Journal of Applied Economics. Vol XII, No. 2 (November 2009), 249-271

FDI, FINANCIAL DEVELOPMENT, AND ECONOMIC GROWTH: INTERNATIONAL EVIDENCE

Chien-Chiang Lee
National Sun Yat-sen University

Chun-Ping Chang*
Shih Chien University at Kaohsiung; National Sun Yat-sen University

Submitted April 2008; accepted February 2009

Previous studies have recognized that the benefits from foreign direct investment (FDI) to recipient countries can only be realized when those countries have reached a certain level of financial development. However, the dynamic interrelationships among FDI, financial development, and real output, including the long-run equilibrium as well as causality, have not been analyzed. This paper overcomes this major shortcoming by applying recent advances in panel cointegration and panel error correction models for a set of 37 countries using annual data for the period 1970-2002. For the first time, we explore the directions of causality among FDI, financial development, and economic growth and obtain solid, convincing evidence of a fairly strong long-run relationship. Furthermore, the financial development indicators have a larger effect on economic growth than does FDI. From the panel causality tests, while the evidence of a short-run relationship is weak, that of a long-run relationship among the variables is unequivocal. Overall, the findings underscore the potential gains associated with FDI when coupled with financial development in an increasingly global economy.

JEL classifications codes: F23, O16, O40
Key words: foreign direct investment, financial development, economic growth, panel cointegration, panel causality

I. Introduction

That there is a clear-cut connection between foreign direct investment (FDI) and economic growth has yet to be confirmed through empirical research. On the one

* Chun-Ping Chang (corresponding author): Department of Marketing Management, Shih Chien University at Kaohsiung; National Sun Yat-sen University, Kaohsiung, Taiwan; tel. +886-7-6678888 ext. 5713; fax +886-7-6679999; email cpchang@mail3.kh.usc.edu.tw. Chien-Chiang Lee: Department of Finance, National Sun Yat-sen University, Kaohsiung, Taiwan; email cclee@cm.nsysu.edu.tw.
Comments from the anonymous referees and the editor are greatly appreciated.

hand, far too many studies have only focused on FDI at the expense of financial development. On the other hand, many studies have explored whether the level of financial development encourages growth while ignoring FDI. For the most part, previous studies have not taken into account the interactions between FDI and financial development, though some very recent research studies pertaining to the connections among FDI, financial development, and economic growth have made great strides.

It is well known that FDI and domestic financial markets are important sources of capital investment funds for manufacturers, and because the substitutable or complementary relations between them are very important, this paper mainly focuses on the analysis of their interactive relations as well as their relation to economic growth. Levine (1997) drew attention to many other extremely effective functions of a developed financial system: exerting corporate control; mobilizing savings; reducing risk; allocating resources; monitoring managers; and facilitating the exchange of goods and services. Provided these functions are being carried out, it should be possible to alter an economy's growth rate by affecting either the growth rate of capital stock or the rate of technological innovation.

Theoretically, FDI may enhance technological change through the spillover effects of knowledge and new capital goods, but underlying the magnitude of FDI's contribution is the overall business climate in recipient countries (Chamarbagwala et al., 2000). The FDI-growth hypothesis contends that a positive relationship between FDI inflow and growth can be expected, provided that recipient countries have attained a relatively high level of development in their financial system (Alfaro et al., 2004; Durham, 2004). In addition to the direct capital financing FDI generates, it plays an important role in modernizing a national economy and in stimulating growth. For these very reasons, most countries' governments have prioritized the issue and exert every effort to come up with new ways to attract more and more FDI.

It cannot be ignored that FDI still has other positive effects, among which are the introduction of new processes, managerial skills, technological transfers and know-how in the domestic market, international production networks, employee training, and international financial integration (Barro and Sala-i-Martin, 1997; Grossman and Helpman, 1991). De Mello (1997) reports two main channels through which FDI may enhance growth. First, through capital spillovers, FDI facilitates the adoption of new technology in the production process. Second, FDI may stimulate the transfer of knowledge both in terms of labor training and acquisition of skills and by introducing alternative management practices and better organizational capabilities.

However, despite the popularity of the FDI-growth nexus, empirical evidence has been mixed. Following De Mello (1999), Alfaro et al. (2004) is credited with