An Empirical Assessment of Determinants of Foreign Direct Investment in Pakistan

Ayaz Ul Haq

Abstract— Foreign Direct Investment (FDI) is one of the significant mediums for trade and industry development in the developing countries. The goal of the study is to audit the bang of FDI on trade and industry growth in Pakistan, for the period of 1990-2010. In study, different econometric techniques used: Phillips-Perron (PP) and Estimation of a Cointegration Vector to attain the objectives of this study. This study evaluate two regimes data, democratic (1990-1999) and military (2000-2007). The result obtained suggests that domestic investment is independent of the level of FDI inflows. In other words, it implies that change in domestic investment is not influence by FDI inflows. The result shows that FDI cointegrated with the level of output, trade openness, size of government, level of education in short run investigation but not cointegrated with domestic investment in short run. Pakistan should take steps to increase FDI in foreign exchange sectors in short term. Global media coverage cover that Pakistan has recognized in last decades not at all contributing to attract overseas investors.

Keywords— FDI, Domestic investment, Investment in Pakistan

I. Introduction

WORLD Trade Organization (WTO) in 1996 defined Foreign Direct Investment (FDI) that FDI happens when a shareholder of one motherland buy an asset in a different state with the management rights over the asset. This management dimension differentiates FDI from portfolio investment while dealing in foreign stock and other financial instruments. Foreign investors, FDI explained by meaningful differences in cost of production due to remuneration differentials and factor productivity from corner to corner countries [1;2; 3].

FDI also anticipated putting together household firm's incomprehensive creation and investment networks, which is to be expecting to enhance production and output development. Sometimes FDI is also motivated due to foreign consolidated market shares, needs and due to large scale of overseas consumer markets. It is also motivated by growth prospects benefits. The view of recipient economy, there are number of reasons that FDI benefited for growth-enhancement due to deepening, capital accretion, and technological advancement [4]. Before 1970s, international trade scope was much wider than FDI and at that time, international trade was a global activity [5].

The current situation changed with the passage of time in mid 1980s. After 1980s the importance of FDI increased by creating new markets, shifting technologies, and offering a group of efficient production and sales globally [6].

Development Report [2002] there are benefits for both countries, for foreign investor utilization of his assets and resources and for hosting country creating new markets, job opportunities and attaining technologies. Overall, worldwide FDI flows increased 24 per cent during 1991 to 2000; in developing countries, its flows increased 20 per cent at fixed prices.

However, foreign direct investment provides necessary resources such as managerial skills, brands, access to markets, technology, capital and entrepreneurial ability to developing countries. These are necessary for developing countries because it helps in the development of a country, creates job opportunities in country, accelerate industries in the country. As a result, value of FDI in underneath developed countries increases rapidly so because of it, opportunities of investment and promotions activities increased [7].

In developing nations of Asia and Pacific FDI knock down i.e. in 2000, it fell up to $134 billion and in 2001, it fell $102 billion. South Asia has not been usually a large addressee of FDI. With the passage of time in developing countries, [8] the importance of FDI is increased. On the hosting country, its impact is positive to increase exports, productivity, provides expanded employment opportunities and transfer of technology among the countries it play an important role.

FDI inflows and outflows shares for developing countries increase quickly from 1985 to 1990 were 17.4% and in 1995 to 2000, it was 26.1% [9]. World Development Report, 2008 indicates that FDI amount of inflows for Pakistan amplified from $ 0.24 billion in 1990 to $55 billion in 2007. In past decade, sudden increases in FDI and in brightness of current tendency and experience previously gotten through global, new targets have happened in the factors that make and enforce the stream of such a venture.

Currently Pakistan's economy is facing many problems in each sector; Economic indicators are indicating a true picture.
Economic Indicators:

This research attempts to examine the significant scope of foreign direct investment in Pakistan, as an upward state Pakistan has not received a huge sum of foreign direct investment. FDI is a kind of instrument, which integrates economies in different level of construction into the globalizing world financial system by bringing a package of

Ayaz ul Haq, Research Coordinator and PhD Scholar, Iqra University Islamabad Campus, Islamabad, Pakistan, ayazulhaq@iqraisb.edu.pk, +92-345-5050404

assets including managerial capacities, capital, technology and skills and admittance to foreign markets.

July-Nov., 2012	US$
FDI	573.3 M
Export (Nov-2011)	1.77 B
Import (Nov-2011)	3.12 B
Workers Remittance	0.927 B
FOREX Reserves (10-Jan-2012)	17.197 B
KSE 100 Index (10-Jan-2012)	12,306.70

Source: BOI

In the 1980s, the standard yearly inflows of FDI [excluding reinvested earnings] for Pakistan were almost $ 42 million. If FDI has taken in relation to total gross domestic investment, it constitutes 1.4 percent of it. On the flow chart, these figures stand low with other economies of East Asia, where FDI inflows of $2.4 billion per annum were not common, and where its contribution to domestic capital formation ranged from 23.2 per cent in Malaysia 14.4 per cent in Indonesia and 25.5 per cent in Singapore. FDI is usually favored on the basis that it is foundation of substantial the saving, foreign exchange, and revenue, management and technology gaps of the developing countries. Study attempts to analyze the pattern of foreign direct investment in Pakistan. The research questions of the study are:

Which determinate play an enormous role to attract high or low FDI inflow in Pakistan?

Which regime is more beneficiaries for attracting greater amount of FDI in Pakistan?

The major purposes of the study are:

- To analyze patterns of FDI in Pakistan in different regimes from 1990 to 2010.
- To identify the role and major Determinants of FDI in economic growth in Pakistan.

of FDI.

II. Literature Review

FDI forces to increase output per capita, but not an effective rate. It was not in a position to increase growth rate in a long run instead of it was considered seriously as a mainstream for economy [10]. Foreign Direct Investment contribution towards economy depends upon hosting country's economic system, political, social condition and the quality of environment [11].

Many literatures are showing a significant link between development and FDI in an economy [12]. [1] identifies that South Asian countries Pakistan, India, Bangladesh, Nepal and Sri Lanka, followed policies in 1960s and 1970s like high tariff rates on imports. This situation steadily changed in the 1980s and mostly countries offer competitive international trade and market-oriented policies.

FDI flooded-in domestic investment in Asia. They further concluded that FDI effect does not always remain positive and favorable for every country. It changes with the passage of time and due to change in the policies of hosting country. A number of studies conducted shows that FDI has negative impact in hosting countries. FDI could have insignificant impact on the development of the particular economy of the recipient economy if they got flow in reserve order in the shape of transfer of dividend and repayment of profits in original country [13].

In case of Pakistan, many studies have conducted for analyzing the effect of FDI in economic development in different times in the past. [14] conducted a study in which they used data from 1960 to 1988, concluded that net foreign private investment [FPI] and monetary development in Pakistan have optimistic effect on growth rate of real GNP. In this study, they did not consider FDI as a separate variable. Moreover, they said that FPI and expenditures of grants and mortgage had a major outcome on the economy of the country. [15] conducted same study in 2003 but they took only causal association between foreign direct investment and output, exports etc. in Pakistan over the period of 1972-2001. They found an encouraging relationship between FDI and the local productivity.

Strong evidences are found that FDI stream are less explosive than any other investment flow [IMF and World financial point of view 2007], and general thought is that FDI is more helpful for expansion and progress. Even as observed support for FDI organism enhanced for development is diverse, there is proof that specified positive nation rudiments; FDI does in reality guide to improved development result [16].

[17] Checks the causality between FDI and productivity development in Malaysia, the study establish no strong substantiation of causal connection between FDI and economic productivity. This points out that, in the case of Malaysia FDI does not cause economic development and vice versa, but FDI does add to constancy of expansion as increase add to solidity of FDI.

[18] also find that export direction is very essential in be a focus for FDI, and link this to the growing complementarities of trade and FDI flows. Some studies point out that the collision of FDI inflow on a host nation's imports is either nil or that it to some extent condenses the level of imports [19]. If FDI is determined in trade in replacement industries, then it is probable to affect imports unconstructively because overseas financiers [20] now form the goods that were trade in the host country.

United Nations in 2001 reports that the countries that frequently attract large quantity of FDI are those with good monetary circumstances, a positive high level of education, a high level of macroeconomic and political stability, favorable escalation forecast and favorable speculation surroundings.

The size and composition of government expenditures change in Globalization. [21, 22] suggest that, in the absence of international co- operation, rising competence will help the development of governments to reduce government revenues and expenditures. [22] claims that globalization may affect the instruments used by governments to provide social protection: public spending, tax systems and regulation. Particularly, public spending has been more desirable as the most understood instruments for giving social security. There are many differences in government consumption structures between developed and developing countries, so the impacts on FDI are different.

To create confidence for foreign investor, political stability is very important so foreign direct investment increases or possible by political stability [23]. [20], search that FDI inflow is having particular impact because of political instability.

III. Methodology

A. Data Description:

From 1990 to 2010, data explains that study based on 21 final observations. As a result of prior studies like as [24, 13,6] the variables they used Dependent Variable FDI, considered as foreign direct investment, carefully considered as the FDI inflows in the Pakistan during this time period and independent variables are Output, domestic investment, trade openness, level of education and size of government. Output measured as real GDP per year; trade openness is the total Sum of exports and imports of percentage of GDP.

B. Data Sources:

For research, an effort did to learn trend and pattern of FDI in Pakistan from 1990 to 2010. The data extracted from issues of Pakistan Economic Survey, World Investment Report and State Bank of Pakistan and the World Bank Development Indicators-2010, Board of Investment respectively and International Financial Statistics.

C. Statistical Test:

Using the Time series data from 1990 to 2010, analyze the pragmatic examination of the determinants of Foreign Direct Investment (FDI) in Pakistan. The evidence era for learn is 1990- 2010, this time which is based because Pakistan is the recipient of FDI inflows after the 1990s. For the use full aim other variables which are independent can influence economic growth will be included in the model. First, Augmented Phillips-Parron (PP) and Dickey-Fuller (ADF) tests are used for unit roots to search out that these variables can be incorporated of the similar. After that Johansen-Juselius (1990) assess for Cointegration is used, follow by Error Correction Model (ECM) to search short-run affiliation of the variables via usual procedure and analytical examinations.

D. Equation: $FDI = f(OT, DI, TO, PR, SG, LE)$

Where Foreign Direct Investment (FDI) is Dependent variable and the independent variables are, OT the Output, DI is Domestic Investment, TO be Trade Openness, PR is Political Risk, SG is Size of Government, and LE is Level of education.

IV. Result And Discussion

First unit root tests used to check the stationarity of variables in levels and in first differences. Time-Series data has the characteristic of non-stationarity in level and the outcome approximation usually involves 'spurious regression'.

Unit Root Test

TABLE I
UNIT ROOT TEST ON FIRST DIFFERENCE (1990-1999)

	Phillips-Perron test statistic		P
	PP t-stats	5% level t-stat	
FDI	-5.01369	-2.941145	0.0002
DI	-14.30833	-2.941145	0.0000
OT	-18.05046	-2.941145	0.0001
TO	-26.24936	-2.941145	0.0001
SG	-13.93084	-2.941145	0.0000
LE	-16.18928	-2.941145	0.0000
PR	-17.47029	-2.941145	0.0001

UNIT ROOT TEST ON 1ST DIFFERENCE (2000-2007)

	Phillips-Perron test statistic		P
	PP t-stats	5% level t-stat	
FDI	-4.947027	-2.963972	0.0004
DI	-21.69536	-2.941145	0.0001
OT	-13.30454	-2.941145	0.0000
TO	-11.33074	-2.941145	0.0000
SG	-7.831596	-2.941145	0.0000
LE	-12.46110	-2.941145	0.0000
PR	-13.47029	-2.941145	0.0001

Results of the Phillips-Perron (PP) tests show that the occurrence of unit roots in levels of every one variables with the exception of for FDI and DI at 5 per cent level of significant values with trend. Consequently, left over all of the variables are non-stationary in levels at 95 percent critical values with and without trends during democratic government 1990-1999 and FDI, DI and SG during military government during 2000-2007 in Pakistan. On the other hand, all of the variables are stationary in first differences at 95 percent critical values as well as FDI and DI. These results recommend that cannot reject the null hypothesis that these variables are all non-stationary in levels. Therefore, conclude that these variables integrated of order 1. The OT, TO, LE, PR are stationary at the level, and is therefore an I (0) variables. However, the entire variables are stationary series in first differences.

A. Estimation of a Cointegration Vector

In sort to recognize a Cointegration relation within the variables point out in the preceding subsection, use the Johansen Cointegration test. For the relevance of co-integration, authenticate the outcome by taking place with the Johansen and Juselius (JJ) (1990) co-integration test. Due to this reason, employ Eviews 6.0 to obtain the outcomes for Likelihood Ratios. First, find out that stationary in first difference all of the variables and carry on for cointegration. These outcomes obtainable in Table II.

Ahead of the cointegration tests, settle on the suitable lag length (k). Using Haffer and Janson (1991) method, Eviews 6.0 gives us the requirement of model with k=2, the optimum lag length. At this lag extent, the limitations strappingly rejected at 5 percent beside the value of 7.8147 from the chi-square table.

TABLE II
J-J MAXIMUM LIKELIHOOD TEST FOR CO-INTEGRATION (1990-1999)

	Johansen Cointegration		p**
	JJ t-stats	5% level t-stat	
FDI' OT	29.69334	15.49471	0.0002
FDI' TO	24.74566	15.49471	0.0015
FDI' SG	17.89981	15.49471	0.0213
FDI' LE	39.11606	15.49471	0.0000
FDI' PR	59.26248	15.49471	0.0000
FDI' DI	14.50782	15.49471	0.0700
FDI' DI ***	14.50782	13.42878	0.0700

J-J MAXIMUM LIKELIHOOD TEST FOR CO-INTEGRATION (2000-2007)

	Johansen Cointegration		p**
	JJ t-stats	5% level t-stat	
FDI' OT	33.51646	15.49471	0.0000
FDI' TO	24.74566	15.49471	0.0015
FDI' SG	21.66015	15.49471	0.0052
FDI' LE	37.98382	15.49471	0.0000
FDI' PR	44.94332	15.49471	0.0000
FDI' DI	8.948880	15.49471	0.3701
FDI' DI ***	8.948880	13.42878	0.3701

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

The trace test also indicates at 5 percent significance level of five cointegrating equations. Therefore, there are five co-integrating associations amongst the variables, particular in the model. Consequently, quarterly data from 1990 to 2010 come into sight to support the intention that, in Pakistan, there exist a stable long-run relationship between FDI and DI. In democratic and military government both regimes foreign direct investment and domestic investment are not cointegrated in short run at 5% level of significant and even at 1% and 10% level of significant.

V. DISCUSSION

Therefore, conclude that the variables are co integrated and the co integration results are robust. Since the variables are co integrated, [25] the model is also correctly specified, stable, and the impact of omitted variable has been minimized and less worry. As a result, the findings of this study are at best indicative. To conserve space, the co integration results for bounds tests are not here, but are available upon request from the authors.

In Sri Lanka, FDI has increased dramatically since the 1980s. Many studies find a constructive link between FDI and development. However, [26] econometric outcome shows that FDI inflows do not exert an independent manipulate on economic augmentation. In addition, the direction of causation is not towards from FDI to GDP growth but GDP growth to FDI. That is the direct expansion impact of FDI on the Sri Lankan economy has not existed so far. Net stance of the civil culture and foreign firm towards FDI in the country is helpful. But net approach disclose that the investment environment has not enhanced in Sri Lanka as a result of; political unsteadiness and disorder, poor law and order circumstances, direct and indirect authoritarian barricades, political volatility and the obscure strategy volatility, poorly developed transportation facilities, low levels of human capital, lack of precision in the trade strategy.

V. CONCLUSION

This study evaluates the variables relationship in two different features one is relationship generally time from 1990 to 2010 and second feature is similarity of democratic (1990-1999) and military regime (2000-2007). In study, different econometric techniques used like Phillip-Peron and cointegration, to attain the objectives of this study. The key result of this study summarized accordingly. Firstly, in general data shows Johansen cointegration test in relationship with the small sample correction procedure show that FDI is cointegrated with the level of output, trade openness, size of government, level of education in short run investigation but is not cointegrated with domestic investment in short run. It means that FDI is not an effect of domestic investment in Pakistan in a short time period. Those investors who are concerned to invest in Pakistan, they evaluate domestic investment in a long run sense and then invest if they find appropriate place. This implies that these variables are affecting together in the longer run, even though there might be deviations in the short run.

In terms of policy, the overall consequences of this study imply that Pakistan should approve the dual approach in promoting more FDI and given that superior domestic investment environments through appropriate economy management on macroeconomic and price stability. For example, tax rate, permits and licensing method reduced to promote more entrepreneurs to contribute in the private sector. Therefore, economic growth in Pakistan can be constant through FDI accumulation. The country's political leadership must take practical steps to improve the law and order state of affairs mainly in the major "growth poles" of the country as well as in Karachi.

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Mr. Ayaz ul Haq, Born in District Jhelum, Pakistan, Mr. Ayaz ul Haq brings along a teaching and research experience of over four years. He received his preliminary education from District Jhelum. After having graduated in Commerce from the University of Punjab, Mr. Ayaz ul Haq earned his Master's in Business Administration from National University of Modern Languages, Islamabad in 2006 and then MS Finance from Iqra University Islamabad Campus. Currently he is doing PhD Finance from Iqra University Islamabad Campus. Currently he is serving as Lecturer in University of Central Punjab Rawalpindi Campus and Research Coordinator in Iqra University Islamabad Campus. Mr. Ayaz has 05 research papers published in national and international journals. Three (03) of his research articles have published in Impact factor journals. Mr. Ayaz's innovative mindset, research orientation, and sound analytical skills have further augmented by his facility in Statistical Package for Social Sciences (SPSS) and AMOS and E-Views.