

Referee Report

Tax competition and determination of the quality of public goods

MS 951

Summary

The objective of the paper is to analyze the optimal capital tax policy for local governments in a setting where (i) the central government sets up a uniform standard for the quality of public goods; and (ii) local governments have to meet this standard of quality when they provide public goods. In addition, the paper also discusses the optimal quality level for public goods for the central government to set up. In order to achieve this objective, the authors set up a simple model where numerous homogeneous jurisdictions are assumed to influence the allocation of capital by using their tax policy. The key feature of the model is that local governments can only decide either not to tax the capital or tax the capital at a fixed rate \bar{t} . The authors then discuss several scenarios to examine what would be the optimal tax policy for a particular local government, given all others' tax policy constant. The authors conclude that it is always a dominant strategy for each jurisdiction to tax the capital, and the optimal quality level of public goods should depend on the elasticity-cost of the quality.

General Evaluation

The paper attempts to introduce the issue of the quality of public goods into the traditional tax competition framework, which could be new in the literature. However, throughout reading the whole paper, I am not informed by the authors in any aspect that why this issue is interesting or important. This seems to be something entirely missing in the paper. As a matter of fact, the way that the authors present the research question is not clear and difficult to follow. Nevertheless, the model also suffers from several main issues, which seem to be fundamental and because of this the validity of the results obtained in this paper is challenged.

Below, I describe a few comments in detail.

Major Comments

1. The research question as the authors stated in the abstract, “more specifically, we ask the question whether a local government has an interest to tax the mobile factor in addition to the tax on representative household or not”, does not appear to be a practically meaningful or even a valid one to ask. Whenever jurisdictions need to finance expenditure, they will always have the incentives and interests to tax the potential tax bases, which of course include mobile capital. The only thing matter, as

what that has been explored intensively in the tax competition literature, is that at what rate a local government would like to impose the tax.

2. Continuing with the previous point, I feel it is quite odd to model the tax policy choices for local governments to have only two options—either not to tax capital or to tax it at a fixed rate of \bar{t} . This does not only make the model practically inappropriate to be applied to the real situation, but also make it less comparable to the existing tax competition literature. As the key feature of the tax competition theory is to model the continuous strategic responses of tax policy among jurisdictions, I am not quite sure to what extent the current model can be claimed as “the classical approach in the tax competition theory” (last paragraph in page 2).
3. Although without loss of generality it is common to assume a specific utility and production function form in the theoretical modeling, both the utility function and production function specified in this paper are just too special that their implied properties are not easy to be explained. For the assumed 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, and vice versa, the marginal utility of public goods consumption is increasing in private good consumption. What do these properties mean? For the production function $F_i = \alpha \ln K_i + \beta \ln g_i + \gamma \ln q$, without making further assumption on the values of α , β , and γ , are you sure “it is constant returns to scale” (second paragraph in page 4)? From my understanding, $\frac{\partial F_i}{\partial g_i} = \beta \frac{1}{g_i} > 0$, how can you still make the assumption that $\frac{\partial F_i}{\partial g_i} = 0$. I just could not get the logic here. Given these concerns on the basic setup and assumptions of the model, I am worried about the validity of the results obtained in the main analysis.
4. In the main analysis, the authors discuss several scenarios, which include the case that all but one jurisdictions decide to tax and the case that only one jurisdiction decides to tax while all the rest decide not to tax. This analysis seems to be problematic and unnecessary, because in the model, all the jurisdictions are homogenous and behave non-cooperatively, this implies that the actions would be symmetric for every jurisdiction, and thus it would not be possible to emerge a case with one jurisdiction deviates from the others.
5. The equilibrium for the optimal quality of public goods, as expressed in equation (13), still depends on U_i and c_i , which are both endogenous variables. Is this the right expression for the equilibrium?
6. The paper is not well written. Many places are not clear and difficult to follow. To make an example, even the abstract is not very clear and contains a few typos (e.g., tax the mobile factor tax? to the the tax on representative household).

Minor Comments

1. Tiebout (1956) is not the paper to introduce capital tax competition theory. Indeed, in Tiebout (1995), it was assumed that there is no distortionary taxation in the economy.

2. In paragraph 2 of page 2, isn't the quality of public goods defined by Palmer et al. (1991) only refer to health related public goods?
3. In lines 7-10 of page 3, "We show that, if all the LG except one choose to tax the capital... When a LG decides to not tax the capital when the others do...", aren't these two sentences talking about the same situation, how come the discussion followed differs?
4. Definte \tilde{K}_i in equation (3).