



RETIREMENT

Sometime between the ages of 23 and 65 nearly everyone starts to think of retirement. Everybody has a different idea of what retirement should be like. Everybody has a different opinion as to when it should happen. All, however, share one common problem—how to pay for it.

In the good old days people could generally count on dying within, say, ten years of retirement. Drawing down on a lifetime of savings was not so fearful then. Besides, companies had pension plans that paid a set amount until the retiree passed away. Neither of these is true anymore. People live much longer and so have to treat their retirement funds much differently. A 65 year old man can expect to live another 16 years; a woman 19. There is a 28% chance that a 65 year old man will live to 90. For a woman the odds are 40%. The actuarial probabilities are that for a 65 year old couple at least one will still be standing at age 90. These are today's expectations, biotechnology may lengthen average lives considerably.

So what to do? The first thing is to estimate what expected retirement expenses will be. Experts tell us that a retired couple generally will require 70% of their pre-retirement income to live comfortably. This is because a lot of the working years' expenses will be over. Hopefully, the kids have been educated and have finally left the house—for the last time. Ideally, the mortgage will be paid off. There is no more saving for retirement. There will be less tax. The workaday expenses of clothing, transport and lunch are gone. But there will be new or sometimes just greater expense. Medical care is the obvious one but then there are the costs of doing "all of the things we always wanted to do", which generally means travel.

Once retirement expense is estimated then the question is how much is needed to provide that income. Social security is the first building block. Although it is fashionable to say that social security is in crisis, bankrupt or otherwise finished, that's nonsense. Social security will be there for one obvious reason: old folks vote. More than 40 million Americans are over the age of 65 and there are 2 million more every year. In a national general election there are ordinarily 110-120 million votes. One-third of them are cast by retirees, and that fraction will only rise in the future. Future social security payments may not be as rich as in the past but they will continue to provide a decent income for people on the low end of the scale and will be a comfortable addition to middle class retirees' budgets. The formula for benefit calculation is complicated but middle class workers can generally expect a monthly benefit of \$1,500 to \$2,500 monthly for a single person and \$3,500 to \$4,000 for a couple.

If we just stick to averages the calculation is simple. A couple living on \$130,000 per year will need 70% of that, or about \$90,000 in retirement. Subtract \$40,000 of social security and that leaves \$50,000 that must be made up from investment earnings. How much capital does that represent? The

financial industry's general rule of thumb is that we should take out just 5% of our investment every year. That translates into \$1,000,000 in this case.

Some really smart people have come up with some really sophisticated mathematical models to estimate the probability that we will outlive a given rate of withdrawal from our portfolios. These models are based on historical market returns, interest rates and inflation rates. If you start withdrawing 5% of the accumulated capital and take the same amount out every year, adjusting it upward for inflation, there is an 87% chance that you will die leaving money on the table—assuming retirement at age 65 and death at 90. This is with an all stock portfolio. If the withdrawal rate is 7% per year instead of 5% then the chances of having money at the end of 25 years falls to 59%.

These models, usually called Monte Carlo simulations (from the casinos) illustrate an important point. That is that it is the down markets that kill you. To illustrate: assume you begin taking out 5% in a year when the market returns 10%. At the end of the year you have \$1,050,000. Inflation was 3% so next year you pull out \$51,500. The market returns 10% again and you have \$1,103,500 at year's end. But reverse the process, so that the market falls 10% each year and you get this: at the end of the 2 years the remaining balance is \$713,500. Then taking out \$50,000 per year becomes risky indeed.

The good news is that these simulations are mechanical formulas and just some common sense ought to resolve the dangers. Most important is to realize that retirement has two very different stages. Call them active and passive. In the first 10 or 15 years there is a lot to do. All of the adventures hankered after for so many years are now possible. But people do slow down in their late seventies. Quality of life can be just as good, but people are happy with fewer resources. When estimating retirement expenses, then, it is a good idea to think of those things which you would want covered regardless of how sedentary life has become. If this number is, say, 50% of pre-retirement income then there is a much larger margin of safety. To return to the illustration above: one-half of \$115,000 pre-retirement income is \$57,500. Social security income of \$30,000 reduces the investment requirement to \$27,500. This translates into a portfolio value of \$550,000. Now the question becomes how to get from age 65 to age 80 and still have 55% of your original portfolio; a much easier task.

The best way to deal with risk in a retirement portfolio is to take a percentage of the portfolio value each year. In other words do not take a set percentage of the original value and don't adjust for inflation. The market will adjust for inflation over time. This will make for a somewhat more irregular stream of income but it will almost eliminate the possibility of running out of money. Combine this with some common sense planning. At the beginning of each year decide what is the minimum amount you need and take that out regardless of how your investments perform. If it is a good year take the rest that you would want. If it is a down year then make adjustments to the amount taken in the following year.