Strategic trade policy, intellectual property rights protection, and North–South trade

Krešimir Žigić [a,b,*]

[a] *CERGE, Charles University and the Economics Institute of the Academy of Sciences of the Czech Republic, Politických vězňů 7, 111 21 Prague 1, Czech Republic*
[b] *CEPR, London, UK*

Abstract

In this paper, we analyze the issue of optimal tariffs when the Northern and Southern firms compete in quantities in an imperfectly competitive Northern market and there are potentially varying degrees of intellectual property rights (IPR) violation by the South. IPR violation is reflected through the leakage of technological knowledge (''spillovers'') from the Northern to the Southern firm creating unit cost reduction. It is shown that optimal tariffs in this framework are always higher than in the simple duopoly model since they serve here not only as profit shifting devices but also as instruments that influence domestic innovative activity, generate scale economies and countervail the IPR violation of the South. The other notable difference from the standard duopoly model is that positive tariffs may be desirable from the world welfare point of view. © 2000 Elsevier Science B.V. All rights reserved.

1. Introduction

The appearance of strategic trade theory represented a challenge to the prevailing concept of free trade and suggested a possible new paradigm in international trade. One of its main messages was that it is, in general, socially beneficial for a

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[*] Tel.: +420-2-242-30-280; fax: +420-2-242-27-143; e-mail: kresimir.zigic@cerge.cuni.cz

government to intervene by tariff, subsidy, quotas, etc. in order to secure higher profits for its domestic firms. Despite its theoretical attractiveness and tempting conclusion, ''strategic trade policy'' arguments have not convinced the majority of trade economists that the profession's traditional support for free trade should be abandoned. To a large extent, this reaction reflected the a priori bias of trade economists against trade activism, rather than being the implication of rigorous analysis (see, for instance, Krugman, 1987; Bhagwatti, 1989; Grossman and Maggi, 1998). Their intuition may have been right in general, since some results, based on ''calibration'' models, indicate that indeed the gains are at best modest when strategic trade policies are applied as profit shifting or facilitating devices (see Venables, 1994). However, in the particular case where free trade leads to the unilateral violations of intellectual property rights (IPR), losses may be large due to the well known appropriability problem. [1] Moreover, lack of appropriability may result in lower output that does not fully utilize scale economies (see Krugman, 1984 for a discussion of scale economies in the international trade context).

The Uruguay round of the GATT negotiations and several recent cases where trade sanctions have been imposed suggest that the issue of (trade-related) IPR violation and its prevention is especially critical in North–South trade. For instance, the European Community suspended Generalized System of Preferences benefits for Korean products in 1987 as a response to Korean violations of IPR. A year later, the United States imposed a 100% (punitive) tariff against some Brazilian goods (see Braga, 1990). In 1995, the US threatened China with a similar 100% (punitive) tariff on exports to the US in response to IPR violations.

From the academic point of view, the importance of IPR protection in the North–South relationship has already made its way into economic encyclopedias. [2] The theoretical literature in this area focuses mainly on the social welfare consequences of different levels of IPR protection, including, for example, conditions under which the South benefits in welfare terms from protecting IPR, the welfare consequences for the North if the South fails to protect IPR, optimal IPR protection from a world welfare point of view, and the level of conflict between North and South (Chin and Grossman, 1990; Diwan and Rodrik, 1991; Deardorff, 1992; Helpman, 1993; Vishwasrao, 1994; Žigić, 1996a, 1998a). The empirical literature, on the other hand, has concentrated mostly on measurable considera-

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[1] See Levin et al. (1987) for a comprehensive empirical analysis of the causes, forms and aspects of attenuated appropriability due to inability to capture the induced benefits of innovating activity and intellectual property. Vishwasrao (1994), for example, refers to the documents of the United States International Trade Commission (1988) reporting the aggregate losses for US firms amounting to US$23.8 billion due to inadequate IPR protection.

[2] The third volume of *The Handbook of International Economics* contains, in the chapter ''Technology and Trade'', a separate section entitled ''Intellectual Property Rights and North–South Trade.'' See Grossman and Helpman (1995).