Foreign Direct Investment in India: Implications for Sustainable Growth

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Abstract: There is growing consensus among researchers and academicians that in this globalized world the burden of private investment is increasing over Foreign Direct Investment (FDI). Because of a declining trend in public investment the task of capital formation rests over the shoulder of private investment and thus FDI playing a leading role in determining the fate of the economy. The economies receiving more inflow of FDI, are realizing a comparatively high growth and vice-versa. This is also expected to be happen in India. The present paper discusses the relationship between the inflow of FDI and GDP. It has been found that FDI has a positive correlation with GDP. the regression analysis between GDP and FDI of different sectors also supported the same result which shows that FDI inflow in India is playing very important role in determining the size of GDP.

Key Words: Foreign Direct Investment, Sustainable Growth, GDP, Farm Production.

Introduction:

The process of planning in India has always been sensitive to the needs of the poor and the plight of excluded from its early days. Government of India sought to solve all the socio-economic problems with the help of rapid and sustained economic growth, because our planners were working with the view that as the size of national income will be high individuals can share more and vice-versa (Hashim, S.R., 2007). Mainly because of this reason economic growth has always been the centre of objectives of India's Five Year Plans. However we always observed a continuous change in the manner we tried to address the problem of economic growth.

Since the introduction of the First Five Year Plan (1950-51), each and every Five Year Plan was formulated to solve some specified problems by realizing the desired high rate of economic growth. For example to solve the problem of food shortage (that was created at the time of independence as a result of crop failure, freedom struggle and social disharmony caused by India's partition), economic growth was supposed to realize by registering a high growth rate in farm production. In the same manner, the process of industrialization was adopted to achieve the goal of economic growth to solve the problem of unemployment. The same trend remain continue till 1990-91, where each and every plan used 'economic growth' as means for achieving various ends. In this sense we can say that till 1990-91 the concept of economic growth seems to be a means of satisfying various goals like, self reliance in agricultural production, industrial production, solving problem of poverty, unemployment, inequalities in distribution of income and wealth etc.

This very dimension of economic growth in India might have been the main reason for a comparatively lower rate of economic growth till the end of 1980s. Since independence to 1970s the growth performance of the economy was very low at 3.5 per cent per annum. However, this

was followed by a noticeable upward shift in decadal average growth rate to 5 per cent during 1980s (Mohan, R., 2007). In conclusion, we can say that before the economic reforms, economic growth had never been an objective in itself but a master key to open the world of opportunities before the Indians to wipe out their tears.

After completion of four decades of India's planned economic development, fortunately or unfortunately we introduced the New Economic Policies in the form of Privatisation, Liberalisation and Globalisation. After the introduction of economic reforms, slowly and slowly the role of government diluted and planners loose their control over the production units. Under the private ownership, production is done to meet with the individuals demand, and thus Indian economy moved on the path of market orientation against its very nature of social orientation (Bhagwati, J., 2001). Now, the Indian government cannot force the market to realize a high growth rate of the economy to solve some stated problem. What the government can do is simply to play the role of catalyst to provide the conclusive environment for higher and sustainable economic growth. In the era of globalization, the concept of 'economic growth' may not be utilized as an instrument to solve various socio-economic problems. It has become an end. Planners can now promote the growth rate of the economy irrespective of its effect over various dimensions of human activities.

Under the policy of fiscal correction, government started off-loading its share from the market with the help of disinvestment policy. This has resulted in continuous decline in the share of public investment and the economy has observed a mounting rise in the share of private investment. Since globalization has opened the way for the free movement of capital also, a good part of private investment is composed of Foreign Direct Investment (FDI) (Chakravarty, V., 1996).

No doubt, the Government of India started the programme of macro-economic stabilization and structural adjustment in 1991 to come out from the current economic problems however it played a significant role in promoting the process of capital formation. The policy of privatization opened the way for free movement of capital in India from international market which is exploited by the Indians with the help of normalizing the terms and conditions by the way of liberalization (Kumar, N., 1995). After completion of one decade of economic reforms, we started the process of second Generation of Economic Reforms. Financial sector reform is one of the most important aspect of Second Generation of Economic Reform. This reform process has completely changed the very structure of the economy. Now there is free movement of capital. Foreign capital may enter in Indian economy freely without any discrimination and at the same time Indian capital may go to other economies where better opportunities are present. This has put immense burden over the Indian economy not only to attract new investment proposals but also to retain the previous investments. Today each and every developing economy is reforming her economies to attract the highest amount of FDI because now it has become well established fact that those economies who are attracting more FDI are realizing comparatively high economic growth. If India wants to achieve a higher economic growth it is important to attract more FDI. In this paper therefore, we will seek to verify this growing notion of a strong correlation between inflow of FDI and economic growth.

Methodology:

For the present paper, information is collected about GDP, growth of the economy and Foreign Direct investment to analyse the relationship between these variables. Though, the data about FDI is available for a large number of sub-sectors, for the sake of simplicity these have been merged into three sectors. These three sectors are named as primary based economic activities, industrial based economic activities and services based economic activities and used as representative for primary, secondary and tertiary sectors. The inflow of FDI in primary sector includes sugar, food processing industries, vegetable oil and vanaspati, paper and pulp, rubber goods, leather, leather goods and pickers, timber products, glue and gelatin, photographic raw film and paper. The inflow of FDI in secondary sector includes electrical equipment, industrial machinery, machine tools, agriculture machinery, earth moving machinery, miscellaneous mechanical, commercial household equipment, medical appliances, industrial instrument, metallurgical industries, fertilizers, chemicals, dyestuff, drug and pharmaceuticals, textile, fermentation industries, miscellaneous industries, soaps, cosmetic, toilet preparations, fuel, glass, ceramic, cement and gypsum product. The inflow of FDI in tertiary sector includes, telecommunication, transportation, consultancy services, services sector, hotel and tourism and trading.

With the help of regression analysis, we will analyse the relationship between inflow of FDI and GDP. The analysis is divided into two parts. Firstly regression equation is prepared between GDP and inflow of FDI in India. Secondly sectoral analysis will be done to know the importance of FDI inflow in different sectors of the economy in determining the size of GDP. We have also utilized percentage change and percentage share as statistical tool in this paper.

Economic Growth and FDI:

This policy of openness has divided the whole world into two groups one composed with surplus spenders which includes mostly developed economies and the other grouped with deficit spenders in which most of the countries are developing. The surplus spenders are having good private capital and seek the means to get highest returns. Contrary to this deficit spenders are having good potential of growth and require capital to produce more goods and services so as to meet the growing demand in these economies. Foreign investment is therefore, coming to deficit spending economies to take advantage of their cost and locational benefits so that they can get highest return over their capital. The process of globalization opened the perfectly competitive regime for the private capital. Now the private capital can easily move around the world in search of higher return. Despite the best effort of national government to control the movement of capital, capital crosses border more easily than before (WDR, 1995).

This movement of foreign direct investment is by and large determined by the growth of the economy however we can not negate the fact that both the concepts are interdependent. On the one hand side the flow of FDI in any economy is determined by the performance of the economy while on the other hand side the performance of the economy is affected by the size of the FDI (Mishra, V., 1992).

The flow of FDI in any country is affected by the degree of economic progress. If the economy is growing rapidly, profitability over investment will be high and therefore there will be high return for FDI. This high return for FDI will attract more funds. Against this if economic growth is low expected return over investment will be also low and the economy will be less attractive for FDI. But when FDI takes the responsibility of a means of production, it accelerates the growth rate of the economy by playing a positive role in capital formation. If FDI is falling it means that there is outward flow of capital from the economy to some other economies that will negatively affect the process of capital formation and hence the growth rate of the economy. Therefore as far as the relationship between FDI and the growth of the economy is concerned, FDI may be regarded as a cause as well as effect. Since in this paper we seek to investigate the sustainability of economic growth we proceed with the following assumptions:

(i) that the sound economic base and a comparatively higher economic growth of India had attracted FDI to exploit the opportunities of good infrastructure, cheap and skilled workforce, proper government support along with a prudent fiscal management and above all deep links with global markets; and

(ii) that in absence of dominant public sector role (because of present global system), the task of private investment rest over FDI that affects the size of capital formation as well as the size of Gross Domestic Product (Lal, S., 1974).

Table 1

Inflow of FDI and GDP

Year	FDI Inflow (Rs. in crores)	GDP (Rs. in crores)	FDI as %age of GDP	Annual Growth of GDP
1990-91	174	1083572	0.016058001	5.3
1991-92	316	1099072	0.028751529	1.430454091
1992-93	965	1158025	0.083331534	5.363888808
1993-94	1838	1223816	0.150185976	5.681310853
1994-95	4126	1302076	0.316878585	6.394752152
1995-96	7172	1396974	0.513395382	7.288207447
1996-97	10015	1508378	0.663958239	7.974665241
1997-98	13220	1573263	0.840291801	4.30164057
1998-99	10358	1678410	0.61713169	6.683370803
1999-00	9338	1786526	0.522690406	6.441572679
2000-01	18406	1864301	0.987286924	4.353421109
2001-02	29235	1972606	1.482049634	5.809415969
2002-03	24367	2048286	1.189628792	3.836549215
2003-04	19860	2222758	0.893484581	8.517951106

2004-05	27188	2971464	0.91496986	7.5
2005-06	39674	3254216	1.219156934	9.5
2006-07	103367	3566011	2.898673055	9.581263198
2007-08	140180	3898958	3.59531957	9.336678995
2008-09	161536	4162509	3.880736354	6.759523955
2009-10	176304	4493743	3.923321828	7.957556368

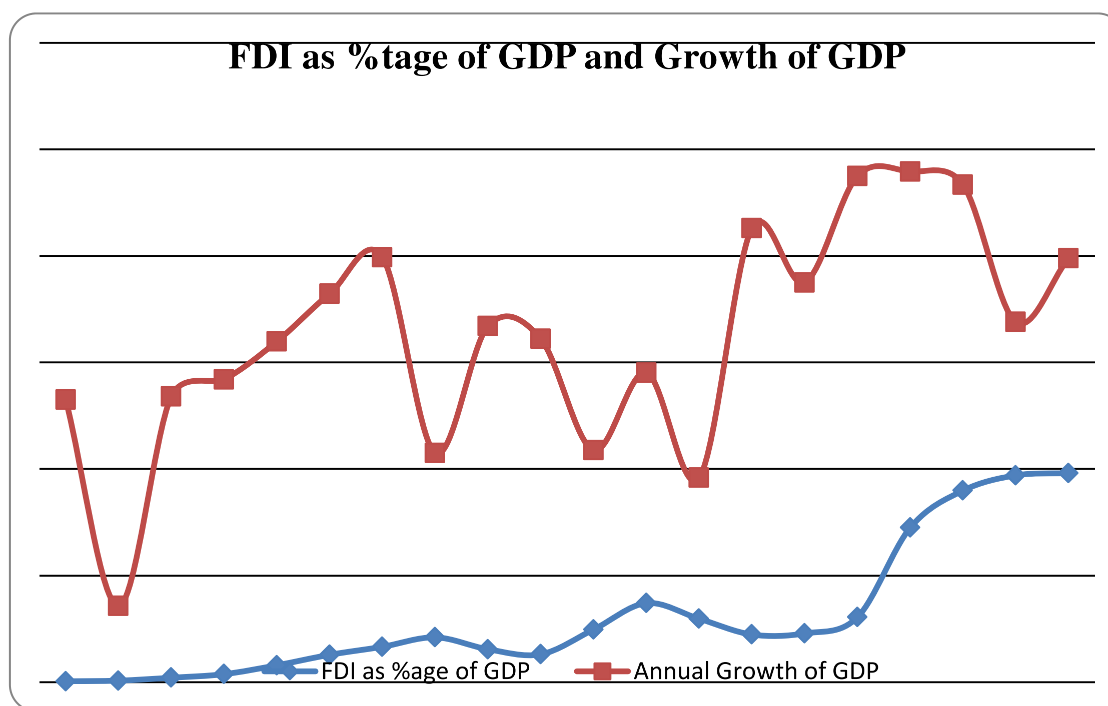
Sources : 1. Government of India, SIA Newsletter 2002 Annual Issue, Ministry of Commerce, New Delhi.

2. Government of India, SIA Newsletter, 2006, Annual Issue, Ministry of Commerce, New Delhi.

3. Government of India, Economic Survey 2007-08, Ministry of Finance, New Delhi

Note: The above sector-wise amount of FDI inflows includes FIPB/SIA, automatic route of RBI and acquisition of shares since 01.01.2000.

*Figures for 1991-95 represent the average figure for 1991-95.



The information about the inflow of FDI in India and GDP is present in above table 1. Both the figures are in terms of rupees in crores. Taking the figures of FDI and GDP when regression analysis is done we get the following equation

$$Y = 1491192.886 + 18.105 F$$

Where F is the inflow of Foreign Direct Investment and considered as independent variable.

Y is the amount of Gross Domestic Product and treated as dependent variable.

From the above regression equation three important inferences may be drawn:

(i) There is positive relationship between FDI and GDP.

(ii) The relationship is significantly moderate since the value of coefficient of regression is 0.668, and

(iii) The size of autonomous amount of GDP is very big or we can say that a good size of GDP is independent to the inflow of FDI.

The above inferences of regression analysis between FDI and GDP reveals that though there is significantly positive relationship, however because of the good size of autonomous GDP it seems difficult to say strongly that for a sustainable economic growth inflow of FDI is very important variable. But column 4 and 5 of table 1 show that the sustainability of GDP growth is really dependent on FDI. In column 4, the percentage share of FDI in GDP is represented from 1991 to 2005 and in column 5 the annual growth of GDP is represented for the same period. The figure clearly shows that from 1991-95 to 1996-97 as the percentage share of FDI in GDP has increased there has been an increment in the annual growth rate of GDP. But when the share of FDI in GDP declined in 1997-98 because of low confidence of international investors in Indian economy due to double digit inflation, political instability, nuclear test followed by economic sanctions etc., the growth rate of GDP also fell to 4.3 per cent. The same analysis is valid for the rest of the years. The figures of 2000-01 may put us in confusion that, though FDI contributed a good share in GDP but growth rate of GDP has fallen to 4.4 percent. This has happened so only because of the change in the base year for calculating GDP. On the basis of above analysis we may therefore say that to have a sustainable economic growth, there is needed to have sustained growth in FDI.

Economic Growth and Sectoral Importance:

After realizing the fact that FDI is an important factor which affects the sustainability of economic growth we shall discuss the importance of different sectors of the economy in affecting the sustainability of economic growth. In Table 2 inflow of FDI in various sectors is represented. With the help of table 2, regression equation has been prepared between sectoral distribution of GDP and FDI inflow into various sectors of the economy. Firstly we have taken GDP of primary sector as dependent and FDI in primary sector as independent. Secondly we have taken GDP of secondary sector as dependent and FDI inflow in secondary sector as independent. Thirdly FDI inflow in tertiary sector is used as independent variable and GDP of tertiary sector as dependent variable and in the last FDI inflow in these three sectors has been simultaneously taken as independent variables and GDP as dependent variable.

Table 2

Sectoral Distribution of GDP and Inflow of FDI (in crores)

Years	FDI in primary sector	FDI in secondary sector	FDI in tertiary sector	GDP		
				Primary sector	Secondary sector	Tertiary sector
1991-95*	214.67	1463.824	608.76	391232.5	273079	531435.5
1995-96	1005.16	49078.52	2372.56	417378	339845	639752
1996-97	935.98	10990.39	3437.68	455458	364725	688196
1997-98	630.57	8255.59	4078.44	448241	376071	748951
1998-99	482.91	14118.33	1908.15	475201	392170	811039
1999-00	511.84	16168.36	2288.88	488109	410647	887771
2000-01	370.51	12169.61	6624.24	487992	438372	937937

2001-02	1274.23	9765.23	5082.97	516584	450723	1005299
2002-03	465.86	4876.28	4221.60	486134	481758	1080394
2003-04	631.87	10183.12	396605	531302	519322	1172134
2004-05	1022.69	12602.20	5645.82	650454	744755	1576255
2005-06	592.26	9456.53	5014.65	680628	824256	1749332
2006-07	535.64	16551.66	24518.08	711768	928592	1925651
2007-08	2432.42	26979.88	25867.73	751077	1023866	2124015
2008-09	2668.55	59929.13	54497.29	751362	1071676	2339471
2009-10	2760.77	62800.08	53206.63	760974	1158000	2574769

Sources : 1. Computed and calculated from Government of India, SIA Newsletter 2002 Annual Issue, Ministry of Commerce, New Delhi.

2. Computed and calculated from Government of India, SIA Newsletter, 2006, Annual Issue, Ministry of Commerce, New Delhi.

3. Computed and calculated from Government of India, Economic Survey 2007-08, Ministry of Finance, New Delhi

*Figures for 1991-95 represent the average figure for 1991-95.

$Y_P = 447101.554 + 111.894\, F_P$ … (1)

$Y_S = 424941.481 + 9.216\, F_S$ … (2)

$Y_T = 1272985.344 + 0.713\, F_T$ … (3)

$Y = 1086532.492 + 554.121\, F_P + 3.006\, F_S + 1.037\, F_T$ … (4)

Y_P is the GDP contributed by primary sector

F_P is inflow of FDI in primary sector

Y_S is the GDP contributed by secondary sector

F_S is the inflow of FDI in secondary sector.

Y_T is the GDP contributed by tertiary sector

F_T is the inflow of FDI in tertiary sector.

Y is the GDP

From equation 1 it is clear that when we consider FDI inflow in primary sector as independent variable and output produced by primary sector as dependent variable, the relationship is positive and the value of coefficient of regression is so large that we may say that this relationship is highly significant or the output level in primary sector is very much affected by the FDI in primary sector. Equation 2 also presents positive relationship between inflow of FDI in secondary sector and output level produced. The value of regression coefficient is not as high as it is in case of primary sector. However we may treat it as a significant relationship. The same inference may be drawn from equation 3. The equation shows positive relationship between inflow of FDI in tertiary sector and level of output produced however the value of regression coefficient is comparatively too low however it enters in the range of moderate degree of correlation and therefore once again on the basis of this regression equation we can make prediction or it can be utilized for any policy making purpose.

When we simultaneously use all these three variables viz. FDI inflow in primary, secondary and tertiary sector, as independent variable and GDP as dependent variable we get equation 4. Equation 4 gives us a nearly same type of relationship between inflow of FDI in

different sectors and GDP but the values are different. In this, value of coefficient of regression is less than the values of equation 1 and 2 respectively. In contrast to this, FDI inflow in tertiary sector has shown positive relationship with GDP and the value of coefficient of regression is more than one showing very strong relationship between these two variables.

Conclusion:

Broadly on the basis of above analysis two important conclusions may be drawn. Firstly, the relationship between inflow of FDI and GDP is positive and it seems that FDI may play important role in determining the level of sustainability of economic growth. Secondly, the result of sectoral analysis of FDI inflow and GDP reveals that inflow of FDI in primary and secondary sector has positive relationship and it is very strong. Though, FDI inflow in tertiary sector has also shown positive relationship with GDP but its value is comparatively low. The results of bivariate and multivariate regression analysis lead to the same result. In this situation it is easy to say that in maintaining the sustainability of India's economic growth, FDI is playing very important role.

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