

## Foreign Direct Investment, Domestic Private Investment and Economic Growth: A Reference from Pakistan

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**Abstract:** Many studies have been undertaken around the world to ascertain the relationship between Foreign Direct Investment (FDI), Domestic Private Investment (DPI) and Economic Growth Rate (EGR). However, the results of these studies are not unanimous that is evident by the indication of both positive and negative effects of these variables on the EGR of different countries. This makes it essential to investigate the relationship of these variables in each individual country's specific framework. The study in hand analyzed the relationship of FDI, DPI and economic growth of Pakistan. Secondary data sets were used in the investigation and the results were drawn through regression analysis. The results of the study showed that FDI was necessarily beneficial to the economic growth of Pakistan. Furthermore it was found that the effects of DPI on the EGR were more significant as compared to those of the FDI. It is therefore suggested in this paper that strong efforts by the Government to attract FDI must continue, even increased. Similarly, more focus must be given to enhance the skills of the local population through investing in the people and through the provision of necessary physical infrastructure. This can be done through pursuing the investment friendly macro economic framework.

**Key words:** Foreign direct investment • Domestic private investment • Economic growth • Pakistan

### INTRODUCTION

Foreign Direct Investment (FDI) is rightfully thought to be the most important tool of transforming an economy from traditional to modern knowledge based economy. The positive role of the FDI has been described very comprehensively by various studies [1, 2]. Among the number of arguments in support of FDI as a tool to pace up the economic growth rate (EGR), the most important one is associated with the package of information regarding technologies, technical expertise, marketing access, etc. and the skills required to plan, run, monitor, evaluate the enterprise, etc. Further it is highlighted in the economic literature that these benefits of FDI tend to spill over to local or domestic enterprises of the host country thus raising the output growth rate of the country. Keeping in mind these externalities of FDI, one thesis is that FDI contributes more than proportionately to the economic

growth rate as compared to domestic private investment (DPI). While from the perspectives of traditional growth theories, the main argument is that FDI raises the volume of investment and thus the overall increase in the growth rate. The endogenous or modern growth theories build the case in favor of FDI on the premise that it generally leads to the technological spillovers to the host country which results in higher growth rate [3, 4].

However, the impacts of FDI on economic growth are controversial on empirical grounds. Historically, FDI had a positive impact on economic growth in terms of increase in output, wages, employment, exports, tax revenue, technical and managerial skills and decrease in the power of domestic monopoly. On the other hand FDI had a negative relationship with economic growth including a decreased domestic saving and investment, instability in the balance of payment and inadequate attention to the development of local education and skills.

The positive impacts are generally considered because of the externalities of the multi-national enterprises (MNEs) to domestic firms. However, these spillover effects may not take place in some countries because of fragile linkages of MNEs with the domestic firms. It may also because of the lack of absorptive capacity of the host country [5].

From the preceding discussion, it becomes imperative to study the country specific effects of FDI on economic growth and to sort out the magnitude of interrelationship between FDI, DPI and economic growth. It is essential because of the enormous diversity in the empirical findings of various countries and because of possible dichotomy between theory and empirical findings on the role of FDI and economic growth. The study in hand was therefore an attempt to determine the truthfulness of this observation in case of Pakistan. Further, it was considered important to investigate the relationship of the variables under consideration as the effects of FDI on growth may vary in theory and practice. In theory-both traditional and modern- FDI is assumed to have positive and favorable impact on the aggregate output growth of the host country.

The aim of present study was to investigate the relationship of FDI, domestic investment and economic growth of Pakistan. Three pertinent questions were addressed in this research. First, what is the nature of relationship between FDI and economic growth of Pakistan? Second, what is the impact of FDI and DPI on the economic growth rate of Pakistan over the specified period of time? And third, which of the FDI or DPI has a better impact on economic growth?

## MATERIALS AND METHODS

**Data:** Keeping in view the research objectives, secondary data were used. The data were mainly collected from Federal Bureau of Pakistan (FBSP) and the annual reports of State Bank of Pakistan (SBP). It ranges from 1970 to 2005. The data were derived mainly from FBSP. However the data for DPI was not available directly. Thus a DPI data set was constructed by taking the difference between the total investment and the FDI inflow to Pakistan.

**The Estimating Models:** The traditional growth model was modified to investigate the relationship between FDI and economic growth. According to this model growth in output is the function of capital stock and the labour force. Following is the familiar growth equation [6];

$$Y = f(K, L) \quad (1)$$

Where,

Y = output

K = Capital stock and

L = Labor force.

Capital stock (K), however, was further divided into DPI and FDI [4]. The final form of the model used in the present study is as under

$$\ln y_t = a + \ln \alpha I_{dt} + \ln \lambda I_{ft} + \ln \beta l_t + \varepsilon_t \quad (2)$$

Where

$\varepsilon_t$  = Error term.

$\ln y_t$  = The natural logarithm of the GDP in million dollars.

$\ln I_{dt}$  = The natural logarithm of DPI (millions \$). It was obtained as the difference between the total investment and FDI inflow.

$\ln I_{ft}$  = The natural logarithm of FDI inflow (millions \$).

$\ln l_t$  = The natural logarithm of labour force in millions.

$\alpha$  = The output elasticity of domestic capital stock.

$\lambda$  = The output elasticity of foreign capital stock.

$\beta$  = The output elasticity of labor force

The rationale of using FDI and DPI as independent variables simultaneously was to find out which of these two variables exerted greater influence on the dependent variable that was economic growth [4].

Since this is a Cobb-Douglas production function, it assumes constant return to scale. This type of function cannot handle a large number of inputs [7]. The variables specified in the model were restricted to the most important one that helps to analyze the problem under consideration. The Cobb-Douglas production function has several useful properties as;

- The marginal product of capital and marginal product of labor depend on both the quantity of capital and the quantity of the labor used in production, as is often the case of real world.
- The exponents of K and L (i.e. a and b) represent, respectively, the output elasticity of labor and capital and the sum of the exponents measures the return to scale.
- The Cobb-Douglas production function can be estimated by regression analysis by transforming it into

$$\ln Q = \ln A + a \ln K + b \ln L$$

- The Cobb-Douglas production function can easily be extended to deal with more than two inputs (say, capital, labor and natural resources or capital, production labor and non production labor) [8].

## RESULTS AND DISCUSSION

For the purpose of empirical analysis, regression technique was used [9]. The aim of the study in hand was to investigate the impacts of FDI and DPI on the economic growth of Pakistan. This section presents the findings of the research in two parts: first part contains brief discussion on the general trends of important variables used in the study and in the second part statistical results of the model along with their explanations are presented.

**General Trends in Growth of FDI, DPI and EGR:** Gross Domestic Product (GDP) grew at highly fluctuating trends over the years. The highest level of GDP growth was observed in 1970. The immediate succeeding year showed the lowest GDP growth perhaps due to the war between India and Pakistan. Figure 1 depicts this fluctuating trend in that the most notable feature is the steep rise in the recent years [10].

While FDI inflow from 1970 to 1985 remained at very slow pace and it started moving up from 1986 to 2000 and after that there is a sudden upward jump until 2005 perhaps due to the liberal policy choice [11].

As mentioned before that DPI was calculated by subtracting FDI inflow from total investment in Pakistan. Figure 3 reflects a gradual upward movement of domestic private investment with some episodes of fluctuations between 1980-1984 and 1994 to 2000.

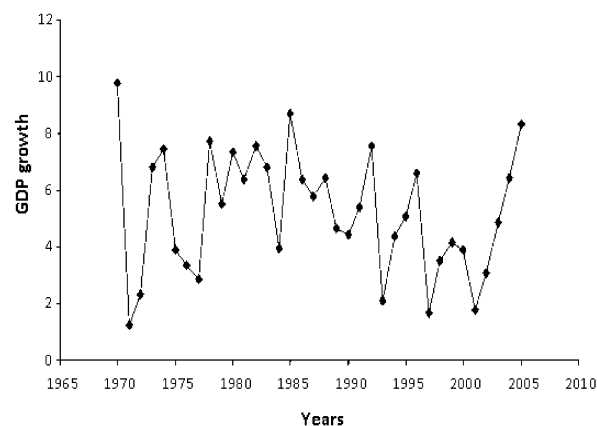


Fig.1: Trends in GDP Growth

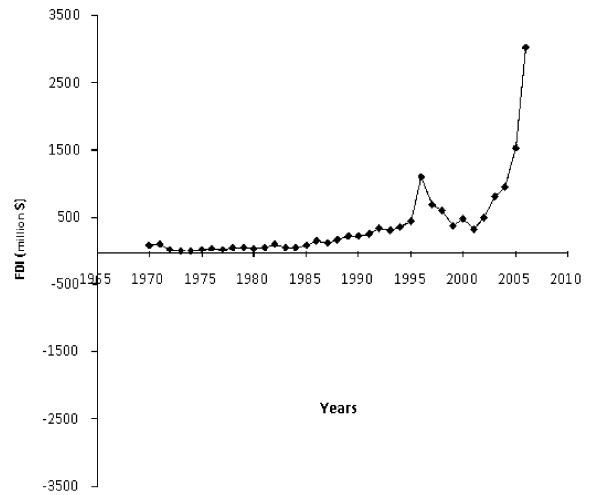


Fig. 2: FDI Inflow Trends

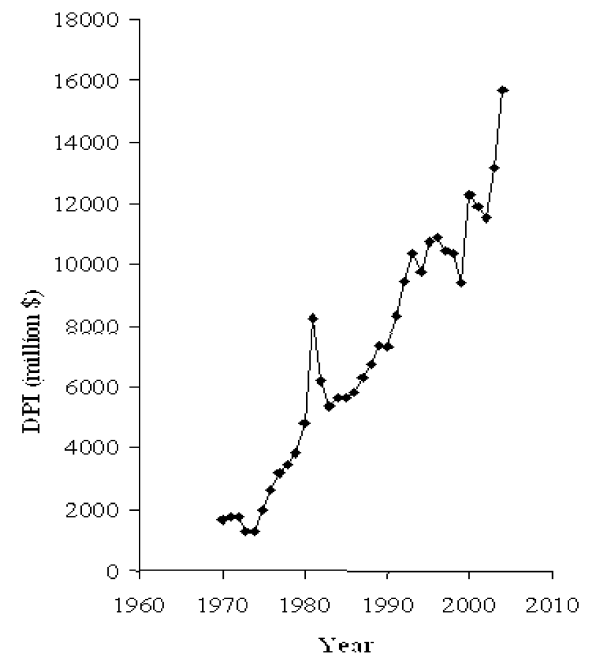


Fig. 3: Trend of DPI

**Regression Results:** The regression results are presented in Table 1. The intercept of the model is 3.226, represents that if there is no investment the economy can still grow at a rate about 3 percent. The coefficient of FDI growth is 0.075 indicating that a one percent increase in the FDI can leads to 0.075 percent increase in GDP growth. Keeping in view the extremely low level of FDI in Pakistan as compared to other countries, this result shows that despite the general neglect of attracting FDI inflow, it still helps in fostering economic growth. These results are in line with many other studies including [3, 10, 12, 13 and 14] and are different from [15].

Table 1: Regression Results

Independent variables	Coefficients	t-values
Constant	3.226	6.37**
$I_n$	0.075	2.61**
$I_{dt}$	0.75	9.02**
$I_l$	0.09	1.80*

$R^2 = 0.97$        $F\text{-value} = 357.02$

\*\* = Highly significant at less than or 1 %    \* = significant at 8%

On the other hand the coefficient of DPI was 0.75 that expresses that a one percent increases in DPI on the average increases the GDP growth by 0.75 percent. This indicates that DPI has a stronger impact on the EGR as compared to FDI. [1 and 16]. The coefficient of Domestic capital in her study was positive and significant at the value of 0.398.

While the coefficient of labor growth was 0.09 that explained that with an increase of one percent in the labor force there will be 9 percent increase in the economic growth that is very positive.

**Conclusion and Policy Implication:** Keeping in view their ambiguous relationship in empirical studies, the present study was designed to investigate the effects of FDI and DPI on the economic growth of Pakistan. The results showed that FDI effected the growth significantly and positively. The domestic private investment, however, exerted more influence on the economic growth as compared to FDI.

Important policy lessons can be drawn from the findings of the present study. Since the results showed FDI to be the necessary beneficial for the country, stronger efforts to attract as much FDI as possible should thus continue, even increased. The availability of the better quality infrastructure is very important to attract and retain the foreign investment in the country. As Pakistan is highly deficient in the area of education and physical infrastructure, unlike many other developing countries, special attention need to be paid in this direction if the country wants to catch up with rest of the world.

As the result of the research also showed DPI as a significant contributor to economic growth more than FDI, Government of Pakistan should make all out efforts to encourage domestic investment. This can best be done by improving the macro economic framework in favor, by encouraging local entrepreneurship and by bringing the women (almost 50% of the total population) to the economic mainstream.

**Future Area of Research:** The present study investigated the inter-relationship of FDI, DPI and Economic growth of Pakistan. Still there is a scope for further research on these issues. It would be a worthwhile exercise to study the role of FDI in the economic growth under different policy regimes pursued by the government of Pakistan over a period of time. It would also be of great value to investigate the role of FDI in different sectors of the economy.

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