

# Three Essays on Tax Competition under Uncertainty

## Inaugural Dissertation

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### Abstract

The literature on capital tax competition examines the efficiency properties of decentralized capital taxation when capital is freely mobile across jurisdictions. This dissertation contributes to the tax competition literature by considering decentralized capital taxation when production is subject to uncertainty.

Chapter 1 of this dissertation considers the implications of uncertainty for the efficiency of equilibrium tax rates. It extends the analysis of the previous literature by taking into consideration that the corporate tax transfers part of the risk of investment from firms to the government (risk sharing). Two new results arise. First, the capital mobility externality may be positive or negative, depending on how strong the risk sharing effect of taxation is. Second, the sign of the tax exporting externality is also indeterminate. Each government not only exports the burden of taxation, but also bears risk which would have been borne by foreigners instead. Thus, while the socially optimal tax rate equates the risk exposure of the private and the public sectors, the equilibrium decentralized tax may be inefficiently high or low.

Chapter 2 examines the effects of uncertainty on the foreign direct investment of multinational enterprises (MNEs) and studies explicitly the cross-border taxation of losses. We develop a tax competition model where countries compete for capital and profits of multinational enterprises (MNEs) through statutory tax rates and cross-border loss-offset provisions, which allow a transfer of foreign subsidiaries' losses to the parent company. A joint implementation of full cross-border loss-relief is welfare maximizing, because it ensures production efficiency and no profit shifting in equilibrium. Local governments choose zero level of the loss-relief in a noncooperative equilibrium, if only capital is mobile and relax the loss-offset, when MNEs engage in profit shifting. Therefore, allowing multinationals to undertake international tax planning activities may be welfare-improving in our model.

The last Chapter of this dissertation is concerned with the impact of tax competition on the external macroeconomic imbalances of countries, when actors on financial markets have an imperfect perception of their riskiness. If exogenous events affect the credit spread between two countries, then they may lead to destabilizing capital flows and terms of trade changes. We analyze a world economy consisting of core and peripheral countries, which engage in capital tax competition. Financial markets are imperfect and demand an exogenous risk premium for investing in the peripheral country. A credit spread shock causes current account and terms of trade imbalances. We show that in a tax competition equilibrium with positive risk premium the peripheral country sets a lower tax rate than the core. The policies of regional governments stabilize the dynamic transition of the current account and terms of trade. A social planner, who maximizes the welfare of all residents in the world economy, uses tax policy in order to counteract the effect of the risk premium shock on the international distribution of consumption. Under realistic assumptions consumption is reduced by more in the periphery, and the first-best tax rate is higher in it. Numerical analysis shows that in a decentralized economy tax rates are more sensitive to a credit spread shock, while the overall welfare loss does not differ significantly. However, a social planner spreads equally the welfare costs of the disturbance, which does not happen under tax competition.