博士論文要旨

Effect of International Economic Transactions on Economic Inequality and Development

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1   Background

International economic transactions have never been as prevalent as it currently is. Over the last two decades, world export growth is three times higher than gross domestic product (GDP) growth,[1] implying a rapid development in international trade. The number of member countries participating in global free trade agreements is steadily increasing as well. The World Trade Organization (WTO) has approved terms for its 162nd member to join by the end of 2015. Along with the WTO, negotiations and implementations of new free trade and bilateral trade agreements have become ubiquitous worldwide. In addition, the world economy has witnessed a significant increase in foreign direct investment (FDI), especially in developing countries. From 1990 to 2012, FDI inflows into developing countries increased more

[1]Author's calculations using the World Development Indicators database.

than thirtyfold, which is nearly four times higher than the world inflows during the same period.[2]

Increasingly, there are concerns that this rapid intensification of international economic integration might negatively affect income inequality and economic development. This dissertation focuses on the following two aspects: 1. International integration might give rise to serious conflicts of interest by increasing domestic and international income inequality, 2. Integration might affect the development of domestic industries, especially infant industries. Although researchers have been trying to examine the issue from economic perspectives, research on these topics remains inconclusive.[3]

For that reason, the principal goal of this dissertation is to re-evaluate and clarify the impacts of international economic policies on income inequality and economic development. The three major research questions are described as follows. First, I address the issue of when and how tariff policies should be used to protect infant industries during the process of joining the WTO. To address this question, I propose a framework to derive the optimal dynamic path of tariffs to protect infant industries when a country initiates a process to join the WTO. Subsequently, I apply this model to numerically analyze the Vietnamese motorcycle industry, a typical infant industry in a country which is in the process of joining the WTO.

Second, I examine how trade openness affects wage inequality in trading countries, both within and between them. To address this research question, I derive a general-equilibrium monopolistic competition trade model between two asymmetric countries under the assumption of endogenous technology choice.

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[2]Author's calculations using the World Development Indicators database.

[3]Basu and Guariglia (2007), Sampson (2014), and Houpt (2002) make an explicit claim about the negative impact, while Lindert and Williamson (2002), Milanovic (2005), and Krugman and Venables (1995) hold the opposite opinions.

Last, I investigate the impact of FDI firms' entry on household wealth distribution. Changes in domestic wealth distribution arise in response to the entry of FDI firms under the assumption of borrowing constraint for domestic agents, caused by credit market imperfections.

The contribution of this dissertation is threefold. First, I propose three theoretical models to study the mechanisms behind the impacts of trade policies on income inequality and economic development. Specifically, these theoretical models are developed under assumptions reflecting important aspects of the real economy. These assumptions are time limit for protection of infant industry in Chapter 2, endogenous technology choice in Chapter 3, and the entry of FDI firms as an additional foreign factor in the domestic labor market in Chapter 4.

Second, I have performed calibrations on theoretical models presented in the dissertation to reflect the real world outcomes. In Chapter 2, the calibration exercise using actual data of the Vietnamese motorcycle industry offers explicit policy prescriptions for the protection process. As such, the model and methodology can be generalized for adaptation to other countries and other industries.

Third, my results challenge conventional wisdom and help clarify the role of international economic policies. This is because my theoretical models use assumptions matching essential aspects of the real economy and are calibrated using real data. This dissertation helps policy makers design optimal trade policies, choose suitable development strategies, and better deal with problems of income inequality.

2   Structure of the dissertation

The rest of this dissertation comprises of three chapters.

Chapter 2 aims to address the issue of when and how tariff policies should be

used to protect infant industries during the process of joining the World Trade Organization (WTO). More specifically, under the assumption that an infant industry experiences dynamic externalities, this chapter investigates what a government should do to protect such an industry before tariff barriers are reduced to fulfil commitment to a free trade regime. In the chapter, a framework is proposed to derive the optimal dynamic path of tariffs to protect infant industries when a country initiates the process of joining the WTO. The framework is based on the model of Melitz (2005), in which externalities associated with dynamic learning-by-doing provide a rationale for infant industry protection. Unlike the original model, this chapter assumes that there is a time limit for protection: after a fixed number of years, tariffs are required to be constant over time at a low level. This setup reflects the nature of the actual WTO agreement. This model is solved analytically to derive quantitative implications for the optimal tariff path, unlike in Melitz (2005), where only qualitative analyses are undertaken. An interesting result emerges: conventional wisdom holds that a country should reduce the tariff rate gradually over time so that it converges to its long-run rate at the terminal date of protection. By contrast, this chapter finds that, under plausible scenarios, the optimal time path of the tariff can be upward sloping. A numerical analysis applied to the Vietnamese motorcycle industry, a typical infant industry in a country joining the WTO, confirms such a pattern.

Chapter 3 investigates how trade openness affects wage inequality of trading countries, both within and between them. Specifically, based on the theoretical literature on monopolistic competition between two asymmetric countries, I derive a new framework under the assumption of endogenous technology choice. This assumption implies that firms simultaneously choose to adopt different technology

compositions which are appropriate for its labor composition. In other words, instead of utilizing standard constant technology as in most of other research, firms in this model are allowed to choose the technology system that maximizes their profits. With this framework, I find that firms in countries which are skilled-labor-abundant choose technologies that are appropriate for skilled labor, and vice versa for firms in unskilled-labor-abundant countries. The wage gap between different types of labor depends on the comparative level of technological capability, the skill composition in the two countries, and the skill bias. During the transition from autarky to free trade, if the size of the labor force and its composition in both countries satisfy a particular condition, I find that the decline in transport cost will increase the relative wage between two countries in both types of labor. Moreover, these effects on wage inequality in all phases, i.e., autarky, free trade, and the transition from autarky to free trade, are partially absorbed by the endogeneity in technology choice. In other words, if a firm utilizes a standard constant technology only, the effect on wage inequality is amplified. This amplification is also analyzed based on calibration results, utilizing data from 52 countries, helping the chapter capture a more comprehensive understanding on the situation in each specific country.

Chapter 4 examines the role of foreign direct investment (FDI) firms on household wealth distribution. Based on Matsuyama (2011)'s framework on credit market imperfections and wealth distribution, I derive a new model that introduces the entry of FDI firms as an additional foreign factor. This version resolves the inconsistency regarding the impact of FDI on wealth inequality among previous empirical studies. It does so by providing country-specific conditions, under which the entry of FDI firms accounts for (in)equality in domestic wealth. The chapter yields some interesting results. First, the entry of FDI firms can provide a "big push" to move the poor

out of a poverty trap, resulting in increased equality in wealth distribution and job selection. Second, this entry can also reduce inequality in a different way: it causes an "underdevelopment trap" whereby all domestic agents have no choice other than to work for FDI firms. On the other hand, the entry of FDI firms may widen the gap between the rich and poor, leading to greater inequality. It does so by redistributing wealth to make the richest agents who survive after the competition with FDI firms better off. In addition, the cost of starting a new business, the bequest motive, the global interest rate, and home country productivity play critical roles in determining the effects of FDI firm entry.