

# The Nexus between Economic Indicators and Economic Growth in Brazil

Muhammad Farhan Bashir (Lecturer)  
Superior University Daska Sub-campus, Sialkot, Pakistan

Umer Shahzad (Lecturer)  
Punjab University Gujranwala Campus, University of Management & Technology, Lahore

Shahid Latif (Lecturer)  
School of Commerce & Accountancy (SCA), University of Management & Technology, Sialkot, Pakistan

Madiha Bashir  
University of the Punjab, Gujranwala

## Abstract

The objective of the paper is twofold. First is to examine the relationship between economic indicators and economic growth of Brazil economy, second is to look the impact of foreign direct investment on Gross domestic product of Brazil economy. The time series data from 1986-2014 was used of the remittance, foreign direct investment, domestic savings and capital formation to know the impact on Gross domestic product of Brazil. Results have been analyzed by using advanced econometric tools like- unit root test (both ADF and PP), OLS methods and Granger causality test. The results confirmed that, both capital formation and Remittance have positive relationship with GDP, whereas FDI and savings show insignificant influence on GDP of Brazil. In order to minimize the gap between domestic saving and investment and to bring the technology and managerial know-how, remittance could play important role on the way of economic development of Brazil. Similarly the Capital formation is playing an important role in the economic development due to positive impact on GDP. Therefore, government should take pragmatic policy, develop infrastructure, stabilized the political environment, law and order situation.

**Keywords:** Gross Domestic Product, Unit Root test, Granger Causality, Brazil

## Introduction

Gross domestic product (GDP) is considered as basic sign to measure the strength of each country's domestic economy. It characterizes the total dollar worth of all goods and services created in a defined time period; which is also considered as the size of economy. GDP measures are used to quantify the economic performance of a country or region, but can also consider as a measure, which amounts for the relative contribution of industry in economic progress of a country.

In recent years Global economic scenario has witnessed the significance of FDI which has helped developing nations in making economic strides and as a result GDP has also improved over the years. Economists credits FDI as a growing phenomenon, deemed as a pillar for economic progression for every country regardless of their development level. Investment level in the abroad economies has risen 6 times since the cold war. Such level of investments has attracted interest regarding the ever growing debate of FDI and economic progression in the host country (Muhammad Arshad Khan, 2007).

In order to be recognized as an economic force FDI depends upon number of variables, which strengthen its impact upon economic strength. Such variables are banking system, govt policies, market situation and growth in the financial sector.

In the last 3 decades Brazilian economy has witnessed significant basic reforms, initiated by Plano Real in 1994 followed up by Institutional reforms. Implementation of Plano Real helped Brazil become an attractive market of FDI. Such was the effect of these policies that inflation rate which stood at 5000% in 1994 was brought down to single digit in 2001(IMF Financial Statistics). The solution to hyperinflation was the most distinction, which helped create opportunities in every economic sector, rather than selected ones. World economic forum conference 2008 ranked Brazil as 2<sup>nd</sup> most favored country in South America,

In 2008 UNCTAD reported that Brazil was fourth highest recipient of foreign investment after china, Hong Kong and Russia. These facts was as per expectations of investors as large population providing labor force in great numbers and the stability in institutional reforms along with performance of local industry in greater exports in recent years. Hence the dependence upon foreign investment has increased in recent years by the Brazilian economy. Also as brazil is part of BRIC's ( Brazil, Russia, China, India) and prominence in Latin American economic market, inflows of FDI is becoming more significant topic in respect to Brazil

The research work attempts to examine the significance of various indicators to determine the greater

inflow of FDI in Brazil. By using empirical data from (1986-2014), we argue that changes in Brazilian economy are owed to domestic factors such as trend in savings, domestic capital formation and remittances, rather than country and exchange risk. The rest of research paper includes, next section we review relevant literature, followed up by research hypothesis, then research methodology is explained and last section of the study includes results and discussion of findings.

### Literature Review

In recent years, primary focus of a large volume of research studies are focusing on the aspects that facilitate the flow of foreign capital into host nations' industrialized and various sectors of emerging markets. While other empirical research studies have analyzed the general socio-political indicators like as opacity index (Hooper and Kim, 2007). Some studies also pointed out the relationship between transparencies in institutional level reforms to FDI Inflows. Egger and Winner (2005) analyzed positive linkage between FDI and corruption, while examining data of 73 countries ranging from 1995 to 1999. Asiedu (2001) suggested that each world region has different factors for higher level of foreign inflows of capital. Her research indicated that return on capital and development in basic infrastructure are key in respect to positive relationship, while data analysis of other African region indicated no relationship of these variables for economic growth. Developing economies also indicated that openness to trade varied greater influence towards increased inflows of FDI in developing economies as compared to African economies.

Chen, Chang, and Zhang (1995) analyzed impact of FDI on Chinese economy to post Mao-azay tung regime by attending the situation of different demographics, development and size of foreign money invested. And concluded positive relationship because of FDI, which enables the positive impact on savings culture. And this benefit further sharpens the economic growth. This positivity further accelerates the other areas of Chinese economy. In other words, it channels the industrial progression into different modes, which further facilitate its rapid impact in more of beneficiary transformation.

Foreign investment has been widely considered as the most efficient and smooth way to transfer technological developments, Man-management skills and market infrastructure resulting in being considered favorable for economic prosperity in the host nation(M.A. Khan, 2007).

(Kim & Seo, 2003) investigated the impact FDI had on domestic investor's decision to invest after investment from foreign countries. Findings of the research concluded that FDI played positive role in deployment of local investment and in the economy's road map.

Other studies analyzed variables like as market dynamics in emerging markets like as exports, phone density index (pdi) along with country risk (Moosa and Cardak, 2006), while paying focus to impact on host countries or indirect effect on competing economies for greater influx of FDI (Garcia-Herrero and Santabarbara, 2007). Likewise, Frenkel et al. (2004) added indicators related to countries who are investing in order to determine the key factors of wealthy countries FDI in economies like Brazil. Hsiao and Hsiao (2006) examined data of far east Asian economies of Ttaiwan , Malaysia, Phillipines, Singapore, Korea and China ranging 1984 to 2004 to examine causality analysis between exports and GDP along with volume of FDI invested in these economies.

Turkean et al. (2008) further explored the linkage of host economy and fdi's inter-crossing relationship by declaring them endogenous variables. Findings indicate the relationship is positive in nature and impact can be enhanced, if proper measures are taken by the host economy.

Combining both the aforesaid lines of study, Bengoa and Sanches-Robles (2003) analyzed data of 18 Latin American countries data of 1970 to 1999concluded that economic reforms and freedom are key factors of FDI's greater impact and market growth is greatly affected by FDI. Likewise Trevino and Mixon (2004) recognized the dominance of the effects of institutional environment i economies like Brazil, Argentina and Chile by examining FDI by MNC's in these countries

Some research findings are categorized by a greater theoretic focus, thus contributing to the development of an economic theory of FDI. By using theories from behavioral economics, Hosseini (2005) discovers the importance of FDI on the improvement in economics of nations, and how modeling of the FDI could be investigates. Basu and Guariglia (2007) theoretically considered the relationships between FDI, economic growth and inequality, by using data of 119 developing countries, and showed that FDI could yield inequality as well as growth, which in the end could decrease the standing of agriculture to the GDP of the beneficiary nation.

In comparison to a number of comparative findings of FDI beneficiary countries, work such as Sun et al. (2002) emphasized on internal elements of a country to classify the determinants of FDI. In that study, the spatial and temporal variation in the determinants of FDI across several regions of China was investigated, and the findings revealed a negative effect of FDI flows and accumulated FDI on domestic investment.

This research attempts to implicate the variables, which are part of economic growth model, gross domestic savings, capital formation, foreign remittances and FDI and their relationship on host nation's

economic growth model. We do comprehend that they are differences in what is considered as FDI, investment etc. Nonetheless the data is taken from publications of World Bank and research institutions from research institutions and therefore carry greater reliability for comparisons at global level.

### **Trends of foreign investment in Brazil**

Plano Real, a plan implemented in 1994 to curb the issue of hyper inflation, which plagued the nation throughout the 1980's and 1990's. Although it was helpful in reducing the inflation rate from 5000% to under 10%, it did result in:

- (1) Greater dependence upon imports without focus on exports
- (2) Severe fiscal crisis- resulting in growing public debt

A progressive decline of the cambial anchor as an elementary tool of economic policy followed. After implementation of Plano Real, financial market witnessed major crises in Mexican 1994 and 1998's Russian crisis, each of these contributed in negative volume of FDI in progressive nations (Giambiasi, 2005). And ultimately Brazil oversaw nominal gdp growth rate of 2.8 per cent (Ferrari-Filho and de Paula, 2003). Though the nation witnessed 7 per cent growth rate after World War II to early 1980's (Bacha and Bonelli, 2005).

Until the placement of Plano Real in 1994, short term investment, which pursues to yield benefit of the variances between exchange rate and interest rates, was responsible for 60 percent of foreign investment in Brazil. However Plano Real; this resulted into a steady decline to 10 percent, on the contrary FDI grew at steady pace (Baumann, 2001; Baer and Rangel, 2001). During 1990s institutional and macro-economic reforms were implemented to attract FDI: denationalization, reorganization of the financial structure, reforms in social security, rescheduling of state debt; creation of supervisory watch dogs for public institutions, along with primary focus on nominal level of inflation (Giambiasi, 2005). Implementation of the reforms directed to higher inflows of FDI into sectors such as financial, banking and insurance services (Trevino and Mixon, 2004).

Proceeding to 2000, inability of fiscal tightening, combined with the requirement to create surpluses to reimbursement of debt, resulted in higher short-term interest rates. This resulted in negative impact on the average income levels and end user market growth in Brazil. The post 2000 era oversaw the Brazilian consumer market respond in positive manner as higher volume of credit and higher level of foreign exchange reserves; and with inflation under control, market growth again returned to realistic targets. Post Plano Real period of 2000-2007 deals with a appropriate setting for analysis of the influence and dynamics of financial market and the determinants of FDI in Brazil.

### **Research Methodology**

The data used for this study is taken from World Bank site. Secondary Data was used in this study to analyze the impact of foreign direct investment, domestic savings, Gross domestic capital formation and remittance on the Gross domestic Product (GDP) of the Brazil Economy.

This research utilizes time series data from the year 1986 to 2014 & Eviews 9.0 was used for data analysis and imperial model. The findings of the study are explained in Result and Data Analysis chapter. The variables of the study are explained as under.

### **Gross Domestic Product**

Gross domestic product means all the goods and services produced by the firms and people of the country. Most of the times the Foreign Investors invest only if the GDP of the Country is high, it means that gdp of any country exhibits it's inside economic position to whole world (Sumon, 2014) .“An increase in the capacity of an economy to produce goods and services, compared from one period of time to another,”(Investopedia, 2012).

### **Foreign Direct Investment**

“Foreign direct investment (FDI) takes place when a corporation in one country establishes a business operation in another country, through setting up a new wholly-owned affiliate, or acquiring a local company, or forming a joint venture in the host economy.” (Moran, 2001)

### **Workers Remittances**

“Worker remittance is the sum of worker remittances (payments from workers, who have lived abroad for more than one year), compensation of employees or labor income (payments from workers who have lived abroad less than one year), and migrant's transfers.” (Buch & Kuckulenz, 2004)

### **Gross Domestic Savings**

“The sum of gross domestic investment and the current account balance:  $S = I + CA$ .” (Feldstein, 1982)

## Gross Fixed Capital Formation

“Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings.” (Bank, 2012).

## Statistical Tools

The following statistical tests are used in this research paper.

1. Augmented Dickey Fuller Unit Root Test
2. Granger Causality Test
3. Co Integration Test
4. Ordinary Least Square

The model built to test the hypotheses is as follow.

$$\ln\text{GDP}=\alpha+\beta_1(\ln\text{FDI})+\beta_2(\ln\text{REM})+\beta_3(\ln\text{SAV})+\beta_4(\ln\text{GDGF})+E_{ye}$$

$\ln\text{GDP}$ =Gross Domestic Product

$\ln\text{FDI}$ = Foreign Direct Investment

$\ln\text{REM}$ = Remittance

$\ln\text{SAV}$ = Domestic Savings

$\ln\text{GDGF}$ = Gross domestic capital formation

$E_{ye}$ = Standard Error

$\beta$  = Coefficient

$\alpha$ = Intercept

$\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are the coefficients of respective variables. In the specified model  $\ln\text{GDP}$  (Gross Domestic Product) is dependent variable while  $\ln\text{FDI}$  (Foreign Direct Investment),  $\ln\text{REM}$  (Foreign Remittance),  $\ln\text{SAV}$  (Savings) and  $\ln\text{GDGF}$  (Gross domestic capital formation) are used as controlled or independent variables.

## Research Hypotheses

The Research hypotheses are explained as under:

H<sub>1</sub>: Foreign Direct Investment has positive relationship with GDP.

H<sub>2</sub>: Foreign Remittance has positive relationship with GDP

H<sub>3</sub>: Savings has positive relationship with GDP

H<sub>4</sub>: Capital Formation has positive relation with GDP.

## Data Analysis

### Stationary Test

The reliability of the time series data can be checked by applying different unit root tests. If the time series data have unit problem and data is non- stationary then the results will be invalid. To check the stationary of the data unit root test has been applied. To check the stationary of the data augmented dickey-fuller test and Phillips-Perron unit root has been used.

The Null hypothesis is that the variable has unit problem and data is non stationary. The alternative hypothesis is that the data is stationary.

The unit root test has been applied to check whether data is stationary or not. In this unit root we have tested Augmented Dickey-Fuller test has been used. For reliability of results data should be stationary. If data is non-stationary then the results will be invalid.

If t-statistics ( $t^*$ ) > ADF critical value, we fail to reject null hypothesis, i.e., unit root exists (variable is non-stationary).

If t-statistics ( $t^*$ ) < ADF critical value, reject null hypothesis, i.e., unit root does not exists (variable is stationary).

Same in the case of Phillips-perron Unit root test:

If t-statistics ( $t^*$ ) > PP critical value, we fail to reject null hypothesis, i.e., unit root exists (variable is non-stationary).

If t-statistics ( $t^*$ ) < PP critical value, reject null hypothesis, i.e., unit root does not exists (variable is stationary).

Variable	ADF Test static (with trend and intercept)		P-P test (with trend and intercept)	
	Level	First difference	Level	First Difference
GDP (LGDP)	-2.28744 *	-3.330622 *	1.853940 *	-3.330622 *
FDI (LFDI)	-2.312378 *	-5.322137**	-2.312378 *	-5.361955 **
REM (LREM)	-1.829648 *	-3.778641*	-2.195915 *	-3.731572 *
SAV (LSAV)	-3.378730 *	-2.959340 *	2.118584 *	-2.648728 *
GDCF (LGDCF)	-2.126240 *	-3.875663 *	-1.1913123 *	-3.874747 *

Note: \* significant at 1%  
 \*\* Significant at 5%  
 \*\*\* Significant at 10%

At the level with intercept, the computed ADF test-statistics -2.28744 is less than the critical values at 1%. And as well as on its first difference value. It means the GDP variable has not unit problem. And the data is stationary. So we reject the null hypothesis in the case of GDP. In augmented dickey-fuller test all the independent variables (FDI, REM, SAV, GDCF) are significant at 1%. So that we reject the null hypothesis, it means all the variables are stationery as per augmented dickey fuller test.

At the level with intercept, the computed P-P test-statistics 1.853940 is less than the critical values at 1%. And as well as on its first difference value. It means the GDP variable has not unit problem. And the data is stationary. So we reject the null hypothesis in the case of GDP. In Phillips-Peron test all the independent variables (FDI, REM, SAV, GDCF) are also significant at 1%. So that we reject the null hypothesis, it means all the variables are stationery as per Phillips-Peron test.

### OLS Regression

The table No 3 explains the regression analysis conducted in Eviews 9. The R square Value is 0.9915 which shows that the model is accurate. The P value or significant value of remittance and capital formation is less than 0.05 which means that these two variables are significant and they have relationship with GDP of Brazil Economy. The Significant value of foreign direct investment and domestic savings is greater than 0.05 which means that these variables are insignificant and they have no relationship with GDP of Brazil Economy. The coefficients of two independent variables are statistically significant and can influence the dependent variable. The coefficients value shows that the remittance and capital formation are positively relationship with GDP whereas, the foreign direct investment and Domestic Savings have no relationship with GDP of Brazil economy, As these variables are statistically insignificant.

$$\ln \text{GDP} = \alpha + \beta_1(\ln \text{FDI}) + \beta_2(\ln \text{REM}) + \beta_3(\ln \text{SAV}) + \beta_4(\ln \text{GDCF}) + E_{yt}$$

$$= -6.2 + 0.0291(\ln \text{FDI}) + 0.0831(\ln \text{REM}) - 0.01577(\ln \text{SAV}) + 0.08288(\ln \text{GDCF})$$

OLS regression

**Table 3. Result of OLS regression**

Dremittancependent Variable: GDP				
Method: Leasast Squares				
Date: 09/11/15 Time: 21:13				
Sample: 1986 2014				
Included observations: 29				
Variable	Coefficient	Std. error	t-statistic	Prob.
C	-6.213788	0.370251	-16.78261	0.0000
FDI	0.029132	0.022945	1.269677	0.2164
Remittance	0.083181	0.035497	2.343319	0.0277
Savings	-0.015771	0.009666	-1.631661	0.1158
Capital_formation	0.828816	0.022122	37.46544	0.0000
R-Squared	0.991540	Mean dependent var		3.665184
Adjusted R-Squared	0.990129	S.D. dependent var		0.255979
S.E. of regression	0.025432	Akaike info criterion		-4.350057
Sum squared resid	0.015522	Schwarz criterion		-4.114317
Log likelihood	68.07583	Hannan-Quinn criter		-4.276226
f-statitic	703.1829	Durbin-Watson stat		1.555871
Prob (f-statistic)	0.000000			

### GRANGER CASULITY TEST

The granger causality test was applied in Eviews 9. The Granger Causality concept explains the cause

relationship of variables. It can be explained as if the single variable granger causes the other variable it means that the past values of these variables help to predict the future values. The Granger causality table below shows the positive results that are required from time series data. If the P value is greater than 5% then we reject the null hypotheses. In this test The Null Hypothesis can be as:

Pairwise Granger Causality Tests							
Date: 09/11/15 Time: 21:32							
Sample: 1986 2014							
Lags: 2							
	Obs	F-Statistic	Prob.		Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	27	0.00100	0.9990	REMMITENCE does not Granger Cause GDP	27	0.85374	0.4394
GDP does not Granger Cause FDI		1.64879	0.2152	GDP does not Granger Cause REMMITENCE		0.17780	0.8383
SAVINGS does not Granger Cause GDP	27	0.49357	0.6170	CAPITAL_FORMATION does not Granger Cause GDP	27	0.53368	0.5938
GDP does not Granger Cause SAVINGS		0.77953	0.4709	GDP does not Granger Cause CAPITAL_FORMATION		0.58845	0.5637
REMMITENCE does not Granger Cause FDI	27	3.34122	0.0541	SAVINGS does not Granger Cause FDI	27	11.0760	0.0005
FDI does not Granger Cause REMMITENCE		6.05932	0.0080	FDI does not Granger Cause SAVINGS		0.77670	0.4721
CAPITAL_FORMATION does not Granger Cause FDI	27	1.40362	0.2669	SAVINGS does not Granger Cause REMMITENCE	27	6.36640	0.0066
FDI does not Granger Cause CAPITAL_FORMATION		0.10398	0.9017	REMMITENCE does not Granger Cause SAVINGS		5.42790	0.0121
CAPITAL_FORMATION does not Granger Cause REMMITENCE	27	0.16420	0.8496	CAPITAL_FORMATION does not Granger Cause SAVINGS	27	0.47923	0.6256
REMMITENCE does not Granger Cause CAPITAL_FORMATION		2.78351	0.0836	SAVINGS does not Granger Cause CAPITAL_FORMATION		0.25266	0.7790

H<sub>0</sub>: The FDI Does not Granger cause GDP.

The Granger causality table below explains the positive and accurate results of p value and f statistics.

### Analysis of the Results:

Different Statistical Tests like Granger-Causality Tests, Phillips-Peron Tests and OLS Regression were applied in Eviews for the years of 1986-2014. Gross Domestic Product (GDP) was constituted as dependent variable, and foreign direct investment, and gross domestic savings, worker's remittance and gross domestic capital formation were taken as independent variables. Empirical results show that all independent variables influence Gross Domestic Product, but they haven't impacted in the same way. Research results indicate that we accept the findings of domestic capital formation and remittance as these are significant and they carry positive relationship towards GDP, while on the other hand foreign direct investment and domestic savings don't show any relationship towards Gross Domestic Product, as these are insignificant as per regression results. Two Hypotheses are accepted (H<sub>2</sub> and H<sub>4</sub>) and two hypotheses (H<sub>1</sub> and H<sub>3</sub>) are rejected.

### Discussion

This research we explored the relationship of FDI and its impact in recent development projects in Brazil. The study focused upon Pre and post Plano Real era, which oversaw great deal of improvements in domestic Latin American projects. For this purpose we chose the time period of 1986-2014 to account for accurate analysis of FDI. Based upon further analysis of BRICS and emerging South American markets, we further identified sub factors responsible to further enhance the impact of foreign direct investment. In the Brazilian economy's scenario, we made an effort to isolate contributing factors of FDI from percentage of domestic savings, gross domestic capital formation and remittances from abroad

Empirical findings of the study supported the fact that higher trend in domestic savings is a major

contributing factor in enticing growth in domestic market along with domestic capital formation. Though we cannot ignore the role of FDI but due to nature of domestic market in Brazil, there is empirical evidence that its effect is becoming less significant as domestic factors are contributing in higher standards as compared to FDI. This research work carry weigh for theoretical perspective to further understand the role of FDI as well as implications to improve policy making decisions. In this research micro economic variables as well as macro-economic variables were included to further explore the dimensions of FDI. It is generally feasible that exchange and inflation rate are deemed as most influential factors for lesser stable economies, in case of BRICS countries, MNC's might pay more attention to internal market growth, which leads to greater utilization of resources to facilitate economies of scale.

### **Conclusion and Recommendations**

The remittance and capital formation can be viewed as important stimulus for Brazil economy. Mostly the Foreign direct investment shows the positive relationship on the GDP of all countries and specifically in the case of developing countries. But in the Brazil economy the FDI is not showing any positive trend on GDP of the Country.

The Foreign direct investment brings prosperity, jobs and technology for any developing nation so Brazil should focus on foreign direct investment. To increase the REM Brazil government should take the measures to enhance the human resources quality and should take the policy to bring the Brazil foreign worker and nonresident Brazil's money through proper channel so that these REM can be used according to the national plan. The domestic savings should be used carefully as per needs and structural adjustments so that in long run Brazil can improve their economic growth and bring stability in the country.

The growth in Brazil economy can be enhanced by improving remittance, capital formation and foreign direct investment. The growth should come with quality of human capital, institutions, infrastructure, good governance, communication technology and legal framework. Brazil should focus on these packages to increase the economic growth in long term planning.

We do acknowledge that findings of this research cannot be generalized unless emerging markets with similar characteristics are validated by empirical data. And also attention should be paid to further differentiate developing economies from developed economies as well as FDI determinants along with variants in emerging markets.

### **References**

- Bacha, E. L. and R. Bonelli (2005). "Accounting for Brazil's LongTerm Growth." *Revista de Economia Política* 25(3).
- Baer, W. and G. B. Rangel (2001). "Foreign investment in the age of globalization: the case of Brazil." *Latin American Business Review* 2(1-2): 83-99.
- Bank, W. (2012). "Gross fixed capital formation ". Retrieved November 22, 2012.
- Basu, P. and A. Guariglia (2007). "Foreign direct investment, inequality, and growth." *Journal of Macroeconomics* 29(4): 824-839.
- Baumann, R. (2010). "Brazilian external sector so far in the 21st century." *Revista Brasileira de Política Internacional* 53(SPE): 33-53.
- Bengoa, M. and B. Sanchez-Robles (2003). "Foreign direct investment, economic freedom and growth: new evidence from Latin America." *European journal of political economy* 19(3): 529-545.
- Buch, C. and A. Kuckulenz (2004). "Worker remittances and capital flows to developing countries." ZEW-Centre for European Economic Research Discussion Paper(04-031).
- Chen, C., L. Chang, et al. (1995). "The role of foreign direct investment in China's post-1978 economic development." *World development* 23(4): 691-703.
- Egger, P. and H. Winner (2005). "Evidence on corruption as an incentive for foreign direct investment." *European journal of political economy* 21(4): 932-952.
- Feldstein, M. S. (1982). *Domestic saving and international capital movements in the long run and the short run*, National Bureau of Economic Research Cambridge, Mass., USA.
- Frenkel, M., K. Funke, et al. (2004). "A panel analysis of bilateral FDI flows to emerging economies." *Economic systems* 28(3): 281-300.
- García-Herrero, A. and D. Santabábara (2007). "Does China have an impact on foreign direct investment to Latin America?" *China Economic Review* 18(3): 266-286.
- Hooper, V. and S.-J. Kim (2007). "The determinants of capital inflows: Does opacity of recipient country explain the flows?" *Economic systems* 31(1): 35-48.
- Hosseini, H. (2005). "An economic theory of FDI: A behavioral economics and historical approach." *The Journal of Socio-Economics* 34(4): 528-541.
- Hsiao, F. S. and M.-C. W. Hsiao (2006). "FDI, exports, and GDP in East and Southeast Asia—Panel data versus

- time-series causality analyses." *Journal of Asian Economics* 17(6): 1082-1106.
- Investopedia (2012). "Economic Growth." Retrieved 22-11, 2012.
- Khan, M. A. (2007). Foreign Direct Investment and economic growth : The Role Of Domestic Financial Sector.
- Khan, M. A. (2007). Foreign direct investment and economic growth: The role of domestic financial sector, Pakistan Institute of Development Economics.
- Kim, D. D. K. and J. S. Seo (2003). "Does FDI inflow crowd out domestic investment in Korea?" *Journal of Economic Studies* 30(6): 605-622.
- Moosa, I. A. and B. A. Cardak (2006). "The determinants of foreign direct investment: An extreme bounds analysis." *Journal of Multinational Financial Management* 16(2): 199-211.
- Moran, T. H. (2001). *Foreign Direct Investment*, Wiley Online Library.
- Sumon, K. K. (2014). "Foreign direct investment and economic growth in Bangladesh Economy." *International Journal of Economics, Finance and Management Sciences* 2(6): 339-346.
- Sun, Q., W. Tong, et al. (2002). "Determinants of foreign direct investment across China." *Journal of international money and finance* 21(1): 79-113.
- Treviño, L. J. and F. G. Mixon (2004). "Strategic factors affecting foreign direct investment decisions by multinational enterprises in Latin America." *Journal of World Business* 39(3): 233-243.
- Turban, E., D. Leidner, et al. (2008). *INFORMATION TECHNOLOGY FOR MANAGEMENT*, (With CD), John Wiley & Sons.