Factors Affecting FDI in Pakistan

Abdullah Khalid

M.phil scholar, The University of Lahore, Pakistan

E-mail: abdullah.khalid419@gmail.com

SaharAkramChaudhry

M.phil scholar, The University of Lahore, Pakistan

E-mail: saharakram90@yahoo.com

ABSTRACT:*This study was conducted to determine the factors affecting foreign direct investment in Pakistan. It was observed that factors like Dictatorship, GDP_PC, GNI, Exchange Rate and Trade openness affect the inflows of FDI in the country. Time series data has been used for the study and ARDL technique is used for analysis of the data. Dummy of dictatorship has been used for the years of non-democratic government. In this study it has been observed that in the years of Dictators the investment inflows reached at the highest level in the history of Pakistan. Good policies and methods should adopted by government to increase the inflows of investment which can lead the country on the road of development.*

KEYWORDS:*Foreign Direct Investment (FDI), Gross Domestic Product (GDP), Gross National Income (GNI), Exchange rate, Dictatorship, Trade Openness, ARDL technique*

INTRODUCTION

Foreign direct investment (FDI) measures the ownership of foreign productive assets like factories, land and mines. The increase in foreign direct investment is a sign of growing economic globalization. Foreign direct investment plays growing and extra ordinary role in world business through the provision of finance, new marketing channels, products, technology as well as cheaper facilities of production. For the foreign firms or a host country which receives the investment, it can provide new technology sources, skills of management and strong attribute to economic development.

According to classical definition, foreign direct investment is defined as a company or individual from one country establishing a factory or a business in the form of physical investment in other country. Nature of foreign direct investment could be vertical or horizontal. A horizontal investment refers back to the investor establishing equal sort of business running in its home country, like a cell phone company based totally in United States opens up its outlet in Pakistan. A vertical investment is one wherein different but related to real business activities started in other country. For instance when a firm establishes a sub unit or a company in other country than the raw material and other components require for the firm will be provided through that sub unit or company. A conglomerate type foreign direct investment is one where investor doesn't have the past experience of business in which he is investing so it often takes the form of joint venture with the foreign company operating in foreign country.

Pakistan has 180 millionpopulations and is at 9th all over the world with respect to hard working and tough people. Pakistani labor force has a good reputation and is known as hardworking force all over the world, moreover it is also one of the most cost effective and high return on investment provider (Azam and Khatak, 2009).

Pakistan included in the developing countries list and usually low income levels, low savings, rapid population growth, external debt burden, low level of industrialization, lake of capital, deficit in balance of payment, low level of technical and managerial skills, reliance on exports of primary goods and scarcity of foreign aid are the characteristics of developing countries. Moreover domestic resources are inadequate to finance the needs of development, so FDI can be vital instrument to recover these weaknesses which are hurdle in the way of economic development.FDI has been one of the most efficient means of transferring knowledge and technology (Dunning and Hamdani, 1997).

1.1 Historical Overview

In early nineties Pakistan was one of the pioneer country in the region who open up the market. The country comes out rapidly with pro investment policies. Reforms have been made in various sectors by Pakistan in different times to increase real growth, maintain microeconomic stability and to attract inflows of FDI in the country. Pakistani government started program of moderate economic reforms including privatization, liberalization and deregulation to bring economy into a complete market oriented system (Bhutto et al, 2008).

If we take a look at patterns of FDI in Pakistan those are very impressive in some years but also showing miserable condition in some times. FDI which was $246 million during 1990 to 1991 increased and reached at $2.89 billion during 2005 to 2006.

In fiscal year 2006-07 a real boost to FDI given by communication sector 34.2 percent, financial business 20.9 percent energy including gas oil and power 14.1 percent and food beverages 11.8 percent of total 80 percent of FDI flows in the country. Different countries like UAE, China, UK, US and Netherlands, brought up to 78 percent of FDI in Pakistan. Share of Netherlands was $753.4 million which was highest and almost 18 percent of total 78%. UK participate $724.4 million (17.4%), China $708.8 million (17%), US $676.7 million (16.3%) and UAE $364.2 million 8.8% in FDI inflows. (Pakistan Economic survey, 2006-2007)

Fiscal year 2007-08 was the boom period of FDI in Pakistan. In the same year Foreign Direct Investment was of $5409.80 million and after 2008 continuous decline started. Following graph shows the FDI trends (percentage of GDP) in Pakistan since 1970.
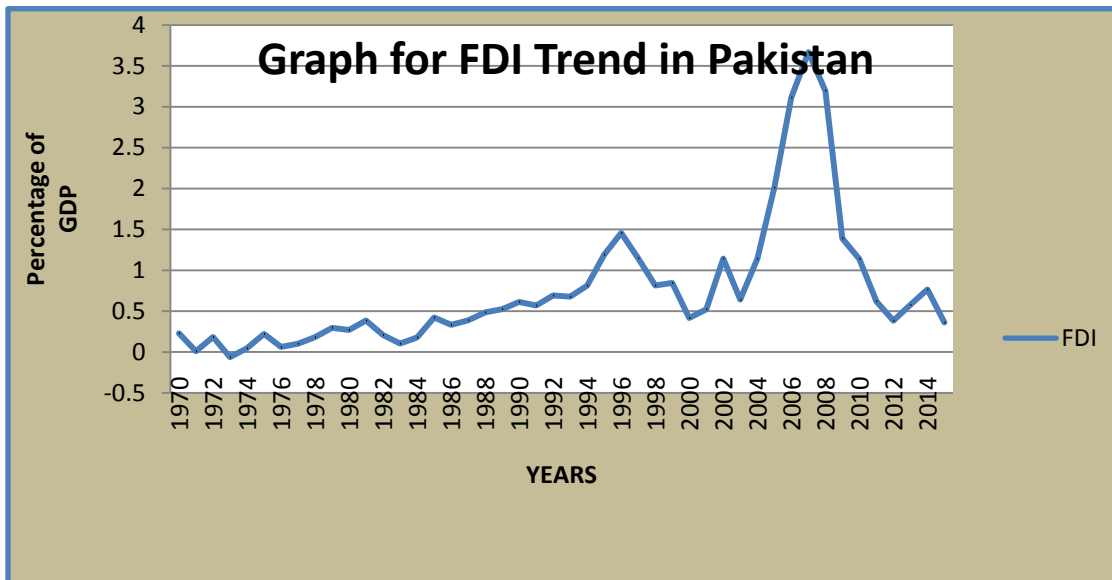
Source: Board of investment

Since 1970 Pakistan was not receiving a bulky investment and this trend continuous till 2004 after that increasing trend started and continued up to 2008 and then again decline started. The chart is showing increasing trend from 2001to 2008 but after 2008there is a decline in FDI inflows in Pakistan. Continuous decline shows that Pakistan is not much fascinating country for investment. If we look at the year 2008, it was the peak period of FDI inflows in Pakistan and highest contribution in GDP.

There are plenty of factors which effect FDI inflows in Pakistan and our Governments are unable to create attracting and fascinating environment for investments. Political satiability, exchange rate, GNP, exports, communication and transportation, tariff, GDP, labor force working capacity and so many other factors are behind this problem (Shah and ahmed, 2003). These factors influence FDI direct or indirect ways, so government should get control to enhance the investment in the country.

1.2 Objectives of the Study

- To explore the relation and effects of per capita GDP, Exchange Rate (ER), per capita GNI, Trade openness (TO), and Dictatorshipon FDI in Pakistan.
- Recommend some policies on the bases of results

LITERATURE REVIEW

Yasmin et al (2016) find the determinants and volume of FDI in developing countries. The purpose of the study was to analyze different factors in different countries which affect inflows of FDI with different levels of incomes. The study collected data from 15 developing countries including 5 each from upper middle, lower middle and lower income countries. The study found that standard of living, GDP per capita, current accounts, wages and inflation affect FDI

significantly impact on lower income countries. Urbanization, domestic investments, labor force, trade openness, current accounts, external debt and wages affect FDI in lower middle income countries, while trade openness, external debt, GDP per capita, domestic investment, urbanization and labor force affect FDI in middle income countries.

Aleemi et al (2015) conducted a study to investigate the performance of foreign direct investment (FDI) and exports in Pakistan. The paper used linear regression model and Johansen co-integration to find the results. The study found that in case of Pakistan exports are positively affected by CPI and FDI while negatively affected by interest rates. There was a log run relation exist between the variables according to the findings. The study highlighted that bidirectional causality exist between consumer price index (CPI) and interest rates (IR) while there was a unidirectional causality from interest rate to GDP growth, CPI to GDP growth rate, exports to GDP growth rate and exports to FDI.

O'Meara (2015) conducted a study to identify the determinants of foreign direct investment (FDI) on cross country basis. The study used a primary data and collected it form both developed and developing countries. .The research found traditional variables related to scale of economic activity and size of economic activity, significant for host country while tax incentives, economic freedom and human capital were insignificant.

Rasheed et al (2012) examine the impact of determinants on foreign direct investment (FDI) in Pakistan. By using Johansen co-integration, and ECM, study found that trade openness (TO), Indirect taxes (IT), gross domestic product (GDP), and exchange rate(ER), significantly

affect the foreign direct investment (FDI) in Pakistan. Coefficients of transport storage (TS) and communication were found statistically insignificant.

Azam and khattak (2009) evaluate the social and political factors affect on the inflow of foreign direct investment (FDI) in Pakistan. Least

square method and simple log liner model were used on secondary data to estimates the variables. The study found a positive and statistically significant relationship between FDI and human capital. The relation of political stability with FDI was inverse and insignificant. It was concluded that stable political environment and trained and skilled labor force were indispensible for development of FDI inflows.

Rehman et al (2009) investigate the determinants of foreign direct investment (FDI) in Pakistan. The study found a significant relation between FDI and gross domestic product (GDP) and positive but in significant relation among real exchange rate (RER) and FDI. Political factors and energy imports were found significant but negative relation with FDI. Finally it was stated that stability but not the democracy is more important for investment decisions.

Azam and khattak (2009) conduct a study to examine the trends, patterns, and benefits of foreign direct investment (FDI) in Pakistan from 1971 to 2005. The study found that sectors like energy, manufacturing, IT, telecommunication, and value add textiles were more fruitful for FDI in case of Pakistan. Moreover it was suggested that Government should review their policies which should be in the favor of FDI inflows, so that those policies lead Pakistan to growth.

Shah and Ahmad (2003) investigate the determinants of foreign direct investment (FDI) in Pakistan. OLS, ECM, and Johansen co-integration were used and it was found that Tariffs and per capita GNP had significant relation with FDI in short-run. It was suggested by the study that government should concentrate on increasing per capita gross national product (GNP) by utilizing capacities of economy as much as possible. It was also recommend to policy makers to give proper attention and treatment to certain variables for enhancing FDI in Pakistan.

DATA AND METHODOLOGY

Proposed Model for this paper is constructed by following Yasmin et al (2016), Rasheed et al (2012) andRehman et al (2009).

FDI=ƒ (GDP, ER, GNI, TO, DM)

So we can write it as below on the behalf of above proposed model,

$$FDI = \beta_0 + \beta_1 GDP + \beta_2 ER + \beta_3 GNI + \beta_4 TO + \beta_5 DM + u_0$$

FDI=Foreign direct investment

GDP= gross domestic product per capita

GNI= Gross national income per capita

ER= Exchange rate

TO= Trade openness

DM= dummy for Dictatorship

3.1 Explanation of Variables

3.1.1dependent Variable

In this study foreign direct investment is used as dependent variable. According to the World Bank FDI inflows added up in balance of payments as financing from abroad and comprise of at least 10 % of business share. FDI flows in the country include foreign exchange for the purpose of business transactions, purchase of capital fix assets and sometimes capital equipment imports too (Shah and Ahmad 2003).

3.1.2 Independent Variable

GDP per capita is used as an independent variable in the study.In econometric studies market size is measured by GDP per capita or GDP for determinants of FDI (Artige and Nicolici 2005). GDP is considered as an important measure of horizontal FDI. The flow of FDI will be more towards the country where the markets are large, expanding and the purchasing power is greater so firms can receive high profit and high returns on their investments (Jordan 2004). Large market plays an important role for the utilization of resources in efficient way. The growing market size led the FDI to increase in future (Charkrabati 2001).

Valuation or devaluation of currency has impact on FDI, either positive or negative. It could be measure through exchange rate. Exchange rate is actually the domestic currency's price in terms of foreign currency. Whenever the currency devalued first of all it shrunk the costs of production and wages after that the returns of foreign investor reduce from investment (Linda, 2011). Exchange rate is an influencing factor for FDI so it is included in the model.

Trade plays an important role in the economy of the country. Imports and exports reflect the economic condition and market size of that country. Trade openness is measured by the imports and exports ratio to GDP. Pakistan is small country but it exports enough throughout the world. Data of opennessformacroeconomic variables, properties of stationarity can be checked by applying different unit root tests. PHILIPS PERRON is used by following Philips and Perron (1988) and ADF test by following Dickey and Fuller (1979).

3.2 Unit Root Test for Stationarity

3.2.1 ADF Unit Root Test

There is a lot more literature available where researchers use ordinary least squared (OLS) method to find the relation among macroeconomic variables. The ordinary least squared technique has some properties and it suppose that the term of residual is normally distributed and has finite constant and zero mean. Without checking the unit root test properties OLS can mislead the results and policy making may be useless. This study starts with mostly used test of Dickey and Fuller's ADF for stationarity. The results of test are shown in the figure given below.

Table 1 ADF Test

Variables	ADF at Level	Results	ADF at 1st Difference	Results
Dummy	-3.3371	Non-Stationary	-2.5451	Non-Stationary
Exchange Rate	1.6400	Non-Stationary	-0.0629	Non-Stationary
Foreign Direct Investment	-2.6196	Non-Stationary	-3.8608*	Stationary
GDP Per Capita	-4.1128*	Stationary	-7.3840*	Stationary
Gross National Income	-5.4563*	Stationary	-11.2121*	Stationary
Trade Openness	-2.4256	Non-Stationary	-7.7907*	Stationary

*Identified the 1 % level of significance

Table 1show that all variables are not stationary at level. Only GDP per Capita and GNI are stationary at level. After applying ADF on the data, still at first difference DM variable and Exchange rate are not stationary. So it is confirmed that OLS is not appropriate technique for

the data used in the study. Now we will move towards Philips Parron test for DM and Exchange rate stationarty.

3.2.2 Philips Parron Unit Root Test

ADF test is applied when serial correlation exists and the problem of heteroskedasticity is found among error terms. It considers

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serial correlation but Philips Parron (PP) is different in nature. PP does not take into account the serial correlation during the test. PP test is applied on the variables and the results are shown below

Table 2: PP Test

Variables	PP at Level	Results	PP at 1st Difference	Results
Dummy	-1.813	Non-Stationary	-5.713*	Stationary
Exchange Rate	1.392	Non-Stationary	-4.054*	Stationary
Foreign Direct Investment	-1.748	Non-Stationary	-3.821*	Stationary
GDP Per Capita	-4.084*	Stationary	-10.825*	Stationary
Gross National Income	-5.456*	Stationary	-18.323*	Stationary
Trade Openness	-2.506*	Stationary	-7.898*	Stationary

*Identified the 1 % level of significance

Results of PP test are shown in **table 2**. After applying Philips Parron test all the variables are stationary at 1st difference. In this situation when all the variables are not stationary at level and some of them are stationary at level and remaining are at 1st difference that the method used for estimation is Auto regressive distributed lag modeling (ARDL).

3.2.3 Auto Regressive Distributed Lag Modeling (ARDL)

ARDL approach is developed by Pesaran et al (2001). This approach is appropriate for the long run relationship among the variables when the variables are stationary at level or at 1st difference. The bound testing approach is appropriate for co-integration when the sample size is small. In this study ARDL and bound tests are applied for the estimations and results are shown below.

Table 3: Bond Test

F-Statistic Value	Lag length	K	Significance level	Bound Critical values	
				I(0)	I(I)
			1%	3.93	5.23
8.29	2	5	5%	3.12	4.25
			10%	2.75	3.79

Table 3 shows the results of ARDL BOND test. Bond test is very important part of ARDL. The results show that the value of F-Statistics is 8.29 which is greater than the values of upper bond at 1 %, 5% and 10%. It means that long run relation exist between FDI and its determinants used in the model.

Table 4: Long Run Results

Dependent Variable: Foreign Direct Investment (FDI)				
Independent variable: GDP_PC, GNI, Exchange rate, DM, Trade Openness				
Sample: 1980 to 2015				
Method: ARDL				
Selected model: (1, 2, 1, 0, 2, 0,)				
Variable	**Coefficient**	**P-value**	**Std. Error**	**t-statistics**
GDP_PC	0.056	0.5486	0.0934	0.609755
GNI	0.276	0.0331	0.1210	2.281129
Exchange rate	-0.106	0.0002	0.0231	-4.602090
DM	0.788	0.0105	0.2805	2.809823
Trade Openness	0.122	0.0537	0.0597	2.043740

Long run results of ARDL are shown in **Table 4.** The table shows that GDP_PC, GNI, Dictatorship (DM), and trade openness have positive impact on FDI flows but un-fortunately the impact of Exchange rate in our study is negative which is opposite of previous literature. GDP_PC has insignificant but positive impact while exchange rate has negative but significant impact on FDI inflows. By ambiguities in two variables outcome we adopt some other measure to get the clear picture and result

Table 5: Short Run Results

Variable	Coefficient	Std. Error	t-Statistics	Prob.*
FDI(-1)	0.465870	0.102498	4.545139	0.0002
ER	-0.057173	0.018143	-3.151200	0.0048
ER(-1)	0.062711	0.026356	2.379378	0.0269
ER(-2)	-0.062492	0.021007	-2.974761	0.0072
DUMMY	0.877160	0.178899	4.903103	0.0001
DUMMY(-1)	-0.456086	0.202126	-2.256449	0.0348
GDP_PC	0.030430	0.047892	0.635385	0.5320
GNI	-0.007690	0.035401	-0.217218	0.8301
GNI(-1)	0.050617	0.029368	1.723519	0.0995
GNI(-2)	0.104553	0.023413	4.465603	0.0002
TRADE	0.065229	0.030468	2.140921	0.0442
C	-3.678873	1.063557	-3.459028	0.0023
@TREND	0.196219	0.041308	4.750110	0.0001

Table 6: Diagnostic Results

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Dependent Variable: Foreign Direct Investment (FDI) Independent variable: GDP_PC, GNI, Exchange rate, DM, Trade Openness Sample: 1980 to 2015 Method: ARDL Selected model: (1, 2, 1, 0, 2, 0,)	
R-Squared	0.9452
Adjusted R-Squared	0.9140
F-Statistic	30.226
Prob. (F-Statistic)	0.0000
Durbin-Watson Stat	1.7629

Table 6 shows the diagnostic results. Result shows that R-Squared is

0.9452 which means variation in dependant variable is 94 % due to

independent variables. Other values in the table depict the good fit of

model and no auto-correlation.

3.2.4 Model Selection:

### Schwarz Criteria (top 20 models)
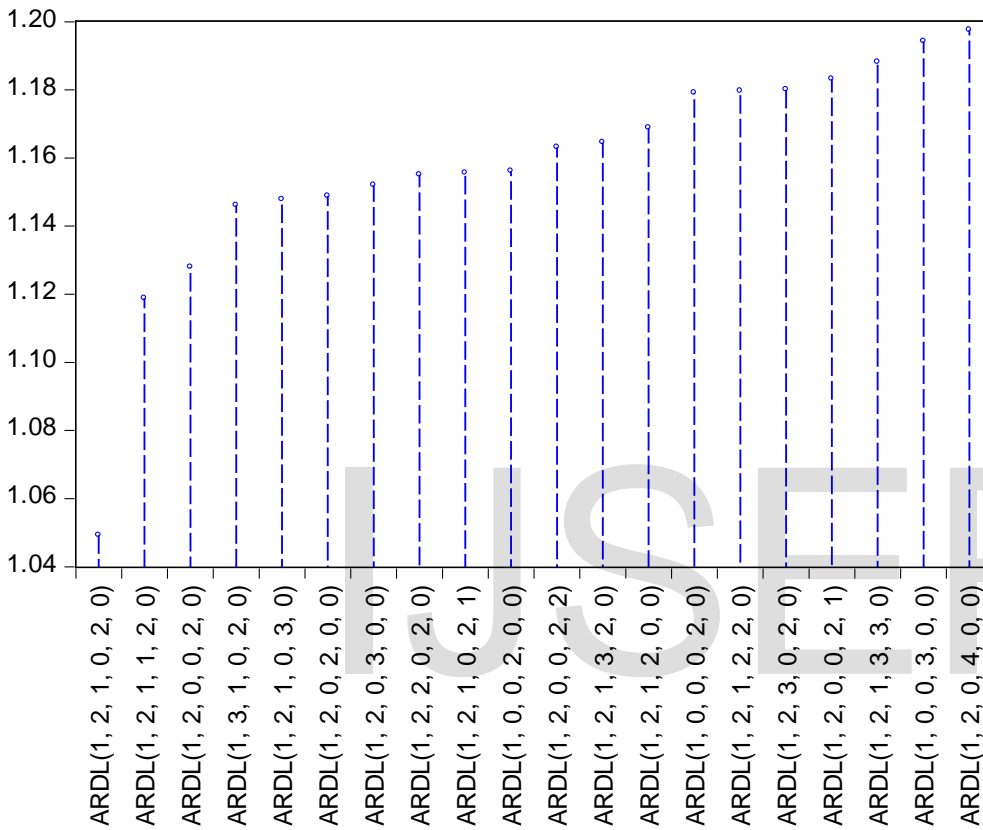
3.2.5 Stability Test:

Schwarz criterion is used for the selection of the best possible models among finite models. The model which have lowest Bayesian information criterion (BIC) is conceder as best among all other. The model used in this study is the 1st one which is lowest BIC and that model provide the possible best results for the study.

Structural stability is measured through Cumulative sum (CUSUM) on the rescue residuals (Ang and Sen 2013). In regression coefficients there could be systematic changes and those changes could be detected through CUSUM and CUSUM of square test.
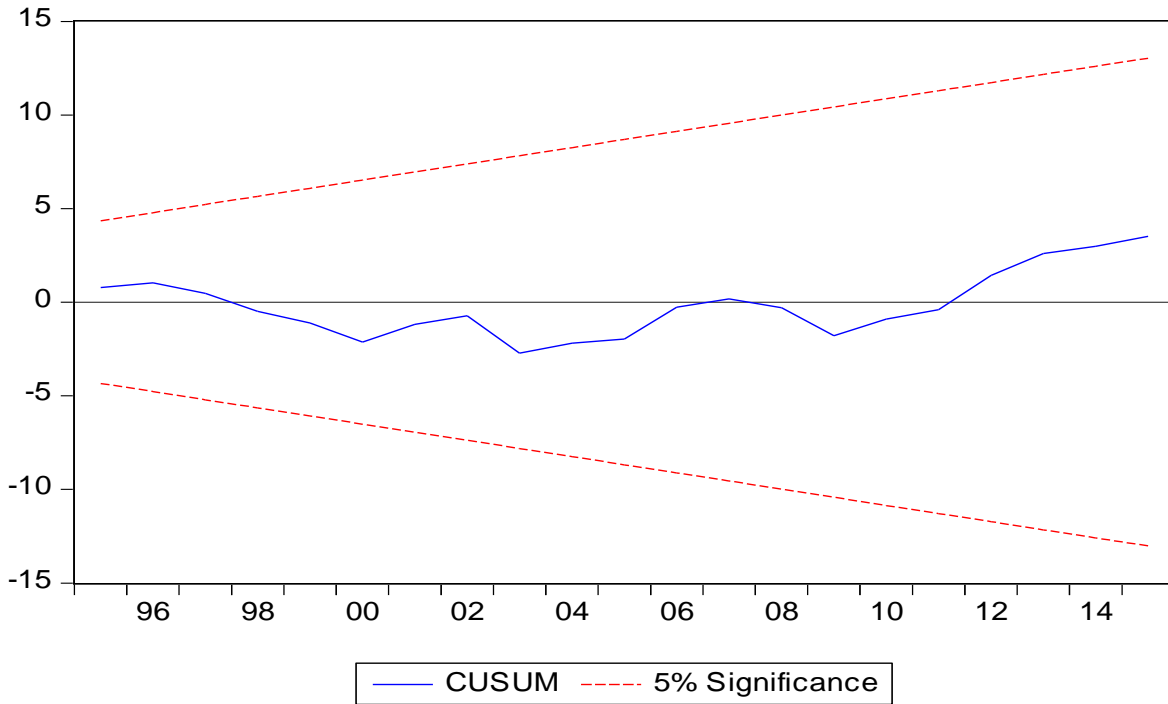
The result shows that CUSUM statistics lies between 5 % level of confidence interval and it means there is no structural in-stability of residuals exists in the equation of FDI.
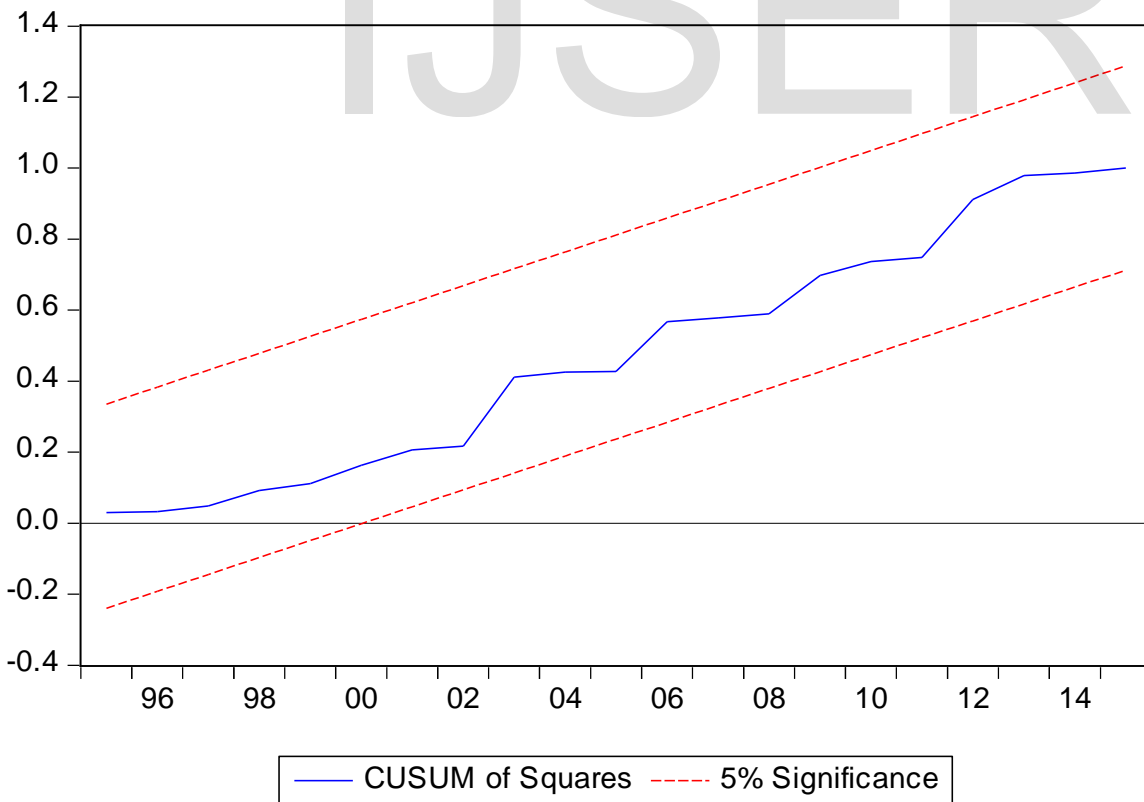
CUSUM of square is also showing the accurate results. The results show that upper critical line or lower critical line is not crossed which indicates that the model is stable and the results are reliable and efficient.

CONCLUSION AND POLICY RECOMMENDATION

The purpose of the study was to find the determinants of FDI and specially the impact of dictatorship on FDI. During the study it was observed that dictatorship was fruitful for FDI in Pakistan from past 30-40 years. Whenever the non-democratic government came into power the inflow of investment got an edge. Even the peak year of FDI in Pakistan was 2008 when it was approximately 3.8% contribution in GDP and that was also a period of General PervaizMusahraf (COAS) who took the government from NawazShreef which was a democratic leader.

Not only in the era of PervaizMusharaf but all the times in the history of Pakistan FDI flows are increasing in the dictator's era. Ifwe take a look in the graph of FDI flows given in start it is clearly depicted that in the years of 1977-1988 ZIA UL HAQ, and then the era of PervaizMusharaf from 2000-2008 the FDI increases in Pakistan. In our result the coefficient of DM which is used for dictatorship is positive and is 0.788 which is higher than other all variables which are also determinants of FDI.

In this study GDP_PC also have in-significant but positive impact on FDI flows. Domestic production (DP) is also plays a vital role in the country and higher rate in the production of domestic industry attract the foreign investors.In this study the trade openness have a positive and significant impact on the flows of FDI. Trade coefficient is positive both in long run and

short run case. It is an important point for investors. If the country is facing trade restriction form world or it put itself some restriction on the trade than the investors does not like lo invest there. Most of the foreign firms export there commodities to all over the world when they start business in any county so restrictions are bad for investment flows.

GNI have positive and significant impact on foreign direct investment both in long and short run. Exchange rate mostly has positive impact on FDI but in our study it is opposite. In this study the exchange rate have a significant impact on FDI but it is negative. We use some measure to check the model and its stability and they give given it right.So the concluding comment is that dictator ship has positive impact and it is in the favor of Pakistan in case of FDI flows. I am not sporting the dictatorship but telling the fact. So it is recommend that

- ➢ Government should adopt the methods and policies which can help to increase the FDI in the country no matter they are adopted by dictators but they are fruitful for country.
- ➢ Trade restriction should be lesser so attract the investors and try to make ties with large economics like China.
- ➢ GNI will help so adopt the policies which increase it and the welfare of the country.
- ➢ Controlee the exchange rate and try to make it in the favor of investors favor to increase the inflows of FDI.

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