

Economic Development, Technological Change and Growth

Effectiveness of Foreign Direct Investment on Economic Growth in Pakistan: A Policy Perspective Approach

Muhammad Waqas Chughtai¹

Abstract: Foreign Direct Investment (FDI) has significant impact on economic growth of developing countries like Pakistan for many decades. This paper has an objective to know the effects foreign direct investment on economic growth for the period from 1971-2013 by establishing empirical relation between business industries of primary, secondary and tertiary sector with FDI through Panel Cointegration and Granger Causality Framework for the specified period. The results show the significance of FDI and economic growth with proxies of GDP with the evidence of cointegration between these variables. The results also present long term causality between FDI and GDP while two-way causality is found under short run. Overall sectoral level, there is positive significance identified between FDI and GDP. The policy implications are also discussed in the paper showing that efficient and effective utilization of FDI.

Keywords: economic development; FDI Inflow; GDP; growth policy

JEL Classification: C33, F23, O40

1. Introduction

A role of Foreign Direct Investment (FDI) is very important for economic development for both developed and under developing countries. Since last decade foreign direct investment have grown hastily, the need of capital in developing countries for development sector has been increased in form of higher marginal productivity of capital. The investors from developed countries are expected for high return from their investment. Therefore, it is a complementary mutual gain for international trade of capital. The whole world as global economy and economic liberalization in large scale of developing countries lead to enforce competition for foreign direct investment in all developing countries. The strict restrictions and trade barriers on the economic activities of FDI in developing countries have been normalized through affordable policies and procedures, such policies have the

¹ Lecturer, Institute of Cost & Management Accountants of Pakistan - Islamabad Campus. Islamabad-Pakistan. Corresponding author: mwchughtai@yahoo.com.

basic objectives not only improve the capital inflow as well as economic growth of developing countries. Developing countries including Pakistan are suffering serious problem of capital inflow through poor saving or Saving-Investment Gap while foreign direct investment increases the progression of economic growth by fulfilling this gap through adopting new technology, employment generation, productivity enhancement and promoting competition (Korbin, 2006; Ataullah & Le, 2006). The economic gains have promoted the developing countries to ease up their FDI rules and regulations in order to catch FDI inflow in the country.

The government of Pakistan has reshaped economic policies and initiated economic reforms in the country. Such reforms began to start work in the year 1988 and since from the mentioned period, the government of Pakistan has given liberty on trade and investment through providing attractive economic benefit to the investors through tax concession, credit services, suitable tariff cutback and relieved foreign exchange controls (Khan & Yun, 1999). In the 1990s, the government of Pakistan further focused on other developing sector such as agriculture, communication, energy to enhance FDI in the country. But due to political unrest became cause of less FDI in the country as compared to other developing countries. Now Pakistan has opened doors for FDI that is expected to bring large benefits in shape of economic development through political stability and liberal trade policies to attract foreign investors. By comparing with India and China, Pakistan still has not been successful in getting benefits of FDI inflow. Moreover, insufficient inflow of FDI in the country has not been utilized efficiently to increase economic growth (Ataullah & Le, 2006). The inflow of FDI is still slow that is because of economic reforms that are far off to change and type and character of FDI. The structure and type of FDI are a structure matter as much for economic development (Chakraborty & Nunnenkamp, 2008). A wide empirical literature on measurement of the inflow of FDI focuses that economic condition or basics of the host countries related to the home countries FDI as measurement of FDI inflows.

However, it has been argued by the foreign investors to obtain location advantages by changing and opening more economies for today. FDI from developed countries always depends on economic policies by the government, transparency and well supportive infrastructure from the host country (Dunning, 2012). Few literatures available which determine the effects of government policies to attain the foreign direct investment in the country. This paper focuses to know the effectiveness of foreign direct investment on economic growth of Pakistan through selective government policies such as tax and tariff policy, fiscal benefits offered to the foreign investors and exchange rate policy. Moreover, this paper find outs the effectiveness of such policies to attract FDI in the country and create interest for

policy makers in developing countries where economic reforms are being implemented for development.

This paper is presented in orderly form in which Section 2 describes theoretical framework and empirical literature on association between foreign direct investment and economic growth; Section 3 reviews the FDI inflow in Pakistan; methodology, econometric model and data are presented in Section 4 while results interpretation is discussed in section 5 while conclusion and policy implication are describes in the last section.

2. Review of Literature and Theoretical Framework

A theoretical association between economic growth and foreign direct investment has been analyzed by modernization and dependency theories by the determinants of FDI. Modernization theories describes that an economic growth is attained through capital investment in the country (Adams, 2009). On the other hand, the growth theories discusses that a new technology in developing countries through FDI brings economic growth in shape of education, socio economic development, economically liberalized financial markets and political rest (Calvo & Sanchez, 2002). A transformation of technology through FDI with relevant managerial and organizational skills, market knowledge and access achieves rapid economic growth in the country (Balasubramanyan et al., 1996; Kumar & Pardhan, 2002). FDI plays two as contributing to capital enhancement and flourishing total factor productivity (Nath, 2009).

The dependency theories are expected that foreign investment produces negative impact on economic growth because it promotes monopolies of industrial sector (Bornschier & Chase, 1985). This means that economies are controlled by foreign investors rather than developing countries which promote disarticulation (Amin, 1974). Consequently a multiplier effect is weaker and led to poor growth in the developing countries (Adams, 2009). A market size in developing countries and difference in factor costs are related to the FDI. Because foreign investors give importance to market size and its growth and the most widely measure of market size is Gross Domestic Product per capita income (GDP/Capita) as well as growth of GDP that have usually positive coefficients (Lipsey, 2000; Moosa, 2002).

Labor cost is one of the major elements of cost function. High nominal wages deter FDI which is particularly true for those firms that are engaged in labor intensive activities that shows no significance among the variables or a negative relationship between FDI and wage (Kravis & Lipsey, 1982; Wheeler & Mody, 1990; Lucas, 1993; Wang & Swain, 1995; Barrell & Pain, 1996). On the other hand, few researchers found that higher wages do not put off FDI in all productive sectors and

shown position significant association between FDI and higher wages. It is because of higher wages get higher productivity through high quality labor on attract wages and advance technology attracts skilled labor while poor wages produce low productivity (Moore, 1993; Love & Lave, 2000). Recent studies have found that the policies designed by the host country directly effect on FDI like trade tariff, taxes and exchange rate. Such policies reforms in developing countries are the determinants of FDI and taxes and trade tariff are significant on FDI. (Gastanaga et al, 1998; Asiedu, 2002; Maskus, 2001; Ethier, 1996). Some other empirical studies have conducted to know the direct effect of FDI on economic growth (Borensztein et al, 1998; Somwaru & Makki, 2004; Campos & Kinoshita, 2002; Zhang, 2001; Aqeel & Nishat, 2005; Khan & Khan, 2011). FDI enhances economic progression in all sectors of economy in developing countries where there is urbanization having effective and efficient infrastructure and FDI, trade and tax policies are liberal and affordable for investment (Zhang, 2001). FDI effects more efficiently to grow the economy in those countries where labor force is educated and skilled; such countries promote exports rather than imports through their trade friendly policies (Balasubramanyam et al, 1996). When FDI comes in form of technology, it is more positively significant on economic development (Campos & Kinoshita, 2002). FDI leaves positive long term effects on economic growth in developing countries (Aqeel & Nishat, 2005; Khan & Khan, 2011). Some other studies find that FDI has insignificant impact on growth in the host country (Agosin & Mayer, 2000; Hermes & Lensink, 2003; Sylwester, 2005; Ayanwale, 2007). For causality, it is based on the trade condition of the host country because the impact of FDI on economic growth is found highly heterogenous among the countries that are most mark able for open economies (De mello & Jr, 1997; Nair & Weinhold, 2001).

3. Historical Background of Foreign Direct Investment in Pakistan

An increase in capital formation high-ceilinged savings and investment are necessary. But in the developing countries the level of saving is below from the targets due to poor per capita income (Khan, 2007). A gap between desired levels of both savings and investment can be fulfilled through trade in shape of increase in exports and transformation of other domestic resources. In this case, foreign direct investment is one of the important tools that can increase foreign capital inflows, trade liberty, affordable tariff and friendly tax policies. Therefore, the host country needs to develop liberal policies to overcome trade barriers for encouraging investment. FDI promotes domestic economic activities, so it's a dire need of host country to convince foreign investor to produce raw material for the final goods (Zaidi, 2004). The trade policies of host country and strong infrastructure both directly influence on the decision of foreign investors for

investment so the policies they adopt should attract the FDI. In early 1990s, the government of Pakistan initiated economic reforms to improve the business activities and attract foreign investment (Anwar, 2002). These economic based reforms included trade liberalization along with trade and fiscal benefits, nominal tariff and friendly foreign exchange control policies (Khan, 1997; Anwar, 2002; Aqeel & Nishat, 2004; Khan & Khan, 2011). After that, government started restrictions on capital inflows and out flows. The foreign investors were bound to keep 100% equity in industrial projects without any prior approval. In 1994, capital transaction restrictions were relaxed for investment and foreign borrowing and Pakistan Rupee convertibility was settled on current international transactions. An interbank foreign exchange market plays important role for determination of foreign exchange (Khan, 2008; Khan & Khan, 2011).

Investment Acts in Pakistan

Foreign direct investment regime is mainly consisted on three components (i) regulatory (ii) economic and (iii) social political. But privatization and deregulation the government of Pakistan has adopted liberal regulatory framework that is based on three laws to protect and facilitate the FDI in the country (i) Foreign Private Investment Act 1976: Promotion and Protection (ii) Foreign Currency Account Ordinance 2001 (Protection) and (iii) Furtherance and protection of economic reforms Act 1992. The Intellectual Property Rights Laws are brought up with international standards specially those which are related with trade related intellectual property rights of World Trade Organization (Khan & Khan, 2011).

The main regulatory frames for Foreign Direct Investment in Pakistan

- freedom for taking, holding and bringing foreign currency from Pakistan to anywhere;
- a Fully protected private enterprise is encouraged which neither nationalized nor government take any other foreign enterprise;
- FDI and profits both can be sent back to the home country;
- equally treatment of both local and foreign investor in terms of imports and exports for commodities;
- fully protect foreign account that cannot be frozen;
- FDI is open for all economic sectors with the equity of 100% are permitted for all sectors even in agriculture;
- unlimited size of FDI for manufacturing sector of the economy and in agriculture, social and infrastructure sectors an amount of foreign equity investment is minimum 0.3million while 0.15\$ for services sector;
- zero government approval is required to establish an industry in term of size and location except arms and ammunitions, highly danger explosive, radioactive staff, security printing and alcohol as well;

- no double taxation of foreign investors' income;
- zero custom duty on import and plant machinery for agriculture sector while manufacturing, infrastructure, social sciences and services is not more the 5%;
- no restriction of paying royalty and technical fees for manufacturing sector. On the other hand non manufacturing sector is charged maximum rate of 5%;
- tax relief is given Plant, Machinery and Equipment and 50% is charged for both manufacturing and non-manufacturing sectors.

In the last decade, Pakistan has gained high amount of foreign direct investment as compared to the past due to trade friendly policies and open investment environment for the foreign investors in term of size and the percentage of GDP (Khan & Khan, 2011).

Trends of FDI in Pakistan

Table 1. Year Wise FDI as % of GDP & Amount of FDI in US\$

Year	FDI as Percentage of GDP	Amount of FDI (In Million US \$)	Year	FDI as Percentage of GDP	Amount of FDI (In Million US \$)
1971	0.01	1.00	1992	0.69	336.48
1972	0.18	17.00	1993	0.68	348.56
1973	-0.06	4.00	1994	0.81	421.02
1974	0.05	4.00	1995	1.19	722.63
1975	0.22	25.00	1996	1.46	921.98
1976	0.06	8.22	1997	1.15	716.25
1977	0.1	15.22	1998	0.81	506.00
1978	0.18	32.27	1999	0.84	532.00
1979	0.3	58.25	2000	0.42	308.00
1980	0.27	63.63	2001	0.53	383.00
1981	0.38	108.08	2002	1.14	823.00
1982	0.21	63.83	2003	0.64	534.00
1983	0.1	29.46	2004	1.14	1,118.00
1984	0.18	55.51	2005	2.01	2,201.00
1985	0.42	131.39	2006	3.35	4,273.00
1986	0.33	105.73	2007	3.9	5,590.00
1987	0.39	129.38	2008	3.32	5,438.00
1988	0.48	186.49	2009	1.44	2,338.00
1989	0.52	210.60	2010	1.14	2,018.00
1990	0.61	245.26	2011	0.62	1,308.77
1991	0.57	258.41	2012	0.36	853.68
			2013	0.27	504.70

Source: World Bank Reports, International Monetary Fund Reports, International Financial Statistics of Balance of Payments database, OECD GDP Estimates, International Debt Statistics

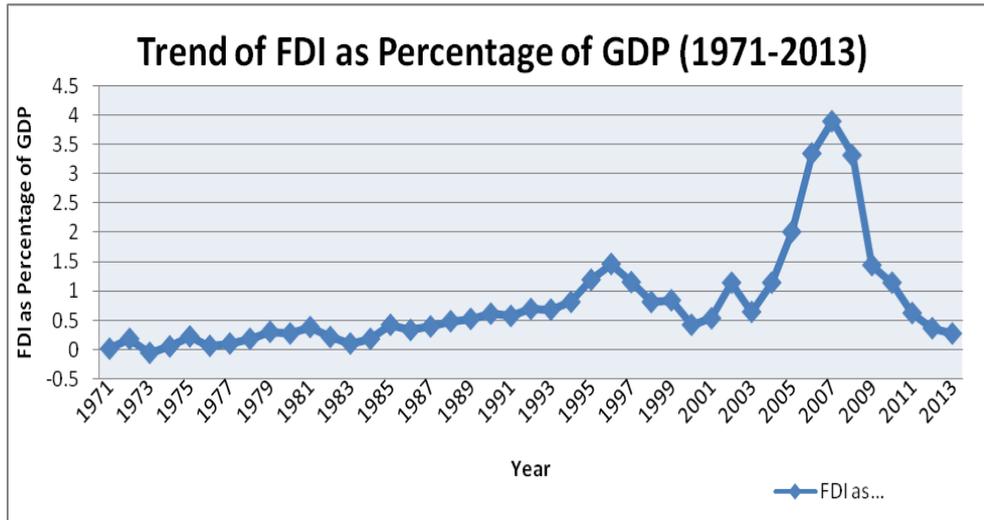


Figure 1. Trend of % of GDP (1972-2013)

The FDI inflows in Pakistan are based on its term of growth, size, source and sectorial preferences. The growth of FDI was not prominent till last 1990s due to regulatory policies framework. On the other hand, FDI enhanced economic growth of the country under the shadow of trade liberal policies. Table No 1 shows about the flow of FDI that was increased by 1 million US\$ in 1971 to 853.68 million US\$ and between these periods (1971-2013) the flow of FDI was fluctuated the Figure No 1 shows the trend of FDI in Pakistan for the said era. Since 1971 to 1999 the flow of FDI increased with minor decrease, but after the year 1999, FDI was quickly decreased due to US strict policies were imposed on Pakistan because of nuclear tests and political and financial instability in the East Asia. But the FDI was increased in the year 2004 with the amount of 1,118 million US\$ as compared to the past years and it was double with the last year 2003. After 2004, FDI was rapidly increased and reached at its peak in the year 2007 with amount of 5,590 million US\$ due to government trade liberal policies for the foreign investors. The flow of FDI started its decline from the year 2008 to 2013 because of swear financial crises, security issues and specially the War on Terror became the main causes of downfall.

Objectives of the Research

- to know the effectiveness of Foreign Direct Investment on Economic Growth of Pakistan;
- to discuss the trends of Foreign Direct Investment in the last four decades;
- to give suitable policy implications for the enhancement and efficient use of Foreign Direct Investment in the country.

Research Hypothesis

H₁: Foreign direct investment has significant effects on economic growth

Data Collection and Research Methodology

Data Collection

To measure the effects of FDI on economic growth of Pakistan 23 productive sectors of the economy are taken in to account for the period from 1971 to 2013. List of selected business industries of the economy is given below:

Table 2. Major Sectors of the Economy

Major Sectors	Selected Business Industries
Primary Sector	Agriculture, Forestry, Hunting & Fishing, Mining & Quarrying
Secondary Sector	Manufacturing includes SMEs, Food Beverages, Tobacco, Textile, Leather, Clothing, Chemical and Chemical Products, Pure Metal and Metal products, Electrical Machinery, Machinery Equipments, Motor and other transports equipments
Tertiary Sector	Construction, Electricity and Gas Distribution, Whole Sale and Retail Business, Transport, Storage and Communication, Finance, Ownership of Dwellings and other services included

A data on inflow of FDI and GDP for each selected sectors are collected from State Bank of Pakistan Reports, World Bank Reports, Federal Bureau of Statistics Pakistan while Consumer Price Index (CPI) is used to calculate real GDP.

Model

To measure the effects of FDI on economic growth following two variables model has been designed as work done by few researchers (Basu et al, 2003; Chakraborty & Nannenkamp, 2008; Khan & Khan, 2011):

$$GDP_{it} = \alpha_i + \delta_t + \beta_i FDI_{it} + \varepsilon_{it} \dots \dots \dots Equation (1)$$

[Subscript letters show the logarithms of the variables]

Whereas

α_i presents the special effects by the selected business industries

δ_t presents the time effects

ε_{it} error term presenting the deviation from long run relationship

β_i slope of the FDI

A short run effects can be obtained by measuring the error correction model as following:

$$\Delta GDP = \alpha + \sum_q \gamma_i \Delta GDP_{it-q} + \sum_q \eta_i \Delta FDI_{it-q} + \lambda_i \varepsilon_{it-1} + \mu_{it} \dots \dots \dots \text{Equation (2)}$$

[Subscript letters show the logarithms of the variables]

Whereas

q refers to the optimal lag for each selected business industry for the years

γ_i refers to the speed adjustment towards long run relationship

η_i refers to the short run effects of FDI on GDP

λ_i refers to the long run effects of FDI on GDP

ε_{it} refers to error term

Econometric Methodology

The econometric methodology is based on following process as adopted by (Khan & Khan 2011). First, panel unit root test is projected to determine the order of integration of the selected series (Pesaran et al, 2003; Khan & Khan, 2011). Secondly, conditionally all variables were integrated of order I (Eq.1) and used cointegration test approach (Kao, 1999; Pedroni, 1999; Khan & Khan, 2011). In the final step of the process, it is applied Panel Dynamic Least Squares (PDLS) technique to determine the long run coefficients (Khan & Khan, 2011).

Panel Unit Root Test

To examine the long run relationship between variables, there is need to test the stationary of the variables. A (Pesaran et al, 2003) panel unit root test is applied which is commonly known as IPS based on averaging individual Augmented Dickey Fuller Unit Root Test (*it*). The test is as following:

$$t_{IPS} = \sqrt{N} \frac{(\bar{t} - E[t_i | \rho_i = 0])}{\sqrt{Var[t_i | \rho_i = 0]}} \quad N(0,1) \dots \dots \dots \text{Equation (3)}$$

Whereas $\bar{t} = N^{-1} \sum_{i=1}^N t_i$. The Moments of $E[t_i | \rho_i = 0]$ and $E[t_i | \rho_i = 0]$ are calculated through Monte Carlo simulation and tabulated in IPS.

Measuring Long run relationship among variables

To measure the cointegration among the variables as shown in equation 1, there are four cointegration test are employed in the selected data analysis (McCosky & Kao, 1998; Pedroni, 1999; Kao, 1999; Kao, 1999; Khan & Khan, 2011) test cointegration through Engle Granger two steps method and entails homogeneity in the panel series. The (McCosky & kao, 1998) test the null hypothesis of cointegration that is similar to the Hadri LT test for unit root (Harris & Sollis, 2003). While (Pedroni, 1999) applies seven residual cointegration tests that are based on the no integration as null hypothesis. These tests four are based on within the dimension of panel series and rest of three on average between the dimension for long run relationship (Maeso-Fmandez et al, 2005; Khan & Khan, 2011).

$$Y_{it} = \alpha_i + \delta_{it} + \theta_t + \beta_1 X_{1it} + \dots \dots + \beta_k X_{kit} + \varepsilon_{it} \dots \dots \dots \text{Equation (4)}$$

Whereas

K is the numbers of independent variables

β_k is the slope of the independent variables

θ_t is the time effect

α_i and δ_{it} are the deterministic elements

To measure the long run relationship between FDI and GD, Panel Dynamic Ordinary Least Squares Methods is applied which is suitable to test the hypothesis for homogeneous cointegration vector (Kao & Chiang, 2000; Mark & Sul, 2003; Khan & Khan, 2011).

The long run Dynamic Ordinary Least Squares Method is as following

$$GDP_{it} = \alpha_i + \delta_{it} + \theta_t + \beta FDI_{it} + \sum_{-q}^q \Psi_{it} \Delta FDI_{it} + \varepsilon_{it} \dots \dots \dots \text{Equation (5)}$$

Whereas

q is the numbers of lead-lag effects for difference terms while the coefficients of these terms are taken for heterogeneous short run dynamic i.e. Ψ_{it} fluctuate across *i*.

4. Empirical Findings

After testing, the empirical findings are presented in three steps. First, the time series analysis was done through panel unit root test (Pesaran et al., (2003). Second, the results of panel unit root test and for time effects to check the cointegration using residual based test (Pedroni, 1997) applied for the panel series. After examining cointegration, long run parameters obtained by using Panel Dynamic Ordinary Least Square Method. At Last, to check the causality between GDI and FDI under short run and long run dynamics, the error correction model was used for analysis.

Unit Root Test

The IPS Panel unit root test is applied to check the integration of the variables (Pesaran et al, 2003; Khan & Khan, 2011). The test measures the unit root null hypothesis against the alternative of heterogeneous autoregressive coefficient. The results are presented in the following table:

Table 3. Panel Unit Root Test

Series	Level	First Difference
GDP _{it}	-0.119 (0)	-6.107 (0)*
FDI _{it}	-0.447(2)	-8.784 (1)*
*Presents significance at 1% level of significance		
The critical value is -3.17890 at 1% level of significance		
The critical value is -1.99158 at 5% level of significance		

The IPS Unit Root Test describes that both variables are non stationary at their level while both are stationary at their first difference at 1% level of significance.

Cointegration Test

The cointegration test results are presented in the following Table No 4 describing that the null hypothesis of no cointegration is rejected through panel RHO and

panel PP tests. While Panel V and Panel RHO also reject the null hypothesis of no integration between measurements. On the other hand, Panel V and Panel ADF tests both accept the alternative hypothesis of having cointegration. Therefore, Panel RHO and Panel PP tests are considered more reliable for testing cointegration (Maeso-Fernandez et al, 2006; Khan & Khan, 2011). Hence, it is found the cointegration exists between FDI and GDP.

Table 4. Results of Cointegration Test Between FDI and GDP

Test Statistics	Within Dimension	
	None	Constant
Panel V	-1.19 (P-value = 0.817)	-0.61 (P-value = 0.721)
Panel RHO	-3.41 (P-value = 0.000)*	-2.29 (P-value = 0.107)**
Panel PP	3.28 (P-value = 0.000)*	-2.31 (P-value = 0.019)**
Panel ADF	-0.99 (P-value = 0.210)	0.01 (P-value = 0.497)
Kao (ADF)		
Between Dimension		
Panel RHO	-1.92 (P-value = 0.039)**	-1.51 (P-value = 0.082)***
Panel PP	-4.23 (P-value = 0.000)*	-2.14 (P-value = 0.031)**
Panel ADF	-0.59 (P-value = 0.322)	0.63 (P-value = 0.778)
Null Hypothesis = No Cointegration		
* presents 1% level of Significance		
** presents 5% level of Significance		
*** presents 10% level of Significance		

Now, estimating Equation No 1 the DOLS Method is applied. The results are showing in the following:

Table 5. DOLS Results of FDI and Economic Growth

Variables	Coefficients
Constant	10.07, (9.93)*
FDI _{it}	0.43, (2.59)**
R-Square	0.74
F-Statistics	52.36
Dependent Variable: GDP _{it}	
* presents 1% level of significance	
** presents 5% level of significance	

DOLS measures the FDI and Real GDP by one lag and lead of the first difference term. To calculate heterogeneity over the selected sectors, specified fixed effects model and results oriented cross-section weight are presented. In order to ensure contemporary effects of independent variables, the while-cross sections and a period random method is applied. It treats the panel regression as multivariate and

compute standard errors. The measures are vigorous to cross correction and differentiate errors variables in each cross section. The coefficient of FDI is found positive the value of 0.43 (significant) which describes its influence over GDP in the long run period. This means that 1% increase in FDI leads to 43% increase in GDP. In is also found that the effects of FDI are not greater as expected in the past.

To measure the long run and short run causality between FDI and GDI, the Dynamic Error Correction model is applied for analysis through Seemingly Unrelated Regression Method.

Table 6. Results of Dynamic Panel Causality

Dependent Variable	Independent Variable		
	Δ GDP	Δ FDI	ϵ_{t-1}
Δ GDP	-	32.78 (0.000)*	0.43 (0.572)
Δ FDI	28.92(0.000)*	-	4.68 (0.034)**

* presents 1% level of significance
 ** presents 5% level of significance

The null hypothesis no causality under short run from FDI to GDP is rejected and vice versa which showing a concrete bi-directional causality between FDI and economic growth. While the null hypothesis no causality under long run from FDI to GDP is also rejected. It means Pakistan seeks FDI inflows in long run.

Granger Causality Test (Sector wise under short run)

A Granger Causality Test is applied to examine the causality direction for all major sector including Primary, Secondary and Tertiary sectors. The results are as shown in the following table:

Table 7. Granger Causality Test (Sector wise)

Sectors	Dependent Variables	Independent Variable	
		Δ GDP	Δ FDI
Primary Sector	Δ GDP	-	52.34 (0.000)*
	Δ FDI	0.87 (0.981)	-
Secondary Sector	Δ GDP	-	0.42 (0.910)
	Δ FDI	6.43 (0.053)***	-
Tertiary Sector	Δ GDP	-	12.01 (0.047)**
	Δ FDI	5.51 (0.401)	-

* presents 1% level of significance
 ** presents 5% level of level of significance
 *** presents 10% level of significance

The result of causality between FDI and GDP is found different across sectors. Null hypothesis for primary sector no causality between FDI and GDP is rejected. It means under short run, the FDI positively affects the productivity of primary sector. For secondary sector null hypothesis is not rejected. It is because of a bulk of FDI obtained for marketing seeking resource seeking concerns. Finally, the tertiary sectors uni-directional causality is found between FDI and GDP. This implies that in the recent time a substantial inflow of FDI is acquired for services sector that played very important role for economic growth of the country.

5. Conclusion

It is concluded after empirical analysis that the effectiveness of foreign direct investment in Pakistan brings positive impact on economic growth of the country. However, the types and conditions of FDI have changed significantly. The primary sector business industries always attract FDI, the manufacturing sector is still seeking Local Market FDI and the services sector is enjoying the benefits on FDI for last few years. The growth of FDI depends on the sector requirement and its output, panel cointegration test is applied for the period from 1971 to 2013. The results conclude that both FDI and GDI are strongly co-integrated while DOLS results present the positive output for the all sectors. On the other hand they have uni-directional causality between each other in the long run while bi-directional is found between FDI and GDP in short run period. For All sectors of business industries, uni directional causality is running between FDI and GDP. On the basis of results following are few policy implications for the betterment of the effective use of FDI in Pakistan:

Policy Implications

- Exchange rate should be flexible to attract the foreign direct investment in the country.
- Labor forces should be trained with effectiveness to adopt new technology.
- Planners & Policy Makers should focus on attracting FDI to achieve short term growth.
- Effective and efficient measures should be taken to promote social overhead capital.
- Small & Medium Enterprises should be developed that would direct effect on GDP in the country.
- Policies should be designed for utilizing domestic resources included raw material and labor force that ultimately promote local industries and reduce he ratio of unemployed labor in the country.

6. References

- Adams, S. (2009). Foreign Direct Investment, Domestic Investment, and Economic Growth in Sub-Saharan Africa. *Journal of Policy Modelling* 31: 6, pp. 939-949.
- Agosin, M. & Mayer, R. (2000). Foreign Direct Investment: Does It Crowd in Domestic Investment? United Nations Conference on Trade and Development Geneva, Switzerland. (Working Paper No. 146).
- Amin, S. (1974). Accumulation on a World Scale: A Critique of the Theory of Underdevelopment. *Monthly Press Review*. New York.
- Anwar, T. (2002). Impact of Globalisation and Liberalisation on Growth, Employment and Poverty: A Case Study of Pakistan. United Nations University. (WIDER Discussion Paper No. WDP 2002/17).
- Aqeel, Anjum & Nishat, Muhammad (2005). *The determinants of foreign direct investment in Pakistan*. Paper presented at the PSDE Annual Conference in Islamabad.
- Asiedu, Elizabeth (2002). On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different? *World Development* 30, pp. 107-19.
- Ataullah, A. & Le, M.H. (2006). Foreign Capital and Economic Performance of Pakistan. *The Lahore Journal of Economics* 7:1, pp. 1– 32.
- Ayanwale, A.B. (2007). FDI and Economic Growth: Evidence from Nigeria. Nairobi. *African Economic Research Consortium Paper*, No. 165.
- Balasubramanyam, V. N.; Mohammed. S. & Sapaford, D. (1996). FDI and Growth in EP and IS Countries. *Economic Journal*, 106:1, pp. 92– 105.
- Barrell, Ray & Nigel, Pain. (1996). An Econometric Model of U.S. Foreign Direct Investment. *The Review of Economics and Statistics* 78:200-7.
- Borensztein, E. J.; De Gregorio & Lee, J-W. (1998). How Does Foreign Direct Investment Affect Economic Growth. *Journal of International Economics* 45, pp. 115–135.
- Bornschier, V. & Chase-Dunn, C. (1985). Transnational Corporations and Underdevelopment. Now York: Praeger.
- Calvo, M. B. & Sanchez-Robles, B. (2002). Foreign Direct Investment, Economic Freedom, and Economic Growth: New Evidence from Latin America. Universidad de Cartabria. (Economics Working Paper No. 4/03).
- Campos, N. & Kinoshita, Y. (2002). Foreign Direct Investment as Technology Transferred: Some Panel Evidence from the Transition Economies. *The Manchester School* 70, pp. 398–419.
- Chakraborty, C. & Nunnenkamp, P. (2008). Economic Reforms, FDI, and Economic Growth in India: A Sector Level Analysis. *World Development* 36:7, pp. 1192–1212.
- De Mello, L. R. (1997). Foreign Direct Investment in Developing Countries and Growth: A Selective Survey. *The Journal of Development Studies* 34, pp. 1–34.
- Dunning, John H. (2002). Determinants of Foreign Direct Investment: Globalization Induced Changes and the Role of FDI Policies. Paper presented at the Annual Bank Conference on Development Economics in Europe, Oslo: Mimeo.

- Ethier, W. J. (1996). Theories about Trade Liberalisation and Migration: Substitutes or Complements, in Lloyd, P. J. & Williams, L. (eds), *International Trade and Migration in the APEC Region*. Oxford: Oxford University Press.
- Gastanaga, V. M.; Nugent, J. B. & Pashamova, B. (1998). Host Country Reforms and FDI Inflows: How Much Difference Do They Make? *World Development*, 26:7, pp. 1299-314.
- Harris, R. & Sollis, R. (2003). *Applied Time Series Modelling and Forecasting*. John Wiley and Sons Limited.
- Hermes, N. & Lensink, R. (2003). Foreign Direct Investment, Financial Development and Economic Growth. *The Journal of Development Studies* 40, pp. 142–163.
- Kao, C. (1999). Spurious Regressions and Residual-based Tests for Cointegration in Panel Data. *Journal of Econometrics* 90, pp. 1–44.
- Kao, C. & Chiang, M-H. (2000). On the Estimation of a Cointegrated Regression in Panel Data. *Advances in Econometrics* 15, pp. 179– 222.
- Khan, Arshad Muhammad & Khan, Ali Shujaat (2011). Foreign direct investment and economic growth in Pakistan. PIDE Working Paper 61.
- Khan, Ashfaq H. & Yun-Hwan, Kim (1999). EDRC Report Series No. 66.
- Khan, M. A. (2007). Foreign Direct Investment and Economic Growth: The Role of Domestic Financial Sector. (PIDE Working Papers 2007:18).
- Khan, M. A. (2008). Financial Development and Economic Growth in Pakistan: Evidence Based on Autoregressive Distributed Lag (ARDL) Approach. *Asia Economic Journal* 9, pp. 375–391.
- Kobrin, S. (2005). The Determinants of Liberalization of FDI Policy in Developing Countries: 1991-2001. *Transnational Corporation* 14: 1, pp. 67– 103.
- Kravis, I. B. & R. E. Lipsey (1982). The Location of Overseas Production and Production for Exports by US Multinational Firms. *Journal of International Economics*, 12, pp. 201-23.
- Lipsey, R. E. (2000). Interpreting Developed Countries' Foreign Direct Investment. NBER Working Paper No. 7810.
- Love, J. H. & Lage-Hidalgo, F. (2000). Analyzing the Determinants of US Direct Investment in Mexico. *Applied Economics*, 32, pp. 1259-67.
- Lucas, R. E. (1993). On the Determinants of Direct Foreign Investment: Evidence from East and Southeast Asia. *World Development*, 21:3, pp. 391-406.
- Maeso-Fernandez, F.; Osbat, C. and Schntz, B. (2005). Pitfalls in Estimating Equilibrium Exchange Rates for CEE Acceding Countries: Methodological Issues and a Panel Cointegration Perspective. European Central Bank. (Working Paper No. 353).
- Mark, N. & Sul, D. (2003). Cointegration Vector Estimation by Panel DOLS and Long-Run Money Demand. *Oxford Bulletin of Economics and Statistics* 65, pp. 655– 680.
- Maskus, Keith E.; Markusen, James R. & Carr, David L. (2001). Estimating the Knowledge-Capital Model of the Multinational Enterprise. *American Economic Review*, 91(3), pp. 693-708.
- McCoskey, S. & Kao, C. (1998). A Residual-Based Test of the Null of Cointegration in Panel Data. *Econometric Reviews* 17, pp. 57– 84.

- Moore, M. O. (1993). Determinants of German Manufacturing Direct Investment in Manufacturing Industries. *Weltwirtschaftliches Archiv*, 129, pp. 120-37.
- Moosa, I.A. (2002). *Foreign Direct Investment: Theory, Evidence and Practice*, London: Palgrave.
- Nair-Reichert, U. & Weinhold, D. (2001). Causality Tests for Cross –Country Panels: A New Look at FDI and Economic Growth in Developing Countries. *Oxford Bulletin of Economics and Statistics* 63, pp. 153–171.
- Nath, K. Haryana (2009). Trade, Foreign Direct Investment and Growth: Evidence from Transition Economies. *Comparative Economic Studies*, 51, 20-50.
- Pedroni, P. (1999). Critical Values for Cointegration Tests in Heterogeneous Panel with Multiple Regressors. *Oxford Bulletin of Economics and Statistics* 61, pp. 653–670.
- Pesaran, M. H.; Im, K.S. & Shin, Y. (2003). Testing for Unit Roots in Heterogeneous Panels. *Journal of Econometrics* 115, pp. 53– 74.
- Somwaru, A. & Makki, S. S. (2004). Impact of Foreign Investment and Trade on Economic Growth: Evidence from Developing Countries. *American Journal of Agricultural Economics* 86, pp. 795–801.
- Sylwester, K. (2005). Foreign Direct Investment, Growth, and Income Inequality in Less Developing Countries. *International Review of Applied Economics* 19:3, 289– 300.
- Wang, Z. Q. & Swain, N. J. (1995). The Determinants of Foreign Direct Investment in Transforming Economies: Empirical Evidence from Hungary and China. *Weltwirtschaftliches Archiv*, 131, pp. 359-82.
- Wheeler, D. & Mody, A (1990). Risk and Rewards in International Location Tournaments: The Case of US Firms. Washington DC: The World Bank.
- Zaidi, H. H. (2004). Snags in the Inflow of FDI. DOWN-Business 09 August, 2004. Available at <http://www.down.com/2004/08/09/ebr7.html>
- Zhang, K. H. (2001). How Does Foreign Investment Affect Economic Growth in China? *Economics of Transition* 9, pp. 679–693.