

# Determinants of Foreign Direct Investment in India

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**Abstract**—The present study attempts to empirically investigate the factors that determine FDI inflow into the country. Time series data over the period 1991 to 2014 has been used for the purpose. Gross Domestic Product (GDP), Exports, Wholesale Price Index (WPI), Foreign Exchange Reserves and Exchange Rate are considered as the determinant variables of Foreign Direct Investment (FDI) inflow into the country. The empirical results indicate that Exports and Foreign Exchange Reserves are the important factors in attracting FDI inflows.

**Keywords:** Foreign Direct Investment; Gross Domestic Product; Wholesale Price Index; Foreign Exchange Reserves; Exchange Rate and Exports

## 1. INTRODUCTION

Foreign Direct Investment (FDI) plays a major role in the process of economic development of a country. It provides financial resources for investment in a host country and thereby augments domestic saving efforts. It also plays an important role in accelerating the economic growth. FDI provides the much needed foreign exchange to help the bridge the balance of payment or trade deficit. FDI serves as an engine of economic growth, helps technological development, augments foreign exchange reserves, improves management and organizational competencies. The FDI inflows to India became significant under the new policy framework which dates back to the year 1991. India, one of the emerging BRICS (Brazil, Russia, India, China and South Africa) countries now plays a prominent role in the world economy as producers of goods and services. India with potential consumer market, strong domestic demand growth, lower labour cost, very large population (1.17 billion) and low rate of urbanization, has emerged as a major destination for FDI inflows in the recent years.

The flow of FDI to any nation is a complex phenomenon and is subject to various factors both in the home and host countries. With this background, the study intends to examine the variables determining FDI flows into India using time series data available in various secondary sources. This study contributes the empirical results for India along with the existing economic literature on this issue.

## 2. LITERATURE REVIEW

Many empirical studies have been undertaken to analyze the trends and determinants of Foreign Direct Investment (FDI) in India, few of them are as follows:

The key literature includes work done by Dunning (1993), which identified three important categories of variables that influence FDI flows in to home currencies. Those are : (1) Economic, (2) Social or Cultural and (3) The Political Environment. Dunning concluded that the major determinants causing FDI flows are market size and growth, gross domestic product, low production cost and political stability. Asiedu (2002) applying the Least Square Technique found Gross Domestic Product (GDP), Return on Investment (RoI) and Trade Openness are significant variables for FDI flows. Sahni (2012) concluded that GDP, Inflation and Trade Openness are significant factors in attracting FDI Inflows to India whereas Foreign Exchange Reserves are not important factors in explaining FDI Inflows to India. Mucchielli and Soubhaya (2000) investigated the determinants of the volume of trade of the French Multinational Corporations (MNCs). The major findings suggest that inward FDI has a positive influence on Foreign Trade (including exports and imports), and their positive influence is stronger for exports compared with imports.

## 3. OBJECTIVES

The objectives, study period, data source, variables and model specification have been discussed in this section.

The objectives are as follows:

1. To examine the trend of Foreign Direct Investment (FDI) inflows into India over the period 1991 to 2014.
2. To analyze the major determinants of FDI inflow in India considering Gross Domestic Product, Wholesale Price Index, Exchange Rate, Exports and Foreign Exchange Reserve as variables and identify those contributing significantly to FDI inflows into India.

#### 4. METHODOLOGY

The period taken for the study is from 1991 to 2014 using time series data. The model tries to identify the determinant variables of Foreign Direct Investment in the Indian economy based on the secondary sources. All the relevant data is obtained from Handbook of Statistics on Indian Economy (various issues), Reserve Bank of India Bulletin (various issues), Economic Survey (various issues), International Financial Statistics yearbook (various issues) etc.

##### Analytical Models

To address the research objectives, the following models are presented here.

##### A. Exponential Trend

A non – linear (exponential) trend has been proposed to estimate the trend of FDI inflow into India during the period 1991 to 2014.

$$FDI_t = Ae^{\alpha t} + \epsilon_t$$

Where,

$FDI_t$  = Foreign Direct Investment (in million Dollars)

A = Constant

e = Natural Logarithm

$\alpha$  = Coefficient

T = Time (Year)

$\epsilon_t$  = Error Term

##### B. Multiple Regression Analysis

Multiple Regression Analysis has been used to find out the determinants of FDI in India for the period 1991 to 2014. In the regression model the dependent variable is FDI in India and the independent variables considered in the model are Gross Domestic Product (GDP), Exports, Foreign Exchange Reserves, Exchange Rate and Wholesale Price Index. We have used data on Wholesale Price Index for measuring Inflation.

#### 5. MODEL BUILDING

The model can be written as:

$$DI = f(GDP, EXP, FOREX, ER, WPI) \quad (1)$$

Where,

FDI = Foreign Direct Investment (Rs. In Crores)

GDP = Gross Domestic Product ( at Factor Cost in Crores)

EXP = Exports

FOREX = Foreign Exchange Reserves

ER = Exchange Rate

WPI = Wholesale Price Index

#### 6. RESULTS AND DISCUSSION

Trend of FDI Inflows in to India during the period 1991 – 2014

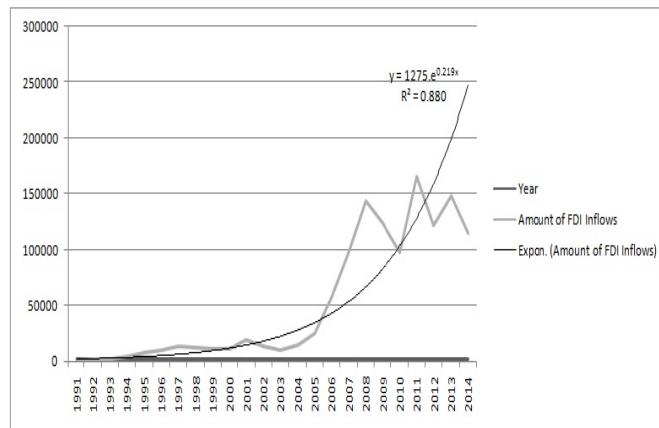


Chart -1

A non – linear trend has been fitted to the data to see the patterns of the FDI Inflow into the country over the years. The chart further suggests that there has been an exponential growth of FDI inflows in to India during the study period. The high  $R^2$  value (0.880) suggests the exponential trend appearing to be a very good fit to the data on FDI Inflows to India. The reason behind such a spurt in FDI Inflows during the period may be attributed to easing of Foreign Direct Investment regulation by the Indian Government both through the automatic and the government routes. The trend so observed is quite supportive of the fact that as and when the Indian government has taken initiatives to open up and liberalize the economy further; the foreign investors have reciprocated by infusing investments into the country.

Table 1: Estimates of FDI determinants

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.989 <sup>a</sup>	.938	.921	18073.072	.938	94.521	5	18	.000	2.070

a. Predictors: (Constant), WPI, Exports, ExRate, FOREX, GDPFC

b. Dependent Variable: FDI Inflows

The regression model specified in this study is found to be a very good fit to the dataset and is very evident from the adjusted R square value (0.938) of the model.

From the regression results, it is observed that these variables Exports and Foreign Exchange Reserves have a positive impact on FDI Inflows into India. Therefore, it indicates that the computed value < 0.05 (level of significance) , then the variable is considered as a factor which influences FDI Inflows to India. The variables Exports and Foreign Exchange Reserves are statistically significant.

**Table 2: Regression Results**

Model		Coefficients <sup>a</sup>							
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta				Lower Bound	Upper Bound
1	(Constant)	50304.821	27505.338			1.829	.084	-7483.010	108092.652
	GDPPC	.007	.018	.172	.493	.692		-.031	.045
	Exports	-.006	.003	-.196	-2.487	.023		-.012	.000
	FOREX	.098	.035	1.037	2.842	.011		.028	.171
	ExRate	-1220.533	810.883	-.198	-1.505	.150		-2924.094	483.028
	WPI	-129.783	911.492	-.087	-1.418	.173		-321.977	82.457

a. Dependent Variable: FDI Inflows

## 7. CONCLUSION

Foreign Direct Investment not only acts as an instrument of international capital flow but also serves as a important source of technological and productivity. Policy makers, academicians and researchers around the world struggle that FDI can have important positive effects on host countries development efforts. However, the inflows of FDI to the home countries are determined by various socio – economic and political factors in the recipient countries. Based on the choice variables, data and model specification; our study finds that the economic determinants such as Exports and Foreign Exchange Reserves (FOREX) are factors influencing FDI Inflows into India. Further, the macro – economic determinants having significant influence on FDI Inflows into the country are found to be Foreign Exchange Reserves and Exports.

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