FOREIGN CAPITAL AND ECONOMIC GROWTH IN INDIA: 1992 -2008

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Generally, it is not possible for a developing country like India to grow without sufficient import of capital because of the gaps exist in domestic savings and capital requirements. During the initial stages of development, domestic savings are normally not adequate to finance the development projects required to achieve faster economic growth. Globally strong consensus has emerged that the achievement of more dynamic economic growth requires a greater role of the foreign capital. There are many forms of the foreign capital inflows including Official Aid, Commercial Borrowings, Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI). There was a surge in foreign capital flows into India after 1992-93, because of drastic changes in India's policies regarding the FDI and FPIs. Since then Government of India have been relaxing capital control measures and taking large number of policy decisions towards the improvement of local financial infrastructure. Because of this, foreign capital has become an integral part of the development strategy of India. The main objective of the present study is to investigate the impact of foreign capital (FDI & FPIs) on economic growth of Indian economy during the period 1990-2008.

I. Introduction

Foreign capital flows to developing countries have been growing sharply since 1991 because of the liberalised policies adopted by most of them in this regard. The share of FDI increased from 26% of total flows in 1991-92 to 45% in 1995-96. According to *Global Development Finance report 2002* published by World Bank, 64% FDI had concentrated in just 10 developing countries during 1990s. These countries were China, Brazil, Mexico, Argentina, Poland, Chile, Malaysia, Korea, Thailand, and Venezuela. Among these, China has emerged as the major recipient of FDI because of its low production cost and large domestic market. During 1990s, India (the

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fourth largest developing country) stood at 14th position in the list of FDI recipients' developing countries. Growth of FDI has been paralleled by major variations in the composition of FDI to developing countries. Services sector emerged as the most important sector attracting maximum FDI during 1990s. The share of service sectors in FDI increased from 47% in 1990 to 55% in 2002 *(World Economic and Social Survey 2005)*. The share of primary sector remained at 7% and share of manufacturing in FDI declined from 46% in 1990 to 38% in 2002. According to an estimate of World Bank *(Global Development Finance, 2008)*, net FDI flows to developing countries increased from $35billion in 1991 to $470.8 billion in 2006.

Financial and trade liberalisation in many developing countries led to integration of international capital markets which, in turn resulted in explosive growth in Foreign Portfolio Investments (FPI). Further in the beginning of 1990s, individual and other large investors started allocation of their portfolios to institutional investors, that is, mutual funds, hedge funds, pension funds, insurance companies, trusts, foundations and endowments to manage their funds. The rising trend of institutionalization of savings has significantly increased the role of institutional investors in international capital markets. These institutional investors have been playing an important role in driving portfolio flows into developing countries since the beginning of 1990s. The volume and variety of financial instruments in equity and bond market also rose sharply in developing countries.

Need of foreign capital for a developing country has arisen because of the reasons like i) insufficient domestic capital required to finance the development expenditures; ii) lack of technical expertise to utilise the available resources in right direction; iii) less development of domestic capital markets, due to which infrastructure projects needed at the initial stage of economic development cannot be financed and iv) low levels of domestic savings and foreign exchange reserves. So to induce the rapid economic development, developing countries have to import capital in the form of machinery, technical know-how, raw materials and other financial resources. Developing countries have strongly been recommended

by international organizations and other external advisors to rely primarily on FDI as a source of external finance *(Nunnenkamp and Spatz, 2003)*. *Mohey-ud-din (2007)* supported the two-gap model that suggests that the Poor countries have to rely on the foreign capital inflows (FCI) to fill the two Gaps: Import-Export Gap and the Savings-Investment Gap. Even highly developed countries compete among each other for attracting successful investments *(Peleckis et al. 2009)*.

The major objective of the present study is to analyze the efficacy and effect of the foreign capital inflows on economic growth of India. After section I, section II presents survey of related literature. Section III deals with the data and research methodology. Section IV shows empirical results and discussions, and Section V presents conclusions and policy suggestions.

II. Review of Literature

The foreign capital inflows have enormous role to affect the economic growth of an economy positively and negatively. Large number of studies has proved empirically the constructive and destructive impact of foreign inflows on economic growth. Most of these studies have studied the relationship between FDI flows and economic growth. As *Mohey-ud-din (2007)* observed that foreign capital has helped in boosting the GDP growth in Pakistan through structural makeover of the economy, helped in strengthening the industrial and agricultural sectors by providing technical assistance, policy advice in overcoming the budget deficits and the balance of payment deficits. Foreign capital also funded the social sector development projects in Pakistan.

Hong (1997) conducted the study on Korean economy and found that foreign capital has greatly enhanced Korea's productivity positively and FDI alone accounted for almost 20 percent growth in manufacturing sector. *Katerina et al. (2004)* examined the relationship of FDI and economic growth for selected transition economies including Albania, Azerbaijan, Belarus, Bosnia, Georgia, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova,

Mongolia, Romania, Russia, Slovenia, Tajikistan, Turkmenistan, and Uzbekistan. Contrary to other studies in the field, they concluded that FDI did not leave any significant impact over the development of these transition economies. *Kamath (2008)* studied the impact of direct investments on exports and GDP in the India. He focused upon the greater role of FDI to boost India's exports and economic growth.

Bhandari et al. (2007) have examined the impact of foreign aid and FDI on various East European Countries including Czech Republic, Estonia, Hungary, Latvia, Lithuania and Poland. They concluded that an increase in the stock of domestic capital and inflow of FDI were significant factors and foreign aid was ineffective factor to affect economic growth positively. *Marwah and Tavakoli (2004)* in their study the effect of imports on growth and productivity of four countries, that is, Indonesia, Malaysia, the Philippines, and Thailand in addition to FDI inflows. The study by *Moshirian (2008)* identified factors that contributed to the process of globalization, economic growth and institution building. The study analysed the impact of globalization of financial markets by adopting different measures of economic growth and prosperity, such as GDP and the human development index.

III. Methodology and Research Design

The main objective of the present study is to quantify the affect of foreign capital inflows, which include FDI and FPI on economic growth of India. India has been receiving significant amount of foreign capital via these routes after India liberalised its policy regarding foreign capital in the beginning of 1990s. Thus the reference period for the present study has been chosen between 1992-2008. Different researchers have under taken various studied to examine the impact of foreign capital on the economic growth. Most of the studies have focused on the impact of foreign direct investments on economic growth. Few studies also focused on foreign aid. Since 1991, Foreign Institutional Investors (FIIs) have emerged as an important component of FPI to various developing countries including India. Very few studies have included FIIs to

analyse the impact of foreign capital on economic growth. Thus the relationship of Indian economic growth has been studied with reference to FDI and FIIs investments flows. Consequently Gross Domestic Product has been taken as dependent variable and FDI and FIIs investment flows have been taken as independent variables. Total 16 observations over the period of study 1992-2008 have been used for analysing the relationship. The data for the study have been taken from the Handbook of Statistics on Indian Economy published by Reserve Bank of India.

IV. Foreign Capital Inflows and Trends in GDP Growth in India

In 1989, the Government of India appointed a Working Group to study the current state of balance of payments to propose the eighth five-year plan draft. Working Group cautioned that total external debt as well as the short-term debt has been becoming excessive and emphasised upon the need to encourage external/foreign equity capital. In its report, the Working Group argued some long-term considerations for raising the flow of foreign equity capital. To resolve the then balance of payment crisis, large loans were taken from multilateral and bilateral sources. As a result, India's foreign debt, which was at 25 % of GDP at the end of financial year 1991, further, rose to 33.8 % of GDP by end of March 1992.

The country, thereby, had fallen into debt trap, as the foreign exchange to service the debt was not sufficient in coffers. In fact, the foreign exchange reserve had tumbled down to a very low level of US $1.1 million that could even hardly meet the import requirements of two weeks. The foreign investors lost their confidence in credit worthiness of India. Some international credit rating agencies down graded the country's rating. India was on the edge of defaulting on meeting its international financial obligations. The fiscal deficit was over 8.4% of GDP. The Industry was stagnant and annual inflation touched to 17% in August 1991.

To overcome such unprecedented situation and further economic downfall, the then Government of India was compelled to accept a massive loan of 5-7 million dollars from International Monetary

Fund (IMF) and committed to adopt the standardized reform package designed by IMF and World Bank. The Government of India accordingly launched new economic policy in July 1991. It included a series of programmes of liberalization in all major sectors of economy and reforms in policy legislative.

Besides the reforms in the Indian financial sector, the Government also initiated the liberalization of foreign investment policy under new economic policy. As a result, 100 % FDI became permissible in most of the industrial sectors. In November 1992, Government permitted FIIs to invest in primary and secondary markets of India. The imposed FIIs investment limit was up to 24% of paid up capital of a company. Shareholder's approval was must at general body meeting to allow FIIs investment. Floatation of Global Depository Receipts (GDR) and American Depository Receipt (ADR) issues was allowed to companies with high credit rating.

FDI is regarded as a potential catalyst for raising productivity in developing host countries through the transfer of technology and managerial know-how, and for facilitating access to international markets *(World Economic and Social Survey, 2005)*. There are two routes through which FDI can take place in India, which is Automatic Route and Government Approval Route. Foreign individuals or enterprises may take FDI in the form of acquiring shares of existing Indian company, establishment of a new subsidiary with 100% share, joint venture, and collaborations or by establishing new branches or expanding existing ones. FDI investment is a long-term relationship with domestic company by participating actively in the management of affairs of that company. So in essence, FDI in all these cases, results either in setting up of new units of business or acquisition of controlling authority by acquiring major share in equity capital. FPI flows in the form of Global Depository Receipts (GDRs), Offshore Funds, American Depository Receipts (ADRs), Country Funds and Purchase of tradeable and permitted securities in domestic primary and secondary markets by the Foreign Institutional Investors (FIIs) of foreign countries.

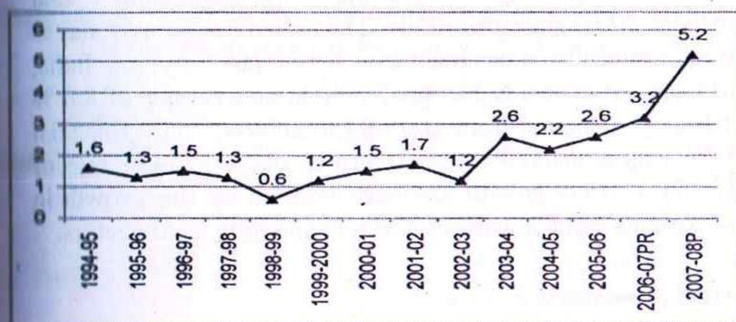
Table 1:
Foreign Capital Inflows and GDP in India

	FDI (Rupees Cr.)	Net Investments By FIIs in The Indian Capital Market (Rupees Cr.)	GDP at Factor Cost (At Constant Prices) (Rupees Cr.)
1992-93	965	4.27	1158025
1993-94	1838	5444.60	1223816
1994-95	4126	4776.60	1302076
1995-96	7172	6720.90	1396974
1996-97	10015	7386.20	1508378
1997-98	13220	5908.45	1573263
1998-99	10358	-729.11	1678410
1999-00	9338	9765.13	1786525
2000-01	18406	9682.52	1864300
2001-02	29235	8272.90	1972606
2002-03	24367	2668.90	2048287
2003-04	19860	44000.03	2222758
2004-05	27188	41416.45	2388384
2005-06	39674	48650.04	2612847
2006-07P	99985	23754.05	2864310
2007-08P	130522	62583.56	3122862

Source: RBI Handbook of Statistics on Indian Economy-2008, GDP New Series (Base: 1999-2000)
P : Provisional. QE: Quick Estimates. RE: Revised Estimates. Negative (-) sign indicates outflow.

Sharp increase has been witnessed in the inflows of foreign capital via FDI and FII routes into India after the beginning of 1990s. These inflows have increased the financial integration of India with rest of the world. Till 1992-93, foreign investments to India were insignificant. It was just 0.03% of GDP in 1990-91. However, in 1992, 100 % FDI was permitted in most of the industrial sectors. Government also allowed FIIs in 1992 to invest in Indian capital markets hence they contributed significantly towards the inflows of foreign capital. Because of these policies large foreign investments have taken place during 1993-94 to 1997-98 (*table 1*). Later on,

financial crises in East Asian countries weakened the sentiment of foreign investors towards emerging markets including India, because of which foreign inflows declined in 1998-99. Foreign investments revived again in 1999-2000, with FDI at Rs. 9338 Cr. and FII's investment at Rs.9765.13 Cr. FIIs investments jumped significantly to Rs. 44000.03 Cr. in 2003-04 and for the first time, beat FDI flows. FIIs showed huge interest in Indian capital market during 2007-08 as well pouring in the highest ever net investment of Rs. 62583.56 Cr. which led the SENSEX and NIFTY to rise above 20000 and 6000 respectively during the year. Investments through direct route too reached its highest position at Rs. 130522 Cr. during this year.



Source: Annual Report-Reserve Bank of India (2007-08, 1998-99 and 1997-98).

Figure 1 : Foreign Investment to India/GDP (%)

The ratio of net foreign investments to GDP in 1990-91 was relatively low, just 0.03%. However as a result of foreign investment liberalization policies, the ratio of net foreign investment inflows to GDP rose swiftly after 1992. By the end of financial year 2008 the ratio of foreign investments to GDP rose to 5.2% as it can be witnessed *figure 1*.

Table 2: Gross Domestic Product of India at factor cost
(Annual growth rate)

Year	*GDP*	*Year*	*GDP*
1991-92	1.4	**1999-00**	6.4
1992-93	5.4	**2000-01**	4.4

1993-94	5.7	2001-02	5.8
1994-95	6.4	2002-03	3.8
1995-96	7.3	2003-04	8.5
1996-97	8	2004-05	7.3
1997-98	4.3	2005-06	8.8
1998-99	6.7	2006-07	9.6

Source: Handbook of Statistics on Indian Economy-RBI

The early 1990s was a transitional period for the Indian economy because it was just beginning of the liberalisation in the country. Due to liberalisation of Indian economy, India has been amongst the world's fastest growing economies *(Laurenceson and Kamalakanthan, 2005)* since the 1990s. The Indian economy today is growing much better than it has been ever during last 50 years. India, Asia's fourth-largest economy has grown-up at an average of 8.6 % in the past four year period from 2003-04 to 2006-07. The financial year 2006-07 was a marvellous year turning out a growth rate of 9.6% (*Table 2*). Current growth has been boosted by the growth in foreign investments came in various services and industrial sectors.

V. Empirical Analysis

In order to judge the contribution of various components (FDI and FIIs) of foreign investment on economic growth of India, Ordinary Least Square (OLS) method of regression analysis has been applied using the annual data of GDP, FDI and FIIs. Symbolically, the impact of FDI and FII on GDP growth of India under OLS may be expressed as follow.

$$GDP = \beta_1 \, FDI + \beta_2 \, FII + \varepsilon$$

In this regression equation GDP has been presented as dependent variable and all other variables as independent or predictor variables. Here, in this regression equation:

GDP : Gross Domestic Product
FDI : Foreign Direct Investments
FII : Foreign Institutional Investments
β_1 : Regression coefficient to measure the change in GDP with change in FDI.

β_2 : Regression coefficient to measure the change in GDP with change in FII.

ε : Error term

The beta values or coefficients indicate the strength of relationship between independent variable and dependent variable. These regression coefficients have been used to construct an OLS equation to test the relationship of each independent variable with dependent variable. The model equation has been estimated on the basis of quantitative data for the entire variables from financial year 1992-93 to financial year 2007-08. The total number of entered observations is 16.

Table 3

Regression Analysis Explaining the Variations in GDP Growth of India during the Period 1992-93 to 2007-08

(No. of Observations=16)

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	$R^2 = 0.866$ Adjusted R^2 =0.846
FDI	9.400	2.272	.575	4.137	.001	
FII	12.873	4.095	.437	3.144	.008	

Dependent Variable in model: GDP

Independent variables: FDI and FII

As visible from *table 3*, the beta coefficients for FDI and FII have been found to be significant. As per the result of Multiple Regression method, the following multiple regression equation has been developed:

$$\text{GDP} = 9.400\text{FDI} + 12.873\text{FII}$$

$$R^2 = 0.866$$

$$\text{Adjusted } R^2 = 0.846$$

Positive regression coefficients of independent variables indicate a positive relationship with the dependent variable. R^2 known as the coefficient of determination, measures the proportion of the total variation in dependent variable by the presence of all independent variables simultaneously. So the model is statistically significant in the case of Indian environment as it is

explaining 86 % variation in GDP growth of Indian economy. Adjusted R^2 value is another measure of the success of the model. Adjusted R^2 in this case is 0.846, which means 84% of the variance in GDP can explained by the independent variables jointly.

Table 4 shows the overall significance of the model. The value of the F-Statistic at 42.175 is significant at 1% level of Significance. So model developed using the Multiple Regression is statistically significant.

Table 4:
Model Summary and Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F Statistics	Sig.
Regression	*4538966351606*	*2*	*2269483175803*	*42.175*	*0.000*
Residual	*699546332780.5*	*13*	*53811256367.73*		
Total	*5238512684386*	*15*			

Predictors: (Constant), FII, FDI
Dependent Variable: GDP

VI. Conclusions:

It may be stated in the end that a general consensus has emerged through the literature that the inflow of foreign investment plays a vital role in the economic growth of recipient economy. Foreign investments have increased enormously in India also since the beginning of the 1990s. The present study has shown that FDI and FIIs have statistically significant impact on GDP growth of Indian economy during the period of study. Moreover, F value has been found significant in model, which indicated the utility of the model in explaining the GDP growth in India.

Although foreign investments have been playing an important role in economic development of the country greater caution should be adopted while designing a policy regarding foreign investments. Government should develop domestic financial sector and priority should be given to enhance the role of domestic financial institutions

like banks, insurance companies, pension funds and mutual funds should be encouraged as these can contribute significantly to the economic growth of the country as well.

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