

NAME Postmortem
Sign the pledge:

Mike Lovell
April 6, 1999

Quiz #2 Economics 222, Partial Answers

Part I: Carefully DEFINE and explain the SIGNIFICANCE

1. Tax expenditure: Revenue losses attributable to provisions of the Federal tax laws allowing special exclusions, exemptions or deductions from income or providing a special credit or preferential tax rate.
2. Moral hazard: The tendency of those protected by insurance to adopt modes of behavior making a negative outcome more likely (You decide to smoke in bed after you purchase fire insurance). You remain unemployed for a longer period in order to search for a better job, now that you can draw on unemployment benefits. You take up skiing because health insurance will pay the doctor if you break your leg.
3. Progressive tax: A tax imposing a higher average tax rate on those with higher incomes. See Rosen, pp 258-9.
4. Earned Income Tax Credit: A provision of the U.S. tax code providing a tax credit for low wage earners in an attempt to encourage labor force participation. The amount of the credit rises with income up to a point, remains constant until a higher level of income is reached, and then is gradually phased out.

Part II: Answer TWO (only 2) of the following four questions:

1. If taxes are determined by the equation $T = -\$21,000 + 0.3 Y$, then the marginal tax rate is $dT/dY = 30\%$ and the average tax rate is $T/Y = -21,000/Y + 0.3$. If your income is \$20,000, your average tax rate is $-21/20 + 0.3 = -75\%$. At the break-even level of income, $T = -21,000 + 0.3Y = 0$, or $Y = \$70,000$. The tax is progressive because T/Y increases with income.
2. With an 80% assessment rate, a \$200,000 house will be assessed at \$160,000. If the mill rate is 40, your tax bill will be $\$40 \times (160,000/1000) = 160 \times \$40 = \$6,400$.
3. At $r = 5\%$, the present value of the stream of future benefits is $\$20 \text{ million} / 0.05 = \400 million . Since the project costs \$300, the benefit cost ratio is $1 \frac{1}{3}$.
When 5% inflation is anticipated the dollar value of annual benefits may be assumed to rise at 5% per annum, but when they are discounted at the 10% rate of interest they will still have a present value of \$400 million. Thus the benefit cost ratio will be unchanged. One gets the same conclusion if one discounts real future amounts by the real rate of interest.
Using the tobacco industry payment for the project has an opportunity cost of 5% if the funds could have been used to pay off some of the State's indebtedness or if the funds could have been loaned out at 5%. Thus the benefit/cost ratio is unchanged.
4. See Figures 9.4 and 9.5 in Rosen, page 167

The Mean score was 84, the Median 88 and the Mode 97. Max = 100; Min = 44.