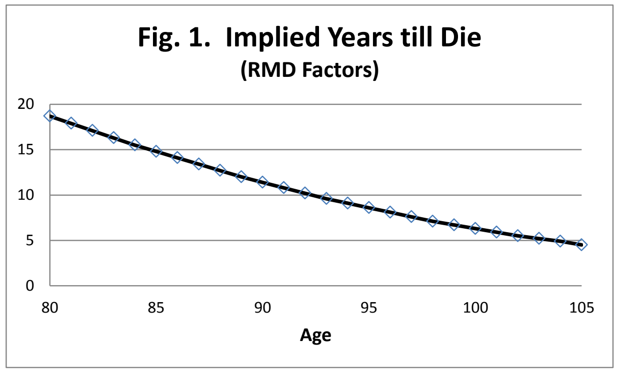
End Game

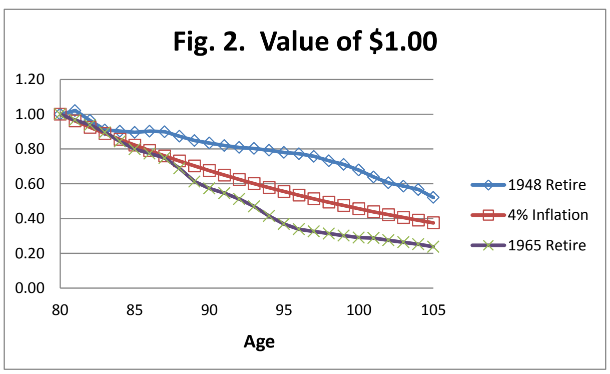
Now that it is months instead of years until I am 80, I decided to explore what my actual **required minimum distributions (RMDs)** from a 401(k) and IRA would look like as I aged. The results are far from perfect even though I think that whoever conceived the RMD factors had the right things in mind. If you lived in a theoretical world where returns always equaled inflation, then the RMDs would provide income that would be fairly constant in real (inflation-adjusted) dollar values for people who would live into their early eighties. But now, one or the other of us could live much longer than that.

In my own case, I have a wife who is 3 years younger than I am. Her relatives lived into their late nineties as did my father. My wife has a good shot at getting to 100 or higher. I would have been 103 when she would get to 100, therefore I'm interested in what happens to RMDs in that vicinity.

When I first retired many years ago, you had to use a very complex and lengthy table to get your RMD. It depended on both your and your spouse's age. It still does if your spouse's age differs by more than ten years. Now the table values are close to what you'd get if you used the original tables for a spouse that was ten years younger. And, thank goodness, it's vastly easier to apply than years ago.

So first let's look at the ingredients of the dollar value of RMDs in any year. They are the age dependent RMD "factors" together with last year's ending balance, inflation and returns. The RMD factor is equivalent to the extra years of life left for planning purposes. Figure 1 shows the implied years to die from the RMD factors starting at 80. **RMD factors are from IRA Publication 590.**



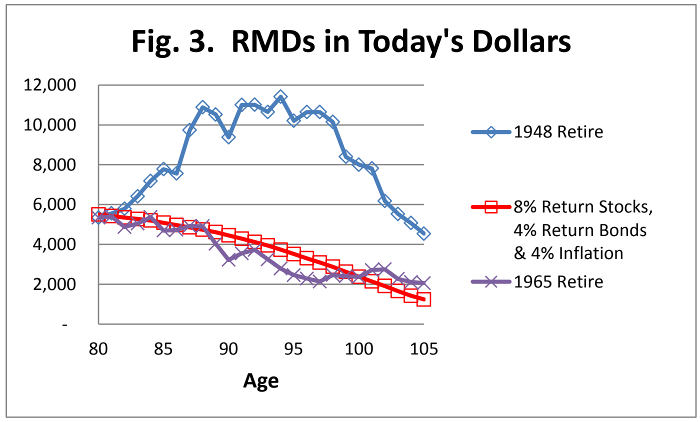


Inflation is the next key ingredient. Unlike the RMD factors, future inflation is unknown. Since post World War II, inflation has been closer to 4% than the 3% often optimistically cited by planners. At one time our inflation exceeded 13%. We can see the deleterious effect of inflation on a dollar's value in Figure 2 for two long time periods.

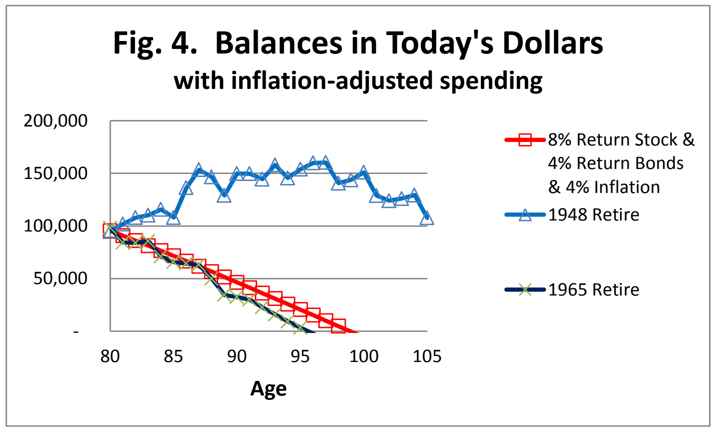
Those who retired in 1948 had relatively low inflation while those who retired in 1965 like my father experienced devastating reduction in purchasing power. When my father died at age 96, a dollar declined from its age 80 purchasing value to only 36 cents. Worse, it was worth only 20 cents from his actual retirement at age 65.

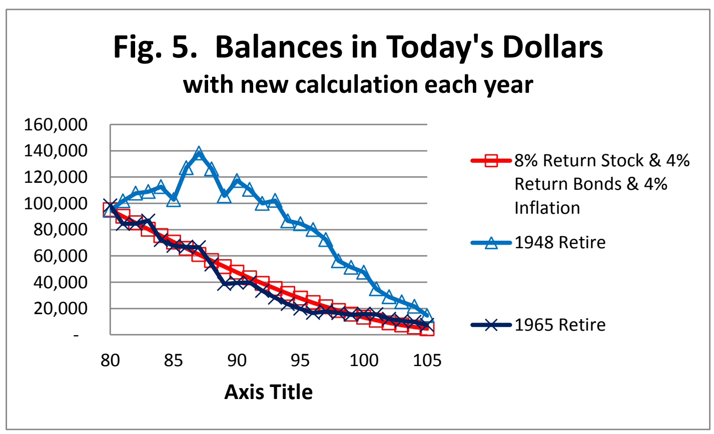
Allocation of investments plays a large role. Retirees need to have more of their investments in fixed-income securities like bonds rather than stocks have very uneven values. For the past forty years, I have used an allocation formula that has somewhat more stock percentage than the traditional formula of 100 minus my age at the time. I use 105 minus my age but do not reallocate unless my stocks get more than 5% higher or lower than my formula allocation. At age 40, I had about 65% of my portfolio in stock. At age 55, I had 50% in stock and the rest in bonds and money markets. So throughout the remainder of this paper, I will use a percentage of stocks at 105 minus the age at the time along with 10% always in money markets and the remainder in bonds. Hence at age 80, there would be 25% stocks, 10% money markets and 70% in bonds. Except when specified otherwise, the proxies will be the S&P 500 for stocks, corporate AAA bonds for bonds and short-term treasuries for money markets, all reduced by 1.5% costs which is what the average investor experiences. Some aged pay 1% more for professional management.

The actual dollar value of an RMD depends mainly on the previous year's ending balance: But inflation also pays a large role in the real value of an RMD. In real life, we all know that returns and inflation vary every year. Figure 3 shows the value of RMDs for someone with a $100,000 balance at the end of age 79. The very best result was for someone retiring in 1948 when the years that followed had fairly low inflation and attractive returns which boosted investment balances. On the other hand, those who retired in 1965 had just the opposite results: high inflation and some years with awful stock losses. The theoretical case in Figure 3 is for 4% inflation, 8% return stocks, 4% return bonds and 1% return money markets.



Inflation-adjusted spending without feedback can be a disaster. At age 80, the RMD factor is 18.7 equating to a life span of 98.7years. If a person had $100,000 balance at the end of age79, then the RMD at age 80 would be $100,000 / 18.7 = $5,348 for that year. A planner would say that if the retiree could earn a return as much as inflation, then the retiree could spend $5,348 with an annual increase each year for inflation. Theoretically, the money would run out in 18.7 years. Therein is the rub! Figure 4 shows that except for the fortunate economics that followed retiring in 1948, the risk is very high that an elderly person would run out of investments before running out of life.





It is better to do a new calculation every year as in Figure 5 rather than use an age 80 RMD and increase it every year for inflation as in Figure 4. The mandatory RMDs effectively do that for you because each year you calculate a new minimum distribution. The trick is not to draw any more than that minimum save for a conversion to a Roth. Using the RMD calculation every year, even for a Roth, provides the necessary feedback accounting for whatever actually happened to investments last year as well as using a revised life-expectancy.

The case for an 8% stock return and 4% bond return in Figure 15 was done with an ever changing investment allocation using planning equations, but a person couldn't go too far wrong by simply dividing last year's ending balance of taxable accounts by the new RMD factor every year. That way you'll never run out of investments although the final distributions may be quite skinny as in Figure 3.

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