

THE CAUSAL LINKS BETWEEN FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN PAKISTAN

NAJID AHMAD¹, MUHAMMAD FARHAT HAYAT¹, MUHAMMAD LUQMAN¹, SHAFQAT ULLAH²

Bahauddin Zakariya University, Multan¹, Islamia University Bahawalpur², Pakistan

ABSTRACT

This paper investigates the relationship between foreign direct investment and economic growth in Pakistan. The co-integration and error correction model is used to show the relationship between foreign direct investment and gross domestic product in Pakistan. Gross domestic product is taken as dependent variable while foreign direct investment, labor force and domestic capital as independent variables. The results suggest that there is a positive relation between foreign direct investment and gross domestic product in short as well as long run. If we want to make economic progress then there is a need to invite foreign investors because foreign direct investment increases GDP that is economic growth.

JEL CLASSIFICATION & KEYWORDS

■ O10 ■ O19 ■ O41 ■ Gross domestic product ■ Foreign direct investment ■ Labor force ■ Domestic capital

INTRODUCTION

Foreign direct investment has been recognized as an important resource for economic development. Most developing countries such as Pakistan considered foreign direct investment as the major external source of funding. Foreign direct investment is considered as a growth enhancing component. International free trade has often been referred to as the "engine of growth" that propelled the development of today's economically advanced nations during the nineteenth and twentieth century. Rapidly expanding trade especially the export sector provides an additional stimulus to growing local demands that led to establishment of large scale industries. Exports have tended to grow fastest in these countries with more liberal trade regime and these countries have experienced the fastest growth of GDP.

We can find an extensive literature that shows foreign direct investment increases gross domestic product like Iqbal Mahmood (2011) says that foreign direct investment plays vital role in the development of a country. For the support of this theory he takes FDI as dependent variable and democracy, manufacturing products, real exchange rate, real exports, import duty and enrollment at secondary schooling as independent variables. The results suggest that democracy, population, enrollment at secondary schooling have positive relation with foreign direct investment and other variables are negatively related with foreign direct investment while Abu Nurudeen (2010) examines the relationship between foreign direct investment and economic growth in Nigeria over the period 1970-2008. He employed the co-integration and Granger causality techniques to analyze the relationship between FDI and economic growth. The results of his findings suggest that they are co-integrated and there is a positive relation between foreign direct investment and economic growth in Nigeria.

Abdul Khaliq (2007) tries to investigate the impact of foreign direct investment on economic growth in Indonesia from 1997 to 2006. In aggregate level FDI have positive impact on economic growth while at average level FDI shows positive impact on some sectors and at some there is no

significance relation. Even mining and quarrying show negative effect on FDI but Zeshan Atique (2004) points out that foreign direct investment is considered as the most important component for growth enhancing in developed country general and developing countries like Pakistan particular. Pakistan progress on economic development depend upon her performance to attract foreign direct investment.

This paper is also closely related to Niazi (2011) paper who discuss the relationship among foreign direct investment, growth and inflation in Pakistan. He took foreign direct investment as dependent variable and GDP growth and inflation as independent variables. The data was taken from 2001 to 2010. The results suggest that there is a positive relation between FDI and GDP i.e. if gross domestic product increase then there will be increase in foreign direct investment while there is a negative relation in FDI and inflation. So there is need to control inflation of the country and increase GDP so that foreign investors come to invest. Mahar (2008) favors the foreign direct investment in Pakistan and thinks it the source of economic growth. Here is a Falki (2009) who lays great stress on the importance of foreign direct investment for economic growth in developing countries like Pakistan. Foreign direct investment stimulate domestic investment and increase human capital formation. In this way it becomes the source of economic growth. The results show negative and insignificant relation between GDP and Foreign direct investment in Pakistan while there is a positive and significant relation between GDP, domestic capital and labor force. So there is a need to depend upon own capital and labor for the economic progress of Pakistan. Hussein (2009) also says foreign direct investment is very necessary for economic development for Arab States of the Gulf Countries (GCC). He says GCC receives only a small portion of total FDI flows to developing countries. Only Saudi Arabia and UAE performed well and attract FDI inflows.

The main objective of this paper is to find the relationship between foreign direct investment and economic growth in Pakistan during the period 1971-2007. In order to achieve our aim we can make the following hypotheses.

Hypotheses

H1: Foreign direct investment increases GDP in short and long run.

H2: Labor force has positive relation with gross domestic product in short and long run.

H3: Domestic capital has negative relation with GDP in the short and long run.

Methodology and model

The main purpose of this paper is to quantify the impact of foreign direct investment on economic growth. In order to achieve the desired objectives other independent variables i.e. labor force and domestic capital flow included which are assumed to influence the economic growth. It is expected that these variables will reduce the specification error. Time series data has been used to find the impact of foreign direct investment on Pakistan's gross domestic product for the period of 1971-2007. The data has been taken from

international finance statistics (IFS), handbook of statistics on Pakistan economy (2007) of state bank of Pakistan. Time series econometric methodology has been employed. Initially, a famous technique i.e. Augmented Dickey-fuller has been used to check the stationary of the data. If these variables are stationary at level then OLS technique will be performed but as the time series data normally show the property of non stationary in levels so if it is then co-integration will be used.

The econometric model is:

$$G = \alpha + \beta_1 L + \beta_2 K + \beta_3 FDI + \mu$$

Where *G* is gross domestic product, α is constant, *L* labor force, *K* domestic capital investment, *FDI* foreign direct investment and μ is error term.

A unit root test has been performed to check the stationary of the variables. The results are as below

	Level	First difference	Second difference
Variables	T-static	T-static	T-static
Labor force	-1.15043	-5.2239**	-----
Domestic k	2.5326	-5.036**	-----
FDI	2.82718	-5.5381**	-----
GDP	1.921	-2.3406	-6.8823**

** And * indicate significance at the 5% and 1% levels, respectively.

Source: Author

The results of the above table reveal that Labor force; domestic capital investment and foreign direct investment are stationary at first difference 5% level of significance while *G* is stationary at second difference 5% level of significance so appropriate technique for estimation is co-integration.

Variables	Coefficient	Standard Error	t-static
Intercept	-49277.98	3921.87	-12.564919
Domestic k	-0.063081	0.00728	-8.664973
Labor force	3047.757	165.436	18.42257
Foreign direct investment	28.06214	3.00306	9.3445

Source: Author

$$G = -49277.98 + 3047.757L - 0.063081K + 28.06214FDI + \mu$$

The value of t-static for all independent variable is greater than 2 so these variables have significant relation with dependent variable (*G*). Labor force and foreign direct investment have positive relation while domestic capital has negative relation with GDP in the long run. For short run we use error correction model.

Dependent Variable: GDP

Value of C: 49277.98

Variable	Coefficient	Standard error	t-static
D(GDP(-1))	0.352237	0.18072	1.94908
D(LABRF(-1))	2222.191	782.009	2.84164
D(FDI(-1))	2.348889	2.65799	0.88371
D(DMISTIN(-1))	-0.004072	0.01241	0.32801
ECT-1	0.156853	0.11753	1.33455

Source: Author

The value of t-static for D(GDP(-1)) is 1.95 which is less than 2 that shows variable is insignificant and have positive relationship with the dependant variable GDP in short run

(lag-1) while the value of t-static for D(LABRF(-1)) is 2.84 which is greater than 2 that shows variable is significant and have positive relationship with the dependant variable in short run (lag-1).

As the value of t-static for D(FDI(-1)) is 0.88 which is less than 2 showing that variable is insignificant and shows positive relationship with the dependant variable GDP in short run (lag-1) while value of t-static for D(DMISTIN(-1)) is 0.33 which is less than 2 that means variable is insignificant and shows negative relation with the dependant variable. On the other hand, the value of t-static for error correction term is 1.33 which is less than 2 and shows the insignificance of error correction term. The above results clearly show that foreign direct investment has positive relation with gross domestic product in the short run.

Conclusion

Foreign direct investment has positive relation with gross domestic product in short and long run in Pakistan. If we want to increase our GDP or make economic progress then there is a need to invite foreign investors because foreign investment increase gross domestic product that is economic growth. So government of Pakistan should try to increase the weight of foreign direct investment in order to promote economic growth of Pakistan. FDI can stimulate human resource development through investment in education and training. This enhances the stock of human capital and increases productivity of labor and other factors of production. In short, the above findings suggest that Pakistan's capacity to progress on economic development will depend on her performance in attracting FDI. Pakistan's outward looking development strategy should include FDI as an essential part in addition to export promotion strategy. Government should provide more incentive and facilities to foreign investors for the promotion of FDI in Pakistan. Political instability is also an element that harms the foreign direct investment. In other words we can say that there is a positive relation between FDI and political stability. We should establish our own foreign and economic policies according to the needs of our country.

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