

GLOBALIZATION, FOREIGN DIRECT INVESTMENT AND THE HUMAN DEVELOPMENT INDEX: THE CASE OF PAKISTAN

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Overview:

This paper seeks to elucidate how foreign direct investment in Pakistan is affecting Human Development index in response to the challenges posed by the globalization. It explores the impact of globalization mainly through increased foreign direct investment on the Pakistan's social and economic sector and its implications for the Pakistan's economy in future. The paper analyses the data from 1973 till 2004, covering the era of economic and financial liberalization under globalization. The paper will end with a look at the challenges ahead and ways forward.

Key Words: FDI; HDI; globalization; liberalization; Pakistan.

I-Introduction:

The core ideas of globalization consist of a set of policies which include free trade, free markets, financial liberalization, enhanced foreign investment, privatization, deregulation, flexible labor force, reduced public expenditures and laws protecting property rights. These policies were introduced through the structural adjustment programs by the World Bank and the International Monetary Fund particularly in the

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developing countries. All countries of the world whether rich or poor have been affected by those new liberal structural adjustments in the era of globalization. Pakistan had become the 10th largest recipient of World Bank / IMF loans in the year 1980¹. The first installment of the loan under the Structural Adjustment Program (SAP) was approved and received in 1982. During 1990-91, Prime Minister Mr. Nawaz Sharif introduced the first package of Structural Adjustment by implementing policies of privatization, business and industrial deregulation and the withdrawal of foreign exchange controls. Since then, Pakistan is receiving loans and implementing its conditionalities without realizing their consequences of high inflation rate, increasing cost of basic necessities and increasing income inequalities. In 2001, Poverty Reduction Strategy paper (PRSP) became the part of Pakistan's development planning followed by the approval of Poverty Reduction and Growth Facility (PRGF) loan. According to Hasan (2004), "the on-going globalization program, introduced by the IMF and the World Bank in Pakistan since 1980's in the form of Structural Adjustments has practically foreclosed the possibility of any significant reduction in poverty" (ibid 434).

Since the 1990, the government of Pakistan has initiated a number of policy and regulatory measures to improve the investment climate in Pakistan in general and attract FDI in particular. To increase the flow of FDI to the country several measures have been taken including the removal of controls over the transfer of technology, liberalization of foreign exchange regime, fiscal incentives etc. Indicators suggest that in the recent years the long awaited investment response has finally been taking shape. During fiscal year 2006 the FDI flows to Pakistan are more than from the preceding year sustaining a five-

¹ Hassan N. Gardezi, "Globalization and Pakistan's Dilemma of Development", the Pakistan Development review, 43:4 Part I (Winter 2004) pp. 423-440.

year trend. This reflect the over all improvement in the macroeconomic outlook. However the FDI investment is highly concentrated in the services sector of the economy reflection the large investment vacuum and huge growth potential in this industry during the period 2001 to 2005.

The objective of this paper is to estimate the impact of FDI on the human development in Pakistan by employing Johansen (1988) co integration technique. Since FDI is an on going process, not an event, therefore the long term as well as the short-term perspective is required. Therefore this study empirically investigates the long run relationship between FDI and HDI and it also considers the short run dynamics by which HDI converges towards the long run equilibrium. The present study will add to the existing literature by emphasizing the role of FDI in promoting economic development in LDCs. In this way it provides important guidelines to the policy makers for formulating the FDI attracting policies in Pakistan.

The remainder of this paper is organized as follows:

Section 2 describes the review of literature. Section 3 contains the data description, Econometric Methodology and empirical Results while summary and concluding remarks are given in the final section.

II-Review of Literature

Ewe-Ghee Lim (2001) has reviewed recent literature on two features of FDI, viz., its correlation with economic growth and its determinants. He documents extensive support for positive spillovers from FDI. However, consensus on causality doesn't exist. While market size, infrastructure quality, political and economic stability, and free trade zones

are important for FDI. Mixed results are found for the importance of fiscal incentives, the business / investment climate, labor cost, and openness.

Substantial literature supports the fact the foreign direct investment and trade openness leads to economic growth. However, Amjad Naveed and Ghulam Shabbir (2006) examined the effect of foreign direct investment and trade openness on economic growth for 23 developed countries. According to their findings only openness is causing growth of GDP per capita and FDI does not cause GDP per capita growth, where as GDP per capita growth does cause both FDI and trade openness. Hence FDI does not play any significant role in the growth of developed countries.

FDI increases the rate of technical progress in the host country by a contagion² effect from advanced technology and management of foreign firms (Findlay 1978) by increasing factor productivity (Bosworth and Collins 1999). Also, co-ordination between MNE's and its local producers and customers can also affect rate of technological progress of local firms (Lall 1980). The lesser the gap between the level of technology of local firms and MNE's the easier will be the absorption of foreign technology in local firms, greater will be the technological progress (Imbriani 1997). In addition to this, liberal investment also attracts export oriented FDI which in turn contribute positively to the growth. Where as restrictive climate encourages FDI in firms producing for local markets (Moran 1998). In some cases local firms are more efficient then the foreign firms but face resource constraint. During financial crises foreign firms take over domestic firms as they do not have such resource constraints (Krugman 1998). According to,

² Contagion or Knowledge diffusion can increase productivity as well as the efficiency of domestic firms when (1) Technology used by MNE's is adopted by local firms (2) Efficient utilization of resources become unavoidable for local firms (3) Knowledge of new techniques is spread to local firms when local workers quite MNE's for local firms.

Blamstram, Lipsey and Zejan (1994) the host country is required to have achieved a certain threshold of development, so that diffusion of new technology through FDI is possible as in the case for high-income developing countries. One of the important findings of their study was the positive impact of FDI on the growth. Zahir Shah (2003) has analyzed the attractiveness of FDI in Pakistan with special emphasis on the cost of capital in effecting the rate of return and the internal cash flows of the investing firms. The result shows consistent and influencing impact of the cost of capital on FDI inflows in Pakistan. Nishat and Anjum(2004) have empirically examined the response of FDI to selective policies. They identified the tariff rate, tax rate, credit to private sector as the important policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. Zeeshan, Mohsin and Ahsan(2004) have concluded that FI can stimulate human resources development through investment in education and training. Moreover, then findings supports the “Bhagwati” hypothesis i.e., impact of FDI is greater under an export promotion trade regime compared to an import substitution regime by using data for Pakistan over the period 1970-2001. Zahir and Masood (2004) have empirically investigated the determinants of FDI in Pakistan with special emphasis on the public policy instruments that can be used to accelerate FDI related activities over the period. Hasan and Nishat (1989) have examined the determinants of multinational investment in Pakistan by using the primary data of nineteen manufacturing industries for the period (1983-86). Their findings contradicted some of the widely held view that the host country receives the bulk of its MNCs investment in those industries where managerial skills are in short-supply. Nishat and Anjum (1998) on the other hand, identified survival factors for a period 1960-61 to 1993-94. Their results also highlighted

the importance of human and non-human resources in decision making of foreign investors.

South Asian Countries are more exposed to the new challenges posed by the globalization process. These countries have positioned themselves to benefit substantially from the opportunities created by the globalization. One of the major factors effecting the integration with the world markets of these economies is lack of knowledge and weak skill base. The human resource development would help South Asian countries to deal with the phenomena of globalization effectively³. There has been a lack of empirical data base studies on the issue of the relationship between FDI and Human Development in the developing countries like Pakistan in spite of the growing concern and interest on this issue by researchers. The present study adds to the existing literature by focusing more on the relationship between FDI and economic development in Pakistan. For this purpose human development index is used as the proxy indicator for evaluating the socio economic performance of the country. Nishat and Anjum(2004) have empirically examined the response of FDI to selective policies. They identified the tariff rate, tax rate, credit to private sector as the important policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. Zeeshan, Mohsin and Ahsan(2004) have concluded that FI can stimulate human resources development through investment in education and training. Moreover, then findings support the “Bhagwati” hypothesis i.e., impact of FDI is greater under an export promotion trade regime compared to an import substitution regime by using data for Pakistan over the period 1970-2001. Zahir and Masood (2004) have empirically investigated the determinants of

³ Dr. Muhammad Aslam Khan, “Human Resource Development, Competitiveness and Globalization: A South Asian Perspective”, SAARC Journal of Human Resource Development / 2005. pp 35.

FDI in Pakistan with special emphasis on the public policy instruments that can be used to accelerate FDI related activities over the period South Asian Countries are more exposed to the new challenges posed by the globalization process. These countries have positioned themselves to benefit substantially from the opportunities created by the globalization. One of the major factors effecting the integration with the world markets of these economies is lack of knowledge and weak skill base. The human resource development would help South Asian countries to deal with the phenomena of globalization effectively⁴. There has been a lack of empirical data base studies on the issue of the relationship between FDI and Human Development in the developing countries like Pakistan in spite of the growing concern and interest on this issue by researchers. The present study adds to the existing literature by focusing more on the relationship between FDI and economic development in Pakistan. For this purpose human development index is used as the proxy indicator for evaluating the socio economic performance of the country.

The empirical literature has failed to determine a positive and significant impact of FDI on the economic growth of the host countries. One of the reasons is that the theory equates FDI to technology transfer, while in most of the cases technology transfer has not occurred through FDI. Nauro F. Canpos (2002) has found that FDI has a positive and significant impact on growth for a set of 25 Central & Eastern European and former Soviet Union transition countries between 1990 to 1998 during which FDI is purely technology transferred.

⁴ Dr. Muhammad Aslam Khan, "Human Resource Development, Competitiveness and Globalization: A South Asian Perspective", SAARC Journal of Human Resource Development / 2005. pp 35.

Human capital is one of the key ingredients of FDI in the theoretical literature⁵. However, Nunnenkamp and Spatz (2002) have argued that substantial empirical literature does not exist either due to non availability of data for large sample of developing countries over long horizons or because of the difficulty in constructing quality explanatory variables, particularly for the indicators of human capital development. They used Barro and Lee's (2000) average year of education of total population aged 15 and above in the 28 developing countries and found that education becomes an increasingly important determinant from the mid-1980s to the late 1990s. Although, Borensztain, Gregorio and Lee (1995) using the panel data for 69 developing countries have argued that FDI's contribution to economic growth significantly depends upon the level of human capital stock in the host country. Broadman and Sun (1997), and Coughlin and Segev (2000) provided evidence for China in the early 1990s, where they show that adult literacy is one of the key determinants for geographic determinants of FDI. Hence importance of human capital for attracting FDI especially in the developing countries cannot be ignored. Developing countries particularly the South Asian Countries are more exposed to the new challenges posed by the globalization process. These countries have positioned themselves to benefit substantially from the opportunities created by the globalization. One of the major factors effecting the integration with the world markets of these economies is lack of knowledge and weak skill base. The human resource development would help South Asian countries to deal with the phenomena of globalization effectively⁶. There has been a lack of empirical data base studies on the issue of the relationship between FDI and

⁵ Lucas (1990), Zhay and Markusen (1999)

⁶ Dr. Muhammad Aslam Khan, "Human Resource Development, Competitiveness and Globalization: A South Asian Perspective", SAARC Journal of Human Resource Development / 2005. pp 35.

Human Development in the developing countries like Pakistan in spite of the growing concern and interest on this issue by researchers.

The objective of this paper is to assess the relationship between Human Development Index and Foreign Direct Investment empirically in Pakistan.

III-Data Description, Econometric Methodology, and Empirical Results

For the empirical analysis this paper employed yearly data ranging from 1973 to 2004. Data for HDI is taken from SPDC Social Development in Pakistan. Annual Review 2005-06. Data for FDI is taken from Hand Book of Statistics on Pakistan Economy 2005 published by State Bank of Pakistan the co-integration test is applied on log of HDI and log of FDI.

This study is examining the impact of Globalization on the Human Development Index and Foreign Direct Investment, and also the long-run and short-run relationship between Human Development Index and Foreign Direct Investment.

The annual data span is from 1973 to 2004. This time frame is appropriate to show the importance of FDI for improving the HDI in Pakistan.

The MODEL is

$$HDI = \alpha_1 + \alpha_2 FDI + \varepsilon_t \quad (1)$$

HDI is human development index, α_1 is constant, t is linear time trend, FDI is for foreign direct investment and ε_t is an error term.

This paper adopts the following methodological procedures to the estimation of empirical results. Empirical work based on time series data never be assume as stationary time series. A test of stationarity that has become widely popular nowadays is the unit root

test. Using the Augmented Dickey-Fuller (ADF) tests stationarity of the series is tested. ADF test is a standard unit root test and analyses the order of integration of the data series. Stationary series becomes stationary when difference d , time is said to be integrated of order d ; represented as $Y_t \sim I(d)$, and combination of these variables are co integrated when one or more linear combinations are detected. ADF test also test the null hypothesis of non-stationarity against an alternative of stationarity.

The ADF test consists of estimating the following regression:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \alpha_1 \sum_{i=1}^m \Delta Y_{t-i} + \varepsilon_t \quad (2)$$

where ε_t is the pure white noise error term and where $\Delta Y_{t-1} = (Y_{t-1} - Y_{t-2})$,

and Δ denotes lag operator.

Time series data on most of the macroeconomic variables tends to be non-stationary in levels. For meaningful results, the difference between the variable and its lag should be stationary. A non-stationary series becomes stationary when difference d , time is said to be integrated of order d ; represented as $Y_t \sim I(d)$, and combination of these variables are co integrated when one or more linear combinations are detected.

In this study, ADF test is used to determine the stationarity and degree of integration of the variables. The results of ADF test are reported in Table 1.

Table-1
Augmented Dickey Fuller Test

Variables	Level		First Difference	
	Constant	Constant and Trend	Constant	Constant and Trend
HDI	-0.792222	-2.006051	-3.529637**	-3.50416*
FDI	-0.7327280	-2.445883	-5.656232***	-5.681756***

- *** Represents 1% level of significance
- ** Represents 5% level of significance
- * Represents 10% level of significance

Table 1 reports unit root tests for the series of HDI and FDI.

It appears from the table that, in level all the variables are non-stationary while the first difference of these variables become stationary, indicating that $Y_t(=LHDI, LFDI) \sim I(1)$.

After determining the order of integration of all the three series this study applied test of co integration. Co-integration tests provide the basis for tracing a long-term relationship between LHDI and LFDI. The theory of co integration, as discussed in Engle and Granger (1987), addressed the issue of integrating short run dynamics with long run equilibrium. For two or more series to be co integrated, they must have comparable long run properties. The existence of an equilibrium relationship between variables requires them to be integrated to the same order and a linear combination of the series to be $I(0)$ or stationary.

According to Johansen and Juselius (1990), the maximum likelihood method is appropriate. To check for the linear combination between the variables the Johansen and Juselius (1990) co integration technique is used. To this end, two likelihood ratio tests based on maximal eigen value of the stochastic matrix (λ -max) are used.

In the likelihood ratio tests, the null hypothesis that there are at most r (where $r=0, \leq 1$) co integrating vectors is tested against the alternatives of $r + 1$ (where $r=1, =2$) co integrating vectors.

Table-2
Co-Integration Test

hypothesis	λ -trace	95%cv	alternative	λ -max	95%cv
$r = 0$	24.63003***	19.96	$r = 1$	14.81353*	15.67
$r \leq 1$	9.81603**	9.24	$r = 2$	9.81603**	9.24

- *** Represents 1% level of significance
- ** Represents 5% level of significance
- * Represents 10% level of significance

The results of co integration test are reported in the Table 2 which indicate that the null hypothesis of no co-integration is rejected and there exit at most 2 co-integrating vectors based on λ -trace and at most 2 significant co integrating vector based on λ -max. This implies that over annual data from 1973 to 2004 appears to support that in Pakistan there is an existence of long run relationship between human development index and foreign direct investment.

A vector error correction (VEC) model is a restricted VAR that has co-integration restrictions built into the specification, so that it is designed for use with non-stationary series that are known as co-integrated. The VEC specification restricts the long-run behavior of the endogenous variables to converge to their co-integrating relationships while allowing a wide range of short-run dynamics. The co-integration term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments.

The performance of the HDI and FDI relationship can be improved by introducing short run dynamic into the static model. According to Granger (1987) representation theorem,

if a co integrating relationship exists between a series of $I(1)$ variables, then a dynamic error-correction representation also exists. The general form of the error-correction model can be written as

$$\Delta HDI_t = \alpha_0 + \alpha_1 \Delta FDI_t + \alpha_2 U_{t-1} + \varepsilon_t \quad (3)$$

Where the error correction term U_t is given by, $U_t = dt - \hat{d}t$, Δ denotes the first difference operator and α_2 reflects the speed of adjustment towards the long run equilibrium value. The above equation shows that change in human development index is due to change in foreign direct investment and the equilibrium error term. All the variables in regression equation are $I(1)$ stationary. Hence the conventional t-statistics based on OLS methods can be used to derive inference on the magnitudes of the estimated coefficients.

Table-3
Error Correction Model

CointEq1	-0.038611 (0.00949) (-4.06844)	0.229937 (0.60060) (0.38285)
D(LHDI(-1))	0.104478 (0.19223) (0.54349)	17.22809 (12.1654) (1.41615)
D(LFDI(-1))	0.001273 (0.00293) (0.43535)	-0.343842 (0.18512) (-1.85741)
R-squared	0.050002	0.172211

The results from the estimated error-correction model are presented in Table 3. This presents that the error correction term is negative and significant.

The value of the error correction term is -0.038611, which implies that about 4 percent adjustment towards long run equilibrium takes place in a year.

Therefore the estimated result strongly supports the existence of the long run relationship between HDI and FDI in Pakistan. Hence FDI is playing a significant role in the achievement of sustainable development as measured by HDI.

IV-Conclusion

The flow of FDI is an important source of economic development. The transfer of modern technology, supply of the most deficient resources such as capital, improvement of skills and management practices, greater employment opportunities etc are some of the benefit of the FDI to the host countries, which can not be denied. As such FDI appears as a win-win situation for the socio economic development of the country. In this paper we have examined the relationship between FDI and HDI by using Co integration technique. Our results are consistent with our hypothesis showing a strong and positive relationship between FDI and HDI over different horizons. The findings of the paper support the idea that the greater inflow of FDI to the country will improve the socio economic conditions of the country. The importance of making more investment friendly polices to attract FDI becomes more pronounced with the empirical results of the study.

However in the historical perspective FDI has been concentrated in the services sector which has led to the growth of the consumption oriented society. Against this backdrop this is suggested the efforts should be made to divert the flow of FDI towards the export-oriented industries requiring advance technology and skills. With the implementation of such policies the twin menace of current account deficit and budget deficit can be effectively dealt with the greater in flow of FDI. On the other hand with the creation of more jobs opportunities through FDI the domestic saving-investment gap is likely to

reduce. Moreover it can also effectively absorb the highly skilled manpower and reduce the brain drain.

The study does not conclude that FDI is the sole determinant of HDI. It highlights the fact that in the globally competitive environment FDI plays a vital role in the development of the economy of Pakistan. FDI coupled with advance technology and skill can further increase the pace of the development process in the country. Pakistan has to make some hard policy choices to seize the opportunities provided by the globalization.

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