Your Tax Rates Are Higher Than You Think!
And your returns are lower!

Right now it's popular to believe that investors are taxed too little because of lower taxes for capital gains and dividends and that wealthy bond holders are paying too little tax on their income—which consists largely of returns on investments. However, these conclusions fail to account for inflation.

For example, suppose that someone bought a stock for $100 and it appreciated to $200 in 10 years. Using the rule-of-72, we know that the return had to be 7.2% [72 / 10]. However, that $200 ten years in the future would purchase less because there was inflation each year. With 3% inflation, $200 would purchase only $150 worth of items. So the real return was 4.1%[(7.2% - 3%) / (1 + 3%)].

If the future tax on the capital gain of $100 [$200 sale - $100 purchase] would be 20%, the tax would be $20. It too is worth less in purchasing power, so the real value of the tax after 10 years of 3% inflation is $15. $15 real tax on $50 real gain [$150 - $100] equals 30% real tax rate. The 30% real tax rate is half-again as high as the 20% rate that higher income people use for the capital gains tax.

We can do a similar analysis on the annual tax rate for dividends, interest and short-term capital gains. For example, suppose that we had $1,000 of a stock that had a total return in one year of 7% that would be taxed at 20% in the future. The $70 return would have a $14 tax. The real return with about 3% inflation would be $40, not $70, and the real tax would be $13.59, not $14. So the real tax rate on a return of 7% with 3% inflation and 20% tax rate would be 34% [$13.59 / $40], not 20%. That's 1.7 [34% / 20%] times higher than the stated tax rate.

Figure 1 shows those results for 3% inflation and various stated tax rates and before-tax returns. The 34% we calculated above is shown in the 7% real return column and the 20% tax rate row.

Fig. 1. Effective tax rate on real return with 3% inflation.

Tax	Before-tax actual return				
Rate	**3%**	**5%**	**7%**	**9%**	**11%**
5%	Infinite	12.1%	8.5%	7.3%	6.7%
10%	Infinite	24.3%	17.0%	14.6%	13.3%
15%	Infinite	36.4%	25.5%	21.8%	20.0%
20%	Infinite	48.5%	34.0%	29.1%	26.7%
25%	Infinite	60.6%	42.4%	36.4%	33.3%
30%	Infinite	72.8%	50.9%	43.7%	40.0%
35%	Infinite	84.9%	59.4%	50.9%	46.7%
40%	Infinite	97.0%	67.9%	58.2%	53.4%
45%	Infinite	109.1%	76.4%	65.5%	60.0%
50%	Infinite	121.3%	84.9%	72.8%	66.7%

There is another way to look at these results. That's to see what tax rates do to real returns. Real returns are the actual returns adjusted for inflation. The after-tax return is the actual return x (1 – Tax rate). The approximate formula for the real after-tax return would be the after-tax rate less inflation, but more accurately is the approximate formula divided by the quantity (1 + Inflation). Figure 2 shows the after-tax real return depends on both the before-tax return and the tax rate. The calculations assume 3% inflation. Higher inflation would reduce the results. As an example, with 3% inflation, a 7% before-tax actual return and a tax rate of 20% yields only 2.5% real after-tax return. That's the return that would be used to calculate the real growth on an investment under those conditions.

Fig. 2. After-tax real return with 3% inflation

Tax	**Before-tax actual return**					
Rate	**1%**	**3%**	**5%**	**7%**	**9%**	**11%**
5%	-2.0%	-0.1%	1.7%	3.5%	5.4%	7.2%
10%	-2.0%	-0.3%	1.5%	3.2%	5.0%	6.7%
15%	-2.1%	-0.4%	1.2%	2.9%	4.5%	6.2%
20%	-2.1%	-0.6%	1.0%	2.5%	4.1%	5.6%
25%	-2.2%	-0.7%	0.7%	2.2%	3.6%	5.1%
30%	-2.2%	-0.9%	0.5%	1.8%	3.2%	4.6%
35%	-2.3%	-1.0%	0.2%	1.5%	2.8%	4.0%
40%	-2.3%	-1.2%	0.0%	1.2%	2.3%	3.5%
45%	-2.4%	-1.3%	-0.2%	0.8%	1.9%	3.0%
50%	-2.4%	-1.5%	-0.5%	0.5%	1.5%	2.4%

These results are brutal. For a number of years of my working career, many people were in the 50% tax bracket. Even a return as high as 9% (which requires almost an all stock portfolio) would return only 1.5% real growth per year with 3% inflation.

Said another way, the government makes money on inflation because it taxes the whole growth, not the real growth. Meanwhile, the investor gets hit hard both with taxes and inflation.

Bud Hebeler
www.analyzenow.com
6-23-12