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The Impact Foreign Direct Investment on Economic Growth in Pakistan Since 1980

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Abstract
This research is about to check the impact of Foreign direct investment on economic growth of Pakistan from 1980 to 2011. FDI is of the most important factor for the economic growth in the developing countries. Economic growth is effected from FDI by many domestic investment, increase the level of human capital and giving technology to the other countries who interesting to invest in the host country. The managerial as well as marketing skills increase also in the host country. Here we find the relation between the foreign direct investment and economic growth taking some other variables like labor, domestic capital and exports taking into consideration in the model. Co-integration model is used to test the relationship between the variables. The results show a significant relationship between foreign direct investment and economic growth. The result also suggest that giving suitable environment to the foreign investors to strengthen the FDI.

Chapter 1. Introduction

1.1 Background to the Study

In international business, FDI has one of the most interesting and attractive topics among researchers. FDI is measured as a most essential feature of the globalization. The globalization of production, logistics and consumption is the most prominent aspect of emerging world economic system. The obvious sign of globalization of world economy is the huge increase in FDI. The interdependence of economies of the world is increasing because of becoming a global village. Multinational corporation investment has increased due to internationalized production. FDI indicates altering aspect of emerging world economic system. Its speed and scope has been increased.

FDI is naturally based on efficiency and market seeking motives. FDI is investment regarding foreign resources into local structures, equipment along with organization with the host country. Foreign investment within domestic equity market is not included in FDI. Accordingly United Nations Conference on Trade and Development (UNCTAD, 1992), FDI is an investment that is compromised by long-term relationship which indicate the long-term control as well as interest of resident entity in one country in an enterprise resident in another country, other than that of the FDI. A company begin start FDI in a foreign market if it identify the ownership benefit over the domestic competitors in the host country.

The main means of FDI is transfer of technology, private capital, marketing advantage and approach to brand names. It has been recognized that FDI is the most powerful and also strategic means for developing a traditional economy into modern economy by boosting the pace of economic growth and development. South Korean and Chinese economies are the examples, they have attracted huge amount of FDI inflow and raised as faster growing economies of the globe.

The problem with developing countries is the lack of capital implying domestic sources or insufficient funds to finance the gaps that is saving and investment gap and export and import gap. The other way to local capital is the encouragement of foreign investment for boosting the internal rate of capital. The inflow of foreign financial into developing countries are categorized as; portfolio investment, Private debt flow, foreign direct investment and Official development finance. The problem with loans and grants are huge external debt that creates balance of payment problems for developing countries like Pakistan. Therefore FDI and portfolio investment accelerates the capital formation in the developing countries.

In developing counties there is lack of capital, and need capital for development process. In developing countries the marginal productivity from capital is higher, whereas the developed world investor looking for higher returns on their capital. Developed countries utilize the host countries resources, lower labor cost and enjoying the minimum cost of production and generates maximum profits. Thus there exists mutual profit in the foreign mobility of capital. Developing economies have given more attention to FDI as the major external source of inflow that's why FDI is considered essential "growth enhancing" instrument (Zeeshan et al. 2004).

Similarly, in Pakistan FDI remain a crucial source of external capital inflow so as to improve economic growth and development. The effect of FDI on the development of Pakistan economy could not measure accurately. But still, many researchers have concluded that FDI play a significant role in the development and growth in transferring sophisticated and modern technology, foreign trade, skill and training development and capital formation in the economy.

Pakistan has attractive environment for foreign investors to invest in IT and telecommunication, agriculture, power and Services sectors. Moreover industry sector is more attractive in most cases because in

industry sector 100% equity investment is allowed. The major countries that invest or inflow of FDI in Pakistan are United State of America, Middle Eastern countries and United Kingdom and each country contribute around 25% of FDI (Kumar, 2003).

1.2 Problem Statement

FDI is recognized as being an important tool with regard to improvement, as well as Pakistan, like the majority of developing economies, has been eager in order to attract much more of it. The benefits that are connected with FDI tend to be numerous. This particular research will attempt in order to discover the problems associated with FDI regarding Pakistan economic climate to determine that FDI benefit Pakistan or not. The research could also emphasize the amount of efforts including FDI within Pakistan economy.

1.3 Objectives of the Study

The main objective of this study is;

- To explore the effects of FDI inflow on the host economy in general, and Pakistan in particular.
- To empirically measure the relationship between FDI influxes as well as economic growth.

1.4 Hypothesis of the Study

This particular research focus on the actual pursuit within the relationship including FDI in addition to Pakistan economic growth. Within the framework, the primary hypothesis to be examined is that whether there exist the relationship associated with the actual FDI inflows as well as the economic growth within Pakistan.

1.5 Significance of the Study

A new developing economy such as Pakistan sometimes appears being an funds debt, reduce degree of industrialization in addition to a thin industrial base, small capital-labor connection, huge hidden unemployment, insufficient specialized as well as managerial capability, lifestyle associated with inefficiency as well as mind-boggling reliance on export associated with primary products. FDI is definitely an essential tool with regard to overcoming these types of structural weak points required for changeover towards improvement.

The current research will make an effort to discover the results associated with FDI about the Pakistan economy, because advanced through the advocates associated with globalization have raised up FDI at world degree. An effort will calculated to evaluate the results associated with FDI upon economic growth.

1.6 Organization of the Study

This paper include 5 chapters. 2nd chapter is literature review and examined different researches related to Pakistan. 3rd chapter is methodology of the research, which include data source, model, variables and estimation of the data. Chapter 4th is analysis and estimation further it also discuss the results. The last chapter 5th is conclusion and future implication.

Chapter 2. Literature Review

In literature review would examine the connection between FDI and its impact on economic growth investigated by various researchers. Different studies have examine the effect of FDI inflow on economic growth, the problem is distant from developed in view of the various conclusion reached. These studies have done for the reason to discover the causal link between the FDI and national growth. FDI has investigated and assessed in different aspects in the past studies. In this literature review different studies included on economic growth of Pakistan related to FDI inflow.

Falki (2009), carried out a study to examine the FDI inflow on the economic growth of Pakistan. The data on FDI was collected from the Handbook of Pakistan economy (2005) from 1980 to 2006. The variables were used in the study was domestic variable, foreign invested capital and labor force. Regression analysis and endogenous growth theory of growth were used by Falki. The conclusion of the paper was that FDI has not contributed in the economic growth of Pakistan in the period of 1980 to 2006. In the same way, Agarwal (2000), conducted a study, conclusion of the study was that increase of FDI in South Asian countries was linked with various enhance in investment by local investors. Furthermore the connection between FDI and economic growth was statistically negative till the year 1980.

Furthermore Attari et al. (2011) examined the impact associated with FDI around the factors associated with economic development like Gross Domestic Product, exports and also imports associated with Pakistan. In their paper annual time-series data were analyzed through 1981 in order to 2009. Different econometric tests were applied to find result from the time series data such as Augmented Dickey Fuller (ADF) for stationarity of data, Johansen Co-integration test, Granger Causality and Vector Error Correction Model. Their results suggested that long run relationship existed between FDI and macro-economic variables. Granger causality test suggested that Gross Domestic Product (GDP) is not affected by FDI in case of Pakistan during 1981 till to 2009.

They argued that the major reason that foreign investor do not invest is due to the economic instability in Pakistan. Further they criticize that Pakistan is highly dependent on loans, and aid from World Bank, IMF and other financial institutions. Because of these kind of inflow have negative impact on the economy caused by heavy interest payment on these lending.

Awan et al. (2010), conducted a study to determine the effect of FDI inflow on Pakistan Economy. From different sources time series data have been collected such as World Investment Reports (WIR), Board of Investment (BOI), World Development Report Indicators (WDI) and different result from Economic Survey of Pakistan, State Bank of Pakistan and International Financial Statistics (IFS) for the running time period from 1971 to 2008. FDI was taken as dependent variable and independent variable were Debt Servicing (DS), Trade Openness, Current Account Balance (CAB), Gross Fixed Capital Formation (GFCF), Inflation Rate (Used Consumer Price Index) (INF), Gross Domestic Product at Factor Cost (GDPFC).Two model were used in their research analysis Real Demand for Import Model and Real Export Model. Augmented Dickey–Fuller test has been used for stationarity, and data was examined by standard techniques such as Error Correction Model and Co-integration approach. Their study found that FDI has lifted up the economic growth and development in Pakistan during 1971-2008.

Likewise Awan et al. (2010), studied to examine the main determinant of FDI in commodity sector of Pakistan by using time series data from 1996 to 2008 (quarterly). The data have been collected from several Economic Survey of Pakistan, International Financial Statistics (IFS), State Bank of Pakistan, Board of Investment (BOI), World Development Indicator (WDI) and World Investment Reports. The dependent variable of the research was FDI in commodity producing sector and independent variables are Gross Domestic Product at market price (GDPMP), Per Capita Income (PCI), real growth rate in GDP in commodity producing sector in %age (GPR), Foreign Exchange Reserve (FOREX), Gross Fixed Capital Formation (GFCF) and Trade Openness (TO).The data was tested on Augmented Dickey–Fuller test for stationarity, and standard techniques such as Co-integration approach and Error correction model were used to observed the data. They found that commodity producing sector has strong encouragement of FDI in Pakistan. Standard of living which determined by Per Capita Income in the host country, high standard of living create widespread market which attract the foreign investment in commodity producing sector.

Furthermore Gudaro et al (2010), conducted a study to investigate the effect of FDI on exports and imports and to point out the constraints deal with foreign investment. Time series data were used to observe the effect of FDI on exports and imports of Pakistan during running time of 1973 to 2004. The data have been gathered from various sources such as Pakistan data (2005), Handbook of Statistics on Pakistan Economy (2005), International Finance Statistics (IFS) and State Bank of Pakistan (SBP). The variables taken in their research were amount of FDI as %age of GDP, volume of import, volume of export, unit value of import, unit value of export, GDP deflator and real GDP. Dummy variable were also used for democracy and military rule. The real demand for imports model and real export model were used in their research analysis. For stationarity, Augmented Dickey–Fuller test were used on the data analysis. The long run correlation were analyzed through co-integration and error correction techniques were used to find out independent variables and FDI that affect dependent variable. The study concluded that in short and long run there is positive relationship between FDI and real demand for imports.

Khan and Khattak (2009), carried out study to investigate various demand side determinant of FDI inflow into Pakistan for the time period from 1971 to 2005. Different variables are taken which determined the FDI inflow such as size of the host market, local investment, trade openness, Government consumption, inflation rate, taxes and external debt and return on investment. Data were collected from different sources like Federal Bureau of Statistics and Pakistan economic Survey. Augmented Dickey-Fuller test and Error Correction Model were used to analyze the data and Ordinary Least Square (OLS) method and Log Linear Regression model were used for empirical estimation. The study found that some explanatory variable were highly significant that effect positively FDI inflow of Pakistan. Their research also suggested that Government of Pakistan need to improve infrastructure, reduce external debt, encourage local investment and offer fiscal and financial incentives that will increase the volume of FDI inflow in Pakistan.

Nazima Ellahi (2011), analyzed the study to identify the connection between exchange rate volatility and FDI inflow. Time series data were utilized in the research paper during the time period from 1980 to 2010. Sources of the data include State Bank of Pakistan (SBP), World Bank Indicators (WDI), different issues of International Financial Statistics (IFS) and Pakistan Economic Survey. The variables which estimated in the model were, Real Foreign Direct Investment (RFDI) which was dependent variable, and Exchange Rate (EXCR), Exchange Rate Volatility (VEXCR), Real Gross Domestic Product (GDP), Openness of Trade (TOPEN) and Dummy variable were used for structure adjustment programme. Nazima Ellahi used most robust and auto regressive distributed lag (ARDL) model in long run and short run for empirical estimation. Moreover the cumulative sum of square (CUSMSQ) and the cumulative sum (CUSUM) tests were used to check the stability of parameters. Exchange rate volatility were found negative impact and has positive impact on FDI in Pakistan.

The study research paper also found that structural adjustment programme motivate the effect of FDI inflow in Pakistan.

Ahmad et al. (2004), investigated to find out causal connection between exports, domestic output and FDI. Data were gathered from several issues of International Financial Statistics (IFS) and Economic Survey of Pakistan. Data sample contain annual time series data observation from the period 1972 to 2001. Model was made of five variables which consist manufacturing production (mi) proxy were used of domestic production, total exports (exp), foreign income (yi), and the real exchange rate (er). Granger causality test were used to observe the link between FDI, trade and domestic output. The study found that there is major spillover influence from FDI to domestic output.

Rehman et al. (2010) carried out their study to examine the effect of foreign exchange and worker remittances inflow on equilibrium exchange rate in the form of FDI in Pakistan during from period 1993 to 2003. The Behavioral Equilibrium Real Exchange Rate (BEER) approach was used in the research paper for econometric technique of co-integration to establishment the connection between real exchange rate and applicable microeconomic fundamentals. Their study indicates that FDI inflow of foreign exchange rate raises the equilibrium real exchange rate in Pakistan and also s presence of 'Dutch Disease'. Furthermore the inflow of foreign remittances as FDI also appreciated real exchange rate in Pakistan.

According to Azam and Khattak (2009), suggested that Multinational Corporations are tracing plant in foreign to hire skilled, educated and trained labor so that they can enhance productivity and make maximum profit. The study shows a positive relationship between FDI inflow and human capital and their result were statistically significant. The study also concluded that FDI inflow increases due to stable political environment. Secondary data were used in the research analysis from the time period 1971-2005. For estimation of parameter they used method of least square and the simple semi log linear model. Further, Multinational Corporations often choose to pick a place that is politically and economically stable for their business.

Aqeel and Nishat (2004), investigated the relationship between the selective policies to FDI like tax as well as tariff policy, exchange rate and fiscal incentives offered during reform period. For empirical investigation they used data from 1961 to 2003. They used error-correction and co-integration techniques that enlightened the FDI inflow. Their study considered that exchange rate, tax rate, credit to private sector, tariff rate and index of general share price explained the inflow of FDI. The conclusion of the research was that the role policy variables attracted FDI inflow and determined long run and short run economic growth in Pakistan, and their study also point out positive and significant influence of reform on FDI inflow in Pakistan.

Rizvi and Nishat (2009), conducted a study on employment opportunities created by FDI in Asia continent from time period of 1985 to 2008. Pakistan, China and India were the sample and used panel data technique rather than applying econometric tests on each country. Three variables were used in their research analysis that are employment, gross domestic product and FDI. Data on these variable were collected from International Financial Statistics and Economic Survey of Pakistan. Order of integration were applied and the unit root test presented by Im-Pesaran-Shin (IPS) and Pedroni's test were applied for co-integration. Seemingly Unrelated Regression (SUR) were also applied in order to find the impact of FDI on employment in case of Pakistan China and India. Their paper concluded that FDI did not created employment opportunity in these countries and FDI improvement policies must be enhanced in order to stimulate employment growth.

Chapter 3. Methodology

Methodology chapter describe the relationship between FDI and economic growth. In this chapter the main variables will be selected for research analysis and also the sources from where data is gathered. The methodology also present the model for estimation of variables. This chapter also glimpse on techniques that has been used for empirical result in research analysis.

3.1 Model

The primary purpose from the study would be to assess or even quantify the actual impact associated with FDI upon economic growth. The model has been used in this paper is exogenous growth model used by (Nuzhat Falki, 2009) with some modification. In order to offer the desired goal, other endogenous variables that are assumed usually to impact the economic growth is also included in the model (such as exports, domestic capital, and labor). It's expected this inclusion may reduce or get rid of the specification error.

$GDP_t = \beta_0 + \beta_1 K_{dt} + \beta_2 Lf_1 + \beta_3 FDI_t + \beta_4 X_t + \mu_t$ ---------- (3.1)

Exports happen to be contained in the traditional growth model as there are lots of studies which have reported the actual positive as well as significant connection between exports as well as economic growth in Pakistan. For the objective of estimation the actual equation (1) to become tested had been obtained by taking log on both sides.

$\ln GDP_t = \beta_0 + \beta_1 \ln K_{dt} + \beta_2 \ln Lf_1 + \beta_3 \ln FDI_t + \beta_4 \ln X_t + \mu_t$ ----------(3.2)

Exactly where variable about the left side would endogenous variable as well as variables about the right side

would be the exogenous variables. Natural log is taken for gross domestic product (GDP) over time period t, which is lnGDPt and also dependent variable. lnKdt, lnLft, lnFDIt, lnXt is the natural log associated with local capital, labor force, FDI and exports respectively. Where μ_t is the residual. β_1, β_2, β_3, β_4 are the coefficients and are to be tested.

3.2 Variables

Dependent Variable:

- GDP: Gross Domestic Product
- β_0: Intercept
- β_1, β_2, β_3, β_4 are regression coefficients (describing change)

Independent Variables:

- Kd: Domestic Capital
- β_1: change in domestic capital
- Lf: Labor Force
- β_2: change in labor force
- FDI: Foreign Direct Investment
- β_3: change in foreign direct investment
- X: Exports
- β_4: change in exports

3.3 Describing Variables

With regards to discover the connection between the FDI and actual economic growth, the variable specified within the model and utilized in the research analysis tend to be;

1. **Gross Domestic Product (GDP):** GDP can be used to calculate the nationwide income displaying the economic growth. As the actual GDP indicate the local product that's been produced throughout the whole year by utilizing domestic assets on marketplace values. The research will make use of the secondary information of gross domestic product at market price measured within millions associated with current dollar US, based on the World Development Indicators (WDI) and State Bank of Pakistan.
2. **Labor Force (L):** Labor force is used as all of the people that supply work force for the actual production associated with goods as well as services throughout a specified time period. It includes both employed and also the unemployed. The data on labor force has been obtain from World Development Indicators during 1980-2011 for Pakistan.
3. **Domestic Capital:** Domestic capital is actually calculated through the Gross fixed capital which is understood to be Gross capital formation. This includes outlays upon addition towards the fixed assets from the economic plus in addition gross changing within the amount of stocks. Fixed assets consist of land enhancement, machinery and plants, grow equipment purchases; and also the building associated with highways, railways, and so on, such as colleges, workplaces, private hospitals, personal home houses, as well as commercial and commercial structures. The current research uses Gross fixed capital formation in order to signify the actual domestic capital calculated within millions of present dollar of US within Pakistan with regard to the timeframe 1980-2011.
4. **Foreign Direct Investment:** Foreign funds is actually calculated as the FDI, total inflows. The FDI, based on WDI tend to be understood to be the total influx associated with investment in order to obtain the enduring administration interest about a good business working within an economic climate apart from that from the investor. It's the amount of equity stock, reinvestment of receiving, long-term as well as short-term funds proven within the balance of payment. Consequently, the information with regard to FDI total influx, because shown within the Pakistan balance of payment distributed by WDI is going to be employed for this particular research.
5. **Exports:** Exports associated with products as well as services tend to be understood to be composed of transactions in between citizens of the nation as well as all of those other globe. This entails a big change associated with possession through citizens in order to no citizens associated with common products, products delivered with regard to process as well as maintenance, no financial precious metal as well as services. Consequently, the research uses the information for that exports associated with products as well as services associated with Pakistan calculated within millions of present dollar of US. The data is taken from WDI during 1980-2011.

3.4 Data Sources

The study is based generally on using secondary data from different sources. To analyze the association between FDI as well as economic growth for Pakistan, data taken from period regarding 1980 to 2011. The data used in

the research analysis is derived from numerous sources which includes;

- State Bank of Pakistan (SBP).
- International Financial Statics (IFS).
- World Development Indicator (WDI).

The information for just about all variables is actually measured within millions of $ US from current prices of the specific year under this study.

3.5 Testing Hypothesis

To be able to check the actual hypothesis concerning the relationship in between Gross Domestic Product along with other regressors, t-test statistics will used. The hypothesis will be examined through the research concerning the regressors relationship are as follow:

1. Null Hypothesis (H_o): $\beta_1 = 0$ Alternative hypothesis (H_1): $\beta_1 > 0$
   (Domestic capital response positively to GDP)
2. Null Hypothesis (H_o): $\beta_2 = 0$ Alternative hypothesis (H_1): $\beta_2 > 0$
   (Labor force affects GDP positively)
3. Null Hypothesis (H_o): $\beta_3 = 0$ Alternative hypothesis (H_1): $\beta_3 > 0$
   (FDI affects GDP positively)
4. Null Hypothesis (H_o): $\beta_4 = 0$ Alternative hypothesis (H_1): $\beta_4 > 0$
   (Exports response positively to GDP)

3.6 Econometric Technique for Estimation

The estimation associated with relationship in between GDP which indicates economic growth as well as FDI, has been examined by numerous economists applying various econometric methods. All the same the existing research follow the technique associated with Granger causality to try the extensive relationship in between FDI as well as the economic growth. Co-integration analysis will also be applied because of the fact that time series data usually indicate the property of non-stationarity in levels. The parameters as a result acquired from the estimation depending on OLS upon non-stationary information, generally provide spurious outcomes which are worthless.

Co-integration analysis contain very first looking at the stationarity of the data within levels of all of the parameters. It is important that all the variables are order of integration to test because only variables from the exact similar order of integration display a constant long-run relationship plus they are co-integrated. When they aren't co-integrated, so it show that residual is non-stationary as well as OLS estimations aren't reliable.

Chapter 4. Analysis and Estimation

4.1 Descriptive Statistics

Table 4.1

	LFDI	LGDP	LKD	LLF	LX
Mean	8.670207	10.81565	10.03234	7.592213	9.967792
Median	8.664229	10.79458	10.00224	7.574193	9.999575
Maximum	9.747412	11.36395	10.52527	7.798970	10.47467
Minimum	7.469189	10.44872	9.683147	7.413352	9.485136
Std. Dev.	0.573246	0.273933	0.260260	0.120389	0.295726
Skewness	0.045402	0.461909	0.424675	0.233249	-0.071972
Kurtosis	2.505388	2.113407	2.029580	1.742980	1.996932
Jarque-Bera	0.337182	2.185981	2.217478	2.396960	1.369153
Probability	0.844855	0.335212	0.329975	0.301652	0.504304
Sum	277.4466	346.1008	321.0349	242.9508	318.9694
Sum Sq. Dev.	10.18695	2.326219	2.099790	0.449296	2.711078
Observations	32	32	32	32	32

In table 4.1 the total observations are 32. The mean indicates the average value of the data series which is obtained by taking summation of all the value of a variable and dividing by observations. Median indicates to separate the upper half of data from the lower half of the data. The median is in arranged form from minimum value to maximum value. In the above results, if we examine the mean and median value which are very similar and show both mean and median join at same point. Furthermore maximum value indicate largest value in the data and minimum indicate the smallest value in the data. The minimum and maximum value indicates the dispersion in the data. The results show that the variables are not normally distributed because their value of

skewness is not equal to zero. LX show exports which is negatively skewed and GDP, FDI, Labor force and Domestic capital are positively skewed. The kurtosis show the peakness and flatness of the data. The variables are lepto-kurtic because the value of kurtosis of all variables are minimum then 3. Jarque-Bera test is applied to check that whether the data is normally distributed or not. For Jarque-Bera test probability is given below that is maximum then .05 which reject the null hypothesis and conclude that data series is not normally distributed.

4.2 Co-integration Method

Table 4.2

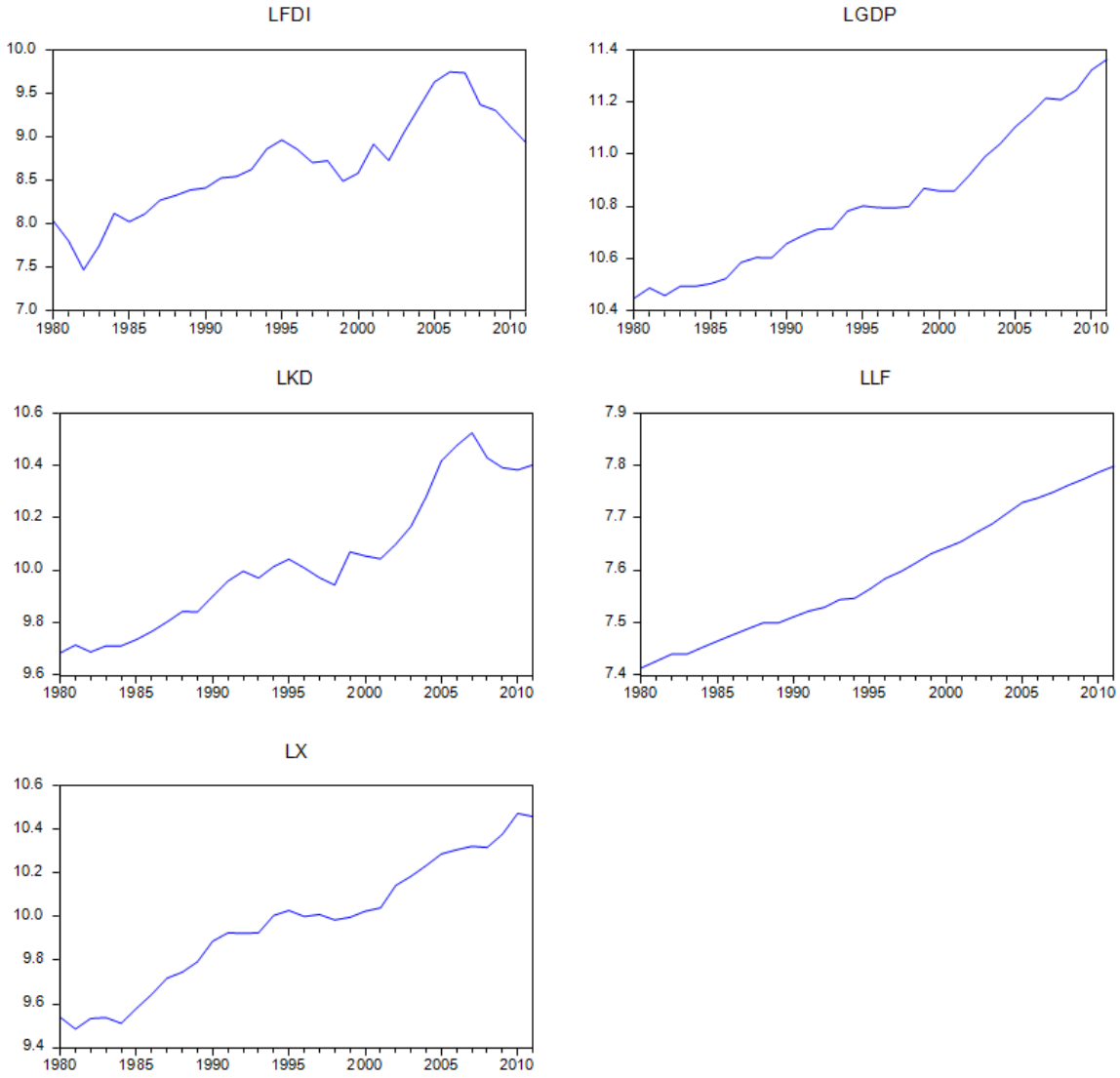
Pairwise Granger Causality Tests
Date: 12/16/13 Time: 17:05
Sample: 1980 2011
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LGDP does not Granger Cause LFDI	30	0.55539	0.0388
LFDI does not Granger Cause LGDP		1.06116	0.0311
LKD does not Granger Cause LFDI	30	2.32316	0.1187
LFDI does not Granger Cause LKD		2.10226	0.1433
LLF does not Granger Cause LFDI	30	1.25960	0.3012
LFDI does not Granger Cause LLF		1.40988	0.2629
LX does not Granger Cause LFDI	30	4.18239	0.0271
LFDI does not Granger Cause LX		0.49768	0.6138
LKD does not Granger Cause LGDP	30	0.27493	0.0419
LGDP does not Granger Cause LKD		2.05311	0.1494
LLF does not Granger Cause LGDP	30	3.03368	0.0661
LGDP does not Granger Cause LLF		0.99925	0.3824
LX does not Granger Cause LGDP	30	4.08311	0.0292
LGDP does not Granger Cause LX		0.95751	0.3975
LLF does not Granger Cause LKD	30	4.21897	0.0264
LKD does not Granger Cause LLF		1.27644	0.2966
LX does not Granger Cause LKD	30	3.14841	0.0403
LKD does not Granger Cause LX		0.50355	0.6104
LX does not Granger Cause LLF	30	0.22362	0.8012
LLF does not Granger Cause LX		1.69688	0.2037

Looking towards the above table 4.2 it is concluded that GDP is caused by FDI, exports, domestic capital at 5% of significance level and labor force at 10% of significance level. According to the 1st hypothesis of the research, the null hypothesis is rejected because the value of P-value is less than 5% and leads the decision to accept the alternative hypothesis which is that domestic capital response to GDP. The 2nd hypothesis of the research is that labor force does not response to GDP which is null hypothesis but the P-value in the result is minimum at 10% of significance level so it reject the null hypothesis and accept the alternative hypothesis so it is concluded that labor force affects GDP.

Likewise, the 3rd hypothesis of the research is that FDI does not cause GDP that is null hypothesis but the P value is 3% in the result that means that reject the null hypothesis and conclude that FDI cause the GDP. It is also concluded that GDP also cause the FDI because the in the above result the null hypothesis is that GDP does not granger cause FDI and P-value is 4% so reject the null hypothesis and accept the alternative hypothesis that GDP cause the FDI. The last hypothesis of the paper is exports does not response to GDP which is null hypothesis, according to the P-value in the result which is 3% show that reject the null hypothesis and leads to accept the alternative hypothesis so conclude that exports response to GDP.

Other than that, in the above result the export also affect FDI and because the P-value is 2% and 4% respectively that is below the significance level. Moreover labor force also affect the domestic capital because the result rejected the null hypothesis according to P-value which is less than 5%.



4.3 Graphical Analysis

In this paper the graphical analysis is conducted for all the variables used in the study. On y-axis growth rate is measured for each variable and on x-axis time period. The above figures indicates graphical plots growth rate of the FDI, GDP, Domestic capital, Labor force and Exports respectively. All the graphical plots of each variable show increasing and also indicates up-ward trend over the running time period from 1980-2011. From the above figures it is also observed that mean is changing during time period, and also concluded that the variables are not stationary.

The FDI figure show increase in FDI inflow during late 1980's because of implementing liberal foreign investments policy. Implementation of this policy attracted more foreign investor in Pakistan. In 1989 the FDI inflow increases due to new industrial policy package in Pakistan that also attracted the foreign investors. During 1997 FDI inflow decreases because of the government and autonomous power producers that extremely affected the FDI inflow. Further FDI was decrease in 1998 due to nuclear blasts and economic barriers executed by developed economies. Likewise GDP declines in 2008 because of war on terror in Pakistan.

The GDP figure also show growth in GDP over the time period. However 1993 and 1998 GDP growth rate was low because of developed economy sanctions on Pakistan of nuclear blasts, and also resulted from the worse BoP condition. The GDP growth rate rapidly increases from 2002 and reached to 7.6% in 2005.

The Domestic capital Kd also show the up-ward trend in Pakistan for 1980-2011. The domestic capital formation is also affected in 1993 and 1998 situation in Pakistan. The Domestic capital increases from 2001-2006 due much more investment by public as well as private sector in Pakistan.

The labor force figure indicate a regular up-ward trend because of increase in population in Pakistan. The regular increase in population increase the supply of labor force. The exports figure show increase in exports over the time period. The fluctuation in exports is due to political instability, demand for exports by world and the droughts effects on production of exports commodities.

4.4 Results and Discussions

In table 4.2 the empirical results of the variables such as domestic capital, labor force, FDI and exports have significantly cause the GDP. The FDI variable cause GDP and GDP also affect the FDI, it mean that if GDP increase the FDI also increase. There is two-way causality between GDP and FDI. The rest of the variables only affect the GDP means that one-way causality.

From the above result it is concluded that if gross fixed capital formation increase it will also increase the GDP. Atique et al. (2004) conducted a research and found that domestic capital formation play significant role in economic growth. Likewise Awan et al. (2010) also founded that gross fixed capital formation was statistically significant where P-value was 0.052 and this paper P-value is 0.419 compared with 10% and 5% of significance level. The government should invest and also appreciate the private sector to invest in domestic capital.

The results shows that labor force statistically significant where the P-value is 0.0661 compared with 10% of significance level. It means that increase in labor force the GDP will increase. More labor will available to work so government need to increase employment opportunity. Rizvi and Nishat (2009) conducted study and found that labor force were significant and cause economic growth where the P-value was 0.045 compared to this research P-value which is 0.0661.

FDI also cause to GDP as seen in the table 4.2 results at P-value 0.0311 which is statistically significant at 5% of significance level. Khan and Khattak (2009 also found that FDI play significant role in economic growth and P-value was 0.035 which near to this research P-value 0.0311. So government need to implement those policies through which more foreign investor can attracted and also better of the economic condition as well as political situation.

This research also accept that exports granger cause GDP at P-value is 0.0292. Attari at el. (2011) examined the study in Pakistan during 1976-2005 and found that export are significantly cause the GDP where P-value was 0.03 which is near to this paper result. Ahmad et al. (2004) also founded exports are statistically significant where P-value was 0.332 compared to this research result which is 0.0292 both are close to each other and significant at 5% of significance level. Similarly government should increase the exports and give subsidies on export commodities.

Chapter.5 Conclusion and Recommendation

5.1 Conclusion

The chapter gives the results and summary of the whole research. Some implications and policies were also discussed from the preceding results which are discussed in this chapter later.

Now a day's foreign direct investment is one of the main source of much needed capital, high technology, and managerial skills in developing countries. Pakistani government had succeeded from the past five years to attract sufficient amount of foreign direct investment by keeping its importance in the economic development and also taken high steps to open inward FDI system in Pakistan.

However by taking comparison of other developing countries in Asia, Pakistani government has far away to attracting FDI. Due to the importance of FDI in economic development, the relationship between foreign direct investment and economic growth in Pakistan was taken into consideration in this study. To check the effect of FDI on economic growth, various statistical model were used. To check the impact of foreign direct investment on economic growth in the long run, co-integration model was used which typically considered the economic growth. Some other variables are also taken which effect the economic growth, they are domestic capital, labor and exports.

Granger causality test were used in this study. The results shows that the foreign direct investment effect the economic growth significantly from the sample data which were from 1980-2011 and also the economic growth is also effected from the other variables which are labor, exports and domestic capital.

5.2 Recommendation

From the research some important implications can be drawn. From the whole study it shows that the economic growth has affected from FDI and FDI has a significant contribution in the economic growth from the period 1980-2011 along with others factors including domestic capital, labor and exports. So, such policies will made by the government to improve FDI for enhancing the economic growth in the future.

FDI promote learning, enhance the skills of labor and in general we can say that it enhance the human skills and also the technology. There are some important things required for holding all this in the economy. The

prerequisites contain the donation of human capital, presence of liberal regime, provide a domestic market to produce the goods and competition among different locally firms considering R&D and domestic production.

As in the long run, the results examined the impact of foreign direct investment on economic growth. Therefore, the above prerequisites has seem to be fulfill for Pakistan instead of investment policies and government liberal trade. Due to the lack of poor infrastructure, low level of weak manpower and weak law and order, the business environment in Pakistan is still not productive to attract the foreign investors.

Therefore, it is suggest that creating an attractive environment for FDI, the government should come up with a friendly business policies. There should proper rules and regulation for FDI and to invest in various sectors especially in large manufacturing industries instead of service sectors. Large investors which are from foreign should motivated it invest in large manufacturing industries and encourages it to strong the FDI in Pakistan.

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