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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)

FDI effects on EG	Sources	Data Span	Empirical Approach	Remarks
Significant (Positive)	Manuchehr and Ericsson (2001a)	Denmark, Finland, Sweden, and Norway 1970-1997.	Lag-augmented vector autoregression.	FDI to growth causality for Norway.
	Nair-Reichert and Weinhold (2001)	24 developing countries 1971- 1995.	Mixed fixed and random coefficient approach.	FDI on average has a significant impact on growth but the relationship is heterogeneous across countries.
	Choe (2003)	80 developed and developing countries, 1971- 1995.	Granger causality test of Holtz-Eakin.	FDI Granger causes economic growth.
	Chowdhury and Mavrotas (2006)	Chile, Malaysia, and Thailand 1969-2000.	Lag-augmented vector autoregression.	Bidirectional causality in Malaysia and Thailand.
	Shaikh (2010)	47 developing countries 1981- 1999.	OLS regressions.	Positive in manufacturing sector.
	Griffiths and Sapsford (2004)	Mexico 1970-1999.	OLS regressions.	Two-period lag of FDI was found significant in the period 1980-1999.
	Chakraborty and Nunnenkamp (2006)	India 1987-2000.	Granger causality tests cointegration.	Bidirectional causality in manufacturing sector.
	Al-Iriani (2007)	Bahrain, Kuwait, Oman, Saudi Arabia, and United Arab Emirates 1970-2004.	Granger causality test of Holtz-Eakin.	Bidirectional causality between FDI and economic growth.

	Shaikh (2010)	Malaysia 1970-2005.	OLS regressions.	There is significant relationship between economic growth and foreign direct investment inflows (FDI) in Malaysia.
	Faras and Ghali (2009)	GCC countries 1970-2006.	Test results for unit roots and test results for unit roots.	The significant existence of the importance and contribution of FDI inflows to economic growth.
	Umoh, Jacob and Chuku (2012)	Nigeria 1970-2008.	Single and simultaneous equation systems.	There is positive feedback from FDI to growth and from growth to FDI in Nigeria.
Weak	De Mello (1999)	32 developed and developing countries 1970- 1990.	Stationarity tests.	weak evidence for FDI effects on economic growth.
Null	Manuchehr and Ericsson (2001)	Denmark, Finland, Sweden, and Norway 1970-1997.	Lag-augmented vector autoregression.	No causal relationship for Finland and Denmark.
	Chowdhury and Mavrotas (2006)	Chile, Malaysia, and Thailand 1969- 2000.	Lag-augmented vector autoregression.	No relationship in Chile.
	Chakraborty and Nunnenkamp (2006)	India 1987-2000.	Granger causality tests cointegration.	No causal relationship in primary sector.
	Sarkar (2007)	51 lesser developed countries 1970- 2002.	OLS fixed and random effects regressions. Autoregressive distributive Lag approach.	In the majority of cases there is no long term relation between FDI and economic growth.
Negative	Shaikh (2010)	47 developing countries 1981- 1999.	OLS regressions.	Negative effect in primary sector.
	Khaliq and Noy (2007)	Indonesia 1998- 2006.	OLS fixed effects regression.	Negative effect on growth in the mining and quarrying sector.

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)

Factors	Effects on FDI-EG	Sources	Data Span	Empirical Approach	Remarks
Levels of Human Capital in Host Country	Positive	Borensztein et al. (1998)	69 developing countries 1970- 1989.	Regression estimations using SUR technique.	
		Bengoa and Sanchez-Robles (2003)	18 Latin American countries 1970-1999.	Regression analysis, fixed and random effects.	
		Li and Liu (2005)	21 developed and 63 developing 1970-1999.	OLS regressions with random effects and 3SLS.	Positive interaction with human capital in developing countries.

		Vu, Gangnes and Noy (2008)	China and Vietnam 1985-2004.	Feasible generalized least squares.	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.
		Solomon (2011)	A panel of 111 countries 1981 – 2005.	System GMM estimator.	Significantly affect the relationship between inward FDI and growth.
Financial Markets Development	Positive	Bengoa and Sanchez-Robles (2003)	18 Latin American countries 1970-1999.	Regression analysis, fixed and random effects.	
		Alfaro, Chanda, Kalemli-Ozcan and Sayek (2004)	71 developed and developing countries 1975-1995.	OLS Regressions and IV technique.	
		Durham (2004)	80 countries 1979-1998.	IV estimation with 2SLS.	
Dependency on Foreign Investment	Negative	Kentor (1998)	79 developed and developing countries 1938-1990.	OLS regressions.	
		Kentor and Boswell (2003)	39 less developed countries 1970- 1995.	OLS Regressions.	
Open Trade Regimes	Positive	Balasubramanyam et al. (1996)	46 developing countries 1970- 1985.	OLS regressions.	
		Zhang (2001)	11 developing countries in East Asia and Latin America, 1957-1997.	Granger causality tests.	
Income Level of Host Country	Positive	Blomstrom et al. (1994)	78 developing countries 1960-85.	OLS Regressions.	
	Negative	Solomon (2011)	A panel of 111 countries 1981 – 2005.	System GMM estimator.	The level of economic development.
Technological Gap	Negative	Lia and Liu (2005)	21 developed and 63 developing 1970-1999.	OLS regressions with random effects and 3SLS.	Negative interaction with technological gap in developing countries.
Quality of The Political Environment	Significant	Solomon (2011)	A panel of 111 countries 1981 – 2005.	System GMM estimator.	

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

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*(1), 89–112.

Al-Iriani, M. (2007). Foreign direct investment and economic growth in the GCC countries: A causality investigation using heterogeneous panel analysis. *Topics in Middle Eastern and North African Economies*, *9*(1), 1–31.

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.

Bengoa, M., & Sanchez-Robles, B. (2003). Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European journal of political economy*, *19*(3), 529–545.

Blomstrom, M., Lipsey, R. E., & Zejan, M. (1994). What explains developing country growth? In W. J. Baumol (Ed.), *Convergence of Productivity: Cross-National Studies and Historical Evidence* (9th ed.). New York: Oxford University Press, Incorporated.

Borensztein, E., De Gregorio, J., & Lee, J.-W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, *45*(1), 115–135.

Botrić, V., & Škuflić, L. (2006). Main Determinants of Foreign Direct Investment in the Southeast European Countries. *Transition Studies Review*, *13*(2), 359–377.

Chakraborty, C., & Nunnenkamp, P. (2006). Economic reforms, foreign direct investment and its economic effects in India. Germany: Kieler Arbeitspapiere.

Choe, J. Il. (2003). Do Foreign Direct Investment and Gross Domestic Investment Promote Economic Growth? *Review of Development Economics*, *7*(1), 44–57.

Chowdhury, A., & Mavrotas, G. (2006). FDI and Growth: What Causes What? *World Economy*, *29*(1), 9–19.

De Mello, L. R. (1999). Foreign direct investment-led growth: evidence from time series and panel data. *Oxford Economic Papers*, *51*(1), 133–151.

Dixon, W. J., & Boswell, T. (1996). Dependency, disarticulation, and denominator effects: Another look at foreign capital penetration. *American Journal of Sociology*, *102*(2), 543–562.

Durham, J. B. (2004). Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. *European economic review*, *48*(2), 285–306.

Faras, R. Y., & Ghali, K. H. (2009). Foreign direct investment and economic growth: the case of the GCC countries. *International Research Journal of finance and economics*, (29), 134–145.

Farrell, R. (2008). *Japanese Investment in the World Economy: A Study of Strategic Themes in the Internationalisation of Japanese Industry*. britain: Edward Elgar.

Griffin, R. W., & Pustay, M. W. (2007). *International Business: A Managerial Perspective* (5th ed.). New Jersey: Pearson/Prentice Hall.

Haile, G. A., & Assefa, H. (2006). Determinants of Foreign Direct Investment in Ethiopia: A time-series analysis. In *4th International Conference on the Ethiopian Economy,10-12 Jun* (pp. 1–26). Addis Ababa, Ethiopia.

Kentor, J. (1998). The Long-Term Effects of Foreign Investment Dependence on Economic Growth, 1940-1990. *American Journal of Sociology*, *103*(4), 1024–1046.

Kentor, J., & Boswell, T. (2003). Foreign capital dependence and development: A new direction. *American sociological review*, *68*(2), 301–313.

Khaliq, A., & Noy, I. (2007). Foreign direct investment and economic growth: Empirical evidence from sectoral data in Indonesia. Retrieved from http://www.economics.hawaii.edu/research/workingpapers/WP_07-26.pdf

Li, X., & Liu, X. (2005). Foreign direct investment and economic growth: an increasingly endogenous relationship. *World development*, *33*(3), 393–407.

Manuchehr, I., & Ericsson, J. (2001a). On the causality between foreign direct investment and output: a comparative study. *The International Trade Journal*, *15*(1), 1–26.

Manuchehr, I., & Ericsson, J. (2001b). On the causality between foreign direct investment and output: a comparative study. *The International Trade Journal*, *15*(1), 1–26.

Maskus, K. E. (2002). Intellectual property rights and foreign direct investment. *Journal of International Economics*. Australia.

Nair- Reichert, U., & Weinhold, D. (2001). Causality Tests for Cross- Country Panels: a New Look at FDI and Economic Growth in Developing Countries. *Oxford bulletin of economics and statistics*, *63*(2), 153–171.

Sarkar, P. (2007). Does Foreign Direct Investment Promote Growth? Panel data and Time Series Evidence from Less Developed Countries, 1970-2002. *MPRA*, *6*(5176), 1–23.

Shaikh, F. M. (2010). Causality Relationship Between Foreign Direct Investment, Trade And Economic Growth In Pakistan. In *International Business Research* (Vol. 1, pp. 11–18). Harvard Business School.

Solomon, E. M. (2011). Foreign Direct Investment, Host Country Factors and Economic Growth. *Ensayos Revista de Economia*, *30*(1), 41–70.

Umoh, O., Jacob, A., & Chuku, C. (2012). Foreign Direct Investment and Economic Growth in Nigeria: An Analysis of the Endogenous Effects. *Current Research Journal of Economic Theory*, *4*(3), 53–66.

Vu, T. B., Gangnes, B., & Noy, I. (2008). Is foreign direct investment good for growth? Evidence from sectoral analysis of China and Vietnam. *Journal of the Asia Pacific Economy*, *13*(4), 542–562.

Zhang, K. H. (2001). How does foreign direct investment affect economic growth in China? *Economics of Transition*, *9*(3), 679–693.