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Tax competition in federations and the welfare consequences of decentralization

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Abstract

This paper explores the impact of intensified tax competition within federal systems characterized by the presence of both horizontal tax externalities between the states and vertical tax externalities between states and federal government. It shows that although these push tax rates in opposite directions (horizontal towards state taxes that are too low, vertical towards state taxes that are too high), leaving the net outcome unclear, intensified tax competition always worsens their combined effect. That is, intensified lower-level tax competition—in the form of an increase in the number of lower-level jurisdictions—is sure to reduce welfare, but this is not because, as usually supposed, it makes excessively low state taxes even lower; rather, it is welfare-reducing either for that reason or because it makes excessively high state taxes even higher.

JEL classification: H20; H23

Keywords: Federalism; Tax competition; Vertical and horizontal externalities; Decentralization

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1. Introduction

Until quite recently, the theory of tax competition in federal economies (meaning ones in which there is tax-setting autonomy at more than one level of policy-decision making) has focused on the welfare consequences of horizontal externalities arising from the mobility of tax bases between lower-level jurisdictions.[1] The central conclusion from this work has been that horizontal externalities tend to leave equilibrium lower-level ('state') taxes too low, since each state ignores the benefit it confers on other states by raising its tax rate and so inducing outward movement of its tax base.[2] More recently, attention has turned to the key feature of the fiscal architecture of federal systems that tax bases are co-occupied, implicitly if not explicitly, by both federal and state governments. This co-occupation gives rise to vertical externalities between federal and state governments,[3] which tend to leave state taxes too high: each state ignores the harm it does to others by raising its tax rate in so far as the induced contraction in the federal tax base leads to a reduction in federal spending that harms other states too.

With horizontal externalities pointing towards state taxes that are inefficiently low and vertical externalities towards state taxes that are inefficiently high, it is natural to ask which will dominate. The answer, assuming governments act benevolently, is: it depends. In a model of tax competition for mobile capital within in a Federal setting, Keen and Kotsogiannis [12], in particular, show that whether equilibrium taxes are too high or too low in equilibrium depends on the elasticities of the demand for capital and the supply of savings. But another question then arises: Does an intensification of tax competition amongst the state governments within federal systems—conveniently parameterized as an increase in the number of states—lead to a better outcome or a worse one? That is the question addressed in this paper. We show that the answer is unambiguous: it leads to a worse one.

This result may seem reminiscent of Hoyt [9], who shows that an increase in the number of states in the standard model of horizontal tax competition causes welfare to fall. In the present paper, however, the context and mechanisms at work are quite different. There is no purposive federal government in Hoyt's model, so that state taxes are too low, and are made lower by intensified tax competition. In the present federal context, in contrast, state taxes may—for the reasons discussed above—be either too low or too high: the point is that whatever the direction of this inefficiency, intensified tax competition makes it worse. If taxes are too low, it makes them lower; if they are too high, it makes them higher. One does not need to know whether state taxes are too low or too high in order to know that intensified tax competition is harmful.

The organization of the paper is as follows. Section 2 provides the background against which the analysis is conducted, which is a simple model of federal fiscal arrangements

[1] Contributions to the literature on horizontal externalities include Zodrow and Mieszkowski [19], Wilson [16], Wildasin [15], Hoyt [9], Dahlby [4], and Keen and Marchand [10].

[2] There are cases, however, in which tax exporting motives can leave equilibrium taxes too high; see, for instance, Mintz and Tulkens [14].

[3] Contributions to this literature include Cassing and Hillman [3], Flowers [7], Boadway and Keen [1], Wrede [18], Boadway et al. [2], Keen and Kotsogiannis [12,13] and Dahlby and Wilson [5]. Keen [11] surveys vertical tax externalities, while Wilson [17] provides a thorough review of the tax competition literature.