

MACROECONOMIC POLICIES

Test 2: 03/05/2008

2h 30m

I (4,5 values)

Describe 3 of the following concepts:

- i. Unproductive public expenditures.
- ii. Poverty trap.
- iii. Second best decision-making.
- iv. Rent seeking
- v. Non-tradable goods.

II (11,5 values)

In Novaquistan, the production function of each individual producer i is given by $Y_i = AK_i^{0.5}H_i^{0.5}$, where H and K stand for Human and Physical Capital, respectively. Assume that one unit of output can be transformed in either one unit of human capital or one unit of physical capital. We also know that the workforce is constant and that the depreciation rates of physical and human capital are both equal to 2%. Assume that the government has the ability to coerce individuals to pay taxes out of their incomes on physical (τ_K) and human capital (τ_H).

- a) Describe the individual firm maximization problem and find out the demand equations for physical and human capital.
- b) Show how different values of τ_H and τ_K impact on the relative uses of physical and human capital (H/K). Explain the corresponding inefficiencies with the help of a graph.

Now assume that $A = 0,25(G/Y)^{0.5}$.

- c) Compute the aggregate production function in this economy. Explain why this economy needs a government.
- d) The growth rate of this economy is given by $\gamma = r - 0,0(3)$. Using the government budget constraint, obtain the expressions for A , r and γ in terms of the two tax rates.
- e) Assume you are a benevolent planner whose only aim is to maximize the rate of economic growth in this economy. What would be your optimal choice? With the help of a graph, describe and explain the trade-off involved in sizing the government weight in this economy.
- f) Now suppose you could not levy taxes on physical capital (that is, if $\tau_K=0$). In that case, the optimal tax on human capital and the optimal level of public provision would be higher or lower? Explain and discuss the implications for economic growth.
- g) Now assume that, instead of a benevolent planner, you were a kleptocrat whose only aim was to maximize your theft on the government budget. What would be your optimal choice? Explain.

III (4 values)

Choose and comment two of the following sentences:

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1. "Financial development is good for growth"
2. "People tend to be as corrupt as the system allows them to be"
3. "A dramatic feature of generalized corruption is that, once installed, it becomes very difficult to eradicate"
4. "In a small open economy, an expansion in aggregate demand leads to a real exchange rate appreciation".