YORK UNIVERSITY   Faculty of Arts

Final Examination   December 10, 2006

Economics 4070.03AF : Public Finance I   S. Bucovetsky

time=2 hours

The exam contains two sections, A and B. Section A is worth 40 % of the marks, section B 60 %. Note that there is some choice in each section.

A : 40 %(5 % per question)

Explain **briefly** the significance for the economics of taxation of any **8** of the following 10 terms.

1. backward shifting of a tax

2. excess burden of a subsidy

3. inverse elasticity rule

4. progressive tax

5. comprehensive ("Haig–Simons") income

6. lock–in effect

7. imputed income from owner–occupied housing

8. target saving

9. "gross–up" of dividend income

10. accelerated depreciation

continued

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Answer any **4** of the following 8 questions.

1. What would be the incidence of a 20% tax (expressed as a fraction of the net, "before–tax" price) on hotel accommodation, if the hotel industry were perfectly competitive, if the demand curve for hotel rooms had the equation

$$Q^D = \frac{400}{\sqrt{P^D}}$$

and the supply curve had the equation

$$q_s = 4\sqrt{p_s}$$

where Q^D is the quantity of hotel rooms (in thousands) demanded per night, q_s is the quantity (in thousands) supplied, P^D is the price paid per room per night by demanders and p_s is the price per room per night received by suppliers?

2. (a) Would there be any excess burden from imposing a small increase in a payroll tax, if people's choice of how many hours to work were totally unresponsive to the net wage they earned per hour?

(b) Would it matter to your answer in (a) if people were observed to reduce their hours of work significantly if they inherited some money from a relative? Explain briefly.

continued

3. What is the relation between the optimal excise tax rate on shoes, and the optimal excise tax rate on hats, if people's preferences could be represented by the utility function

$$U(S, H, X) = X + \ln S + \sqrt{H}$$

where S is the person's annual consumption of shoes, H is her annual consumption of hats, and X is her consumption of all other goods?

4. Suppose that the American tax authorities replaced their current tax deduction for mortgage interest payments on owner–occupied housing with a tax credit, and set the credit rate so as to keep constant the total tax collections from the American personal income tax. How would this change affect the after–tax distribution of income in the United States, and how would it affect investment in owner–occupied housing there?

5. How does the effective marginal tax rate vary with the taxpayer's income, for a taxpayer with a spouse who does not work, under an (imaginary) income tax system with the following rules? :

— the basic tax rate is 20 percent

— each individual gets a **non–refundable** tax credit of $5000

— there is a **non–refundable** tax credit of $5000 for each taxpayer with a non–working spouse

— if the taxpayer's income is greater than $60,000, then the credit for a non–working spouse is reduced by 20 cents for each dollar of income in excess of $60,000

— the tax credit for a non–working spouse cannot be negative

— all income over $80,000 is subject to an additional tax, equal to 15 percent of any income in excess of $80,000

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6. Would the amount of investment in Canada increase if the Canada Revenue Authority increased the limits on how much money taxpayers could contribute each year to registered retirement savings plans (RRSPs)? Explain briefly.

7. How could the Canadian corporate tax sytem be designed, in order to minimize the impact of the corporate tax rate on investment by firms?

8. How does the effective tax rate on the earnings of a foreign subsidiary of a multi–national corporation vary with the system used by the home country of the parent company to deal with foreign taxes paid by the subsidiary?