

Exam spring 2024

1. True or false (30%)
 - a. Pillar 2 of OECD's project of Base Erosion and Profit Shifting concerns an effective global minimum tax on multinational companies.
 - b. There are no tax efficiency losses following from a tax on net annual wealth.
 - c. The Atkinson-Stiglitz theorem can be used to argue that the tax on capital income should be high.
 - d. The existence of the Carnegie effect suggests that intergenerational transfers should not be taxed.
 - e. The incidence of a tax on labor income does not depend on whether it is the users (employers) or the providers (workers) that is the statutory payers of the tax.
2. Commodity taxation (30%)
 - a. Define and explain what efficiency loss (also known as deadweight loss) is in the context of commodity taxation.
 - b. Identify and describe the factors that contribute to the magnitude of efficiency loss caused by a commodity tax.

3. Optimal income tax (40%)
- a. A well-known expression for setting the optimal income tax rate, τ^* , at high income levels can be seen as $\tau^* = \frac{1-g}{1-g+ae}$. The parameter e is referred to as the elasticity of taxable of income (ETI). Define the two other parameters, g and a .
- b. The table is obtained from Feldstein (1995). Explain how Feldstein derives the elasticity estimates at the bottom of the table?

TABLE 2
ESTIMATED ELASTICITIES OF TAXABLE INCOME WITH RESPECT TO NET-OF-TAX RATES

Taxpayer Groups Classified by 1985 Marginal Rate	Net of Tax Rate (1)	Adjusted Taxable Income (2)	Adjusted Taxable Income Plus Gross Loss (3)
Percentage Changes, 1985–88			
1. Medium (22–38)	12.2	6.2	6.4
2. High (42–45)	25.6	21.0	20.3
3. Highest (49–50)	42.2	71.6	44.8
Differences of Differences			
4. High minus medium	13.4	14.8	13.9
5. Highest minus high	16.6	50.6	24.5
6. Highest minus medium	30.0	65.4	38.4
Implied Elasticity Estimates			
7. High minus medium		1.10	1.04
8. Highest minus high		3.05	1.48
9. Highest minus medium		2.14	1.25

NOTE.—The calculations in this table are based on observations for married taxpayers under age 65 who filed joint tax returns for 1985 and 1988 with no age exemption in 1988. Taxpayers who created a subchapter S corporation between 1985 and 1988 are eliminated from the sample.

- c. Alternatively, the following expression can be used in a difference-in-differences regression framework to obtain estimate of the ETI:

$$\log \frac{z_{it+3}}{z_{it}} = \alpha_t + e \log \frac{1-\tau_{it+3}}{1-\tau_{it}} + \varepsilon,$$

where z_{it} and z_{it+3} are income of period t and $t + 3$, respectively, $1 - \tau_{it}$ and $1 - \tau_{it+3}$ are net-of-tax rates for period t and $t + 3$, and ε is the error term. Explain why there is an endogeneity problem involved in the estimation of the equation. What is the role of adding pre-reform income separately into the equation, for example adding $\log z_{it}$, given the standard way of addressing the endogeneity problem.

- d. Set, $g = 0$, $a = 1.5$ and $e = 0.67$ and use the formulae for the optimal top tax rate on income: how much revenue would one get if the top marginal income tax rate is increased from 50% to 51%?