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Foreign Direct Investment and Economic Growth
Literature Review from 1994 to 2012

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Abstract

Foreign direct investment (FDI) has been viewed as a power affecting economic growth (EG) directly and indirectly during the past few decades. This paper reviewed an amount of researches examining the relationships between FDI and EG, especially the effects of FDI on EG, from 1994 up to 2012. The results show that the main finding of the FDI-EG relation is significantly positive, but in some cases it is negative or even null. And within the relation, there exist several influencing factors such as the adequate levels of human capital, the well-developed financial markets, the complementarity between domestic and foreign investment and the open trade regimes, etc.

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1. Introduction

The market internationalization has encouraged companies to formulate diverse approaches to internationalized business, which resulted in extensive activities such as Foreign Direct Investment (FDI). The International Monetary Fund (IMF) defined the (FDI) as the investment that involves a long-term relationship reflecting a lasting interest of a resident entity in one economy (direct investor) in an entity resident in an economy other than that of the investor. According to the World Bank, FDI refers to the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise, operating in an economy other than that of the investor and can be further developed as the sum of equity capital, reinvestment of earnings, other long term capital, and short-term capital as shown in the balance of payments in that economy. It is generally seen as a composite bundle of capital stock and technology, and can augment the existing stock of knowledge in the host, economy through labor training, skill acquisition and diffusion, and the introduction of new managerial practices and organizational arrangements (De Mello, 1999). In short, FDI can impact economic growth directly and indirectly.

2. Literature Review

2.1. Definitions of FDI

FDI is regarded as the ownership or control of 10 percent or more of an enterprise's voting securities or the equivalent interest in an unincorporated business (Griffin & Pustay, 2007). Farrell (2008) defined FDI as a package of capital, technology, management, and entrepreneurship, which allows a firm to operate and provide goods and services in a foreign market. From a theoretical viewpoint, FDI can be divided into two categories: Horizontal and Vertical. Horizontal FDI (HFDI) is a type of investment which is in the same industry operating abroad as a firm operate, or offers the same services as it does at home, and tends to produce for local or original markets only without exporting much output to host country (Maskus, 2002); (Haile & Assefa, 2006). It seeks to take advantages of a new large market, which is considered as traditional motive for FDI. It is widely used by Japanese MNE's in their international expansion because they believe that this model will help to reduce the risk and enable them to share experience, resources, and acknowledgment that already have developed at home (Botrić & Škuflić, 2006). In addition, (Mariotti et al. (2003) stated that FDI inflows to advanced countries are usually horizontal investments driven by market seeking strategies. And according to (Botrić & Škuflić, 2006), HFDI replicates the whole production process of the home country in a foreign country.

2.2. Definitions of Economic Growth

Economic growth per capita is primarily driven by improvements in productivity, also called economic efficiency. Increased productivity means producing more goods and services with the same inputs of labour, capital, energy, and/or materials. For example, labour and land productivity in agriculture were increased during the Green Revolution. The Green Revolution of the 1940s to 1970s introduced new grain hybrids, which increased yields around the world. A high savings rate is also linked to the standard of living. Higher saving will in the long run lead to a permanently higher output (income) per capita as capital accumulation per individual also increases. Thus, growth is usually calculated in real terms, i.e. inflation-adjusted terms, in order to obviate the distorting effect of inflation on the price of the goods produced. In economics, "economic growth" or "economic growth theory" typically refers to growth of potential output, i.e., production at "full employment", which is caused by growth in aggregate demand or
observed output. It is conventionally measured as the percent rate of increase in real gross domestic product (GDP). GDP growth is an indication that businesses are hiring and investing. These indicators are mostly statistics that show government-issued health and growth of the country, especially in the economic front.

2.3. Relation between FDI and Economic Growth

Theoretically, FDI is concerned to directly impact growth through capital accumulation, and the incorporation of new inputs and foreign technologies in the production function of the host country. Empirically, Neoclassical and endogenous growth models have been widely used to test those theoretical benefits of FDI. However, the results are varying. The reasons include sample selection (e.g. developed versus less developed countries), the selected estimation techniques (e.g. OLS, Granger Causality, Cointegration, Error correction models), and the selected time period, the estimation methodology (i.e. time series versus cross-section), etc. Table 1 presents several researches on the general relationship between FDI and EG.

Table 1: Researches on the General FDI - EG Relation (1999-2012)

<table>
<thead>
<tr>
<th>FDI effects on EG</th>
<th>Sources</th>
<th>Data Span</th>
<th>Empirical Approach</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nair-Reichert and Weinhold (2001)</td>
<td>24 developing countries 1971-1995.</td>
<td>Mixed fixed and random coefficient approach.</td>
<td>FDI on average has a significant impact on growth but the relationship is heterogeneous across countries.</td>
</tr>
</tbody>
</table>
2.4. Relation between FDI and Economic Growth

Firstly, the FDI’s interaction with human capital has received considerable attention. (Borensztein, De Gregorio, & Lee, 1998) found in a cross-country regression framework for 69 less-developed countries in the period 1970-89, that inward FDI has positive effects on growth through its interaction with human capital. And FDI contributed more to growth than domestic investment and it also had the effect of increasing domestic investment. According to them, it should be noted that growth equations are extremely sensitive to proxies of human capital. In a panel data framework for a sample of 18 Latin American countries for the period 1970-99, (Bengoa & Sanchez-Robles, 2003) stated that in order for a positive effect from FDI to be achieved, the country must have an adequate level of economic stability, and liberalized capital markets, as well as human capital. (Li & Liu, 2005) in a panel data analysis for 84 countries over the period 1970-99 found that FDI affects growth directly and also indirectly through its interaction with human capital.

Regarding the complementarity between domestic and foreign investment, (Kentor, 1998) calculated foreign capital dependence and showed that countries with a relatively high dependence on foreign capital...
exhibit slower economic growth than less-dependent countries for the years 1940-1990, which also supports the earlier findings of (Dixon & Boswell, 1996). They argued that foreign investment has an initial positive effect on growth but in the long run the dependence on foreign investment exerts a negative effect on growth, because the infrastructure and institutions that develop with foreign investment support further foreign investment; and negative externalities such as unemployment, over-urbanization, and income inequality perpetuate the problem. (Kentor & Boswell, 2003) selected a different measure - foreign investment concentration - the percentage of total foreign direct investment stocks accounted for by the top investing country, still illustrated a long term negative effect on growth.

Furthermore, similar to (Borensztein et al., 1998), (De Mello, 1999) by utilizing a sample of OECD and non-OECD countries over the period 1970-90, concludes that the long-term growth in host countries is determined by the spill overs of technology and knowledge from the investing countries to host countries, and its extent is determined by the complementary and substitution between FDI and domestic investment. In the non-OECD sample, he demonstrated no causation from FDI to growth based on fixed effects regressions and a negative short run impact of FDI on GDP, indicating that growth benefits may be restricted to higher income countries. Along this same theme, (Blomstrom, Lipsey, & Zejan, 1994) in a cross-country analysis of 78 developing countries also found that FDI had positive effect on growth rates for higher income developing countries, but not for lower income ones. Finally, the trade regime also plays a role in the transmission of positive growth effects from FDI. (Balasubramanyam, Salisu, & Sapsford, 1996) from an annual cross-sectional data for 46 developing countries in a fixed effects model supported that the growth effect of FDI is positive in the export promoting countries but negative in the import substituting ones. Similarly, (Zhang, 2001), using cointegration and error correction techniques, found FDI enhances economic growth in Hong Kong, Indonesia, Singapore, Taiwan, and Mexico from 11 selected countries in the study; and for the other six countries without cointegration links, unidirectional causal effects were disclosed in five countries. Table 2 demonstrates the main findings of the literature reviewed in terms of the influencing factors in the FDI-EG relation from 1994 to 2012.

Table 2: Researches on the Influencing Factors (IF) in the FDI - EG Relation (1996-2011)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Effects on FDI-EG</th>
<th>Sources</th>
<th>Data Span</th>
<th>Empirical Approach</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Li and Liu (2005)</td>
<td>21 developed and 63 developing 1970-1999.</td>
<td>OLS regressions with random effects and 3SLS.</td>
<td>Positive interaction with human capital in developing countries.</td>
</tr>
<tr>
<td>Dependency on Foreign Investment</td>
<td>Financial Markets Development</td>
<td>Income Level of Host Country</td>
<td>Technological Gap</td>
<td>Quality of The Political Environment</td>
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<tr>
<td>Positive</td>
<td>Positive</td>
<td>Positive</td>
<td>Negative</td>
<td>Significant</td>
<td></td>
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<tr>
<td>Negative</td>
<td>Negative</td>
<td>Negative</td>
<td>Negative interaction with technological gap in developing countries.</td>
<td>Positive</td>
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<td>Positive</td>
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FDI had a positive effect directly and indirectly with its interaction with labor on growth in the industrial sector. Other sectors gained very little growth benefit from sector specific FDI.

Significantly affect the relationship between inward FDI and growth.
3. Conclusion

To conclude, the previous studies on the FDI-EG relation have largely proved that FDI exerts positive effects on the host country’s economic growth. Only in a few cases occurred negative or null effects. To further explore how those effects happened, several influencing factors were investigated. It was found that the adequate levels of human capital, the well-developed financial markets and the open trade regimes play positive role in the FDI-EG relation; while the dependency on foreign investment and technical gap negatively contribute to the relation. Additionally, the affect from the income level of host country is conflicting and the quality of political environment shall also be paid attention to.

References


