博士学位請求論文要旨

Essays on International Trade and Foreign Direct Investment

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In the 1990s, Internet-based web browsing became widespread and extended to the public with the development of information and communication technologies (ICTs). Subsequently, ICTs underwent rapid expansion and began to exert a substantial influence on various domains, including information exchange, communication, and business.

The three key topics of international trade and foreign direct investment (FDI) after the development of ICTs are as follows. *i*) Reducing communication costs adds complexity to FDI strategies. Nevertheless, communication costs remain significant and understanding the impact of reduced communication costs on home welfare is crucial. *ii*) Owing to the higher demand for semiconductors, FDI subsidies are increasing globally, prompting an inquiry into whether these subsidies are beneficial for home welfare. *iii*) The emergence of e-commerce, particularly online marketplaces, has led to increased exports for small- and medium-sized enterprises (SMEs). However, the potential future elimination of tariff exemptions for SMEs imports raises questions about its economic implications of such tariff removal. We aim to examine the topics from new perspectives in the dissertation.

The dissertation consists of five chapters, including three essays. Chapter 1 introduces the economic background of international trade and FDI after the development of ICTs and outlines the basic structure of this dissertation, whereas Chapter 5 concludes the dissertation. Chapter 2 studies the welfare effect of the reduction in communication costs in a three-country model of firm heterogeneity in which export-platform FDI and horizontal FDI coexist. Chapter 3 investigates whether FDI subsidies improve home welfare by considering the different financing sources of subsidies, such as labor income taxes and consumption taxes. Chapter 4 examines the effect of a tariff on an economy with an online marketplace operated by an online platform operator. In the following, we briefly introduce the three essays.

In Chapter 2, we assume that plants require specific production knowledge that belongs to their HQs, and communication costs arise when HQs and their plants are located in different countries. In this situation, MNEs based in developed countries that invest in less developed countries typically establish plants as export-platforms for FDI and incur communication costs between developed and less developed countries. By contrast, MNEs investing in other developed countries employ plants for horizontal FDI and face communication costs between developed countries. We construct a model in which firms engaging in export-platform and horizontal FDI coexist in an economy by considering firm-level heterogeneity in productivity levels á la

Helpman *et al.* (2004). We demonstrate that a comparison of the welfare impact of reducing each communication cost exhibits a non-monotonic relationship when both investment strategies coexist. This relationship is contingent on the magnitude of transportation costs and the relative proportion of firms utilizing export-platform FDI compared to those employing horizontal FDI.

In Chapter 3, we employ a general oligopolistic equilibrium model as in Neary (2016) to analyze the welfare effect of subsidies for fixed costs of FDI. Specifically, we construct a model in which exporting and FDI industries coexist in an economy. In addition, firms in the exporting industries produce goods under oligopolistic competition, whereas firms in the FDI industry produce goods under a monopoly. In this situation, we consider the welfare impact of subsidies under different financing sources such as labor income taxes and consumption taxes. The results indicate that small subsidies financed by consumption taxes may improve welfare. This is because small subsidies financed by labor income taxes do not affect wages and thus do not alter any other economic variables. However, small subsidies financed by consumption taxes influence demand and supply conditions, which subsequently decreases wages. This reduction in the wage can improve welfare.

In Chapter 4, we focus on the case in which only foreign manufacturing firms serve their products to the home market through exports. In this setup, firms utilizing the online marketplace pay sales fees to the online platform operator. We explore the following cases: (O) where a foreign monopolist exports its product using the online marketplace, (OO) where two oligopolistic foreign firms export their goods via the online marketplace, and (OX) where one foreign firm uses the online marketplace while the other firm exports directly. In each case, we examine the impact of a tariff on an economy. Our analysis indicates that the introduction of a tariff reduces profits of firms utilizing the online marketplace. In addition, a tariff may increase the profits of firms engaged in direct exports and potentially decrease home welfare, particularly when sales fees are sufficiently high. Conversely, online platform operator's profits may increase when the sales fees are sufficiently low.

References

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Neary, J. P. (2016) International trade in general oligopolistic equilibrium, *Review of International Economics*, **24**, 669–698.