

UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Postponed exam: **ECON4640 - Political economics**

Date of exam: Friday, August 11, 2006

Time for exam: 09:00 a.m. – 12:00 noon

The problem set covers 2 pages (incl. cover page)

Resources allowed:

- No resources allowed

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Overleaf

Consider an economy with three groups, rich, middle class, and poor. A fraction θ_r are rich, a fraction θ_m belong to the middle class, and a fraction $\theta_p = 1 - \theta_r - \theta_m$ are poor. Members of the three groups have incomes y_r , y_m , and y_p .

A government imposes a tax rate τ on each citizens which yields a total welfare budget $T(\tau)\bar{y}$ where $\bar{y} = \theta_p y_p + \theta_m y_m + \theta_r y_r$ is average income in the economy. $T(\tau)$ has the usual properties $T(0) = 0$, $T'(\tau) \leq 1$, and $T''(\tau) \leq 0$. The welfare budget is spent on a uniform transfer.

Each group has a utility function $U_i(\tau) = (1 - \tau)y_i + T(\tau)\bar{y} - C_i(\tau)$ for $i = p, m, r$. $C_i(\tau)$ is an amount spent on lobbying the government.

a) Derive an expression for the preferred tax rate for individuals from each of the three groups.

When do the middle class prefer a higher tax rate than the rich?

b) What is the tax rate chosen by a benevolent government (i.e. one who maximizes a utilitarian social welfare function)?

c) Assume now that, as in Grossman and Helpman, the government has a utility function

$$g(\tau) = \sum_{i=p,m,r} \theta_i [C_i(\tau) + aU_i(\tau)].$$

Explain the rationale behind this utility function and explain the equilibrium choice of functions $C_i(\tau)$

d) Assume that only the middle class and the rich can organize special interest groups. What is the tax rate chosen by the government? Is this rate higher or lower than the one you found in question b?

e) What would happen if all groups could organize a special interest group? Are there reasonable extensions of the model so that the rich would get more power in this case as well?