## BAD ASSUMPTIONS

By Henry K. Hebeler<br>3/22/01

It's too bad that more people don't go back and check their planning results with history. A number of the large brokerage houses are starting to use more realistic return and inflation assumptions, but they are few and far between.

We're going to see a large number of recent retirees going back to work very soon. This morning one person on CNBC said he had based his plans on $25 \%$ annual returns and was now thinking about using $15 \%$. Wow! They must have found someone from another planet.

This kind of extremism leads to very unrealistic retirement plans. Believers will start off withdrawing far too much money in their initial years of retirement. Not only does that reduce their base, but any kind of a market shock does permanent damage. That's because almost all of these plans call for annual increases of withdrawals using whatever was the inflation for the year. So the retiree can be taking an even larger percentage of the nest egg each year.

Let's look at some examples that are much more moderate than the extremist's assumptions. We'll start with a nest egg of $\$ 400,000$ for a 65 year old person. The investments are allocated per the often advocated rule that the percentage of stocks (represented by the S\&P index) should be equal to 110 minus age in each year. We'll assume $10 \%$ is always in money markets (represented by shortterm treasuries) and the remainder in bonds (represented by long-term corporate indexes). Historical data come from Global Financial Data at www.globalfindata.com.

Unlike most analysis that leave out costs and use pure indexes, we'll introduce some realism with regard to transaction costs: $1.3 \%$ for stocks, $0.9 \%$ for bonds, and $0.3 \%$ for money markets.

Now we're going to look at three cases: (1) The initial draw equals $7.5 \%$ of last year's ending balance, (2) $5 \%$ initial draw, and (3) $3.5 \%$ initial draw. Every year thereafter, the draw will be increased by whatever was the inflation in the year before. Within the past week, I have seen at least
one responsible organizations advocating each of the above.

Well, what would have happened to a person who retired in the past? After all, presumably all of the analysts are using the same historical data, so seeing what would happen in various actual stretches of past history should have some meaning. In the interest of brevity, I'll show a representative piece of history. We'll start the scenario in the year 1965. That's convenient because 65 is also the age of the retiree. However, there are a large number of starting times that have similar, if not worse, results for a retiree.

Figure 1 shows what happens to the investment balances (adjusted for inflation) in each case. Note that the $7.5 \%$ initial draw uses up all of the investments by age 77 . The $5 \%$ initial draw stretches the money further to age 82, Finally, the $3.5 \%$ draw preserves investments until age 94. Since I personally have a number of relatives that have lived beyond this, even the $3.5 \%$ would not satisfy my requirements.

Figure 2 illustrates the absurdity of the assumptions, particularly starting with large initial draws. When the draws start to exceed $15 \%$ of the investments each year, the retiree should start to smell a rat and start sniffing around for some alternative recourse. The person with $7.5 \%$ initial draw would be into retirement only 6 years before having to take some drastic action.

Let me remind you that these examples are not isolated or peculiar freaks of history with a very small probability of occurrence. They are representative of a number of historical scenarios. They are a consequence of what I call reverse dollar cost averaging. Unlike savers who benefit from dollar cost averaging (some deposits come at market lows), retirees lose dearly when they make withdrawals, as they must, when the market is down.

Further, there is better technology available than determining either an initial draw with a subsequent inflation adjustment or even maintaining a constant percentage draw. See my material and program that relates to the retirement autopilot method on www.analyzenow.com.


Figure 2. Draws as \% of Last Year's Balance


