significantly outperformed the index for long periods of time. This is not something that I would count on for my retirement planning. I don't believe that any fund manager can consistently outperform the index for statistically long periods of time. If they do outperform for a period of time, then investors pour money into this fund, it becomes too big and its performance rapidly drops. Your other option is to actively follow the best performing equity funds. In this case the YOC method may be feasible.

The other method I would like to mention is the "Growth Averaging" method (please see April 1997 issue). Here is how it works:

Say your optimum strategic asset allocation happens to be 40% equity and 60% fixed income. At the start of the portfolio, don't start with 40% equity, but only with 10%. The rest of the money is invested in the money market.

If and when the value of your equities goes up by 15%, transfer another 10% from the money market funds to equities. Continue doing that each time the value of equities is 15% higher than the previous value. Eventually, if the markets keep going up, your portfolio reaches its final asset allocation of 40% equity and 60% fixed income. At that point the Growth Averaging method completed its purpose. Now, revert to optimum strategic

asset allocation and rebalancing method (see Part 6 on optimum rebalancing methods).

The Growth Averaging method minimizes the devastating effect of retiring just at the beginning of a bear market. During a bear market, no money is added to the equities. If the bear market turns bullish, you still have plenty of cash to take advantage of the situation.

In the final analysis, the Growth Averaging method added a year or two to the life of the portfolio. More importantly, it followed a more predictable path.

The following charts show portfolio values over time using these different methods. The horizontal scale shows the number of years after retirement. The vertical scale shows the portfolio value, with a starting value of one million dollars and initial withdrawal rate of 6%, adjusted for inflation. The standard financial plan is based on a growth of 8% per year, and inflation of 3.5% per year. All charts except the standard retirement plan are based on historic data with at least 20 years of history for someone starting his/her retirement in any year between 1900 and 1979.

After a bull market, the portfolio value may grow to such an amount that the current withdrawal rate becomes less than 2%. You can take out some of the excess amount from your portfolio (here, excess means the amount over and above what is needed to produce income at a sustainable level) to build an annuity ladder. This process will reduce the income need from your portfolio. We'll look at that in a future article.

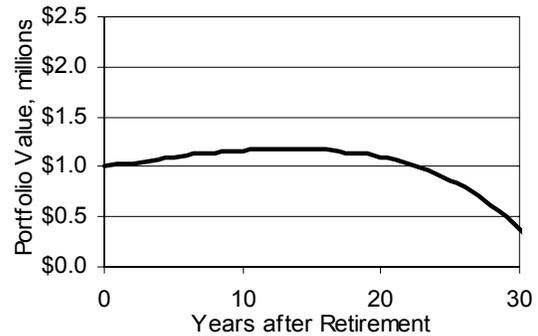
Till next time.

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*Jim Otar, P.Eng. IA, CFP, Independent Financial Advisor, Datile Securities, (905) 889-7170.*

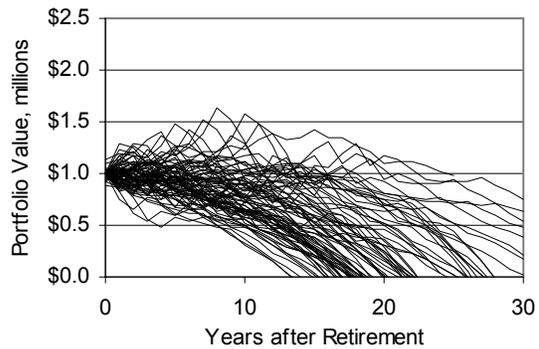
### Standard Retirement Plan:

Ignores all volatility, includes a disclaimer –usually in small print to indemnify the preparer. In almost all cases it overestimates the portfolio life when compared with historic experience. Avoid relying on it for your retirement. If you must use it, then fudge-up your income requirement by about 1/3 and that may give you a more realistic estimate of the life of your portfolio.



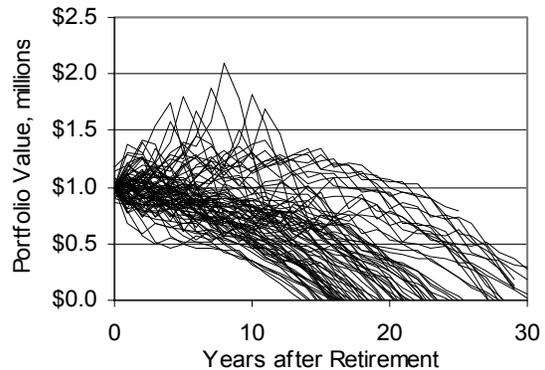
### Strategic Asset Allocation:

The chart shows historic performance portfolios with an asset allocation of 40% equity and 60% fixed income rebalanced annually. SAA is easy to implement and to follow. This is one of the reasons why it is so popular. If the start of your retirement coincides with the start of a bear market then you can lose five to fifteen years of the life of your portfolio depending on the severity and longevity of the bear market.



### Years-of Cash:

The chart shows the historic performance of portfolios when eight years of cash was put aside and the rest of the portfolio was invested in equities. Although it sounds safer than strategic asset allocation, actually it is not. It has the same problem of the strategic asset allocation in its early years. In later years, all of the portfolio may be in cash and that presents different set of constraints on growth.



### Growth Averaging:

The chart shows the historic performance of portfolios using the Growth Averaging method. Initially, only 10% is invested in equities and the rest is invested in fixed income or cash. Each time the equity value goes up by 15%, another 10% is added to equities, until 40% equity and 60% fixed income is reached. After that point, this portfolio is rebalanced once every four years during the US presidential election year. Notice how this technique minimized the problem of retiring at the start of a bear market: In the early years, there are no downside surprises and the asset line is much more predictable than other methods. Also notice at the end: because capital was preserved better in the beginning, there was a higher occurrence of leaving an estate.

