

Tax competition and determination of the quality of public goods

The answer to General Evaluation

According to economic definition proposed by Samuelson (1954), public goods are not only for final consumption but also help to support firm (knowledge, infrastructure ...). They are sometimes necessary to transactions, then to the markets (law of agreement ...). Thus, in this research axis, we asked ourselves the question of the importance of the quality of public goods. For example, a poor governance of public goods associated, as defined, to a deficiency in the supply of public goods leads to a system of production and exchange inefficient in terms of productivity or transaction costs. Quality of public goods is from this point of view a real factor of development and attractiveness of investment. In this context the question of quality of public goods is important, especially in a context of globalization. And to go further, the quality of public goods ensures both legitimacy of governments and the revealed preferences of the population.

The answer to Major Comments

1. We assumed that the community with index i have right to choose to tax the mobile factor or not, in addition to the representative household. The question is legitimate in the context of massive relocation of capital. Regarding the question about the options available to a local government, it have to react, in some case ($t = 0$), to avoid the outflow of mobile capital. This option, which can be see as a protection against outflow of capital, resulted in complete tax exemptions. The other situation, where t different from ($t_i = \bar{t}$), works when the others players tax the investment. That is originality of the paper.

2. We agree with the conclusion that options to the jurisdiction i in terms of taxation are strong assumptions. Consequently the aim of this paper is to study or more precisely to compare the well-being of residents of i according to respective different configurations, one after the other. That is why we did not focus on strategic interactions.

3. In the literature on horizontal tax competition, we are often confronted with a type of use that is not specified or with an additive-type function. This is the reason why we have attempted to explore this research track, that of a multiplicative utility function whence the interest of the proposed modeling in this papers. ... So the properities of the utility function $U_i = c_i g_i q$. The marginal utility of private consumption is increasing in both the quantity and quality of public goods provision: $\frac{\partial U_i}{\partial c_i} = g_i q$. Assume that $\frac{\partial U_i}{\partial c_i} = Q = \frac{\mu}{q^\varepsilon}$ with $\mu = \bar{t}K_i + \bar{H}$, as assumption.

- *Explanation*

- i) If $\varepsilon = 1$, $\frac{\partial Q}{\partial q} = 0 \Rightarrow U_i$ is constant,
- ii) If $\varepsilon < 1$, $\frac{\partial Q}{\partial q} > 0 \Rightarrow U_i$ is increasing,
- iii) If $\varepsilon > 1$, $\frac{\partial Q}{\partial q} < 0 \Rightarrow U_i$ is decreasing.

However, on the production function, it is assumed log-linear i.e its economic and its mathematical properties are equivalent the properties of the Cobb-Douglas's function of production. We have retained the assumption that firms have a fixed use of public good withto the required quality standards, which we have noted $(\bar{g}_i; \bar{q})$. The derivation of a constant is as follows: $\frac{\partial F}{\partial \bar{g}_i} = 0$ and $\frac{\partial F}{\partial \bar{q}} = 0$.

4. I affirm that the current international situation regarding taxation of capital can be analyzed as a result of insurance game that is say, as a shield cons the flight of capital and especially in a context of lack of quality standards which accompanies public goods. Without loss of generality, the various players, represented among others by local governments or states, have a choice between two strategies: to tax and not to tax a particular factor (capital). If we hypothesize that jurisdictions are divided into two groups, four scenarios are conceivable.

- *The first two cases are asymmetrical: the two groups are choosing to conduct contrary fiscal policies. One group chose to impose a maximum tax rate on capital, the other not.*
- *The other two situations are symmetrical: both groups are choosing to drive the same tax policy, or to impose a maximum tax rate on capital or not.*

To resolve this game, just take each situation, one after another, and whether player has an interest in change strategy if the other does not change. The economic analyses offer the consequences of tax competition mechanisms in terms of the collective welfare of the jurisdiction in question.

5 and 6. Effectively, the expression of the quality of public good can be more explicit. In fact, the term c_i is given by the difference between revenues of the representative individual and taxation H_i (page 5). Improving the quality of paper is under consideration.

The answer to Minor Comments

1. The theory of tax competition is founded his on the idea of Tiebout (1956). He considers an economy consists of several local governments which competing to attract individuals and not the capital factor through a system of public spending / taxes.

2. Effectively, Palmer (1991) focuses on quality as the production of a better health service and satisfaction of a population. This definition, whiche should be transpose with caution to other public services, it is a hypothesis.