

IMPACT OF TRADE FACILITATION ON FOREIGN DIRECT INVESTMENT

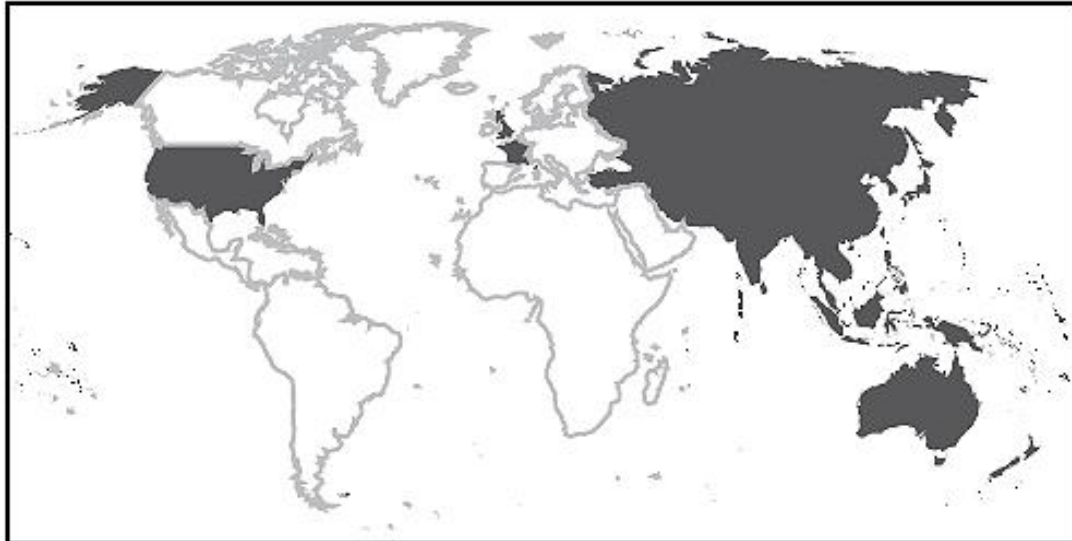


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Impact of Trade Facilitation on Foreign Direct Investment

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Abstract: Countries that implement trade facilitation reforms and enhance trade efficiency and connectivity are generally expected to attract more foreign direct investments. This paper is a first attempt to quantify the potential impact of trade facilitation on FDI flows. Using a unique bilateral dataset on FDI flows covering both OECD and developing economies in Asia and the Pacific, we estimate gravity models of FDI featuring relevant trade costs and trade facilitation indicators. A host country's quality of business regulatory environment generally matters most, but high trade costs also have a significant impact on FDI. A one percent reduction in comprehensive international trade costs (excluding tariff) between source and host country leads to a 0.8 percent increase in FDI inflows on average. Import tariffs of the host country are also found to have a significant but small negative on FDI inflows.

Focusing on the Asia-Pacific region, taking steps to reduce average tariff of high-tariff countries to the developing country average would result in a 6-7% increase in FDI inflows to the region, while reducing other types of trade costs in high-cost countries in Asia-Pacific to the developing country average can be expected to increase FDI flows by 20%. In turn, a moderate improvement in the quality of the domestic business environment in host countries, by just 10% on average across the region, would increase FDI flows by over 60%. Improving liner shipping connectivity of all lagging countries in the sample to the developing country average would also significantly increase FDI, but this would likely require massive investment in maritime infrastructure in many countries. Overall, the analysis fully support the notion that trade facilitation should be a core component of any foreign direct investment development strategy and provides further evidence of the benefits associated with enhancing trade efficiency.

JEL Classification: F1

Key words: foreign direct investment, FDI, trade costs, Asia and the Pacific, trade facilitation, maritime connectivity

Contents

| | |
|--|----|
| Introduction | 1 |
| Literature Review: Trade and FDI | 1 |
| World FDI flows at a glance | 4 |
| Impact of Trade Facilitation on FDI: Data and methodology | 8 |
| A. Model Specification | 8 |
| B. Data and model estimation | 11 |
| Impact of Trade Facilitation on FDI: Gravity model results and counterfactual simulation ... | 12 |
| A. Overall findings | 12 |
| B. South-South FDI and Trade Facilitation | 13 |
| C. Impact of trade facilitation improvements on FDI: a counterfactual simulation..... | 14 |
| Conclusions | 17 |
| Bibliography | 18 |
| Appendix..... | 21 |

List of Tables

Table 1: Selected Studies using Gravity Model of FDI

Table 2: FDI Outflows by Region: 1996-2011

Table 3: FDI Inflows by Region: 1996-2011

Table 4: Bilateral Flows among Countries and Regions

Table 6: Variable Descriptions, Data Sources and Expected Signs

Table 7: Counterfactual simulation of trade facilitation improvements in FDI Host Countries

Table A1: Summary of Source and Host Countries of FDI in 2006-2011 (based on M3)

Table A2: Summary of Statistics

Table A3: Correlation Matrix

Table A4: Regression – All countries

Table A5: Regression – South (host) – South (source)

Table 6: Variable Descriptions, Data Sources and Expected Signs

Table 7: Counterfactual simulation of trade facilitation improvements in FDI Host Countries

List of Figures

Figure 1: FDI flows among Developing Asia and the Pacific countries

Figure 2: Impact of trade cost improvements on FDI in selected Asia-Pacific Countries

Figure 3: Impact of tariff reduction and increase use trade facilitation and tariff in developing economies on their FDI flows, by host countries: ESCAP members

Introduction

Foreign direct investment (FDI) has long been known as an important source of financing for development in host (recipient) countries. UNCTAD (2012b) finds that FDI positively contributes to host economies, including through higher employment and wages, tax revenue increase, export generation and capital formation. Identifying factors that make a host country more attractive to FDI therefore remains an important policy issue.

Trade facilitation has often been promoted as a way to attract more FDI, in particular FDI related to international production networks and which typically require that low transaction costs be maintained between the members of the network (e.g., ADB/ESCAP, 2013 (page 7); UNECE, 2012¹; UNECE, 2003 (page 8)). However, little empirical evidence exists on the actual link between trade facilitation and FDI. This paper accordingly quantifies the impact of trade facilitation, defined here in its broadest sense, i.e., lower trade costs, on FDI.

The study uses bilateral FDI data from 2006 onward from both developed and developing countries to estimate FDI gravity models and examine the effect of various trade facilitation related indicators on FDI, including ESCAP-World Bank bilateral trade costs,² maritime connectivity, ease of doing business, and use of the internet. Changes in effects when considering only FDI flows between developing countries (South-South) are also presented.³

The next section reviews selected literature on foreign direct investment and linkages to trade facilitation, with particular emphasis on findings from FDI gravity models. Section 3 provides a brief overview of FDI flows in developing and developed economies, while the methodology and data used to assess the impact of trade facilitation and FDI are presented in section 4. Results from the gravity model estimation and a counterfactual simulation of trade facilitation improvements in developing countries are in Section 5, followed by concluding remarks and policy recommendations in Section 6.

Literature Review: Trade and FDI

The literature on FDI and trade is vast, ranging from studies of the relationship between FDI and trade as complements or substitutes (e.g., Swenson, 2004), to studies examining the factors affecting firms decision to engage in FDI rather than export (e.g., Helpman et al., 2004; Markusen and Venables, 2005).⁴ From a policymaker perspective, however, the identification of factors attracting FDI is particularly relevant.

Blonigen (2005), in its review of the FDI literature, identifies five common factors affecting FDI, i.e., exchange rates, domestic taxes, quality of institutions, trade protectionism and the substitution or complementarity effects between trade and FDI. Recent literature generally finds

¹ <http://fig.unece.org/contents/tf-introduction.htm>

² See Arvis, Duval, Shepherd and Utoktham (2013) for an introduction.

³ Horizontal FDI typically refers to the situation where firms duplicate the production activities they have at source in host countries, while vertical FDI refers to firms who locate different stages of production in different countries. Horizontal FDI is sometimes referred to as market-oriented or import-substituting investment, while vertical FDI is referred to export-platform investment (e.g., Markusen and Venables, 2005).

⁴ For example, Helpman, Melitz and Yeaple (2004) show that the most productive firms will engage in foreign market investment, while the less productive ones will export. Markusen and Venables (2005) also find that countries with moderate trade costs engage in market-oriented assembly, while those with lower trade costs engage in export-platform production.

that FDI and trade are complements, particularly since the emergence of regional and global value chains and distributed manufacturing. Evidence of tariff-jumping FDI as described by Carr, Markusen, and Maskus (2001) is limited and trade protectionism is generally found to have a negative effect on FDI (see, for example, Tekin-Koru, 2009; or WTO, 1996).

Gravity models of FDI flows are commonly used to identify determinants of FDI. Most FDI models feature both macroeconomic indicators as well as indicators more closely related to trade facilitation. Table 1 provides an overview of recent studies featuring gravity models of FDI.

Table 1: Selected Studies using Gravity Model of FDI

| Study | Estimation Method | Country/Period Coverage | Source of FDI | Control Variables (excluding distance and GDP) | Main findings |
|--------------------------------------|---|--|--------------------------------------|--|--|
| Del Bo (2009) | OLS with fixed effect | 1982-2005; cross countries with USA | OECD and Bureau of Economic Analysis | <ul style="list-style-type: none"> Exchange rate volatility Political risk Financial development Trade openness Energy use Labor education Quality of labor Common language | Exchange rate variability and political instability have negative effect on FDI flows |
| Frankel, Funke, and Stadtmann (2004) | OLS with country fixed effect | 1992-2000; G-5 flows to emerging economies | Eurostat | <ul style="list-style-type: none"> GDP growth Trade openness Inflation Dummy of fixed exchange rate Economic risk | FDI flows are positively related to economic growth, trade openness and negatively related to country risk ; Effects of exchange rate on FDI are mixed; Inflation is not significant |
| Furceri and Borelli (2008) | GMM with fixed effect and random effect control | 1995-2004; European economies | UNCTAD | <ul style="list-style-type: none"> GDP per capita Openness Barriers to trade Inflation Investment price Dummy of Asian crisis Dummy of Russian crisis Exchange rate volatility | Relationship between FDI and exchange rate volatility depends on degree of openness and is negative in more open economies; Inflation and price of investment (proxied by investment deflator) have no significant impact on FDI |

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