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Multinational taxation and international emissions trading

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Abstract

Many studies have shown that the activities of multinational corporations are quite sensitive to differences in income tax rates across countries. In this paper I explore the interaction between multinational taxation and abatement activities under an international emissions permit trading scheme. Four types of plans are considered: (1) a single domestic permit system with international offsets; (2) separate national permit systems without trade; (3) separate national permit systems with limited offsets; and (4) an international permit trading system. For each plan, I model the incentives for the multinational firm to choose abatement activities at home and abroad and to transfer emissions credits between parent and subsidiary. Limits on trading across countries restrict efficiency gains from abatement, as is well known. But if available offset opportunities are limited to actual abatement activities, those activities are also more susceptible to distortions from incentives to shift taxable income. Transfer-pricing rules can limit but not always eliminate these distortions. In a system of unlimited international trading, abatement is efficiently allocated across countries, but tax shifting can still be achieved through intra-firm transfer pricing. From the basis of efficiency for both environmental and tax policies, the best design is an international permit trading system with transparent, enforceable transfer-pricing rules.

JEL Classification: H2; F2; Q2

Keywords: Emissions permits; Transfer pricing; Taxation; Multinational corporations

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1. Introduction

In a world of international capital mobility, national tax policies matter. A large body of literature indicates that corporate income taxation does have significant influence on a wide range of activities, including foreign direct investment, corporate borrowing, transfer pricing, dividend and royalty payments, research and development activity, exports, bribe payments, and location choices (Hines, 1996). A noticeable gap in the tax literature regards activities related to pollution abatement and multinational firms' responses to environmental policy.

While the environmental economics literature has grown to realize the importance of domestic income taxation as it interacts with environmental policy (the "double dividend" debate is a primary example), little attention has been paid to the role of international tax differences. As the idea of global environmental policies in general – and an international strategy for controlling greenhouse gases in particular – comes into serious consideration, the impact of international taxation must be understood. The interaction between environmental and tax policy will influence the location and efficiency of pollution abatement efforts, and it poses critical questions for policy design and enforcement.

In proceeding toward compliance with the Kyoto Protocol, participating countries are relying on the promise of some form of international exchange of greenhouse gas emissions reductions to keep costs in check. However, international trade in emissions allowances (permits) carries its own complications. A permit is not a traditional good, service or asset, but rather a license to emit that a government chooses to recognize in its territory. Consequently, traditional rules governing trade and accounting do not necessarily apply. Yet permits will have significant financial value, they and will carry many of the characteristics of property in the eyes of the firms trading them, whether or not the international trade and tax institutions formally recognize them as such.[1]

In this paper we explore how taxation by different countries of income generated by multinational corporations might impact an international program of emissions permit trading, and vice versa. Two questions are addressed: First, how can multinational taxation affect the location and efficiency of emissions reductions? Second, can one mitigate efficiency losses from multinational responses through judicious policy design? In particular, we consider how emissions offsets arising from activities conducted abroad should be treated for environmental compliance and for tax purposes.

These questions are important when designing a domestic environmental policy to combat a global pollutant like greenhouse gases. If lower-cost opportunities for emissions abatement exist elsewhere, provisions for letting activities undertaken abroad offset domestic emissions requirements can create tremendous gains from trade if cheaper abatement. However, for multinational firms, allowing for international offsets can also create opportunities for tax avoidance. Such tax-related incentives may affect real decisions regarding environmental compliance and may diminish some of those efficiency gains from trade, not to mention affect public revenues.

The fundamental problem is that international tax rules are not completely neutral, and multinational corporations can save on their tax bills by realizing more of their profits in low-tax countries. This profit shifting can be achieved by relocating real activities like production or investment, or by transferring goods between a parent corporation and one of its subsidiaries at

[1] Werksman (1999) explores some of the legal ambiguities and concerns for international emissions trading under the WTO rules.