## MuhlenkampMethods

## The Inflation Time Bomb

This essay was originally published in Muhlenkamp Memorandum Issue 9, June 1989.
In 1989, a friend of Ron's was widowed. She went to a well-known financial planner (who was also a friend of Ron's), and the financial planner told her that, as a widow, she shouldn't be taking risks with her money. Therefore, she should invest in a ladder of Treasury bonds. (A "ladder" means you own bonds of a number of different maturities, so that no matter what interest rates do, some of the bonds are appropriate. Of course, it's also an admission that you have no idea what interest rates will, in fact, do.) The planner ran projections out 15 years, and she looked pretty good.
Ron pointed out to the financial planner that his plan would protect the widow against the short-term risk of volatility, but did nothing to protect her against the long-term risk of inflation, which would likely be the greater risk since her financial needs were long-term. (See our essay, "What Is Risk?") Not only that, given the interest rates of the time and her level of spending, she would have depleted her assets in less than 25 years. The lady was only 52 years old.
The advice the financial planner gave to the widow was not unusual. His advice was firmly rooted in the conventional wisdom of the time. Ron wrote "The Inflation Time Bomb" to point out what he saw as a major weakness of that conventional wisdom.

The very rules that we were taught to conserve principal have become a trap. Today, people are desperately trying to maintain their "incomes" by buying investments with high yields, believing that if they "spend only the income-don't touch the principal," the value of their assets and their incomes will remain intact. But it's a trap!

Suppose in 1967 you were a 52 -year-old widow attempting to live off your investment income. Your house was paid for, and you had $\$ 200,000$ in investable assets. At the then-prevailing interest rate of $4.5 \%$, these assets generated $\$ 9,000$ per year. In 1967, the dollar was worth 3.72 times what it is today (in 1989), so you were able to live rather nicely on this income ( $3.72 \times \$ 9,000=\$ 33,500$ in 1989 dollars).

Figure 5.6 Effect of "Spend the Income—Don't Touch the Principal"

| Age | Year | Principal | Interest Rate | "Income" | Inflation | CPI | Purchasing |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Value of Dollar* | Power of Income* |
| 52 | 1967 | \$200,000 | 4.50\% | \$9,000 | 1\% | 100 | 3.72 | \$33,500 |
| 66 | 1981 | \$200,000 | 14.00\% | \$28,000 | 10\% | 281 | 1.32 | \$37,000 |
| 74 | 1989 | \$200,000 | 8.00\% | \$16,000 | 5\% | 372 | 1.00 | \$16,000 |
| 79 | 1994a | \$200,000 | 8.00\% | \$16,000 | 5\% | 475 | 0.78 | \$12,500 |
|  | 1994b | \$200,000 | 5.00\% | \$10,000 | 1\% | 390 | 0.95 | \$9,500 |

* Value of Dollar and Purchasing Power of Income are stated in 1989 dollars.

Then came inflation, and with it higher interest rates. By 1981 inflation was $10 \%$, and interest rates were $14 \%$. Notice from Figure 5.6 that because interest rates rose slightly more than the Consumer Price Index (CPI) during this period, your income kept pace with the CPI; the purchasing power of your income held up. You were feeling pretty comfortable-and the time bomb was set to go off.

In 1981, we said that one of two things could happen:

1. The time bomb could go off slowly. Inflation could stay at $10 \%$, and interest rates could stay at $14 \%$. Each year, your income would lose $10 \%$ of its purchasing power, thereby cutting it in half in only seven years.
2. The time bomb could go off quickly. Inflation and interest rates could decline significantly. Income would drop with interest rates. The result would be a rapid loss of the purchasing power of your income.

We all know that the time bomb went off quickly. As inflation fell, so did interest rates.
Fourteen percent CDs are no more. Our widow and her friends living off the income from their assets have seen their incomes and purchasing power shrink since 1981. They search for the highest payouts available, trying to maintain their incomes. Although vigorous and healthy at 75, they find it increasingly difficult to maintain the homes they love and to visit the grandchildren they love even more. But the squeeze is not over yet!

## Inflation as a Defining Factor

Today (1989) we are set up to repeat the process. Those assuming that interest rates will stay at $8 \%$ are implicitly assuming inflation of $5 \%$, in which case purchasing power will shrink $27 \%$ in only five years. If, in fact, we get inflation down to $1 \%$ or $2 \%$, interest rates of $5 \%$ are much more likely, and income will be cut rapidly once again. These scenarios are shown in Figure 5.6 as 1994a and 1994b. One of them will happen; it's already built in.

In a period of only 27 years, people living on the income from their assets will have lost twothirds of their purchasing power. They will have done this while following the "spend only the incomedon't touch the principal" rule, which was meant to protect their assets from shrinking. They've been snookered because they think in terms of principal and income, rather than purchasing power. When inflation was $10 \%$, the principal had to grow by $10 \%$ per year merely to offset inflation. Only the additional $4 \%$ interest (on the $14 \% \mathrm{CD}$ ) was spendable if the purchasing power of the principal was to be maintained. Today (1989), at 5\% inflation, the principal must grow at $5 \%$ just to offset inflation.
Whether in the form of income or appreciation, only those returns in excess of inflation represent gains in purchasing power.

The crime of inflation is that it depletes the value (purchasing power) of money, both assets and income. Our federal government sets standards for weights and measures so that no merchant can cheat you on a pound of sugar or a gallon of gas. But it sets no standard on the purchasing power of money, allowing itself to cheat you out of the value of your savings. Contrary to popular opinion, only governments can create inflation because only governments can print money.
"Spend only the income-don't touch the principal" is a superb discipline when inflation is zero. But it becomes a trap when inflation soars. People really believed that if they didn't touch their principal, it would stay intact. So they invested only for income. Only now are they discovering that assets must grow with inflation, or the income they receive will be rapidly depleted.

## 2007 Update

It took a little longer than five years, but the outcome we warned about has come to pass. We have added two lines to the table. (Refer to Figure 5.7.) For 1994 we've used an average of interest rates over the 1993-95 period to smooth out the dramatic swings of the period. For 2006 we've used the current interest rates.

The right-hand column demonstrates the effect of inflation on the conservative rule of "spend only the income-don't touch the principal." As we round-tripped from inflation of $1 \%$ to $1 \%$ over a 33 year period, the purchasing power of the income fell by $81 \%$ as the value of the dollar fell by $81 \%$.

Figure 5.7 Effect of "Spend the Income—Don't Touch the Principal" (Updated)

| Interest |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| Age | Year | Principal | Rate | "Income" | Inflation | CPI | Value <br> of Dollar* | Purchasing <br> Power of <br> Income* |
| 52 | 1967 | $\$ 200,000$ | $4.50 \%$ | $\$ 9,000$ | $1 \%$ | 100 | 3.72 | $\$ 33,500$ |
| 66 | 1981 | $\$ 200,000$ | $14.00 \%$ | $\$ 28,000$ | $10 \%$ | 281 | 1.32 | $\$ 37,000$ |
| 74 | 1989 | $\$ 200,000$ | $8.00 \%$ | $\$ 16,000$ | $5 \%$ | 372 | 1.00 | $\$ 16,000$ |
| 79 | $1994 a$ | $\$ 200,000$ | $8.00 \%$ | $\$ 16,000$ | $5 \%$ | 475 | 0.78 | $\$ 12,500$ |
|  | 1994b | $\$ 200,000$ | $5.00 \%$ | $\$ 10,000$ | $1 \%$ | 390 | 0.95 | $\$ 9,500$ |
|  |  |  |  |  |  |  |  |  |
| 2006 Update |  |  |  |  |  |  |  |  |
| 79 | $93-95^{* *}$ | $\$ 200,000$ | $6.76 \%$ | $\$ 13,520$ | $2.8 \%$ | 449 | 0.83 | $\$ 11,222$ |
| 91 | 2006 | $\$ 200,000$ | $5.00 \%$ | $\$ 10,000$ | $2.0 \%$ | 571 | 0.65 | $\$ 6,500$ |

* Value of Dollar and Purchasing Power of Income are stated in 1989 dollars.
** Numbers are an average for the years 1993 to 1995.


## Editor's Note

So, what happened to Ron's widow friend? Well, in 1989, she let Ron invest her assets in a diversified portfolio of common stocks instead of the ladder of Treasury bonds that the financial planner recommended. Fifteen years later, her assets are greater than they were then, adjusted for inflation, and her spending has exceeded what the bonds would have provided. If she had taken the advice of the financial planner and invested solely in Treasury bonds, she would have had "income," but would have had to live on less and would have consumed the principal.

