

OVERVIEW OF THE ROLE OF FINANCIAL DEVELOPMENT AS A FORM OF ABSORPTIVE CAPACITY IN THE FDI-GROWTH NEXUS

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ABSTRACT

This study provides extensive review of the literature that encompasses two broad underlying frameworks namely the FDI-growth nexus and the financial development-growth nexus. The discussion is extended to the literature on the FDI-financial development-growth nexus where the role of financial development is shown to be crucial in the FDI-growth link. The importance of absorptive capacity has been recognized by past studies to enhance the relationship of FDI and economic growth that so far empirically resulted in mixed findings. In serving the absorptive capacity, higher level of financial development is identified as one of the significant channels that would fulfill the purpose.

Keywords: *Foreign direct investment, financial development, economic growth.*

INTRODUCTION

Since the last two decades, many countries have been taking earnest initiatives to promote their economies as the destination for foreign direct investment. The flow of FDI increased sharply in the developed and emerging economies that had designated FDI as a major vehicle for economic development (UNCTAD 2010). FDI has been a capital formation of choice and identified as one of the most important factors that contribute towards economic expansion through its benefits and externalities. Alfaro et al. (2004, 2009) highlight several benefits of FDI that could promote economic growth, for examples, knowledge spillover of technology transfers, introduction of new processes to domestic market, learning-by-observing, training of labor force and managerial skills.

While there is an extensive body of literature that investigates the relation between FDI and economic growth, the empirical findings are ambiguous and inconclusive. On the one hand, there are studies that find a positive relationship between FDI and economic growth (see, for examples de Mello 1999; Yao & Wei 2007; Elsadig 2012). On the other hand, some studies have shown that FDI is negatively related to economic growth (see, for examples Konings 2001; Elia et al. 2009; Doytch & Uctum 2011). There are also studies that find no significant effects of FDI on economic growth (Beugelsdijk et al. 2008; Temiz & Gokmen 2013; Yalta 2013; among others).

Drawing on the ambiguous and inconclusive results of the FDI-growth relationship, the literature has identified absorptive capacity of the host country as the key explanatory variable for the varied conclusions. Specifically, absorptive capacity is described as a pre-requisite that enables a host country to successfully incorporate the benefits and positive impacts of FDI spillovers (Alfaro et al. 2009, Hermes & Lensink 2003).¹ According to Crespo and Fontoura (2007), absorptive capacities of domestic firms and regions are important preconditions for realizing the benefits of FDI inflows. Since different countries have different levels of development and local conditions, the impact of FDI in each country would be different. It is expected that maximum benefits of FDI spillovers could be reaped through higher levels of absorptive capacity. As stated in Alfaro et al. (2009), the success of domestic firms is determined to a certain extent, by the local characteristics and the inherent weaknesses of domestic firms might reduce their ability to absorb new technologies brought about by their foreign counterparts. Consequently, this would hold back technological innovation and limit its impact on the overall economy.

The literature of FDI-growth nexus has been extended with the introduction of financial development as one form of absorptive capacity. Financial development of a country has been recognized as one form of absorptive capacity since it has the potential to spur economic growth by resolving various financial market imperfections which in turn allows the benefits of FDI to be materialized. Levine (2005) provides detailed discussion on the following five major functions of a financial system: producing information and allocating capital; monitoring firms and implementing corporate governance; ameliorating risk; pooling of savings; and easing exchange, all of which contribute to promoting economic growth.

Furthermore, in the realm of the FDI-growth literature, recent empirical studies that investigate the role of financial development in FDI-growth nexus have collectively indicated that finance is vital for the growth effects of FDI (see, for examples Hermes & Lensink 2003; Lee & Chang 2009; Azman-Saini et al. 2010; Choong 2012). Hermes and Lensink (2003) find that the development of banks and stock market are important preconditions for FDI spillovers to be positively realized. Lee and Chang (2009) and Azman-Saini et al. (2010) also find that the impact of FDI spillovers on economic growth requires a well-functioning financial market. The findings of Azman-Saini et al. (2010) based on 91 countries over the period from 1975 to 2005 show that FDI's impact on growth is positive only when financial development exceeds a threshold level. Similarly, in a recent study, Choong (2012) also find that a well-developed domestic financial market is a precondition for FDI to affect economic growth positively.

Taken together, prior studies have shown that financial development plays an important role in the FDI-growth nexus and that it serves as one form of absorptive capacity of the host country. Higher level of financial development suggests that the well-functioning financial sectors are efficient in mobilizing and allocating capital to its most productive use. Thus, countries with greater financial development will have better absorptive capacity, that would enable them to realize more benefits from the FDI spillovers. As highlighted by Lai et al. (2009), sufficient absorptive capacity is the foundation for FDI technology spillovers. Thus, it is concluded that the role of financial development is shown to be crucial to enable a country to make the most of the positive growth effects of FDI.

LITERATURE REVIEW

¹ Cohen and Levinthal describe an absorptive capacity as "...an ability to recognize the value of new information, assimilate it, and apply it to commercial ends" (1990: 128). In addition, Falvey et al. (2007) highlighted that a country with higher absorptive capacity gained more from trade-related knowledge spillovers. In the study, trade is measured by the average ratio of imports plus exports to GDP that capture the other benefits of openness.

Foreign direct investment or abbreviated as FDI hereafter, serves as a primary form of international capital transfer that has prospered tremendously in the past decades in both developed and developing countries, to acquire cross-border expenditures and to expand the corporate control of productive assets (Froot 1993). The first years of the 80s saw FDI becoming the most crucial medium of integrating the world economy through its offerings of international lending and borrowing. In recent years, FDI inflows have undergone a fast-paced development and this leads to noteworthy economic success. As established from UNCTAD (2010), the FDI inflows' rapid increase is evident through the anticipation that the world inflows would escalate to more than \$1.2 trillion in 2010, further climb up to \$1.3–1.5 trillion in 2011, and peak at \$1.6–2 trillion in 2012. The report which also ranks top economies based on the 2009 magnitude of FDI flows, shows that the United States stays prominent as the world's leading recipient of FDI, besides its competitors namely China, France, Hong Kong and the United Kingdom.

The perception of the FDI as the very crucial component of capital flows in the global economy and a dependable source of external financing is explained by the fact that it is more stable than other types of investment. According to Chuhan et al. (1996) who study the behavior of four major components of international capital flow in 15 developing and industrial countries for the period of 1985-1994, direct investment is discovered as less volatile, owing to its less drastic responses to disturbances in other capital inflows and in other countries.² Besides, through their adoption of the quarterly net flows and a univariate analysis in the study, it has confirmed that direct investment is far from being 'hot money' or the term which denotes the short term investment which is possibly speculative and which leads to market instability. In addition, by incorporating FDI in the components of capital flows, it gives equal position to the compositions of the loans and equity in international capital flows for the country. Lipsey (1999) also shows that FDI suggests relatively higher stability than other types of international financial flows. In the study, Lipsey (1999) places in comparison the differences among the types of investments based on their direction of flows or volatility which measurement is by the standard deviations.

In support of the findings obtained by Chuhan et al. (1996) and Lipsey (1999), Bird and Rajan (2002) whose foundation of research resting on Malaysia's balance of payment for the 1995-1998 timeframe, it is found empirically that economies which finance their current account primarily with FDI are seen to be less vulnerable to a financial crisis.³ In favour of a long term financing, FDI is acknowledged as more stable since it is irreversible in the short term. Although the application of FDI as the main external financing is still not devoid of risks, its benefit spillovers which heighten the development of the economy have made FDI superior to other forms of capital flow. Moreover, Albuquerque (2003) offers empirical evidence that FDI also carries a risk-sharing advantage over other

² Four major components of international capital flows that are studied by Chuhan et al. (1996) are direct investment (DI), short-term investment (STI), portfolio investment (PI) as well as other long-term investment (LTI). As elaborated by Chuhan et al. (1996), DI contains some capital investment, retained earnings and intra-company debt, STI captures changes in assets' investment with one year maturity period, PI includes additional corporate equities and bonds and LTI contains additional public and private sector debt securities, trade credit, loans, deposits and other long-term assets. The source of data is Balance of Payments Statistics Yearbook of International Monetary Fund.

³ Bird and Rajan (2002) also suggest that a country is better off if the capital flows are formed not entirely with FDI but also with other forms of capital flows since a country that finances its current account deficits almost entirely by FDI may remain vulnerable to capital reversals, as evident in Malaysia, which was affected by the crisis in Thailand due to this condition. However, the relationship of FDI and other capital flows is other empirical issues shall not be discussed in detail since it is not a focus in this study.

capital flows. It is caused by the assumptions of the flawed enforcement of financial contract and the inalienability of FDI that contributes to lower levels of default premium and sensitivity to changes in the country's financing constraints. By taking an example from various international capital flows based on the said assumptions, with samples of 111 countries for the period of 1975-1997, Albuquerque (2003) also urges financially constrained countries to borrow relatively more via FDI.

FDI-Growth Nexus

The ultimate objective of FDI as the interjection of capital in economy is to accelerate the growth rates, where in theory, FDI is expected to bring about a positive effect on the country's economic growth. Burgeoning empirical studies that have extensively investigated the FDI-growth nexus, however have produced results that are contradictory. In spite of the fact that some of them empirically find that FDI does have a positive contribution to growth (see, for examples de Mello 1999; Vu & Noy 2009; Elsadig 2012), other empirical studies on the other hand, have found otherwise, that is negatively related to growth (see, for examples Li & Liu 2005; Elia et al. 2009; Doytch & Uctum 2011). In addition, some other studies also find that the significant impact of FDI on economic growth is non-existent (Beugelsdijk et al. 2008; Temiz & Gokmen 2013; Yalta 2013) and that FDI only promotes growth given some conditions only (Blomstrom et al. 1992; Balasubramanyam et al. 1996).

It is theoretically known that the major contribution of foreign investment to the host country possibly stems from its various external effects or spillovers. Some studies have managed to prove that FDI would contribute positively through its spillovers. For example Blomstrom (1986) whose study sheds light on foreign investment and productive efficiency, empirically finds that foreign investment's multiple positive effects have proven to be an important determinant in the industry's structural efficiency. In addition, Blomstrom (1986) also finds that the most important source of spillover efficiency is manifested in the competitive pressure exerted by foreign firms. This study has shown that the role of FDI in the world economy is significantly greater where recipient countries can obtain not only the funds for investment but to the point that they can also enjoy the benefits through efficient technologies and know-how. OECD (2003) reports that positive spillover effects of FDI can also become advantageous to the country through the companies' development and restructuring, the enhancement of international trade and smart integration into the world economy, as well as an increase in the competition and human capital development. A more recent study by Anwar and Nguyen (2011) finds that an indirect effect or the spillover effect of FDI can be generated through the links formed between domestic and foreign firms. Having said that, the FDI spillover may lead to technology and knowledge transfer that increases the competition in the domestic market, and ultimately contributes towards better resource allocation.

Theoretically, technological knowledge is widely recognized as a major FDI spillover that contributes positively to the economic growth. According to Aghion and Howitt (1998), under the growth theory, technological knowledge is important as a channel to maintain economic growth in the long run since capital accumulation is subject to the effects of diminishing marginal returns which would in time, cause the growth rate to cease. Some other studies also find that FDI generates externalities in the form of technology transfer and contributes to economic development (see, for examples Liu 2002, 2008; Sadik & Bolbol 2001; Chakraborty & Nunnenkamp 2008; among others).

Furthermore, Liu (2002) who examines 29 industries of manufacturing over the period of 1993-1998 in China, suggests that FDI generates externalities in the form of technology transfer. In the study, Liu (2002) finds that FDI in the manufacturing industry is significantly and positively related to the productivity as well as the rate of productivity growth of its components industries. In addition, Liu

(2008) that extends the study of Liu (2002) provides more evidence on FDI and technology spillovers by examining a large panel data of 17,675 manufacturing firms over the period of 1995-1999. Liu (2008) proposes that FDI spillovers could decrease the short-term level of productivity but increase the long-term productivity growth rate of local firms. In the long run, technology spillovers serve as a source of knowledge that can make productivity growth rate sustainable, as well as functioning as an ultimate engine of economic growth.⁴

In addition, Sadik and Bolbol (2001) present other evidence where the study finds that FDI has been found to be an added advantage of generating technological spillovers for the positive growth in the countries of the Arab world.⁵ It is also identified that by facilitating the technology transfer in a global economy, it can hone the technology edge of other countries involved in the various international endeavours. Similarly, Chakraborty and Nunnenkamp (2008) who examine the effect of FDI in the Indian post-reform within a panel co-integration framework, find that FDI stock and output are positively related through cross-sector spillovers from the service sector to the manufacturing sector.

However, some other studies also find the FDI spillovers can be branched into positive and negative spillovers, where some studies contend on their impact towards the host countries. For example although Damijan et al. (2003) find that FDI is an important channel where technology can be transferred to developing countries, they also find that there is no, or even negative, horizontal knowledge spillovers from foreign-owned firm to domestic firms. Damijan et al. (2003) investigate the effects of FDI's direct technology transfer, FDI spillovers of intra-industry knowledge, firm's R&D accumulation and spillovers via trade for local firms' total factor productivity growth by examining firm-level data for eight transition countries for the period 1994 to 1998. A more recent study by Hanousek et al. (2011) points that the forward spillover effects is negative and significant however the backward spillover effects are found positive and significant.⁶ Hanousek et al. (2011) dispute the previous literature findings on direct and indirect impacts of FDI in the emerging European market by using a survey and meta-analysis.⁷ In addition, Hanousek et al. (2011) also find that the impact of productivity spillovers in cross-sectional studies is greater than in panel studies since unobserved heterogeneity is not properly addressed, further resulting in biased estimates.

Extensive literature that has explored the impact of FDI on economic growth has produced incompatible results. Although FDI inflows are discovered as an engine of economic growth, where their benefits of knowledge and technology spillovers could contribute to the economic growth of the recipient countries, the empirical findings on the growth effects of FDI are still inconclusive and remain ambiguous. Conversely, FDI is found to exert positive growth effects on the recipient countries. For example, De Mello (1999) empirically finds that FDI inflows positively affect an output growth in all panels, with and without country-specific factors (i.e. institutions, trade regime, political risk, policy, etc). Yao and Wei (2007) provides empirical evidence that FDI positively contributes to

⁴ On the other hand, the negative effect of spillovers that is found in the short-term rate of productivity growth indicates that technology transfer or externalities does not exist automatically and require costly learning process (Liu 2008).

⁵ Sadik and Bolbol (2001) study the FDI's role and its importance in the economic performance of the Arab countries over the period of 1980-1999 by using the OLS. It captures the impact of FDI on the Arab's technological development and total factor productivity.

⁶ Forward spillover refers to how local firms benefit from intermediate inputs from foreign firms and backward spillover refers to how foreign firms may profit from the improvement of domestic firms.

⁷ The sample in the meta-analysis consists of 21 papers, 10 of which are published in academic journals, 6 are contributions to an edited volume and 5 are working papers.

economic growth where it has been identified as a powerful driver of economic growth for a newly industrializing economy to keep abreast with the world's most advanced country as a mover of production efficiency and a shifter of production frontier. A more recent study by Ouyang and Fu (2012) discovers a positive effect of FDI on growth where inter-regional spillovers studied from the coastal FDI is found to be positively and significantly related to economic growth in inland regions.

On the other hand, other studies find that FDI is negatively related to growth. As Görg and Greenaway (2004) review most of the previous empirical literature which investigates the FDI-growth nexus, they discover that a great deal of the work does not find positive spillover and thus conclude that the effects of FDI on growth are mostly negative. As shown by an earlier study by Aitken and Harrison (1999), the study empirically finds that FDI has a negative consequence on the productivity of domestically owned plants.

Elia et al. (2009) finds that the impact of outward FDI is negative to the home country when foreign affiliates come from high income countries. Doytch and Uctum (2011) that investigate the effects of manufacturing and service FDI on their own sector growth, the spillover to other sectors and the overall economy in the host country, find that the impact of total FDI on the whole growth in the service-based economies is also negative. Furthermore, as also found by other studies, FDI has no significant effect on economic growth. Herzer et al. (2008) that examine the link of FDI-growth for 28 developing countries find no existence of positive unidirectional long-term effect of FDI to GDP in any country. Carkovic and Levine (2002) who empirically revisits the relationship of FDI and economic growth find that the exogenous component of FDI does not give any positive impact to economic growth. The other study by Beugelsdijk et al. (2008) also finds no significant effect in developing countries, either from horizontal (market seeking) or vertical (efficiency seeking) FDI even if there are empirically positive and significant growth effects established in developed countries in both types of FDI.

FDI-Growth and Absorptive Capacity

Generally, previous literature has recognized the fact that the impact of FDI on economic growth is ascertained by certain local characteristics of the host countries. More specifically, it refers to an absorptive capacity that is recognized by past studies as a key explanation for the inconclusive and ambiguous findings in the FDI-growth nexus. As highlighted by Alfaro et al. (2009), absorptive capacity is described as a precondition that aids a country to garner the diverse benefits and positive impacts of FDI spillovers. Thus, the country's local conditions matter as they can restrict the extent to which FDI benefits materialize.⁸

In a study by Cohen and Levinthal, an absorptive capacity is defined as “...an ability of a firm to recognize the value of new, external information, assimilate it and apply it to commercial ends” (1990: 128). Cohen and Levinthal (1990) also conclude that since absorptive capacity is intangible, its benefits are indirect and it appears as part of the firm's innovative capabilities. Thus, abundant past studies dwelling into FDI spillovers have made a serious effort in considering the element of absorptive capacity as the main channel towards investigating the effects of the FDI-growth nexus. Collectively, past studies empirically find that with a precondition of absorptive capacity determined by multiple factors, it contributes to a positive relationship of FDI and economic growth (Blomstrom et al. 1992; Borensztein et al. 1998; Branstetter 2006; Sinani & Meyer 2004).

⁸ Alfaro et al. (2009) mainly find that the improvement in total factor productivity plays an important role in benefiting from FDI spillovers and capital accumulation in both physical and by contrast, human however does not.

Furthermore, recent empirical literature has brought forth the assertion that financial development is a key explanation for the inconclusive and ambiguous findings in the FDI-growth nexus where financial development is found to serve as a precondition in enabling the positive growth effects of FDI to be realized. Financial development is recognized as an important absorptive capacity due to its major functions in the country's financial system that includes both banking and stock market sectors. Alfaro et al. (2009) provide evidence that financial markets act as a channel in facilitating the positive growth effects of FDI to be realized where the study finds that countries with well-developed financial markets gains significantly from FDI through total factor productivity improvements.

Financial Development-Growth Nexus

In the finance-growth nexus literature, a large body of research has shown that financial development exerts positive impact on economic growth. The theoretical foundation of the relationship between financial development and economic growth has been discussed over the decades since the earlier works by Schumpeter (1911) and later by McKinnon (1973) and Shaw (1973). These classical views have recognized financial sector development as a major catalyst that contributes positively to economic growth. Well-functioning financial sectors have been shown to enhance economic growth by lowering transaction costs, reducing market frictions and ensuring that capital flows are steered towards the most productive use possible.

Levine (1997) provides a theoretical review which proves that financial development plays an important role to the country's economic growth. Levine (1997) highlights five functions of financial system i.e. facilitate risk management, allocate resources, exert corporate control, mobilize savings and ease trading of goods and services which consequently channels capital accumulation as well as technological innovation to growth. The more efficient the functions the more developed financial development will be which impliedly ameliorate market frictions of information and transaction costs. Levine (2005) further discusses the five major functions of financial system in detail which provides different implications in every dimension due to the possible improvements of the functions that consequently enhance economic growth.

Bertocco (2008) theoretically stresses on the positive linkage between financial development and economic growth by way of re-assessing some crucial elements derived from Schumpeter's theoretical framework which includes innovation and credit. Collectively, past studies have also empirically proven that there exist positive strong and robust relationship between financial development and economic growth (see, for examples King & Levine 1993a,b; Levine & Zervos 1996, 1998; Arestis et al. 2001; Beck & Levine 2004; Kendall 2012; Law et al. 2013). More recent studies also show that finance is of utmost importance for growth (see, for examples Ergungor 2008; Hung 2009; Hasan et al. 2009; Jalil et al. 2010; Kendall 2012; Law et al. 2013; among others). These studies collectively find that financial development has a positive link with economic growth. As an instance, Ergungor (2008) and Hung (2009) provide evidence that there is a contingent relationship between the two. In addition, Hung (2009) also discovers that the effect of financial development on economic growth is determined by the magnitude levels of investment loans and consumption loans. Hasan et al. (2009) find that the development of the financial markets is associated with more robust economic growth. Another research by Jalil et al. (2010) re-examines the finance-growth nexus in China and it is discovered that the growth of the Chinese economies is driven by its financial development.

Overall, past literature has shown that financial development clearly functions as a key engine to economic growth. The substantial role of financial development is recognized in the promotion of growth through its various major functions. Financial management is important for growth, as a well-

functioning financial system highlights the consequent low levels of asymmetric information and transaction cost which ultimately promote the flows of capital to be directed to the most productive use and to affect economic growth in a positive manner.

FDI-Financial Development-Growth Nexus

Studies on FDI-growth nexus are extended by introducing financial development as an absorptive capacity or a channel of the link. Financial development appears to be the key explanation for the inconclusive findings of the relationship between FDI and growth. In other words, financial development performs as a precondition to the country in facilitating the positive growth effects of FDI spillovers. Extensive studies that empirically investigate the role of financial development in FDI-growth nexus collectively find a positive relationship between FDI and growth with the existence of well-functioning financial system in a country (see, for examples Hermes & Lensink 2003; Alfaro et al. 2004, 2010; Azman-Saini et al 2010; Choong 2012; among others). Hermes and Lensink (2003), Alfaro et al. (2010, 2004), Ang (2009), Lee and Chang (2009) and Azman-Saini et al. (2010) empirically find that the level of the financial development contributes to the FDI-growth nexus where the higher level of financial development influences the stronger relationship of FDI and economic growth. These studies provide strong evidence that a well-functioning financial development causes the link of FDI-growth to be positive through the higher capability of the country in materializing the positive effects of FDI spillovers.

Hermes and Lensink (2003) conclude that FDI of LDCs positively contributes to growth only when their domestic financial systems are improved. Hermes and Lensink (2003) empirically analyze the cross section of the data set of 67 of less developed countries (LDCs), from the Latin American and Asian continents, for the period of 1970 to 1995 using the regressions of growth equation. Alfaro et al. (2004) show consistent evidence similar to that of Hermes and Lensink (2003), where the level of local financial markets is important in realizing the positive effects of FDI-growth link. The study empirically examine the link of FDI and economic growth with financial markets as a channel using cross-country data for the period of 1975-95 for 20 OECD countries and 51 non-OECD countries for the first data set of credit market indicators and 20 OECD countries and 29 non-OECD countries for the second data set of equity market indicators. Consistent with Alfaro et al. (2004), Alfaro et al. (2010) improve their work by providing new evidence on the importance of the well-developed markets in the FDI-growth nexus. Alfaro et al. (2010) adopt a different approach to examine the role of local financial markets in mediating FDI effects on output growth, by means of applying a calibration exercise and sensitivity analysis. The findings of the study reveal that an increase in FDI leads to higher growth rates in financially developed countries as compared to their poorer counterparts.

Meanwhile Choong et al. (2005) also suggest when a recipient country has a well-developed and well-functioning financial sector FDI is more likely to enhance its economic growth in a more efficient manner. It is indirectly suggest that the process of technological spillovers may be more efficient in the presence of well-functioning financial systems. Choong et al. (2005) examine the role of financial system in transferring the technological diffusion embodied in FDI inflows in the Malaysian economy for the period of 1970-2001 by applying bound test or unrestricted error correction model (UECM). Other empirical studies by Lee and Chang (2009) and Azman-Saini et al. (2010) also consistently establish the same finding of the positive link of FDI-growth with the pre-condition that the financial development has reached a certain level. Study by Azman-Saini et al. (2010) which includes cross-country observation for 91 countries for the period of 1975-2005, employed private sector credit as a threshold variable in the regressions, whereas Lee and Chang (2009) use a set of 37

countries using annual data of 1970-2002 and apply a panel-based ADF unit root tests as well as Pedroni's panel cointegration tests. A more recent study by Choong (2012) discovers new evidence on the FDI-growth nexus that confirms yet again the domestic financial development as a pre-requisite for the realization of the positive growth effects of FDI. Choong (2012) examines the relationship of FDI, financial development and economic growth in a panel of 95 developed and developing countries over the period from 1983 to 2006 using dynamic panel GMM estimation.

CONCLUSION

Overall, the existing empirical literature shows that a well-functioning financial development causes the link of FDI-growth to be positive as it enabling a country in materializing the positive effects of FDI spillovers. While extensive literature that has investigated the impact of FDI on economic growth has produced mixed results, recent literature has identified an absorptive capacity as a key explanation for the ambiguous and inconclusive findings of the FDI-growth nexus where financial development is found to serve as one form of absorptive capacity that enhances the positive growth effects of FDI. The financial development is thus recognized as a new form of absorptive capacity in enabling a country to realize the positive growth effects of FDI, and thus is expected to enhance understanding of the FDI-financial development-growth framework.

REFERENCES

- Aghion, P. & Howitt, P. 1998. *Endogenous Growth Theory*. The MIT Press: Cambridge MA.
- Aitken, B. J. & Harrison, A. E. 1999. Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *The American Economic Review* 89: 605-618.
- Albuquerque, R. 2003. The composition of international capital flows: risk sharing through foreign direct investment. *Journal of International Economics* 61: 353-383.
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S. & Sayek, S. 2004. FDI and economic growth: the role of local financial markets. *Journal of International Economics* 64: 89-112.
- Alfaro, L., Kalemli-Ozcan, S. & Sayek, S. 2009. FDI, productivity and financial development. *The World Economy* 32(1): 111-135.
- Ang, J. B. 2009. Financial development and the FDI-growth nexus: the Malaysian experience. *Applied Economics* 41: 1595-1601.
- Anwar, S. & Nguyen, L. P. 2011. Foreign direct investment and export spillovers: evidence from Vietnam. *International Business Review* 20: 177-193.
- Arestis, P., Demetriades, P. & Luintel, K. B. 2001. Financial development and economic growth: the role of stock market. *Journal of Money, Credit and Banking* 33(1): 16-41.
- Azman-Saini, W. N. W., Law, S. H. & Abdul Halim, A. 2010. FDI and economic growth: new evidence of the role of financial markets. *Economics Letters* 210: 211-213.
- Balasubramanyam, V. N., Salisu, M. & Sapsford, D. 1996. Foreign direct investment and growth in EP and IS countries. *The Economic Journal* 106(434): 92-105.
- Beck, T. & Levine, R. 2004. Stock markets, banks and growth: panel evidence. *Journal of Banking & Finance* 28: 423-442.
- Bertocco, G. 2008. Finance and development: is Schumpeter's analysis still relevant? *Journal of Banking & Finance* 32: 1161- 1175.
- Beugelsdijk, S., Smeets, R. & Zwinkels, R. 2008. The impact of horizontal and vertical FDI on host's country economic growth. *International Business Review* 17: 452-472.

- Bird, G. & Rajan, R. S. 2002. Does FDI guarantee the stability of international capital flows? Evidence from Malaysia. *Development Policy Review* 20(2): 191-202.
- Blomstrom, M. 1986. Foreign investment and productive efficiency: the case of Mexico. *The Journal of Industrial Economics* 35(1): 97-110.
- Blomstrom, M., Lipsey, R. E. & Zejan, M. 1992. What explains developing country growth? National Bureau of Economic Research Working Paper No. 4132. Cambridge.
- Branstetter, L. 2006. Is foreign direct investment is channel of knowledge spillovers? Evidence from Japan's FDI in the United States. *Journal of International Economics* 68: 325-344.
- Carkovic, M. & Levine, R. 2002. Does foreign direct investment accelerate economic growth? University of Minnesota Department of Finance Working Paper.
- Chakraborty, C. & Nunnenkamp, P. 2008. Economic reforms, FDI and economic growth in India: a sector level analysis. *World Development* 36(7): 1192-1212.
- Choong, C. K. 2012. Does the domestic financial development enhance the linkages between foreign direct investment and economic growth? *Empirical Economics* 42: 819-834.
- Chuhan, P., Perez-Quiros, G. & Popper, H. 1996. International capital flows, do short-term investment and direct investment differ? The World Bank Policy Research Working Paper WPS 1669.
- Choong, Chee-Keong, Zulkornain, Y. & Soo, Siew-Choo. 2005. Foreign direct investment and economic growth in Malaysia: the role of domestic financial sector. *The Singapore Economic Review* 50(2): 245-268.
- Cohen, W. M. & Levinthal, D. A. 1990. Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly* 35(1): 128-152.
- Crespo, N. & Fontoura, M. P. 2007. Determinant factors of FDI spillovers – what do we really know? *World Development* 35(3): 410-425.
- Damijan, J. P., Knell, M., Majcen, B. & Rojec, M. 2003. The role of FDI, R&D accumulation and trade in transferring technology to transition countries: evidence from firm level data for eight transition countries. *Economic Systems* 27: 189-204.
- De Mello, Jr., L. R. 1999. Foreign direct investment-led growth: evidence from time series and panel data. *Oxford Economic Papers* 51: 133-151.
- Doytch, N. & Uctum, M. 2011. Does the worldwide shift of FDI from manufacturing to services accelerate economic growth? A GMM estimation study. *Journal of International Money and Finance* 30: 410-427.
- Elia, S., Mariotti, I. & Piscitello, L. 2009. The impact of outward FDI on the home country's labor demand and skill composition. *International Business Review* 18: 357-372.
- Elsadig, M. A. 2012. Are the FDI inflow spillover effects on Malaysia's economic growth input driven? *Economic Modelling* 29: 1498-1504.
- Ergungor, O. E. 2008. Financial system structure and economic growth: structure matters. *International Review of Economics and Finance* 17: 292-305.
- Froot, K. A. 1993. *Foreign Direct Investment*. National Bureau of Economic Research. University of Chicago Press.
- Görg, H. & Greenaway, D. 2004. Much ado about nothing? Do domestic firms really benefit from foreign direct investment? *The World Bank Research Observer* 19(2): 171-197.
- Hanousek, J., Kocenda, E. & Maurel, M. 2011. Direct and indirect effects of FDI in emerging European markets: a survey and meta-analysis. *Economic Systems*. doi:10.1016/j.ecosys.2010.11.006
- Hasan, I., Wachtel, P. & Zhou, M. 2009a. Institutional development, financial deepening and economic growth: evidence from China. *Journal of Banking & Finance* 33: 157-170.

- Hermes, N. & Lensink, R. 2003. Foreign direct investment, financial development and economic growth. *The Journal of Development Studies* 40(1): 142-163.
- Herzer, D., Klasen, S. & Nowak-Lehmann, D. F. 2008. In search of FDI-led growth in developing countries: the way forward. *Economic Modelling* 25: 793-810.
- Hung, F.S. 2009. Explaining the nonlinear effects of financial development on economic growth. *Journal of Economics* 97(1): 41-65.
- Jalil, A., Feridun, M. & Ma, Y. 2010. Finance-growth nexus in China revisited: new evidence from principal components and ARDL bounds tests. *International Review of Economics and Finance* 19: 189-195.
- Konings, J. 2001. The effects of foreign direct investment on domestic firms: evidence from firm-level panel data in emerging economies. *Economics of Transition* 9(3): 619-633.
- Kendall, J. 2012. Local financial development and growth. *Journal of Banking & Finance* 36: 1548-1562.
- King, R. G. & Levine, R. 1993a. Finance and growth: Schumpeter might be right. *The Quarterly Journal of Economics* 108(3): 717-737.
- King, R. G. & Levine, R. 1993b. Finance, entrepreneurship and growth: theory and evidence. *Journal of Monetary Economics* 32: 513-542.
- Lai, M., Wang, H. & Zhu, S. 2009. Double-edged effects of the technology gap and technology spillovers: evidence from Chinese industrial sector. *China Economic Review* 20: 414-424.
- Law, S. H., Azman-Saini, W. N. W. & Mansor H. Ibrahim. 2013. Institutional quality thresholds and the finance – growth nexus. *Journal of Banking & Finance* [http://dx. doi.org/ 10.1 016/j.jbank fin.2013.03.011](http://dx.doi.org/10.1016/j.jbankfin.2013.03.011).
- Lee, Chien-Chiang & Chang, Chun-Ping. 2009. FDI, financial development and economic growth: international evidence. *Journal of Applied Economics* 12(2): 249-271.
- Levine, R. 1997. Financial development and economic growth: views and agenda. *Journal of Economic Literature* 35: 688-726.
- Levine, R. 2005. *Finance and growth: theory & evidence*, in Aghion, P. & Durlaff, S. (eds), Handbook of economic Growth. Elsevier Science. The Netherlands.
- Levine, R. & Zervos, S. 1996. Stock market development and long-run growth. Policy Research Working Paper WPS1582. The World Bank Policy Research Department.
- Levine, R. & Zervos, S. 1998. Stock markets, banks and economic growth. *The American Economic Review* 88(3): 537-558.
- Li, X. & Liu, X. 2005. Foreign direct investment and economic growth: an increasingly endogenous relationship. *World Development* 33(3): 393-407.
- Lipse, R. E. 1999. The role of foreign direct investment in international capital flows. NBER Working Paper No. 7094. Cambridge, MA.
- Liu, Z. 2002. Foreign direct investment and technology spillover: evidence from China. *Journal of Comparative Economics* 30: 579-602.
- Liu, Z. 2008. Foreign direct investment and technology spillovers: theory and evidence. *Journal of Development Economics* 85: 176-193.
- McKinnon, R.I. 1973. *Money and Capital in Economic Development*. Washington, DC: The Brookings Institution.
- OECD. 2003. *Checklist for Foreign Direct Investment Incentive Policies*. France: OECD Publications.
- Ouyang, P. & Fu, S. 2012. Economic growth, local industrial development and inter-regional spillovers from foreign direct investment: evidence from China. *China Economic Review* 23: 445-460.

- Temiz, D. & Gokmen, A. 2013. FDI inflow as an international business operation by MNCs and economic growth: an empirical study on Turkey. *International Business Review*. <http://dx.doi.org/10.1016/j.ibusrev.2013.03.003>
- Sadik, A. T. & Bolbol, A. A. 2001. Capital flows, FDI and technology spillovers: evidence from Arab countries. *World Development*. 29 (12): 2111-2125.
- Schumpeter, J. A. 1911. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, MA: Harvard University Press.
- Shaw, E.S. 1973. *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Sinani, E. & Meyer, K. E. 2004. Spillovers of technology transfer from FDI: the case of Estonia. *Journal of Comparative Economics* 32: 445-466.
- UNCTAD. 2010. *World Investment Report 2010. Investing in a Low-Carbon Economy*. New York and Geneva: United Nations.
- Vu, T. B. & Noy, I. 2009. Sectoral analysis of foreign direct investment and growth in the developed countries. *International Financial Markets, Institutions and Money* 19: 402–413.
- Yalta, A. Y. 2013. Revisiting the FDI-led growth hypothesis: the case of China. *Economic Modelling* 31: 335-343.
- Yao, S. & Wei, K. 2007. Economic growth in the presence of FDI: the perspective of newly industrializing economies. *Journal of Comparative Economics* 35: 211-234.