Journal of International Economics 67 (2005) 25–46
www.elsevier.com/locate/econbase

# Market size and tax competition

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Received 27 May 2003; received in revised form 5 December 2003; accepted 3 August 2004

**Abstract**

With international externalities, different country sizes, imperfect competition, and trade costs, tax competition for mobile firms is efficiency-enhancing with respect to the free market outcome. Under both scenarios, the resulting inefficiencies in international specialization and trade flows vanish when trade costs are low enough. Otherwise, only international tax coordination can implement the efficient spatial distribution of firms.


*Keywords:* Tax competition; Trade; Capital mobility; Monopolistic competition; Market size

*JEL classification:* F12; F22; H23; R13; R23

## 1. Introduction

Economic integration as we know it dismantles barriers to goods and factors mobility while allowing governments to function independently in most policy areas. A presumption in favor of such independence seems to be reflected in the founding principles of regional trade agreements in Europe as well as North and South America. A notable exception is the direct control over members states' regional aid by the European Union (e.g., Ottaviano, 2004). This is achieved through *state aid caps*, i.e., upper

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doi:10.1016/j.jinteco.2004.08.010

(percentage) limits to government support to private investments no matter whether the aid comes from local, regional, national, or EU sources.[1] State aid caps do not target individual firms or areas of activity. They target, instead, individual regions. In particular, they are more generous to less-favoured regions in order to foster their development by encouraging firms to settle there. All this raises the general question whether or not national governments should be allowed to choose their policies independently from one another. It also begs the particular question whether less-developed countries should be given more slack in bidding for firms.

The present paper investigates the issue from a specific point of view, namely, from the perspective of tax competition for mobile capital. More precisely, it aims to answer three related questions. Firstly, does tax competition distort the international allocation of capital, thus yielding an inefficient international specialization in production? Secondly, does tax competition distort the pattern of international trade, thus yielding inefficient shipment of goods across countries? Thirdly, if such inefficiencies exist, are they related to the extent of trade integration and to the gap in economic development between countries?

These questions have been explored in various directions. First of all, the presence of international externalities can make tax competition wasteful. This is the case, for example, when a rise in one country's tax rate increases capital supply in other regions due to tax arbitrage by capital owners ('capital-movement effect'). As a national government neglects this positive effect on other countries' capital supply, tax rates and public good provisions are inefficiently low. Two caveats are in order. On the one hand, such inefficiency is mitigated even if not removed when countries are able to influence the international remuneration of capital ('terms-of-trade effect'). On the other, although tax competition is globally inefficient, it can nonetheless benefit some countries. For example, when countries differ in size, tax rates are higher in larger countries and smaller countries can be better off with than without tax competition ('importance of being small'). Thus, the inefficiency costs of tax competition are unevenly borne by regions with different sizes (e.g., Bucovetsky, 1991; Wilson, 1991; Peralta and van Ypersele, 2002b).

Tax competition can be even efficiency-enhancing when firms are imperfectly competitive.[2] Janeba (1998) studies a model in which two countries compete for duopolists that serve a third market through exports. When firms are exogenously assigned to different countries, government engages in wasteful export subsidies. On the contrary, when firms are mobile, tax competition drives the tax rates to zero. This result rests on equal-sized countries facing an infinitely elastic supply of capital. In terms of the question raised above, the assumption of equal-sized countries is particularly disturbing in that it rules out international specialization. Moreover, since Janeba (1998) does not consider trade costs, his contribution does not provide any insight on the interaction between trade integration and tax competition.

[1] In general, the European Commission rules out any form of operating aid to firms.

[2] An imperfectly competitive market is not the only case in which tax competition can enhance efficiency. Other cases arise when the firms' production capacity is lumpy (Black and Hoyt 1989), governments face commitment problems face commitment problems (Kehoe 1989), or tend to be oversized due to rent seeking behavior (Edwards and Keen 1996).