

EXAM FM QUESTIONS OF THE WEEK

S. Broverman, 2005

Week of December 5

A person's savings earn an effective annual rate of interest of 3%, but income tax at a rate of 55% must be paid on the interest earned. Find the maximum annual inflation rate that will result in a non-negative after-tax real (after inflation) rate of return.

The solution can be found below.

Week of December 5 - Solution

With annual inflation rate r , the real annual effective growth is $\frac{1 + (.03)(.45)}{1 + r}$.

After tax real return is $\frac{1 + (.03)(.45)}{1 + r} - 1$.

In order for this to be non-negative, we must have $1 + (.03)(.45) \geq 1 + r$, so that $r \leq .0135$.