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Does an upper limit on foreign direct investment matter? The case of Taiwan

Chih-Young Hung [a], Yi-Hui Chiang [a,b,*]

[a] Institute of Management of Technology, National Chiao Tung University, 1001 Ta-Hsuch Road, Hsinchu 300, Taiwan
[b] Department of International Trade, Ta-Hwa Institute of Technology, 1 Ta-Hwa Road, Hsnchu 307, Taiwan

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ABSTRACT

In this paper, we present a partial least squares (PLS) path model developed to investigate foreign direct investment (FDI) by Taiwan in China. The main purpose of the study is to answer the question, "Has the Taiwanese government's upper limit on investments interfered with Taiwanese firms' decisions about whether to undertake FDI in China?" The question was answered by testing six hypotheses derived from the model. Using data on Taiwanese manufacturing firms from the Integrated Circuit industry for the years 1998–2007, we found no significant evidence supporting the effectiveness of the upper limit. The most influential of the model's five determinants of Taiwan's FDI in China are factors specific to individual firms. The second most influential is the macroeconomic environment of the host country. Previous studies have paid little attention to the parent country when analyzing FDI, a deficiency we remedied in the present study. Our study reflects an integrated perspective on the FDI literature by including the host country, the parent country, and firm-specific factors as determinants of FDI.

1. Introduction

The deregulation of capital outflow by the Taiwanese government in 1987 created a watershed in the pattern and amount of foreign direct investment (FDI) by Taiwan. The policy permitted a business or an individual to annually send up to 5 million US dollars abroad without governmental approval. As a result, FDI surged. Between 1987 and 1988, both the number of Taiwanese FDIs and their total value surpassed those of the FDI coming into Taiwan. (In the remainder of this paper, unless specified otherwise, FDI refers to outgoing FDI, that is, FDI flowing from Taiwan to another country.) Taiwan has since become a net capital exporter. However, after the Asian Financial Crisis of 1997, Taiwan's FDI destinations changed dramatically. This is particularly evident in the rebalancing of FDI funds between crisis-affected Southeast Asian countries on the one hand and China on the other. Not only has the FDI flow from Taiwan to China increased over the last 10 years, but since 1997 so has the ratio of Taiwan's FDI in China to its FDI in Southeast Asia.

The growth of FDI in China since the beginning of China's economic reforms in 1978 has been striking. Since 2002, China has become the largest recipient of foreign capital in the world. After Taiwan and China started to exchange visits across the Taiwan Straits in the 1980s, direct investment by Taiwanese businessmen in China began to rise rapidly. Even though Taiwan

* Corresponding author at: Institute of Management of Technology, National Chiao Tung University, 1001 Ta-Hsuch Road, Hsinchu 300, Taiwan.
E-mail addresses: cyhung@cc.nutu.edu.tw (C.-Y. Hung), yihui@thit.edu.tw, lianlon.wu@msa.hinet.net (Y.-H. Chiang).

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and China share a very similar cultural background, and despite their different economic and political systems, China has a distinct advantage over Taiwan in attracting FDI; this advantage cannot be attributed solely to economic factors.

It is well recognized that the electronics industry is a key driver of Taiwan's economic growth. Since 1983, this industry has transformed itself from an original equipment manufacturer (OEM) to an original design manufacturer (ODM). With the emergence of China as a more attractive low-cost production and exporting platform, many companies have established production sites in China as a way to become more involved in global logistics management (GLM). According to Taiwan's Mainland Affairs Council, the cumulative number of Taiwanese FDIs in China, which began in the 1980s, reached 36,459 by 2007. The aggregate value of this FDI was 63.3 billion US dollars. In fact, China has now become the primary destination for Taiwanese enterprise funds. The FDI for manufacturing from Taiwan's various industries is distributed as follows: 15.8% for electrical equipment; 15.4% for computers, electronics, and optical products; and 6.8% for basic metals. These data show two things: (1) the ties between manufacturing in Taiwan and China are strong; and (2) Taiwan's electrical equipment manufacturing industry is the primary contributor to this capital outflow.

In recent years, issues related to FDI have attracted much attention from scholars in international business and economics. It has been well documented that FDI provides various benefits to the host county. These include productivity gains, technology transfers, and economic growth (Ang, 2008; Baltagi, Egger, & Pfaffermayr, 2007; Chowdhury & Mavrotas, 2006; Gholami, Lee, & Heshmati, 2006). Numerous studies have found that the identity of the host country is the key factor driving FDI (Ang, 2008; Cheng & Kwan, 2000; Eichengreen & Tong, 2007; Hooper & Kim, 2007; Jinjarak, 2007; García-Herrero & Santabárbara, 2007; Giner & Giner, 2004; Mina, 2007; Xu, Hu, Lei, & Shen, 2008; Zhang, 2005). However, the role of the parent country's government as another determinant has been largely ignored in these studies.

It is commonly noted that governments impose various types of regulation on FDI. This has been particularly true for Taiwan with respect to China. In response to the political tensions between China and Taiwan prior to 2008, Taiwan's government took steps to limit capital and technology outflow and to protect the country's employees in manufacturing and related areas. Specifically, it set an upper limit on FDI, while at the same time listing products made in China that Taiwanese firms were allowed to invest in. The upper limit for investment by any Taiwanese firm in China was defined as 40% of the investing firm's available capital or net value, whichever was lower. Both business leaders and academia continually complained about these regulations. On the other hand, unskilled workers and some political factions supported the government's FDI policies. These disputes remain unresolved. In any event, no solid empirical evidence has been offered thus far concerning whether the government's upper limit has had any effect on Taiwanese FDI in China. If there is an effect, how large is it? If there is not an effect, why not?

Previous studies of FDI by Taiwanese industries have addressed issues such as performance evaluation, technology forecasting, and location selection (Chen & Ku, 2000; Lee, Chen, & Chang, 2007; Li & Hu, 2002). Deng (2007) examined the motivation underlying China's FDI from an asset-seeking perspective. Demirbag, Tatoglub, and Glaister (2007) adopted an integrated perspective incorporating both the host country and firm levels to examine the factors that influence perceptions of FDI success. Hsiao and Hsiao (2004) designated regional distribution, geographic proximity, and cultural similarity as important reasons why Taiwanese industry considers China to be such a good investment opportunity. Zhang (2005) considered the primary determinants of direct investment in China by Hong Kong and Taiwan (HKT) to be their export-promotion strategy. Compared to European Union, the US, and Japan their advantages in terms of export-oriented FDI, their unique linkage with China, and China's cheap labor. Ng and Tuan (2006) studied the geographical concentration of firms in China, especially the impact of this concentration on China's economic growth and how the decision of where to locate is related to institutional factors, such as government preferential or regional FDI-led policy. Xu et al. (2008) argued that the FDI chaos in China might be governed by the intervention of the Chinese government (host country policy). Unfortunately, none of these studies addressed FDI from the parent country's perspective. Although García-Herrero and Santabárbara (2007) incorporated capital flows, the home country, the host country, and global factors into their FDI model, they considered the impact on FDI primarily from the viewpoint of the host country.

In this paper, we introduce a partial least squares (PLS) path model for FDI. This integrated model includes factors related to the host country, the parent country, and the individual firm as determinants. Hypotheses regarding the effects of the Taiwanese government's FDI policy on firms' investment decisions are then developed and tested. Using industry data from the Taiwanese Integrated Circuit for the years 1998–2007, we found no evidence that the Taiwanese government's upper limit on FDI affected integrated circuit (IC) firms' decisions for FDI in China. During the period sampled, firm-specific determinant was found to have the greatest effect on FDI.

The remainder of the paper is organized as follows: Section 2 covers hypothesis development; Section 3 describes the methods and data used in applying the PLS path model; Section 4 presents the results of testing the model; Section 5 presents a discussion of these results.

2. Hypotheses and the model

Various factors have been proposed as determinants of FDI. These include, among others, government regulations, trade openness, political risk (sociopolitical instability), financial incentives, business operating conditions, corporate taxes and incentives, size of the market, financial development, real exchange rates, changes in wages, and interest rates (Ahmed, Mohamad, Tan, & Johnson, 2002; Akhter & Lusch, 1988; Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004; Ang, 2008; Branstetter & Feenstra, 2002; Brouthers, 2002; Choi & Jeon, 2007; Chen & Ku, 2000; Chowdhury & Mavrotas, 2006; Crespo &