

AFRICAN ECONOMIC RESEARCH CONSORTIUM (AERC)

Collaborative MA Programme in Economics for Anglophone Africa (Except Nigeria and South Africa): Joint Facility for Electives (JFE), Nairobi

SESSION II 2004: PUBLIC SECTOR ECONOMICS – TAXATION

Review Questions

1. What are the attributes of a good tax system? Are there any inconsistencies or competition between various attributes?
2. Given a utility function $U = U(Y, L_o - L)$ and budget constraint $Y = wL + I$; where Y is net income, L is hours spent working, L_o is total number of available hours so that $L_o - L$ is equal to leisure hours, w is wage rate and I is non-wage income; show how the introduction of a proportional income tax affects the labour supply.
3. Compare the effects of proportional and lump-sum taxes, given the budget line: $Y = (wL + I)(1 - t) + G$; where G is guaranteed income ($t=0$ and $G < 0$ for lump-sum tax and $t > 0$ and $G = 0$ for proportional tax) and other variables are as defined in question 2 above.
4. What is the effect of an increase in interest rate to a borrower and a lender in a two-period inter-temporal model of consumption decision in a perfectly competitive market? (Use class example/notations).
5. Assess differences in effect of introduction of lump-sum tax, income tax and an indirect tax on present and future consumption of an individual in a two-period inter-temporal model of consumption decisions in perfect market.
6. Show that in tax incidence analysis in a perfect market, the question of 'who pays the tax' cannot be answered without information about the price elasticity of demand and the price elasticity of supply.
7. Assuming constant elasticity of demand function, show that a single-firm monopolist will over-shift the tax.
8. "For any given revenue raised by the government, the monopolist's output will be higher with *ad valorem* tax than with a specific tax. On this ground, an *ad valorem* tax is superior to a specific tax". Verify this statement.

9. "The economy is an interdependent system in which all prices are related to each other. Changes in the price and quantity of one product or factor affect those of others. Households not directly involved in the taxed market may lose or gain, and those which are directly involved may become subject to further indirect effects". Discuss, showing the limitations of a partial equilibrium analysis compared to a general equilibrium analysis.
10. Using a general equilibrium analysis, Harberger (1962) demonstrates that a tax on return on capital in the corporate sector may be borne by all owners of capital, whether or not their capital is used in the corporate sector. Without stating the assumptions of the model, show that there are basically two effects of the introduction of a corporate tax (substitution and output effects).
11. What is Ramsey rule? Show that in certain circumstances Ramsey rule result is attained when tax rates are set inversely proportional to the price elasticity of demand.
12. In the case of a one-person Ramsey optimal taxation, discuss the relation between the rule that commodity tax rates should be inversely proportional to the price elasticities of demand and the Corlett-Hague result.
13. Using Atkinson (1977) targets-and-instruments assignment-type framework, show how the problem of optimal design of direct and indirect taxation can be resolved. Are there any other factors that need to be considered in the design of optimal taxation?
14. There is relationship between tax structure and the level of development". Discuss.

Dr. Hamisi H. Mwinyimvua
September 2004