ELSEVIER

Journal of International Economics 64 (2004) 545–565

Journal of INTERNATIONAL ECONOMICS

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Endogenous market structures and the gains from foreign direct investment

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Received 15 November 1999; received in revised form 27 June 2003; accepted 10 August 2003

Abstract

This paper discusses the gains from liberalizing foreign direct investment (FDI) in a two-country setting with endogenous market structure. We investigate two different scenarios. In the first scenario, headquarters costs are large in the foreign country so that the industry is located in the domestic country only. In this case, multinational and national firms may coexist and market concentration may make FDI welfare improving for the foreign country and welfare reducing for the domestic country. In the second scenario, headquarters costs are symmetric and firms will be located in both countries. Here, profitable FDI activities lead to mutual welfare gains, irrespective of market structure effects.

Keywords: Foreign direct investment; Multinational firms; Imperfect competition; Welfare

JEL classification: F12; F15

1. Introduction

This study examines the welfare and the market structure effects of foreign direct investment (FDI) in a two-country model in which the choice of FDI and market entry are both endogenous. The paper is motivated by the fact that these effects of FDI are thus far relatively poorly understood in comparison with the effects of trade. In recent years, however, economic integration has increasingly taken the form of FDI, rather than that of

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0022-1996/$ - see front matter
doi:10.1016/j.jinteco.2003.08.008

trade. FDI has been growing at a high rate, and trade barriers have fallen extensively at the same time. The World Investment Report of the United Nations estimates sales of foreign affiliates at USD 18.5 trillions in the year 2001, whereas exports of goods and non-factor services amounted to USD 7.4 trillions in the same period.[1] In other words, the value of aggregate production of multinational firms in host countries nowadays outweighs aggregate exports.

This paper focuses on the case where FDI and exports are perfect substitutes as often found in the empirical literature.[2] The model we employ is similar to the setting employed in Horstmann and Markusen (1992), but with free entry/exit.[3]

Market entry is considered by Markusen and Venables (1998, 2000) but—given the complexity of their models—Markusen and Venables rely on numerical solutions.[4] In this paper we develop a way of solving analytically models with multinational firms, international trade and free entry/exit. We employ a model of imperfect competition in which firms may enter the market either as a national firm or as a multinational firm. Both types of firms face the same production costs in serving the domestic market. However, in serving the foreign market, the national firm faces additional trade costs, while the multinational firm faces additional fixed costs in setting up a production plant abroad. It is this trade-off between higher marginal costs and higher fixed costs of production which determines the profitability of FDI. Under the hypothesis that the parameter values are such that FDI is profitable, we study how FDI changes market structure and welfare in both countries by comparing a regime under which FDI is prohibited with a regime under which FDI is allowed. Therefore, FDI liberalization is treated as a policy shift, and the condition that no firm gains unilaterally by switching its type and no firm has an incentive to enter or to leave the market then determines the equilibrium market structure.

Following the eclectic paradigm of Dunning (1977), firms are induced to invest abroad if, in addition to location advantages (i.e. lower production costs), they have ownership advantages (i.e. patent, blueprint, or trade secret), and internalization advantages (i.e. strategic reasons to exploit its ownership advantage internally rather than licensing it to a foreign firm). Thus, we assume that firms need specific skills to be able to run their headquarters. We measure this requirement by the necessary labor input. Since the labor input needed to set up the headquarters of an oligopolistic firm may differ substantially from country to country, we explore the economic implications of FDI by using two alternative scenarios as reference points.

[1] See UNCTAD (2002), Table I.1, p. 4.

[2] See Brainard (1997); Blonigen (2001); Markusen (1998); Markusen and Maskus (2002). Literature distinguishes between horizontal FDI (Markusen, 1984; Horstmann and Markusen, 1992; Brainard, 1993; Markusen and Venables, 1998, 2000), which is undertaken to place production closer to foreign markets; and vertical FDI (Helpman, 1984; Helpman and Krugman, 1985), which is undertaken to exploit lower production costs in order to serve both the domestic and the foreign markets. This paper assumes horizontal FDI which seems to be dominant according to empirical evidence because most of the worldwide FDI occurs between countries that are similar in size, relative endowments and per capita incomes.

[3] The number of firms in Horstmann and Markusen (1992) is limited to one or zero in each country. Free entry is not considered (see also Markusen, 2002, Ch. 3).

[4] A recent manuscript by Markusen (2002) summarizes the results so far achieved in the literature.