



A Study of Fdi and Its Impact on Indian Economy

KEYWORDS

Economic growth, Investment, Trade, GDP, Exchange Rate

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ABSTRACT *In the last two decades, FDI showed the most remarkable growth rate in the global economic landscape. Such an unprecedented growth makes FDI an important and vital component of development strategy in both developed & developing nations.*

Economic growth variables indicates the nature of inflows during 2000-2015. To analyze important dimensions of FDI in India impacting economic growth of India. It is observed from the results of above analysis that Trade GDP, Reserves GDP, Exchange rate are the main factors affecting FDI inflows in India. The results of foreign Direct Investment Model reveal that Trade GDP, Reserves GDP, and FIN. Position variables exhibit a positive relationship (pull factors) with FDI while Exchange rate exhibits a negative relationship (restrictive forces) with FDI inflows. The study reveals that FDI is a significant factor influencing the level of economic growth in India.

1.0 INTRODUCTION

FDI can be defined as an investment by the multinational companies to the host countries that receive the investments over which they have control and earn private return. Therefore, government of host country regulates the policies of FDI to regulate the influence of home countries. In the last two decades, FDI showed remarkable growth rate in the economy.

From 2007-08 to 2009-10, the annual foreign inflows ranged from \$ 33-35 billion, while outbound FDI was \$ 14-19 billion. During the 2013-14 fiscal, India received foreign inflows worth \$ 26 billion, lower than the \$ 29 billion in the corresponding period of 2011-12. During 2012-13 India received foreign inflow \$ 21 billion. Whereas India received US\$ 44 billion FDI inflows during 2014-15.

1.2 OBJECTIVES OF THE STUDY

1. To study the trends and patterns of flow of FDI.
2. To assess the determinants of FDI inflows.

1.3 HYPOTHESES

The study has been taken up for the period 2000-2015 with the following hypotheses:

1. Flow of FDI shows a positive trend over the period 2000-2015.
2. FDI has a positive impact on economic growth of the country.

2.0 RESEARCH METHODOLOGY

2.1 DATA COLLECTION

This study is based on primary as well as secondary data. The required data have been collected from various sources i.e. World Investment Reports, various Bulletins of Reserve Bank of India, publications from Ministry of Commerce, Govt. of India, websites of World Bank, RBI and UNCTAD etc. It is a time series data and the relevant data have been collected for the period 2000-2015.

2.2 MODEL BUILDING

Further, to study the impact of foreign direct investment on economic growth, model is framed and fitted. The foreign direct investment model shows the factors in-

fluencing the foreign direct investment in India. The model equations are expressed below:

1. $FDI = f [TRADEGDP, RESGDP, R\&DGDP, FIN. Position, EXR.]$
2. $GDPG = f [FDIG]$
where,

FDI= Foreign Direct Investment GDP = Gross Domestic Product

FIN. Position = Financial Position

TRADEGDP= Total Trade as percentage of GDP.

RESGDP= Foreign Exchange Reserves as percentage of GDP.

R&DGDP= Research & development expenditure as percentage of GDP.

FIN. Position = Ratio of external debts to exports

EXR= Exchange rate

GDPG = level of Economic Growth

FDIG = Foreign Direct Investment Growth

Regression analysis (Simple & Multiple Regression) was carried out using relevant econometric techniques. Simple regression method was used to measure the impact of FDI flows on economic growth (proxied by GDP growth) in India. Further, multiple regression analysis was used to identify the major variables which have impact on foreign direct investment. Relevant econometric tests such as coefficient of determination R^2 , Standard error of coefficient and F- ratio were carried out in order to assess the relative significance, desirability and reliability of model estimation parameters.

3.0 Selection of Variables:

The analysis of above theoretical rationale and existing literature also provides a base in choosing the right combination of explanatory variables that explains the variations in the flows of FDI in the country. In order to have the best combination of explanatory variables for the determinants of FDI inflows into India, different alternatives combination of variables were identified and then estimated. The study applies the simple and multiple regression method to find out the explanatory variables of the FDI inflows in the country. The regression analysis has been carried out in

two steps. In the first step, all variables are taken into consideration in the estimable model. In the second stage, the insignificant variables are dropped to avoid the problem of multi-colinearity and thus the variables are selected. However, after thorough analysis of the different combination of the explanatory variables, the present study includes the following macroeconomic indicators: total trade (TRADEGDP), research and development expenditure (R&DGP), financial position (FIN. Position), exchange rate (EXR), foreign exchange reserves (RESERVESGDP), and foreign direct investment (FDI), foreign direct investment growth rate (FDIG) and level of economic growth (GDPG). These macroeconomic indicators are considered as the pull factors of FDI inflows. In other words, it is said that FDI inflows in India at aggregate level can be considered as the function of these said macroeconomic indicators. Thus, these macroeconomic indicators can be put in the following specification:

MODEL

$$FDI_t = a + b_1TRADEGDP_t + b_2RESGDP_t + b_3R&DGP_t + b_4FIN. Position_t + b_5EXR_t \quad t = \text{time frame}$$

e... (3.1)

4.0 ROLE OF FDI ON ECONOMIC GROWTH

In order to assess the role of FDI on economic growth, model is used. The estimation results of the two models are supported and further analysed by using the relevant econometric techniques viz. Coefficient of determination, standard error, f- ratio, t- statistics etc. In the foreign direct investment model (Model-1, Table-4.2), the main determinants of FDI inflows to India are assessed. The study identified the following macroeconomic variables: TradeGDP, R&DGP, FIN.Position, EXR, and ReservesGDP as the main determinants of FDI inflows into India. And the relation of these variables with FDI is specified and analysed in equation 3.1. In order to study the role of FDI on Indian economy it is imperative to assess the trend pattern of all the variables used in the determinant analysis. It is observed that FDI inflows into India shows a steady trend in early nineties but it shows a sharp increase after 2005, though it had fluctuated in early 2000. However, GDP shows an increasing trend since 2000-01 to 2014-15. Another variable i.e. tradeGDP maintained an increasing trend pattern up to 2007-08, after that it has maintained a steady pattern up to 2014-15. Reserves GDP, another explanatory variable shows an increasing trend pattern up to 2008-09 but gained momentum after 2010-11 and shows a robust increasing trend in FDI inflows.

Table 4.1
SHARE OF INDIA IN WORLD FDI

Years/ Countries	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
World FDI	735	716.1	632.6	648.1	958.7	1411	1833.3	1771	1197.8	1409	1700	1330	1452	1228
India's share in World FDI	0.5	0.5	0.7	0.8	0.8	1.4	1.3	3.1	3.5	3.5	3.6	2.3	2.4	3.4

Amount in us \$ billion

Source: compiled from the various issues of WIR, UNCTAD, World Bank

Although, India's share in world FDI inflows has increased from 0.5% to 3.4% (Table –4.1) from 2001 to 2014. Though, this is not an attractive share when it is compared with China and other major emerging global FDI inflows.

In addition to these trend patterns of the variables the study also used the multiple regression analysis to further explain the variations in FDI inflows into India due to the variations caused by these explanatory variables.

FOREIGN DIRECT INVESTMENT MODEL

$$FDI = f [TRADEGDP, R&DGP, EXR, RESGDP, FIN. Position]$$

Table-4.2

Variable	Coefficient	Standard Error	t- Statistic
Constant	26.25	.126	207*
TradeGDP	11.79	7.9	1.5*
ReservesGDP	1.44	3.8	.41
Exchange rate	7.06	9.9	72**
Financial health	15.2	35	.45
R&DGP	-582.14	704	.83**

$$R^2 = 0.623 \quad \text{Adjusted } R^2 = 0.466$$

F-ratio = 7.74

Note: * = Significant at 0.25, 0.10 levels; ** = Significant at 0.05 level.

In Foreign Direct Investment Model (Table 4.1), it is found that all variables are statistically significant. Further the results of Foreign Direct Investment Model shows that TradeGDP, R&DGP, Financial Position (FIN.Position), exchange rate (EXR), and ReservesGDP (RESGDP) are the important macroeconomic determinants of FDI inflows in India. The regression results of (Table 4.1) shows that TradeGDP, ReservesGDP, Financial Position, exchange rate are the pull factors for FDI inflows in the country whereas R&DGP acts as the deterrent force in attracting FDI flows in the country. As the regression results reveal that R&DGP exchange rate does not portray their respective predicted signs. However, R&DGP shows the unexpected negative sign instead of positive sign and exchange rate shows positive sign instead of expected negative sign. In other words, all variables included in the foreign direct investment model shows their predicted signs (Table – 4.3) except the two variables (i.e. Exchange rate & R&DGP) which deviate from their respective predicted signs. The reason for this deviation is due to the appreciation of Indian Rupee in the international market and low expenditure on R&D activities in the activities in the country.

Table – 4.3
PREDICTED SIGNS OF VARIABLES

Variables	Predicted Sign	Unexpected Sign
TradeGDP	+	
ReservesGDP	+	
Exchange Rate	-	+
Financial Position	+	
R&DGP	+	-

It is observed from the results that the elasticity coefficient between FDI & TradeGDP is

11.79 which implies that one percent increase in Trade

GDP causes 11.79 percentage increase in FDI inflows in India. The TradeGDP shows that the predicted positive sign. Hence, Trade GDP positively influences the flow of FDI into India. Further, it is seen from the analysis that another important promotive factor of FDI inflows to the country is ReservesGDP. The positive sign of ReservesGDP is in accordance with the predicted sign. The elasticity coefficient between ReserveGDP and FDI inflows is 1.44. It implies that one percent increase in ReserveGDP causes 1.44 percentage increases in FDI inflows into India. The other factor which shows the predicted positive sign is FIN.Position (financial position). The elasticity coefficient between financial position and FDI is 15.2

% which shows that one percent increase in financial position causes 15.2 percent of FDI inflows to the country. India prefers FDI inflows in export led strategy in boosting its exports.

Further, the analysis shows that the trend pattern of external debt to exports (i.e. FIN. Position) has been decreasing continuously since 2000-01, indicating towards a strong economy and it helps in attracting foreign investors to the country.

One remarkable fact observed from the regression results reveal that R&DGDP shows a negative relationship with FDI inflows into India.

The results of foreign Direct Investment Model also facilitates in adjudging the relative importance of the determinants of FDI inflows from the absolute value of their elasticity coefficients. In this regard it is observed from the regression results of Table-4.2 that among the positive determinants, FDI inflows into India are more elastic to FIN. Position than to TradeGDP and ReservesGDP. It is also observable that FDI inflows are more sensitive to R&DGDP than to exchange rate as the elasticity coefficient between FDI and exchange rate

The coefficient of determination, i.e. the value of R^2 explains 95.6% level of economic growth by foreign direct investment in India. The F-statistics value also explains the significant relationship between the level of economic growth and FDI inflows in India.

Thus, the findings of the economic growth model show that FDI is a vital and significant factor influencing the level of growth in India.

5.0 CONCLUSION

Thus, it is found that FDI as a strategic component of investment is needed by India for its sustained economic growth and development. FDI is necessary for new job cre-

ation, expansion of existing manufacturing industries and development of the new one. Indeed, it is also needed in the healthcare, education, R&D, infrastructure, retailing and in long- term financial projects.

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