FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN SAARC COUNTRIES

Anayatullah Nayaji* Prof. Shahid Ahmed**

ABSTRACT

The relationship between Foreign Direct Investment (FDI) and economic growth is highly studied subject in the literature of development economies, both theoretically and empirically. The reality, however, is that it is not easy to draw any conclusions. A number of factors come into play to determine the growth and development effects of FDI. Therefore, it is important to be dispassionate while discussing the role of FDI in developing economies and very few studies offer direct test of causality between the variables. In the theory economic growth may induce FDI inflow, and FDI may also stimulate economic growth. The inflows of FDI to developed host countries raise the question of what is the interaction between FDI and growth. While there is considerable evidence on the link between FDI and Economic Growth, the causality between them has not been investigated in a reasonable procedure. This paper adds to the literature by analyzing the existence and nature of these causal relationships. The objective of this paper is to attempt to address the causal-nexus between inward FDI and economic growth using a Time Series for the period 1991-2001 where growth of FDI has been the most pronounced. Using Granger causality tests and Co Integration test, Unit root tests, the paper finds Long term relationship between FDI and GDP in India, Pakistan, Sri Lanka and Bhutan however short term unidirectional causality in Nepal, Bangladesh and Maldives.

INTRODUCTION

Foreign Direct Investment is investment process in which investor indulges in management of the business entity in other country. It is long term relationship between investor and host country. It can be transacted by individuals or corporate. FDI is generally accepted as very important factor for Economic development of host country. Foreign direct investment (FDI) is widely accepted as a vehicle for country's economic growth. The importance of FDI is, in fact, much higher in the developing countries. There are number of research papers that explore the relationship between FDI and economic growth. The empirical evidence is, however, very mixed and inconclusive. They are obtained in three different forms: unidirectional causality (either from FDI to economic growth or from economic growth to FDI), bidirectional (from FDI to economic growth and vice versa) and no causality between the two. It varies across countries and time periods. This paper focuses on the relationship between FDI and growth in SAARC Countries.

* Research Scholar, Department of Economics, Jamia Millia Islamia, Delhi.

**Professor, Department of Economics, Jamia Millia Islamia, Delhi.

OVERVIEW OF SAARC

The South Asian Association for Regional Cooperation (SAARC) is an organization of South Asian nations, founded in 1985 and dedicated to economic, technological, social, and cultural development emphasizing collective self-reliance. Its seven founding members are Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Afghanistan joined the organization in 2007. SAARC was the result of increasing proliferation of preferential trading arrangements (PTAs) in different regions of the world and has been considered important development over the last two decades. And this was a step toward the regional cooperation. The main objectives of SAARC as stated in the charter are; a)to promote the welfare of the peoples of South Asia and to improve their quality of life; (b) to accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realize their full potentials; (c) to promote and strengthen collective self-reliance among the countries of south Asia; (d) to contribute to mutual trust, understanding and appreciation of one another's problem; (e) to promote active and mutual assistance in the economic, social, cultural ,technical and scientific fields; (f) to strengthen cooperation with other developing countries; (g)to strengthen cooperation among themselves in international forums on matters of common interests; and (h) to cooperate with international and regional organizations with similar aims and purposes. "(SAARC Official website)

FDI IN SAARC COUNTRIES

In the early 1990s, most of Countries opening up their economies FDI flows were therefore quite minimal. FDI flows to the region started to pick up in the 1990s and have gathered further momentum in the past few years. All the countries of the region (with the only exception of Bhutan and Nepal) have gained in terms of FDI flows. In fact, they grew faster than either the rest of the developing world or the world at large.

South Asia has improved its share in terms of total FDI inflows to the world, developing countries and Asia over the period 1991 -2011. Nevertheless, the magnitude of inflows attracted by the region remains relatively meager.

In 2000, it was only US $ 4658 million, a mere 0.33 percent of global flows. In contrast, China received more than 10 per cent of all global inflows. The inflows to SAARC rose to US $49177million in 2008 which was 2.89 percent of global flows. The bulk of FDI to the SAARC region has come to India. However, Bhutan, Nepal, Afghanistan and Maldives have not received significant inflows.

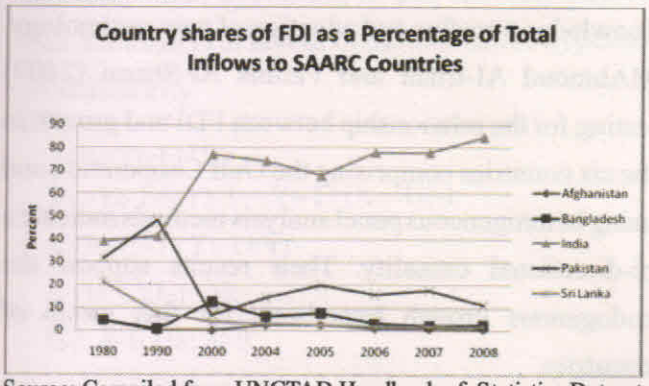
The recent profile of the FDI flow into SAARC countries show that FDI flow has been an important form of investment in most of SAARC countries. As a percentage of gross capital formation, FDI flow has accounted for more than the world average in two of the SAARC countries (India and Pakistan), while reporting a high share in the other SAARC countries in most of the years presented. On the other hand, FDI stock has accounted for an important share compared to the value of GDP in these countries.

FDI in SAARC countries increased heavily from the years 2000 and above as the growing infrastructure and investment opportunities in the whole region especially in Indian emerging markets and attractive investment opportunities force external investors to invest in Indian economy secondly Pakistan also have a good attraction and positive investment facilities for foreign investors. After that Bangladesh and Sri Lanka also have a positive attraction for foreign investments.

This increasing trend continue till 2007 and 2008 but as the world economic conditions and slump in American and European Markets the investment inflow decrease in all over the world which also effect the SAARC so the top countries like India and

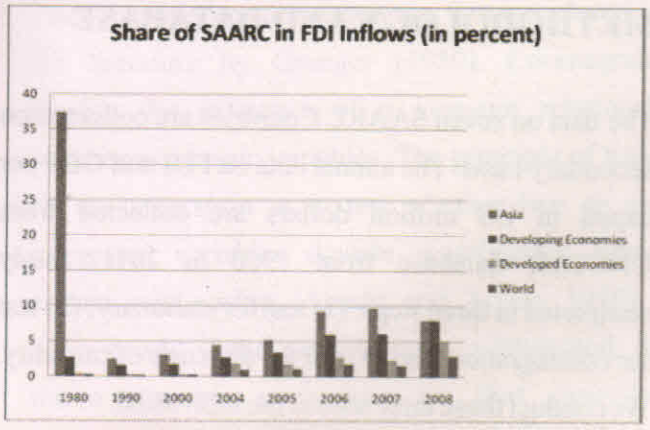
Pakistan also show a huge decline in FDI from 2007 to 2010. From the Figure-1 it is clear that India is a major recipient of FDI inflows. In 1990, India's share in total SAARC inflows was 41.2 percent. It rose to 74.11 percent in 2004 and further to84.49 percent in 2008. Pakistan and Sri Lanka also accounts a major portion of FDI inflows in1990 which was 48.34 percent and 7.47 percent respectively. But their share in total SAARC inflows declined significantly in 2008 they accounts only 11.05percent and 1.52 percent respectively. Similarly the share of Bangladesh is also declining. Despite this growth, FDI as a proportion of the GDP of SAARC countries remains very low. For example, in the mid-1990s, the share of FDI in GDP for Pakistan and Sri Lanka was approximately 1 per cent, while the corresponding figure for India was in the region of 0.5 per cent.

FIGURE 1



Source: Compiled from UNCTAD Handbook of Statistics Dataset

FIGURE 2



Source: Compiled from UNCTAD Handbook of Statistics Dataset

From the above figure-2 it is evident that SAARC has a significant share in Asia and developing countries FDI inflows. But its share in developed countries and world as a whole is not significant. It was only 0.43 percent of developed countries inflows in 2000, rose to 5.11 percent in 2008. The growth rate of FDI inflows in SAARC is quite impressive over the years. This growth rate is better than the major trade groups of the world. In 2008, ASEAN and EU registered a negative growth rates in FDI inflows. But SAARC registered a growth rate of 52.13percent in the same year. The growth rates have been calculated from the FDI inflows in these trade groups in the period 2005-08 This study is organized as follows. Section -2 give the detail of objective of present study; section -3 describes review of previous studies; section -4 presents methodology and data sources; section-5provides empirical results and their interpretation; while the last section concludes.

OBJECTIVES

The purpose of this study is to empirically re-investigate the relationship between FDI and economic growth in the SAARC-7 countries namely India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan and Nepal the goal of this study is similar to those of previous studies in this area of research, however the method of analysis and time period is also different.

LITERATURE REVIEW

One of the important literatures surveyed is on the cross-national evidence of the effects of foreign investment and aid on economic growth by Bornschier, Chase-Dunn, and Rubinson (1978). The study finds that economic growth tends to be positively related with FDI flows but tends to be negative with FDI stocks and is independent of geographical region. For Asia, FDI stocks show a

significant negative effect on growth but flows only managed a small positive effect. Dua and Rashid (1998) find the causality from FDI to economic growth in India during 1992-1998. Chakraborty and Basu (2002) the two-way link between foreign direct investment and growth for India is explored using a structural cointegration model with vector error correction mechanism. De Mello (1999) detects positive effects of FDI on economic growth in 32 OECD and non-OECD countries over the period 1970-1990. Liu et al. (2002) examined the presence of long run relationship among FDI, growth and exports in China during 1981-1997 find the existence of bidirectional causality among them. Balasubramanyam *et al.* (1996) uses cross sectional data for 46 countries for the period 1970-85 for analyzing the relationship between FDI and economic growth. Their results show that FDI has positive impact on economic growth of those countries which have followed inward looking development strategies. Sun (1998) investigates the macroeconomic impact of FDI on China from 1979 through 1996. FDI has a significant role in promoting the economic growth of China through contributing to domestic capital formation, increasing exports and creating new employment. However, gross domestic investment is more robust than FDI in generating growth in the Eastern and Western regions of China. Herzer*et al.* (2008) re-examine the FDI-led growth hypothesis for 28 developing countries. Using Engle-Granger cointegration and error correction model, they fail to find the existence of long-run and short-run relationship between FDI and economic growth in most of the countries included in the sample. They find no evidence of causality between FDI and economic growth. Wu and Hsu (2008) use cross-sectional data of 62 countries for the period 1975-2000 and find positive and significant impact of FDI on economic growth only when the host countries have better level of initial GDP and human capital. Borensztein et al., 1998 suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment.

They use a model of endogenous growth, in which the rate of technological progress is the main determinant of the long-term growth rate of income.

Rudra Prakash Pradhan (2009) confirm that foreign direct investment and economic growth are cointegrated at the panel level, indicated that the presence of long run equilibrium relationship between them in selected five ASEAN countries Nabila Asghar et al. (2011) empirically examine the relationship between FDI and economic growth using heterogeneous panel for the period 1983-2008 of selected Asian Countries and found that FDI and economic growth are cointegrated.

Hansen and Rand (2004) using a sample of 31 developing countries and using estimators for heterogeneous panel data, found a bi-directional causality between FDI/GDP and the level of GDP. They interpret this result as evidence in favour of hypothesis that FDI has an impact on GDP via knowledge transfers and adoption of new technology. MAhmoud Al-Iriani and Fatima Al-Shami (2007) testing for the relationship between FDI and growth in the six countries comprising the Gulf Cooperation and using heterogeneous panel analysis methods indicate a bi-directional causality. Their results support the endogenous growth hypothesis for this group of countries.

METHODOLOGY AND DATABASE

The data on seven SAARC Countries are collected on secondary basis. The annual data on FDI and GDP per capita in US million dollars are collected from UNCTAD database from 1960 to 2011. Study completed in three steps: (1) test for stationary; (2) test for cointegration; and (3) test for direction of causality. We conduct these three tests at the individual.

UNIT ROOT TEST

This involves testing of the order of integration of the individual time series under consideration. These tests are initially performed at levels and then in first difference form. Three different models with varying deterministic components are considered while performing the tests. These are (1) model with an intercept which assumes that there are no linear trends in the data such that the first differenced series has zero mean (2) model with a linear trend which includes a trend stationary variable to take account of unknown exogenous growth and (3) a model which neither includes a trend nor a constant. The most popular ones are Augmented Dickey-Fuller (ADF) test due to Dickey and Fuller (1979, 1981), and the Phillip-Perron (PP) due to Phillips (1987) and Phillips and Perron (1988). Augmented Dickey-Fuller test relies on rejecting a null hypothesis of unit root (the series are non-stationary) in favour of the alternative hypotheses of stationarity.

$Yt= \rho Yt-1+Ut$

$Yt--Yt-1=\rho Yt-1—Yt-1+Ut—Ut-1$

$\Delta Yt= (\rho-1)\ Yt-1+Vt$

$\Delta Yt= \delta Yt-1+Vt$

$H0: \delta=0$ $Ha: \delta>0$

CO-INTEGRATION

The concept of co-integration was first introduced into the literature by Granger (1980). Co-integration implies the existence of a long-run relationship between economic variables. The principle of testing for co-integration is to test whether two or more integrated variables deviate significantly from a certain relationship (Abadir and Taylor, 1999). In other words, if the variables are co-integrated, they move together over time so that short-term disturbances will be corrected in the long-term. This means that if, in the long-run, two or more series move closely together, the difference between them is constant. Otherwise, if two series are not co-integrated, they may wander arbitrarily far away from each other (Dickey et al., 1991).

GRANGER-CAUSALITY TEST

According to Granger (1969), GDP is said to "Granger-cause" FDI if and only if FDI is better predicted by using the past values of GDP than by not doing so with the past values of FDI being used in either case. In short, if a scalar GDP can help to forecast another scalar FDI, then we say that GDP Granger-causes FDI. If GDP causes FDI and FDI does not cause GDP, it is said that unidirectional causality exists from GDP to FDI. If GDP does not cause FDI and FDI does not cause GDP, then FDI and GDP are statistically independent. If GDP causes FDI and FDI causes GDP, it is said that feedback exists between FDI and GDP. Essentially, Granger's definition of causality is framed in terms of predictability. For Granger Causality, the series should be integrated of same order. If d differences have to be made to produce a stationary process, then it can be defined as integrated of order d. Engle and Granger (1987) state that if several variables are all I(d) series, their linear combination may be cointegrated, that is, their linear combination may be stationary. The definition of the Granger causality is based on the hypothesis that FDI and GDP are stationary or I (0) time series.

$$GDPt=a1+\sum\alpha1iFDIt-i+\sum\beta2iGDPt-i+U1t$$

$$FDIt=a2+\sum\beta1iGDPt-i+\sum\alpha2iFDIt-i+U2t$$

$H0: \alpha2i=\beta2i=0$ $Ha: \alpha2i=\beta2i>0$

RESULT AD DISCUSSION

In the light of econometric setting presented in the previous section, the empirical results are discussed in this section. The analysis is started by the test of the stationarity properties of the data series. This is the prime requirement for cointegration and causality test. We establish the integration properties of the data through unit root test.

TABLE-1 (UNIT ROOT TEST)

Country	Variable	ADF Value Level	ADF Value First Difference
India	FDI	-2.65	-4.65
	GDP	-2.48	-4.17
Sri lanks	FDI	-0.49	-4.99
	GDP	-1.57	-3.85
Bangladesh	FDI	-1.89	4.72
	GDP	1.82	8.24
Nepal	FDI	1.45	4.37
	GDP	2.17	7.16
Pakistan	FDI	-2.79	4.031
	GDP	-6.22	-4.47
Bhutan	FDI	-0.044	-2.28
	GDP	-1.50	3.95
Maldives	FDI	3.58	11.23
	GDP	1.140	4.21

Stationarity property is necessry for Causality Test analysis. Augumented Dicky-Fuller Test are used to know the stationarity test of selected data Table-1 show the result of Unit root Test for SAARC-7 Countries. The Test reveals that the both series for FDI and GDP are not stationary at level however at first difference both the variable are found stationary at I(1)

TABLE-2 (COINTIGRATION TEST)

Country	Hypothesis	Trace Statistics	Max Eigen Statistics	0.05Critical value for Trace Statistics	0.05Critical value for Max Eigen statistics	Prob.	Interferences
India	H0: r=0	41.45	41.41	18.39	17.14	0.0000	Cointigrated
	Ha: r=1	0.035	0.035	3.84	3.84	0.8496	
Sri Lanka	H0: r=0	21.55	12.73	18.39	17.14	0.0005	Cointigrated
	Ha: r=1	8.819	8.819	3.84	3.84	0.0018	
Bangladesh	H0: r=0	12.37	11.65	18.39	17.14	0.2821	No
	Ha: r=1	0.718	0.718	3.84	3.84	0.3967	Cointigration
Nepal	H0: r=0	14.18	13.96	18.39	17.14	0.1759	No
	Ha: r=1	0.218	0.218	3.84	3.84	0.6401	Cointigrated
Pakistan	H0: r=0	20.93	19.45	18.39	17.14	0.0216	Cointigrated
	Ha: r=1	1.485	1.485	3.84	3.84	0.2230	
Bhutan	H0: r=0	42.80	42.34	18.39	17.14	0.0000	Cointigrated
	Ha: r=1	0.461	0.461	3.84	3.84	0.4968	
Maldives	H0: r=0	13.09	10.51	18.39	17.14	0.2351	No
	Ha: r=1	2.581	2.581	3.84	3.84	0.1081	Cointigrated

After the testing of stationary we apply Johanson Cointigration Test to know the long term relationship between FDI and GDP for individual country of SAARC and result depicts in table-2 from this table we see that the countries Bangladesh, Nepal and Maldived are not cointigrated were we accept null hypothesis (H0: r=0) and reject alternative hypothesis (Ha: r≥ 1) however countries like India, Pakistan, Sri Lanka and Bhutan are cointigrated where we reject null hypothesis (H0: r=0) and accepted alternative hypothesis (Ha: r≥ 1) that mean these four countries have significant long term relationship between FDI and GDP but the countries where we accepted null hypothesis do not have significant long term relationship between GDP and FDI however we do not mean that these countries do not have short term relationship between FDI and GDP.

TABLE-3 (GRANGER CAUSALITY TEST)

Country	Null Hypothesis	F-Statistic	Remark
India	GDP does not Granger Cause FDI	46.73	Causality Exist
	FDI does not Granger Cause GDP	2.94	Causality Exist
Sri Lanka	GDP does not Granger Cause FDI	6.64	Causality Exist
	FDI does not Granger Cause GDP	2.04	Causality Exist
Bangladesh	GDP does not Granger Cause FDI	0.14	No Causality
	FDI does not Granger Cause GDP	2.19	Causality Exist
Nepal	GDP does not Granger Cause FDI	4.91	Causality Exist
	FDI does not Granger Cause GDP	0.02	No Causality
Pakistan	GDP does not Granger Cause FDI	6.73	Causality Exist
	FDI does not Granger Cause GDP	10.45	Causality Exist
Bhutan	GDP does not Granger Cause FDI	25.41	Causality Exist
	FDI does not Granger Cause GDP	20.80	Causality Exist
Maldives	GDP does not Granger Cause FDI	0.34	No Causality
	FDI does not Granger Cause GDP	2.22	Causality Exist

After checking the existence of long term relationship between FDI and GDP we apply standard Granger Causality Test to know short term relationship between FDI and GDP especially to those countries where Johanson cointigration fail to reject null hypothesis. The results of Granger Causality Test are presented in Table-3. The result show that in case of Bangladesh there is one sided causality exist from FDI to GDP similarly in case of Maldives also causality exist from FDI to GDP but in case of Nepal causality exist from GDP to FDI.

CONCLUSION

The present work explores the relationship between foreign direct investment and economic growth over the period 1991- 2011. Using cointegration and Granger Causality Test, it suggests the findings like both variables FDI and GDP are stationary at first difference and intigrated at order one. The examination of Cointigration result confirmed that there is long term relationship between FDI and GDP in four of SAARC Countries namely India, Pakistan, Sri Lanka and Bhutan and failed to establish any long term relationship in Nepal, Bangladesh and Maldives. However Granger Causality Test established short term relationship between FDI and GDP in Nepal, Bangladesh and Maldives. The results suggest that Economic Growth is attracting FDI in SARRC Countries.

REFERENCES

Ashfaque H. Khan and Yun-Hwan Kim (July 1999), "Foreign direct investment in pakistan: policy issues and operational implications", Asian development bank

Alfaro, L. (2003), *Foreign Direct Investment and Growth*: *Does the Sector Matter*? Mimeo. Boston, MA: Harvard Business School.

Balasubramanayam, V. N.; M. Salisu and D. Spasford (1996), "Foreign direct investment and growth in EP and IS countries", *Economic Journal*, 106: 92-105

Basu, P.; C. Chakraborty and D. Reagle (2003), "Liberalization, FDI and growth in developing countries: A panel cointegration approach", *Economic Inquiry*, 41: 510-516.

Borensztein, E., J. De Gregorio and J. W. Lee (1998), "How does foreign direct investment affect economic growth?" *Journal of International Economics*, 45(1): 115-135.

Chowdhury, A. a. (2006). FDI and Growth: What Causes What? *The World Economy 29(1)* , 9-19.

Chowdhury, A. and G. Mavrotas (2005), "FDI and growth: A causal relation", *WIDER Research Paper*. Finland: UNU World Institute for Development Economics Research.

De Mello, J. (1999). Foreign direct investment- led growth: evidence from time series and panel data. *Oxford Economic Papers 51(1)* , 133-151.

Granger, C. W. J. (1969), "Investigating causal relations by econometric and cross-spectral method", *Econometrica* 37(3): 424-438.

Hussein A. M. (2009), "Impacts of foreign direct investment on economic growth in the Gulf Cooperation Council (GCC) Countries", *International Review of Business Research Papers*, 5(3): 362-376.

Johansen, S. (1988), "Statistical analysis of cointegrating vectors", *Journal of Economic Dynamics and Control*, 12: 231-54

OECD. (2002). Foreign Direct Investment for Development: Maximising Benefits, Minimising Costs : An Overview. *Organisation for Economic Co-Operation and Development.*

Shri Prakash, et al (2005), "Input output modeling of impact of FDI on indian economic growth", Birla Institute Of Management, Nodia.

Sahoo, P. (2006). Foreign Direct Investment in South Asia: Policy, Trends, Impact and Determinants. *ADB Institute, Discussion Paper No. 56*

UNCTAD, 1999 "Trends in international investment agreements: An Overview" UNCTAD Series on Issues in International Investment Agreements.

UNCTAD, 2001. Trade and Investment Report. New York: The United Nations.

Zhang, K. H. (2001), "Does foreign direct investment promote economic growth? Evidence from East Asia and Latin America", *Contemporary Economic Policy*, 19: 175-185