

## TRACING OUT THE RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH OF PAKISTAN

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### ABSTRACT

Pakistan is a developing country characterized by low income level, lack of capital, low level of industrialization, low saving, and rapid growth of population, burden of external debt, paucity of foreign aid, deficit in balance of payment, lack of technical and managerial skills, and heavy reliance on export of primary goods etc. Also the domestic resources are inadequate to finance the development needs, to fulfill this gap FDI is an important tool of overcoming weaknesses necessary for economic development. This study analyzes the impact of Foreign Direct Investment (FDI) on economic growth of Pakistan by using time series data from 1975-2012. Ordinary Least Square (OLS) an econometric method is used to estimate the model parameters. For this purpose the study considered several variables such as Foreign Direct Investment, Imports, Exports, industry and GDP growth rate. The results of the study show a positive and significant relation between the GDP and FDI in Pakistan. And variables imports, exports and industry have positive relation with growth rate. It may be suggested that Pakistan should make stronger efforts to attract as much Foreign Direct Investment (FDI) as possible to the foreign exchange sectors in the short term.

## **Introduction**

### **Background**

Foreign Direct Investment (FDI) has emerged as the most important source of external resource flows to developing countries over the 1990s and has become a significant part of capital formation in the developing countries (Kumar and Pardhan, 2001). The Foreign Direct Investment (FDI) has been widely recognized as a growth enhancing factor in the developing countries (Arshad, 2008). The effects of FDI in the host economy are normally believed to be increase in the employment, increase in productivity and increase in exports and of course increased pace of transfer of technology.

The amount of foreign direct investment increased significantly for developing economies during 1985 to 2000. The share of developing countries in world inflows and outflows has risen from 17.4% during (1995-2000). The amount of FDI inflows increased from \$ 0.24 billion in 1999 to \$55 billion in 2007 in Pakistan.

Pakistan is a developing country characterized by low income level, lack of capital, low level of industrialization, low saving, and rapid growth of population, burden of external debt, paucity of foreign aid, deficit in balance of payment, lack of technical and managerial skills, and heavy reliance on export of primary goods etc. Also the domestic resources are inadequate to finance the development needs, therefore FDI can be an important instrument of overcoming these weaknesses necessary for economic development. The benefits that FDI brings to the host countries include managerial skills and advanced technology, different tastes and lifestyle, market access, creating sound business environment, increase in production, increased employment opportunities, and increase in government revenue etc. such sort of investment brings private overseas funds into a country for investment in manufacturing or services through MNCs which increase the level of economic growth of the host country.

Many developing countries including Pakistan faces the problem of saving investment gap and FDI influences the process of economic growth by filling up this gap, increasing productivity, transferring advanced technology, employment creation and enhancing competition (Kobrin 2005, Lee and Ataullah 2006). These benefits have encourage the developing countries to liberalize FDI policies in order to attract FDI inflows. In the light of expected benefits of FDI, many studies have been carried out to examine the impacts of FDI on growth. However theories and empirics appear to provide mixed evidence regarding the impact of FDI on economics growth in developing countries. Like many other developing countries, Pakistan has thrown its door wide open to FDI, which is expected to bring huge benefits. However, unlike China and India, Pakistan has not been successful in obtaining substantial and consistence FDI inflows. Furthermore the mega inflows that the country has received have not been utilized appropriately to enhance the economic performance Le and Ataullah (2006).

## **OBJECTIVE**

Main objective is;

1. To understand the dynamics of economic growth
2. To analyze the impact of foreign direct investment on economic growth of Pakistan.
3. To give the policy recommendations.

### **Organization of study**

This study consist of various chapter .Chapter two consist review of literature .Chapter three consist of methodology and data. Chapter four consist of results and discussion. Chapter five consist of conclusion and suggestion.

### **Hypothesis**

Whether FDI positively affect economic growth of Pakistan or not.

### **Review of literature**

Ahmed and Hamdani (2003) analyzed the effect of foreign direct investment (FDI). Domestic private investment, government expenditure and labor on economic growth. The empirical analysis is based non pooled cross section and time series data for 32 developing countries from 1965 to 1992.The relationship is estimated using three alternatives econometric model for pool data namely common intercept and common random error model fixed effect model and random effect model. Growth rate of domestic private investment and government expenditure have positive and significant impact on real GDP.

Li and Liu (2005) investigated whether foreign direct investment effects economic growth based on a panel data from 1970 to 1999 using single equation and simulation equation techniques to find out the relationship between FDI and economic growth. Result showed that there is and positive relationship between foreign direct investment and economic growth both developed band developing countries. Foreign direct investment has positive relation with human capital and negative relation with technology gap on economic growth.

Tsen (2005) investigated in the foreign direct investment in its manufacturing industry which is an important engine in economic growth .The main aim of this study is to investigate the long term relationship between FDI and its located –related determinants in the manufacturing industry of Malaysia over the period 1980 to 2002.The result of the fully modified least square estimator show that an increase in education ,infrastructure, market size or current account balance lead to an increase in FDI whereas an increase in inflation or exchange rate lead to a decrease.

Falki (2009) investigated the impact of FDI on economic growth in Pakistan, for the period 1980 to 2006.Study investigate the relationship between FDI and economic growth by using the production function based on the endogenous growth theory. Study takes economic variable like trade, domestic capital and labours independent variable. By using OLS estimation technique concluded that there is negative and in significant relationship between the GDP and FDI in Pakistan.

Rizvi and Nishta (2010) analyzed the impact of foreign direct investment on employment opportunities. Data was returned from economic survey of Pakistan for the period of 1985 to 2008.Unit root test is used to check the stationary of variables. Result showed that there is significant relationship between employments. Foreign direct investment and Gross domestic product with dependent variable foreign direct investment.

Muritali (2011) empirically analyzed the impact of investment on economic growth of Pakistan during the period of 1991 to 2006 using OLS estimation technique. Study showed that inflation has negative relation with real GDP and investment has positive and significant relation with dependent variable

RGDP. When investment increase our consumption, labour, productivity and output also increase as a result our economic growth is increase.

Yousif et al. (2011) investigated impact of foreign direct investment on economic growth of Pakistan for the period of 1980 to 2009. For study OLS estimation technique is used to explain the relation between variables. Result showed that independent variable FDI, labor force, capital and trade have positive and significant relation with dependent variable Gross domestic product.

Arshad and Muhammad (2012) analyzed the impact of foreign direct investment on trade and economic growth in Pakistan with the period of 1965 to 2005. The vector auto –regressive (VAR) model is estimated and then co integration analysis is used to discuss short run and long run relationship among GDP, FDI, imports, and exports. In long run imports, exports effect GDP but FDI have insignificant effect on GDP. In second long run FDI is dependent variable exports and imports affect FDI but GDP does not significantly affect FDI.

Zakari et al. (2012) examined the roll of foreign direct investment on economic growth in Asia and Africa with the period of 1990 to 2009. By using OLS estimation technique study concluded that foreign direct investment and export have positive and significant relationship with dependent variable economic growth.

Aurangzab and Haq (2012) analyzed the impact of foreign capital inflow on economic growth of Pakistan. Multiplier regression analysis is used to explain the relation between variable. Study focused on secondary that is collected from the period of 1981 to 2010. Gross domestic product is used to dependent variable .Result show that external debt, remittance and foreign direct investment have positive and significant relation with gross domestic product.

Tasneem and Aziz (2011) analyzed the foreign direct investment and economic growth of Pakistan. Their analysis is based on annual time series data for the period of 1972 to 2008. for the empirical analysis they used OLS regression. The result shows that in foreign direct investment effect on domestic output, employment, trade, income level and overall growth is positive. Growth rate of GDP is positively affected by the FDI during 1972 to 2008. According to the result impact of FDI on import is negative but on export it is positive. The result of manufacturing production shows positive impact of FDI.

Azeem et.al (2014) examined the impact of foreign direct investment on economic growth in Pakistan. The study has used time series data from 2000 to 2010 are used to analyses the impact of foreign direct investment on economic growth in Pakistan. They used two stage least square method of simultaneous equation estimation. The result shows that there exist a positive relationship between on economic growth proxies by GDP and FDI in Pakistan.

Louzi and Abadi (2011) analyzed impact of foreign direct investment on economic growth in Pakistan. They used time series data from 19920 to 2009. Study examined relationship between FDI and GDP using time series data from the Jordanian economy. The mechanism of Co-integration and error correction was used. The study showed that foreign direct investment does not impact economic growth in Jordan while domestic investment and trade liberalization have positive effect on GDP growth rate.

Arshad and Shujaat (2011) investigate the impact of foreign direct investment on economic growth in Pakistan. They used time series data from 1981 to 2008. They applied panel dynamic least square (PDOLS) technique to estimate long run coefficient. They found that FDI and real GDP were co-integrated and dynamic least square estimates suggested that at the aggregate level, FDI is positively related to real output. The results also supports evidence of long run causality running from GDP to FDI, while in the short run the evidence of two way causality between FDI and GDP is identified.

De Mello (1999) analyzed relationship between FDI, capital accumulation, output and productive growth. He conducted time series as well as panel data estimation. He included a sample of 15 developed and 17 developing countries for the period 1970 to 1990. The time series estimation suggest that effect of FDI on growth and total factor productivity varied greatly across the country. The panel data estimation indicated a positive impact of FDI on output growth. Result of the study showed that FDI had a positive effect on total factor production growth in developed countries but negative effect in developing countries.

Khan et.al (2011) analyzed the empirical relationship between industry-specific FDI and output. They used Granger causality and panel Co-integration for Pakistan over the period 1981–2008. To evaluate the relationship between FDI and growth, 23 industries were taken into account for period of 1981–2008. The results suggested that FDI promote output in primary and services sectors while FDI contributed very small in manufacturing sectors.

Aurangzeb et.al (2012) investigated the impact of foreign capital inflows on economic growth of Pakistan. Four variables FDI, GDP, remittance and external debt were tested using multiple regression analysis technique. Data for this study covered the period from 1981–2010. Results indicated that all the three variables. FDI, remittance and external debt are having positive and significant relationship with economic growth.

## **Methodology & Data**

### **Background**

In this chapter we have presented the methodology and data source on the impact of foreign direct investment on economic growth of Pakistan economy. The section 3.2 is about framework of analysis which give us a information about econometric model and variable used in the model to get regression result. Section 3.3 provides information data source, information about Questionnaire and also presents the process of pre testing the Questionnaire.

### **Framework of Analysis**

In this thesis Time series Data is used to analyze the impact of foreign direct investment on economic growth of Pakistan economy. Regression Analysis (OLS) has performed to get desired result from the study .The basic model is

$$Y = f(\text{FDI}, \text{TRADE}, \text{IND})$$

### **ECONOMETRIC MODEL**

To test the hypothesis empirically, we use the following model:

$$Y = \alpha_0 + \alpha_1 \text{FDI} + \alpha_2 \text{Trade} + \alpha_3 \text{Ind} + e$$

### **DEFINITION OF VARIABLES**

Y= Gross Domestic Product of Pakistan (annual growth %).

FDI = Foreign Direct Investment (annual growth %).

IND = Industry share to GDP (annual growth %).

TRADE = Trade to GDP ratio (annual growth %).

### Data and Data Source

For the statistical analysis usually two types of Data are used.

(a) Primary Data

(b) Secondary Data

For this Thesis Secondary data has been used that would be taken from Economic Survey of Pakistan, State Bank of Pakistan and world development indicator.

### Result And Discussion

After looking the various other possible studies model, we have formulated a model in chapter three of the study, the selected model is to be estimated by using following model.

### Estimation Result

This section presented estimated model, which is specified in previous chapter, time series data is taken for analysis by OLS estimation technique to estimate the model. Stata has been used to check the significance of parameters of the estimated model. z-test is used to check the significances of the variables. The results are as under

**Table:1 Impact of FDI on GDP of Pakistan (1975-12)**

Explanatory Variables	Coefficients	z. statistics	Sig....
Constant( $\theta_0$ )	-2.45***	12.04	0.000
Trade	.342*	1.85	0.005
FDI	.256*	-1.76	0.006
Industry	.543	0.81	0.567
F. Statistics	8.01***	-----	0.000
R-Square	.862	-----	-----
Adjusted R-square	.834	-----	-----

Note: (\*\*\*) for 1% level of Significance (\*\*) for 5% level of Significance (\*) for 10% level of Significance.

Table 1 be evidence of regression results. The value of R square is statistical measure of how close the data are to the fitted regression line, the value of R-square indicate that approximately 86% variation in dependent Gross domestic Product of Pakistan are explained by the independent variables(Trade to GDP%,FDI to GDP%, Industry to GDP%).F value shows overall model is good fitted. As per expectation the GDP of Pakistan is positively and affected by trade but not play an important role. Result also postulate that the FDI has positive and statistically significant influence in GDP. The result indicate that 10% GDP of Pakistan has been increased by the 25% increase in FDI. These result could be explained in export led development prospective for Pakistan. On the other hand other determinants of GDP industrial sector is also positive correlated with GDP and play a significant role in the economic performance of Pakistan.



**Correlation Test****Table: Correlation**

Variables Name	GDP	TRADE	FDI	INDUSTRY
GDP	1.00	---	---	---
TRADE	0.57	1.00	---	---
FDI	0.80	0.38	1.00	---
INDUSTRY	0.34	0.76	0.55	1.00

The study applies the longitudinal data approaches, therefore occurrence of correlation, is possible. Above table indicate that there is no perfect correlation between all variables under consideration. The correlation value varies from 0.04 to 0.08 in model, that is not very high (Gujarati, 1988 and judge, et.al., 1988) consider 0.80 to be the critical threshold for serious problem of correlation.

**Conclusion**

Foreign Direct Investment (FDI) is considered as the most important source of external resource flows to developing countries. The Foreign Direct Investment (FDI) pay a vital role to growth enhancing in developing countries. Pakistan is a developing country and many studies has been made to analyze the role of FDI in Pakistan. The main purpose of the present study is to investigate the impact of Foreign Direct Investment on economic growth in Pakistan for the period of 1975-2012. the of the study shows a positive and significant impact of the FDI on economic growth of Pakistan. The results of the OLS estimation technique the following conclusions are drawn. Firstly Foreign Direct Investment (FDI) has positive relationship with growth rate. The parameters estimates for imports, exports, Industry are positive and significant relation on GDP growth rate. This suggest that the need to enhance more imports, exports and Industry as they found to have promote economic growth. This implies that an increase in imports exports and industry can increase GDP.

**Recommendations**

The government and policy makers should make those policies which increase the foreign direct investment (FDI) in Pakistan.

It is suggest that Pakistan with low level of foreign direct investment (FDI) need improve their business environment by ensuring that administrative procedure, legal and judiciary system are improved so as to ensure property right, fight corruption and respect rule of law and due processes.

It is suggest that Pakistan should make stronger efforts to attract as much foreign direct investment (FDI) as possible.

Pakistan is well aware of the importance of foreign direct investment (FDI), therefore the management authorities should chalk out these policies through which more foreign direct investment (FDI) take place and it will positively affect economic growth of the country.

**REFERENCES**

- Ahmed and Hamdani (2003). The role of “foreign direct investment in economic growth” Vol, XLI, No.1&2.pp.29-4311.
- Aurangzeb and Haq (2012). “Impact of investment activities on economic growth of Pakistan” Vol.2 (1) pp.92-100.
- Authukorala,P.W.(November 2003).”The Impact of Foreign Direct Investment for Economic Growth” .Matara, Sri Lanka: 9th International Conference on Sri Lanka Studies.
- Arshad and Muhammad (2012) “Impact of Foreign Direct Investment on Trade and Economic Growth of Pakistan”: A CO-Integration Analysis”Vol.03, Pp.42-75.
- Berthelemy,J.C.,& Demurger,S.(2000).”Foreign Direct Investment and Economic Growth”. Review of Development Economics, Vol4 (2) pp 140-155.
- Bogahawatte, C., & Balamurali, N.(2004).”Foreign Direct Investment and Economic Growth in Sri Lanka Journal of Agriculture Economics”.Vol6 (1).
- Falki (2009) “Impact of Foreign Direct Investment on Economic Growth in Pakistan “Vol.5 No.05, Pp.110-120.
- Li and LIU (2005) “impact of foreign direct investment on economic growth “Vol 33, No 3.pp 393-407.
- Khan Arshad, (2007),” Foreign Direct Investment and Economic Growth: The role of Domestic Financial Sector”, PIDE working paper
- Khan (1997) “Foreign Direct Investment in Pakistan, Policies and Trends” the Pakistan Development Review “Volume -36No.4 (959-985)
- Rizvi and Nishat (2009) “The Impact of Foreign Direct Investment on Employment Opportunities Empirical Evidence from Pakistan, India and China”.
- Khan Arshad, 2007, Foreign Direct Investment and Economic Growth: The role of Domestic Financial sector “, PIDE working paper.
- Yousaf, Nasir, Naqvi,Haider and Bhutta (2011) impact of Foreign Direct Investment on Economic Growth of Pakistan”