Impact of Foreign Direct Investment on Economic Growth in Pakistan

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Abstract
The paper examines the Impact of foreign direct investment (FDI) on economic growth in Pakistan. The study has used data from 2000 to 2010 by using Two- Stage least squares method of simultaneous equations the results have been estimated. The results show that there exists a negative relationship between economic growth, proxies by gross domestic product (GDP) and foreign direct investment in Pakistan. Domestic investment, exports size and political stability were found to be very appropriate in locational choice of foreign direct investment in Pakistan. The enhancement of foreign direct investment in Pakistan government should ensure political stability and encourage more domestic investment and also make sure about trade globalization and foreign direct investments policies in today's era for attracting more foreign direct investment in Pakistan.
Keywords: FDI, GDP, Exports Growth and Domestic Investment.

Introduction

Foreign direct investment is one of the most famous sorts of investment in the world. Its impact on economic growth is positive. Thamos, *et al*. (2008) argued that foreign direct investment plays a vital role to enhance products, technology and make local firms more innovative. This is one of the main reasons that why developing countries like Pakistan attract foreign direct investment. Many developing countries face the problem of investment and saving gap and this gap is filling by foreign direct investment. FDI increases the productivity in developing country and create competition. [Kobrin (2005) and Le and Ataullah (2006)]. These benefits have encouraged making easy and flexible policies regarding foreign direct investment in developing countries. Many researchers have mixed point of view about the impact of foreign direct investment on economic growth. In Pakistan, government has opened its doors for foreign direct investment but Pakistan has not got more foreign direct investment and their appropriate utilization to increase economic growth. Unlike India and China successfully gained consistent foreign direct inflows [Le and Ataullah (2006)]. Foreign direct investment is still too low in Pakistan and also its structure composition which is very necessary for economic growth. [Chakraborty and Nunnenkamp (2008)]. In 1990s government of Pakistan started to give some fiscal benefits, tax incentives and tariff reduction to attract foreign investors [Khan (1997),Aqeel and Nishat (2004)]. Foreign investors were allowed to 100% equity in industrial project without any prior approval [Khan (2008)]. In 1994 the restriction on some capital transactions and some sort of outward investment were relaxed to some extent [Khan (2008)]. Pakistan has a lot of potential to attract foreign investment. Although the increasing trend of foreign direct investment influences the success of policy; however, foreign direct investment inflows are obstructed by institutional weakness, corruption, ineffective legal institutions, political uncertainty, poor law, weak regulatory systems, law and order situation, and low labor productivity [Khan and Khan (2011)].

Pakistan was basically an agricultural economy since its independence. Its industrial capacity was not much for processing locally produced agricultural raw material. This made it essential for succeeding governments to improve the country's manufacturing capacity [Khan and Kim]. Recently study in 2007 argued that foreign direct investment inflows were increased in various services sectors. It includes specially telecom sector in which foreign direct inflows enhanced economic growth. In other sectors foreign direct investment inflows were decreased due to some political instability etc [Khan and Khan (2011)].

2. Literature review

A review of the previous literature in the field of foreign direct investment along with its dimensions and the antecedents touched upon here followed by the hypotheses based on their relationships. This review also provides the theoretical and empirical backgrounds for the study.

2.1 Foreign direct investment:

Foreign direct investment (FDI) is defined "as an increase in the book value of the net worth of investment in one country held by investors of another country where the investments are under the managerial control of the investor" (Graham, 1995). Foreign direct investment has been increased in the total volume worldwide over the past 20 years (Hills 2007) in which Asian nations particularly South, East and Southeast Asia remained priority investment destinations (Ibid). The main reason for enhancing or attracting foreign investors to invest in

developing countries is to push the domestic capital formation gap to move economic growth which requires certain minimum level of foreign capital (Mieir 1964: 153: Brewer 1991; and Digiovianni, 2005). Todaro and Smith (2003: 635) noted that most FDI are in fact subsidiaries of Multinational Corporations (MNCs) such that the maximum investors are the parent organizations of firms. Thus, foreign direct investment flows represent the expansion of the international activities of Multinational Corporations. Multinational Corporations (MNCs) are oligopolistic in nature hence their investment capital (FDI) be drawn towards countries and regions with highest financial returns and the greatest perceived safety to avoid the risk of capital loss. Their main objectives is profit maximization such that over 90% of global FDI goes to other industrial countries and the fastest growing developing countries while they are largely unconcerned with issues such as poverty, inequality and unemployment alleviation (Todaro and Smith 2003: 635).

2.2 Economic growth

Jhingan (2002: 603) defines economic growth "as the process whereby the real per capital income of a country increases over a long period of time". He argued that economic growth is measured by increase in the amount of goods and services in each successive time period. Thus, growth occurs when an economy's productive capacity increases which is used to produce more goods and services. It was in view of this that foreign direct investment (FDI) has been seen as being influence for growth (Feenstra and Markusen 1994). De Mello (1997) surveyed the developments in the literature on impact of foreign direct investment (FDI) on growth in developing countries. He agreed that FDI is thought as a composite bundle of capital stocks, know-how, and technology, and that its impact on growth is many and vary a great deal between technologically advanced and developing countries. He concluded that the ultimate impact of FDI on growth in recipient economy depends on the scope of efficiency spillovers to domestic firms.

3.Methodology

In this research paper the Balasubramanyam (1996) research work model have been adopted and adjusted it by adding variables such as inflation, exports growth, domestic investment growth and external debt growth. The Solow's production function frame work model widely used to analysis the growth in developing countries.

The testing of hypothesis includes the analysis of a function that is related to growth of total output to growth of factor inputs, and a variable growth of total factor productivity. The basic neoclassical growth equation has been used to derive for the equation estimation. (chenery and strout, 1966).

$$Qg = Ag + b1Kg + b2Lg$$

Here

Qg, Ag, Kg and Lg are the growth of total output, total factor productivity, capital and labor respectively.
While b1 and b2 are the elasticity's of output with respect to the inputs.

The literature on input – output relationship in developing countries suggests that the

Production approach is a useful reference for analyzing such relationship. The general form of the equation is written as:

$$Q^g = \alpha_0 + \alpha_1 \left[\frac{I}{Qt} - 1\right] + \alpha_2 L^g + \alpha_3 Z^g$$

Where

Qg = Growth rate of real aggregate output

I = Domestic Investment

Qt-1= GDP in Previous Period (Lagged GDP)

Lg = Growth rate of Labor

Zg = Growth rate of other Variables influencing factor Productivity

α_0 = constant term assumed to represent the growth of Productivity.

α_1, α_2 and α_3= Parameters

In most empirical studies, for instance Tyler, (1981), Ram, (1985) and Balassa (1988) etc the variable Zg refers to the growth of exports, inflation and agricultural growth rates as determinants of productivity. In this paper, foreign direct investment (FDI), external debts outstanding are included to capture external influence while exchange rate and political influence with reference to other foreign currencies. The augmented Production function becomes:

GDP = a + a *INV* + a *EXP* + a *FDI* + a *INF* + *U* (3)

However, Chete (1998) view the variable representing external influence FDI as also depending on the real growth of gross domestic Product (GDP) such that a simultaneous counterpart model to equation (3) can be written as:

FDI = b0 + b1GDPg + b2EXD + U2t (4)

Where

GDP = Growth rate of GDP

INVg = Domestic Investment growth rate (Proxy for Domestic Capital Stock)

EXPg = Exports Growth Rate

FDIg = Foreign Direct Investment growth rate

INFg = Inflation rate
EXDg = External debt growth rate
The a priori expectation patterns of the behaviors of the independent variables in terms of their parameters to be estimated are:
$\alpha_1 > 0$. $\alpha_2 > 0$, $\alpha_3 > 0$ and $\alpha_4 < 0$
b1 > 0. b2 < 0, b3 > 0 and b4 < 0

3.1. Estimation Technique and Sources of Data:

Equation 3 and 4 will be estimated by two-stage least squares (2SLS) method of simultaneous equation to follow new growth theory where investment is also indigenized. Time series data for the period 2000-2010 are used to analyze the model on the impact of foreign direct investment (FDI) in Pakistan. Finally, the data used were obtained from State Bank of Pakistan (SBP) Statistical Bulletin and financial review for the various years.

4. Results and Discussion:

This section presents the results of the two-stage least squares for the model as specified in equation 3and 4. Equation 4 was used as instruments for equation 3. Similarly equation 3 was used as instruments for equation 4 to capture other objectives of the paper most especially the determinants of foreign direct investment. The results are presented in tables 4.1 4.2 and 4.3 respectively.

Table No: 4.1 Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
FDI	5.78	8.60	7.4054	1.00142
GDP	.69	2.20	1.5906	.46755
EXGR	9.12	9.87	9.5511	.28722
EDGR	10.38	10.93	10.5719	.20372
IR	1.13	3.03	1.9727	.61118
DIGR	2.81	3.11	2.9272	.13143

The results of descriptive statistics have been reported in table no 4.1 which indicate that most of the variables are in normal trends having equally distributed series with low variances. Just FDI has high variance as compare to others because during that period Pakistan's economic environment has seen lot of slashes based on political transitions and so on.

Table: 4.2: Two-Stage Least Squares
LOG (GDP)
Method: Two-Stage Least Squares
Sample: 2000-2010
White Heteroscedasticity – Consistent Standard Error and Covariance

	Beta	Sig.
(Constant)		.000
LOGFDI	2.989	.001
LOGEXGR	-.383	.249
LOGEDGR	-2.014	.000
LOGIR	.805	.005
LOGDIGR	-1.585	.001
Adjusted R Square	.68	

As a kind of pre-whitering process, growth rates of data were used. The result of the regression analyses as presented in table 4.2 above shows that the coefficient of determination R^2 shows that the explanatory variables explained a total variation of 68% (percent) in the dependent variable (GDP). The result is therefore of good fit. On a prior ground, domestic investment, and exports have their expected positive signs which indicates that there is direct relationships between them and economic growth (GDP) in Pakistan. That is, if domestic investment and exports will increase, Gross Domestic Product (GDP) will also increase (ceteris Paribus). However, investment proved significant while exports proved insignificant as reflected by their t-statistic outcome on the table. It is observed that FDI has a positive sign. This sign indicates a direct relationship between FDI and GDP. This implies that FDI has a positive impact on economic growth (GDP) in Pakistan. Inflation on the other hand showing that a decrease in the rate of inflation will improve economic growth in Pakistan and it has significantly influences on growth. Furthermore, exchange rate (EXR) has a positive relationship with economic growth (GDP) implying that a devaluation of the Rupees will improve economic growth (GDP) in Pakistan. External debt (EXD) shows negative relationship with growth meaning that if more debts are incurred without embarking on capital or productive goods, it will adversely affect growth in Pakistan.

Table 4.3: Determinants of Locational Choice of FDI.

Dependent Variable: LOG (FDI)
Method: Two Stage Least Squares
Sample: 2000-2010

	Beta	Sig.
(Constant)		.000
LOGGDP	.318	.001
LOGDIGR	.525	.000
LOGEXGR	.156	.125
LOGIR	-.262	.005
LOGEDGR	.647	.001
Adjusted R	.64	

Table 4.3 above shows that the coefficient of determination R^2 is .64 which means that the explanatory variables explained a total variation of 64% (percent) of the dependent variable (FDI). On a priori ground all the variables have their expected signs except Log (GDP) which has a positive sign. This also confirms the same direct relationship between GDP and FDI as explained earlier. Locational factors of FDI therefore include exports, (EXP) exchange rate (EXR). Exports and exchange rates have positive effect on growth as proved by others. All other factors proved positive but insignificant as a determinant of locational factors of FDI in Pakistan.

Conclusion
The study intends to investigate the Impact of foreign direct investment (FDI) on economic growth in Pakistan. The study has used data from 2000 to 2010 by using Two- Stage least squares method of simultaneous equations the results have been estimated. In conclusion, the empirical results show that there is positive relationship between economic growth (GDP) and FDI contrary to the belief of authorities in charge of growth and development. This positive relationship could be as a result of sufficient FDI fund invested into the Pakistan's economy which has been able to exert enough impact to make it positive or growth enhancing.

Based on the conclusion above, the author gives the following recommendations. Pakistan should encourage improved domestic investment to accelerate growth rather than relying on FDI as a prime mover of the economy. Pakistan should develop a code of conduct on FDI to curb their restrictive business practice, limit their repatriation of profits from Pakistan and ensure that significant part of their profits are re-invested into the Pakistan's economy. The government should re-visit the issue of local content requirement. Finally, Pakistan should ensure a stable government by guaranteeing the sustainability of democratic rule devoid of unwarranted changes

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