

NEXUS BETWEEN FDI AND ECONOMIC GROWTH OF PAKISTAN: 1980-2017

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ABSTRACT: Foreign Direct Investment (FDI) is considering as a kind of investment that boosts the growth of developing economies rapidly. There is a technological transfer, improvement in human capital, and developing economies interact with the international market due to the increase in FDI. The focus of this study is to check the nexus between economic growth and foreign direct investment of Pakistan, from 1980 to 2017. The nature of the study was time series and the ADRL technique used to confirm the long-run association among FDI and economic growth of Pakistan. Results concluded that a long-run relationship exists in the model. There is a positive and significant relationship between economic growth and FDI in the long run. This study suggested that Pakistan facing a higher burden of borrowing so, the government should have to convert its focus to attract foreign investment instead of taking a loan. It will be a low cost bearing to the development projects with the help of experts.

Keywords: Economic Growth, Foreign Direct Investment.

INTRODUCTION

Each economy wants to capitalize in a foreign country or countries to make its economic and technological relationships strong. Foreign direct investment is a kind of investment through which foreign entity invests in a firm operating in different economies to get advantages of existing resources and technology. Now a day, investors are in search of such countries where they can get more benefits by cheaper labor and other cost-saving factors [1]. Foreign direct investment is a source that helps in boosting the economies. FD is a more reliable way to invest in development projects as compared to the borrowing process [2]. Pakistan also tries to get more foreign direct investment for their development project to boost up the economic growth. FDI is a more concerning variable in different developing economies such as Pakistan, India, Bangladesh, etc to enhance the growth level of their economy.

All over the world, different economists believe that FDI is a push factor of a host country to enhance its economic growth and helps to revolve different economic issues in developing economies. The capital formation and new technology enter in the host economy with the increase in FDI in the developing economies [3]. The OECD report in 2002, made an argument that in those countries which have weak economic conditions FDI is the major source to boost the economic growth [4]. The FDI encourages the local investment in the host country and also improve the human capital [5]. Some governments bear the cost to attract the inflow of FDI. It shows how much the host countries are interesting in FDI in their country [6]. And a special treatment was given to foreign direct investment by exempting the import duties, provision of land, and direct subsidies [7; 8].

Pakistan facing a heavy burden of debt and the strategic point to boost the growth of its economy is to increase (FDI) the foreign direct investment. Pakistan is considered a gold mine for each economy, as it provides the shortest link to interconnect the world with each other and helps to increase the trade circle of other economies. Asian countries the liberalization and increase in foreign direct investment (FDI) is a growing phenomenon to boost economic growth. Most of the researchers evaluated the economic condition in different studies [9; 10; 11;12]. They jointly concluded that a strong

financial system has a tendency to increase economic growth at a high rate.

LITERATURE REVIEW

A number of studies confirmed that FDI is the most important factor to boost up the economic growth of the developing economies by advancement in technology [13;14]. FDI has a great impact on the economic growth of developing economies and positively enhance the process of production, increase employment, improve the import and export circle and well being of the host country [15]. Others [14], investigated the link between economic growth and FDI by using panel study. The results revealed that co-integration exists among FDI and economic growth and indicated that the relation of long-run equilibrium exists among the selected variables. Researchers in [16] observed the impact of domestic investment and foreign direct investment on the economic growth of Sub-Saharan Africa. The results of the study showed that FDI has a positive and significant impact on economic growth, in the presence of OLS estimations. Others [15] investigated that foreign direct investment of twenty-six economies has a positive impact on the economic growth by applying panel analysis.

Researcher [17] confirmed the association between Economic Growth (EG) and Foreign Direct Investment (FDI) in Nigeria. The results showed that there is a positive relationship between FDI and economic growth of Nigeria. It concluded that of Nigeria's FDI is positively contributed to the economy. Researcher [18] examined by taking the time period 1970 to 2012 the relation among FDI and economic growth of Pakistan. The Vector Error Correction Model (VECM) was applied to check the relation between FDI and economic growth of Pakistan. Results concluded that FDI has a significant relationship with the economic growth of Pakistan. Researchers [19] find out the causal relation and co-integration among FDI, economic growth, and terrorism from 1988 to 2010. They convert their study into two parts; post and pre 9/11 periods. Their results concluded that there is bi-directional causality exists in both the short and long run. Mutant *al.* (2015) concluded that FDI and economic growth had a relation in Pakistan. Researchers [20] also confirmed that there is a positive relationship between economic growth and FDI of Pakistan, as the results of time series analysis by covering the time period from 1979 to 2013.

Different studies analyzed that there is a positive relationship between EG and FDI the impact of FDI and economic both in the short and long run by different techniques. This study is going to check the nexus between economic growth and foreign direct investment in Pakistan by covering the data from 1980 to 2017.

Data, Model, and Methodology:

The data is collected from the World Development Indicators (WDI). This study is based on the model of Shah *et al.* (2018) to check the impact of foreign direct investment (FDI) on the economic growth of Pakistan from 1980 to 2017. The functional form of the model is as;

$$EG = f(GFCF, LAB, FD, TO)$$

Here EG is the 'Economic Growth' and it is measured by gross domestic product in constant currency units. GFCF is the 'Gross Fixed Capital Formation' and measured in constant local currency units. Labour measured in thousands.

The financial development measured by using its proxy of foreign direct investment, percentage to GDP, and trade openness measured by import and export as GDP ratio. The econometric form of this time series study is as;

$$EG_t = GFCF_t + LAB_t + FD_t + TO_t + \varepsilon_t$$

This study observed the nexus among financial development and economic growth of Pakistan from 1980 to 2017. Nature if the study is time series analysis and logs applied to test the results. The correlation study showed that capital, labor, and financial development has a strong and positive correlation with the (EG) of Pakistan. The trade deficit has a negative and weak correlation with the economic growth of Pakistan. The following table is showing the outcomes of correlation analysis of the gross fixed capital formation, labor, financial development, and trade deficit with the economic growth separately.

Table. 1 correlation analysis among variables

Correlation Analysis					
	LNEG	LNGFCF	LNLAB	LNFD	LNTD
LNEG	1				
LNGFCF	0.765389	1			
LNLAB	0.894048	0.79504	1		
LNFD	0.713448	0.84679	0.731168	1	
LNTD	-0.005921	-0.285959	-0.07695	-0.00967	1

To check the stationary level of each variable Unit root test used. The results of the Augmented Dickey-Fuller (ADF) unit root test confirmed that some variables became stationary at a level while some at first difference. It suggests using the Auto-Regressive Distributed Lag (ARDL) model for this selected model. Phillips Perron (PP) unit root test is also applied to confirm the results of ADF, before applying the ARDL model. According to the Schwartz Information Criterion, the lag length criterion for this study is 1. The following table showing the results of the bound test and confirmed that a long-run relationship exists at a 5% level of significance.

Table. 2 cointegration

ARDL Bound Testing to Cointegration		
F-statistic	4.118544	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01

The results of the long and short-run analysis presented in the following table, to study the relationship of independent variables (Gross Fixed Capital Formation, Labour, Financial Development and Trade Deficit) with the dependent variable (Economic Growth).

Table. 3 Result short and long run

Short and Long-Run Analysis				
Dependent variable = LNEG				
Short Run Analysis				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNGFCF)	0.03224	0.056926	0.566353	0.0584
D(LNLAB)	0.138149	0.09569	1.443711	0.1794
D(LNFD)	-0.015275	0.014134	-1.080733	0.3052
D(LNTD)	-0.005558	0.004585	-1.212289	0.0253
CointEq(-1)	-0.140198	0.108691	-1.289879	0.0226
Long Run Analysis				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

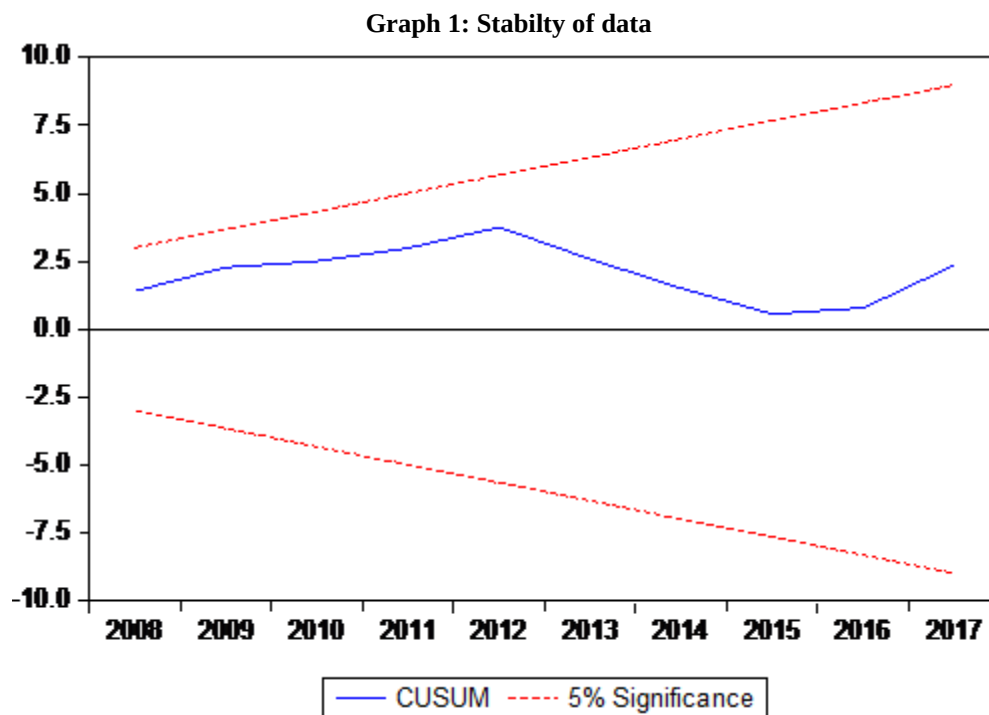
LNGFCF	0.229963	0.488038	0.471199	0.0647
LNLAB	0.975383	0.1613	6.047005	0.0001
LNFD	0.147494	0.082845	1.780346	0.0854
LNTD	-0.094142	0.076589	-1.229176	0.2471
C	2.315034	1.217785	1.901019	0.0865
R-squared	0.896936	Mean dependent var		4.678052
Adjusted R-squared	0.893872	S.D. dependent var		0.065905
F-statistic	325.3775	Durbin-Watson stat		2.194157
Prob(F-statistic)	0.0000			

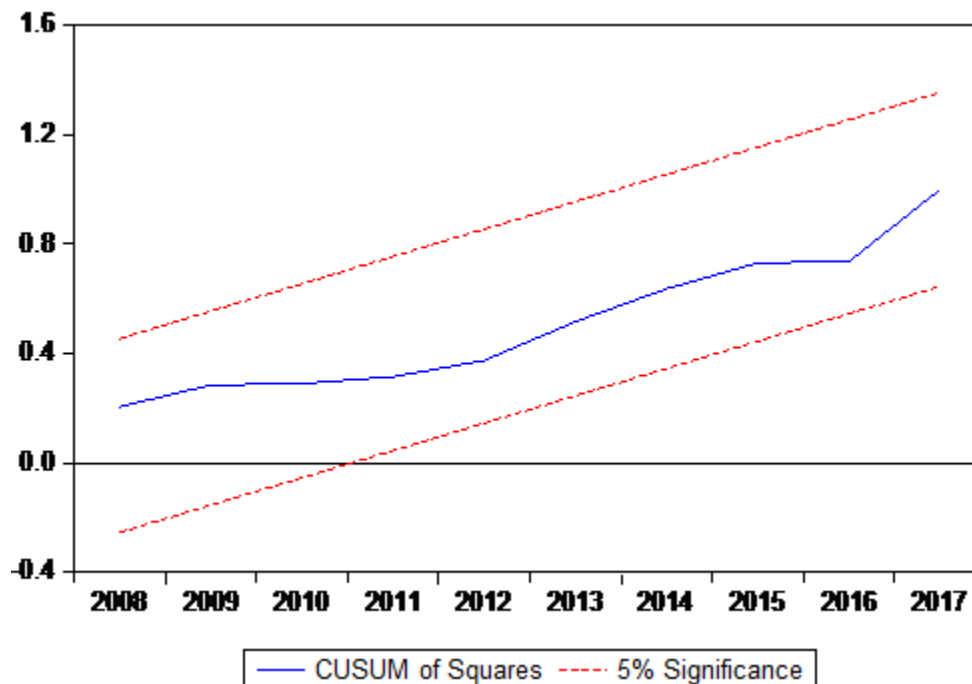
The result shows of short-run analysis explain that gross fixed capital formation and labor have a positive relationship with economic growth. On the other side, FDI and trade openness has a negative relationship with economic growth in the short run. The value of ECT(-1) shows the speed of adjustment from short to long run to achieve equilibrium point, in a year.

All the variables have a positive impact on economic growth in the long run except trade openness. R square shows how

many independent variables explain the dependent variable. Results show that the dependent variable is explained 89.69% by the independent variables. And the model is well fitted. The results confirmed that there is a positive and significant relationship between foreign direct investment (FDI) and economic growth in the long run, these results also confirmed the findings of previous researchers [13;15;17;18].

Graph 1



Graph 2: Stability of data

CUSUM graphs 1 and CUSUM, graph 2 of Square show the stability of the data. The upper red line represents the upper bound while, the lower red line represents the lower bound (in both figures). The blue line is between the lower and upper bound which shows that data is stable, by using CUSUM and CUSUM of Square.

DISCUSSION AND CONCLUSION

Most of the studies confirmed that there is a positive relationship between foreign direct investment and economic growth in the developing countries and the host country get a beneficial impact on technological advancement, decreased unemployment level, boost the growth level. Foreign direct investment is a source to support and make strengthen to the financial sector of the host country by investing in the development projects. Borrowing is also a way to invest in the development project, but it is a burden on the developing economies, due to the expensive technological advancement and lack of skills. Many governments of developing countries convert their focus to attract foreign direct investment as compared to get a loan from the World Bank or IMF.

This study observed the impact of FDI on the economic growth of Pakistan, by covering the time period of 1980 to 2017. This study tested the ARDL technique to examine the time series analysis. The results revealed that there is a negative and insignificant relationship between FDI and economic growth of Pakistan in the short run. The long-run analysis confirmed the positive and significant relationship between economic growth and foreign direct investment in Pakistan. This study recommended that Pakistan faces the great depression due to debt. There is a need to attract a foreign investor for the different developmental projects by providing them different securities and by reducing the

import quota which will develop the technological advancement in Pakistan.

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