

YORK UNIVERSITY
Faculty of Graduate Studies
Annual Examination
December 7, 2001
Economics 5300.03A : Public Economics I
S. Bucovetsky
time=2 hours

Answer any **five** of the following eight questions.

1. What is the optimal marginal income tax rate on the highest income levels actually earned in a country? Explain your answer.

2. Would replacing an unfunded, “pay as you go” public pension plan with a fully funded pension plan be a good idea if the rate of return on investment exceeded the population growth rate? Explain briefly.

3. How would an increase in a person’s marginal tax rate affect her allocation of a fixed amount of wealth between a risky asset, and an asset with a certain rate of return, if her utility of end-of-period wealth could be written

$$U(W) = \frac{1}{1-\beta} W^{1-\beta}$$

where $\beta > 0$ is the person’s constant coefficient of relative risk aversion, and if the personal income tax offered full loss offset?

4. Discuss the implications for a firm’s decision on how to finance a given investment, if Canada’s corporate income tax were replaced by a tax on the cash flow of the firm, while Canada’s personal income tax were not changed at all. (A cash flow tax would base the corporation’s tax liabilities on the difference between its annual revenues and all its expenses in the year.)

5. What would be the effects of allowing taxpayers unlimited contributions to tax-deferred savings plans such as Canada’s Registered Retirement Savings Plan? (Contributions to tax-deferred savings plans are deductible from taxable income in the year the money is contributed, and all withdrawals from such a plan are taxed as income in the year in which the withdrawals are made.)

continued

6. What would be the most efficient tax to levy, among the following three broad-based taxes : (1) a proportional income tax ; (2) a uniform sales tax on all consumption ; (3) a proportional tax on wage income, if all people had certain lifetimes of N years, and if their lifetime utility could be expressed as

$$U(c^1, c^2, \dots, c^N, H_1, H_2, \dots, H_N) = \sum_{i=1}^N \rho^{-i} [v(c^i) - u(H_i)]$$

where c^i is a vector of the person's consumption of goods and services in year i of her life, and H_i is the number of hours person i works in year i of her life (and ρ is some positive constant, $v(\cdot)$ is some concave function, increasing in its arguments, and $u(\cdot)$ is a convex, and increasing function)?

7. Discuss (briefly) the efficiency of the local property tax.

8. What is the best tax treatment in the "home" country for the tax paid in a foreign country by the subsidiary of a multinational firm headquartered in the home country? Explain your answer.

the end