

PUBLIC ECONOMICS



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EXERCISES

TOPIC 3.1. DISTRIBUTIONAL INCIDENCE OF TAXATION.

EXERCISE 1

Suppose there are three individuals, A, B and C. The realization of a Public Expenditure of 9 units gives individual A a profit of 2, individual B a profit of 2 and individual C a profit of 7. The income of each of the individuals is, respectively, 15, 15 and 60. The Public Expenditure is approved by a vote.

- Would the result of this vote be efficient with a capitation-financing rule?
- What about a proportional income tax? Assume that this tax is 10%.

EXERCISE 2

Answer the following questions and give reasons for your answers:

- What elements determine whether the excess tax, or the welfare costs associated with a tax, are higher or lower?
- Explain the following statement: “the tax has been transferred”.

EXERCISE 3

Suppose there are two goods X and Y. The substitution effects between the two goods are summarized in the following matrix S:

$$S = \begin{bmatrix} S_{XX} & S_{XY} \\ S_{YX} & S_{YY} \end{bmatrix} = \begin{bmatrix} -1 & +1 \\ +1 & -1 \end{bmatrix}$$

The price of both goods before taxes is equal to one ($p_X = p_Y = 1$).

- What is the excess of a tax that levies the consumption of good X at 25%?
- After introducing the 25% tax on good X, it is proposed to introduce a 12.5% tax on good Y. What is the new excess taxation?

EXERCISE 4

1. Indicate in which category of public income the financing of a general public service such as defence must be classified:
 - a) Public price.
 - b) Tax.
 - c) Rate.
 - d) Social contribution.

2. A direct tax:
 - a) It is always supported by that person from whom it is required.
 - b) Actually, it can be transferred and end up being supported by an economic taxpayer other than the taxpayer.
 - c) It is always supported 50% by that person from whom it is required.
 - d) It is never supported by that person from whom it is required.

3. The excess tax or welfare costs will be greater when:
 - a) The higher the pre-tax expense of the asset that we consider.
 - b) The lower the price elasticity of demand for the good that we consider.
 - c) Less is the pre-tax expense of the good that we consider.
 - d) The lower the tax rate on the asset that we consider.

4. The excess tax or welfare costs will be greater when:
 - a) The lower the price elasticity of demand for the good that we consider.
 - b) Less is the pre-tax expense of the good that we consider.
 - c) The higher the tax rate of the asset that we consider.
 - d) The lower the tax rate on the asset that we consider.