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Determinants of fdi inflows in india

Siraj-ul-Hassan Reshi

Teaching Assistant in Government Degree College

Guraiz Bandipora Jammu and Kashmir

India

ABSTRACT: Foreign direct investment (FDI) is often seen as an important catalyst for economic growth in the developing countries. It affects the economic growth by stimulating domestic investment, increasing human capital formation and by facilitating the technology transfer in the host countries. The main purpose of this paper is to investigate the impact of FDI determinants on FDI inflows in India from the period 1991-2009.The relationship between FDI inflow and its determinants have been analyzed by using the regression analysis and other variables that affect FDI inflows in India such as Developmental expenditure ratio, fiscal deficit ratio, exchange rate and other economic determinant such as GDP as the possible explanatory variables of foreign direct investment inflows in India. The expected results of the study are positive and statistically significant. Regarding the impact of various determinants on FDI in flows empirically, it has been found that all the variables except exchange rate have positively and significantly affecting FDI inflows i.e. increase in GDP, Developmental expenditure, foreign exchange reserves, increased the FDI inflows.

Keywords: FDI; Developmental expenditure; Exchange rate; Fiscal deficit; GDP; UNCTAD; DIPP.

INTRODUCTION Foreign Direct Investment is considered as an important agent in the process of accelerated economic growth in the developing countries. FDI is more attractive in compare to other forms of external finance since it is non debt creating, non volatile and the returns depends on the performances of the projects financed by the investors. With the introduction of new economic policy in 1991 and subsequent reforms process, India has witnessed a change in the flow and direction of FDI into the country. This is mainly due to the removal of restrictive and regulated practices. Despite serious debate over the concept of FDI particularly in respect of developing countries, it has been getting increasing importance in developing these countries in recent times. The basic reason behind the advocacy of FDI lies in the fact that these countries are lacking in

domestic saving and investment, which leads to lower economic growth, lower income, lower consumption and low level of employment. Thus in order to bridge the gap between investments need of a country and its domestic saving, FDI is considered as an important tool. Moreover, FDI can compensate local savings by supplying more effective management, marketing and technology to improve productivity. Besides, FDI helps in transfer and update technology, improve skills and managerial capabilities, provide competitive edge to country's exports, improve efficiency, provide quality services and goods and help in creating additional jobs.

India is suffering from low level of income and low level of capital accumulation. Despite this shortage of capital, there have been strong urge for industrialization and economic development programmes. Since the domestic resources to carry out such programmes have been entirely inadequate, India has to depend on foreign capital for economic development. Foreign capital helps to overcome the domestic savings constraint and provide access to the superior technology thereby promote efficiency and productivity.

Objectives

In this study, an attempt has been made to depict the post reform scenario of FDI inflows in India. Though India has a more liberal FDI policy than the other countries like China and Malaysia, these two East Asian countries have attracted many times more FDI than India. Therefore, the objective of this paper is

To examine the impact of Determinants on FDI inflows in India.

Hypothesis

In order to accomplish the aforesaid objectives, the present study proposes to test the following hypothesis:

H_0: That there is no impact of Determinants on FDI inflows in India

Research Methodology

Research methodology is a process of arriving to the solutions of problem through planned and systematic dealing with the collection of data, analysis and interpretation of facts. The present study relates to period 1991 to 92 to 2008 to 09. Secondary sources of data have been adopted for the study. The required figures have collected from Economy Surveys of the different years, RBI Bulletin, Direction of trade statistics year book, IMF, Economic survey of India, Annual report of

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ministry of commerce, different websites, Journal and News papers, national and international sources i.e. world investment report (WIR), World investment directory (WID), economic survey, reports of department of industrial policy promotion (DIPP) and reports of committee on compilation of FDI in India. Correlation, Regression and time series has been used to study the trends in FDI inflows and to examine the impact of FDI on Indian economy.

The important step in any research is the collection of the data and adequate methodology to achieve the objectives of the study with desirable results. So for as the nature of the present study namely "Determinants of FDI inflows in India". Is considered the secondary data is required.

To know the factors affecting FDI inflows, simple regression analysis has been applied.

FDI= bo+ b_1 (Dev.Exp/GDP) + b_2 (Exc.Rate) + b_3 (fis def/GDP). Due to the problem of multicollinearity, to avoid this problem we apply ratio transformation approach.

Where,

FDI = Foreign Direct Investment.

Dev.Exp = Developmental Expenditure.

Exc.Rate = Exchange Rate.

Gdp = Gross Domestic product.

Fis.def = Fiscal deficit

For the estimation of results, excel, SPSS- 16 packages have been used.

Encouragement of FDI is an integral part of the economic reforms process of most developing nations because it is seen as an instrument of technology transfer, managerial skills, augmentation of foreign exchange reserves and globalization of the economy. Economic growth, continuing liberalization of investment policies and trade regimes, and increased competition among firms are likely to drive the global expansion of MNC activity. Following slow growth and recession during 2002-2003, the world economy has entered a period of recovery. With the substantial increase registered in the rate of world economic growth since 2003, FDI flows should continue to rise, at least over the next couple of years. In 2005, FDI inflows into South, East and South-East Asia reached US $ 165 billion and the highest level ever for India at US$7 billion.

In developing countries, green field FDI is expected to increase as a proportion of total FDI, since investment channelled through privatization is declining and several countries (including India) are actively seeking this form of investment via regulatory reforms and incentives. On the policy front, Liberalization is continuing and has intensified in key developing economies such as China and India. For instance, India has been opening up important industries, such as Telecommunication, construction and real estate, to FDI.

The importance of FDI to the host economy in the form of various benefits warrants a careful examination of the determinants of FDI. National policies are the key for attracting FDI. Competing for FDI, policy makers have to be aware that various measures intended to induce FDI are necessary and would lead to incremental investment. An understanding of the determinants enables policy makers to formulate a foreign investment policy that is most conducive to attract FDI.

The sizes of local markets appear to be the most important case for FDI inflows. Similarly, tax incentives which were earlier considered a relatively minor consideration in most FDI decisions are now proven to have become an increasingly important factor in investment decisions.

One of the most important determinants of foreign direct investment is the size as well as the growth prospects of the economy of the country where the foreign direct investment is being made. It is normally assumed that if the country has a big market, it can grow quickly from an economic point of view and it is concluded that the investors would be able to make the most of their investments in that country. The population of a country plays an important role in attracting foreign direct investors to a country. In such cases the investors are lured by the prospects of a huge customer base. Now if the country has a high per capita income or if the citizens have reasonably good spending capabilities then it would offer the foreign direct investors with the scope of excellent performances.

The status of the human resources in a country is also instrumental in attracting direct investment from overseas. There are certain countries like China that have taken an active interest in increasing the quality of their workers. They have made it compulsory for every Chinese citizen to receive at least nine years of education. This has helped in enhancing the standards of the labourers in China. If a particular country has plenty of natural resources it always finds investors willing to put their money in them. A good example would be Saudi Arabia and other oil rich countries that have had overseas companies investing in them in order to tap the unlimited oil resources at their disposal. Inexpensive labour force is also an important determinant of attracting foreign direct investment. The BPO revolution, as well as the boom of the Information Technology companies in countries like India has been a proof of the fact that inexpensive labour force has played an important role in attracting overseas direct investment.

Infrastructural factors like the status of telecommunications and railways play an important role in having the foreign direct investors come into a particular country. It has been observed that if the infrastructural facilities are properly maintained then that country receives a substantial amount of foreign direct investment. If a country has extended its arms to overseas investors and is also able to get access to the international markets then it stands a better chance of getting higher amounts of foreign direct investment. It has been observed in the recent years that a couple of countries have altered their stance vis-a-vis overseas investment. They have reset their economic policies in order to suit the interests of the overseas investors. These companies have increased the transparency of the legal frameworks in place. This has been done so that the overseas companies can understand the implications of their investment in a particular country and take the appropriate decisions.

On the basis of the theory of John Dunning, the host country determinants can be classified into three categories, viz. Policy framework of foreign direct investment, Economic determinants and the facilitation factors.

Policy framework for foreign direct investment:

Trade policy regime

Liberal trade policy of a country may have two influences on the inflow of FDI. Firstly, open regime that facilitate intra- firm trade, allow greater freedom to TNC's and exporting friendly can make the host country a better place to do business for foreign enterprises, and the inflow may increase. On the other hand, trade restrictive policy with high tariffs, offer a locational advantage for tariff jumping import substituting FDI by TNCs. Industrialised countries in the European union, for example have

used protectionist measures such as Voluntary export restraints (VERs) quotas, rules of origin and various anti-dumping measures to encourage foreign based TNC's, especially Japanese TNCs to increase domestic content in their sales. The depth or the extent of localisation may be inversely related with the openness of the trade regime, this is because a restrictive trading regime may raise the costs of imported inputs and may encourage to localise a greater extent of production in the host country. Therefore, the openness of trade policy regime is expected to affect the foreign enterprises sales favourably and is inversely related with the depth of their manufacturing activity. However, export orientation of production may be positively related with the openness. This is more so for export oriented production that is geared to third country markets. This is because the latter are organised on the basis of overall efficiency unlike the efficiency based on the factor costs as in the case of home market oriented ventures. Hence, inputs and components may be sourced from different places depending upon the cost. Furthermore, many developing country governments have established export processing zones in an explicit effort to attract TNCs to set up export platform ventures by offering them a more liberal trading environment in an economy. These zones have been used by TNCs for labour intensive processing mainly for home markets.

(i) *Economic stability of the country*:- The parameters of economic stability such as the tax rates, interest rates and the state of external and budgetary balances, influences all types of investments, domestic or foreign. How the above variables can influence on the inflows of foreign direct investment is as follows:

(ii) *Tax rates:* - Fiscal policies determine general tax levels, including corporate and personal tax rates and thereby influence inward FDI. Other things being equal, a country with lower tax rates should stand a greater chance of attracting an FDI project than a country with higher rates. Personal tax rates may affect manager's choices as regards the location of regional headquarters and may affect the hiring of foreign personal. However in the case of India, since no significant changes were made in the tax rates on the dividend, royalty, technical fees and capital gains received by a foreign company over last twenty years. There have been changes in the personal income tax rates over the, last twenty years but these rates affect only the foreign personal working in India. It is difficult to ascertain how much influence it can have on the total inflows of foreign direct investment in India.

(iii) *Interest rates*: - Interest rates affect the cost of capital in a host country; they directly affect one of the determinants of the investment decision. The effects of interest rates on FDI are smaller than on domestic investment because TNC,s normally has a greater choice of sources of financing.

(iv) *External indebtness*: - The level of indebtness shows the burden of repayment and debt servicing on the economy and thus making the host country less attractive for foreign direct investment.

(v) *Foreign exchange reserves*: - The high level of foreign exchange reserves in terms of import cover reflects the strength of external payments position and helps to improve the confidence of foreign investors.

(vi) *Exchange rate:* - Exchange rate represents the investment climate. High exchange rate will erode the profitability of foreign investment, increase the cost of production and introduce the distortions in the host country's economy.

(vii) *Debt service ratio:* - This is represented by the total debt service as a percentage of total exports of the country. The higher the debt service ratio (DTSER/EX), the higher will be the burden of the country to service the debit out of the exports of the country. The foreign direct investment inflows are expected to increase with a small debt service ratio.

Table 1: Determinants of FDI inflows in India

(In Rs crore)

Year	FDI Rs(crores)	DEV.exp	Ex. Rate	GDPfc	Net. Fiscal Deficit
1991-92	409	59313	22.689	594168	36325
1992-93	1,094	65479	25.9206	681517	40173
1993-94	2,018	72464	31.4439	792150	60257
1994-95	4,312	82803	31.3742	925239	57703
1995-96	6,916	84427	32.4198	1083289	60243
1996-97	9,654	94197	35.428	1260710	66733
1997-98	13,548	110994	36.3195	1401934	88937
1998-99	12,343	137257	41.2665	1616082	113349
1999-00	10,311	129151	43.0552	1786525	104716
2000-01	12,645	139386	44.9401	1925017	118816
2001-02	19,361	159364	47.1857	2097726	140955
2002-03	14,932	184197	48.5993	2261415	145072

2003-04	12,117	195428	46.5818	2538171	123273
2004-05	17,138	214955	45.3165	2877706	125794
2005-06	24,613	229060	44.1	3275670	146435
2006-07	20,630	255718	45.3325	3790063	142573
2007-08	98,664	325670	41.2926	4303654	126912
2008-09	1,22,919	482508	43.4242	3635496	326515

(viii)

Source :- Hand book of Indian Statistics 2008-09.

Table 2 Ratio analysis of determinants

FDI	Dev. Exp/GDP	Ex. Rate	N.Fis. D/Gdp
409	0.099825	22.689	0.06
1094	0.096078	25.9206	0.06
2018	0.091478	31.4439	0.08
4312	0.089494	31.742	0.06
6916	0.077936	32.4198	0.06
9654	0.074717	35.428	0.05
13548	0.079172	36.3195	0.06
12343	0.084932	41.2665	0.07
10311	0.072292	43.0552	0.06
12645	0.072408	44.9401	0.06
19361	0.07597	47.1857	0.07
14932	0.081452	48.5993	0.06
12117	0.076996	46.5818	0.05
17138	0.074697	45.3165	0.04
24613	0.069928	44.1	0.04
20630	0.067471	45.3325	0.04
98664	0.075673	41.2926	0.03
122919	0.132721	43.4242	0.09

Source: Estimated on the basis of Table 4.2.

Table 3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.844[a]	.712	.650	19591.19995

a. Predictors: (Constant), ex.rat, Fis.def, dev.gdp

Table 4

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.326E10	3	4.419E9	11.513	.000[a]
	Residual	5.373E9	14	3.838E8		
	Total	1.863E10	17			

a. Predictors: (Constant), ex.rat, Fis.def, dev.gdp

b. Dependent Variable: fdi

Table 5

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	-201037.903	44252.916		-4.543	.000
	dev.gdp	2.538E6	471243.204	1.176	5.386	.000
	Fis.def/gdp	-1.580E6	483722.048	-.676	-3.266	.006
	ex.rat	2667.508	662.948	.624	4.024	.001

a. Dependent Variable: fdi

To know the impact of various variables on the foreign direct investment, simple regression analysis has been applied in the following ways:

$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3$

The values of a, b_1, b_2, and b_3 are given below in order to determine the impact of different variables on FDI inflows.

a (intercept) = - 46538.539

$b_1 = 2.53$

$b_2 = -1.58$

$b_3 = 2667.50$

FDI = - 46538.53 + 2.53 (Dev.Exp./ GDP) + -1.58 (Fisdef/ GDP) + 2667.50 (Exc.rate).

Here an attempt has been made to examine the determinants of FDI inflows India. The various determinants of FDI used in this study are developmental expenditure, exchange rate, GDP_{fc} and net fiscal deficit. Due to the problem of multicollinearity between variable ratio transformation approach has been applied in the study for the period of 1991-09 is shown table 2 and statistical analysis is presented in 5.Table clearly reveals that variable developmental expenditure has a correct sign and is statistically significant implying that developmental expenditure/GDP positively and significantly affected FDI. The variable fiscal deficit/GDP is statistically significant but carries a negative sign implying that decrease in fiscal deficit increases FDI inflows. While as exchange rate has a correct sign and is statistically significant implying that exchange rate has important role to play in FDI inflows. Before we use this equation, however, we need to look at the statistical significance of the model, and R^2 value. These are available in Table 3 which depicts that the R^2 value is 71 percent, from the top of the Table 3 indicates the percentage (or proposition) of the total variance in dependent variable explained by all independent variables in the regression equation. It also shows that there is a great role of independent variables in explaining the total impact of these variables on FDI.

Conclusion

The purpose of this paper is to trace the effects on FDI inflows of policy reforms taken by the Government of India. These policies range from trade policy to monetary and fiscal policy and to international investments agreements. The theoretical analysis concludes that policy related variables and economic determinants together explain the variations in the foreign direct investment inflows in a country.

The paper includes policy related variables Developmental expenditure ratio, fiscal deficit ratio, exchange rate and other economic determinant such as GDP as the possible explanatory variables of foreign direct investment inflows in India. The finding explains 71% of variation in FDI in India. Thus, we can conclude that, liberalised policies towards FDI are not sufficient in themselves to attract large inflows. The economic parameters have to be set in order as well. Since FDI is more significant with developmental expenditure/GDP and fiscal deficit/GDP is another important factor of FDI in India.

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