

Impact of Foreign Direct Investment on the GDP of India

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ABSTRACT

The aim of present paper is to find out trend and growth in the FDI equity inflows & GDP of India and then to see the impact of FDI on the GDP of the State. For this purpose, the secondary data have been collected from the RBI bulletin 2017 and web site-tradingeconomies.com for 17 years from 2000-01 to 2016-17. The secondary data have been analyzed with the help of some suitable statistical tools like- mean score, standard deviation (SD), CAGR, trend analysis and regression analysis. The paper observed an oscillating trend in FDI equity inflows and increasing trend in GDP of India with a CAGR 21.44 per cent and 12.69 per cent respectively. The paper also makes sure that FDI equity inflows ($r=0.949$) have a significant impact on the GDP of the State of India and there is high degree of correlation between FDI and GDP.

1. Introduction

The FDI play a vital role in the development of any economy like India. The FDI equity inflows makes easy of the movement of capital from the surplus area to deficient area. The growth of FDI builds up the development in underdeveloped countries by way of increasing employment, improving infrastructure, and exchanging technologies. The project of metro in Delhi is also the fruit of the tree of foreign investment by Japan. Again now, the Japan is ready to finance India @ zero per cent interest for the project of Bullet train in Gujarat. The call of PM Narendra Modi "make in India" is clearly focus FDI and other ways of foreign investment because he knows very well that how much is foreign investment important for the economy. Hence, all the underdeveloped countries wish that some big investors of the world invest in their arena.

2. Review of Literature

Abbas Qaiser et al. (2011) examined the impact of foreign direct investment on(GDP) of SAARC countries and made a relationship tested by applying multiple regression analysis for the period from year 2001 to 2010. He took GDP as dependent viable while FDI and inflation are considered as independent variables. He concluded that there is a positive and significant relationship between GDP and FDI while an insignificant relationship between GDP and inflation.

Yameen, Mohmad& Ahmad, Izhar (2015) studied the impact of FDI on the GDP of India and trends and growth in the FDI as well as in the GDI of India since LPG reforms. He found an increasing trend in FDI as well as in the GDP and concluded that FDI plays a vital role not only as a source of capital but also for increasing competitiveness of the domestic economy through strengthening infrastructure, transfer of technology, enhancing productivity and creating new employment opportunities.

Kumar,Vinay (2012) investigated the impact of FDI on economic growth and found that there is positive correlation

between FDI and GDP and mentioned that FDI played a significance role in the growth of the economy.

R,Anitha (2012) examined in her research study that foreign direct investment plays a vital role in the long-term development of a country. In addition, she used the Autoregressive Integrated Moving Average (ARIMA) forecasting technique to know the future inflows of foreign direct investment.

Chandrachud, S. et al. (2013) observed the economic development of FDI in India. They focused that how our economy will decide the nature of FDI and recommended various reforms in order to attract more foreign direct investment in the country.

3. Objectives

1. To find out trends and growth in the FDI equity inflows.
2. To find out trends and growth in the GDI of India.
3. To see the impact of FDI equity inflows on the GDP of India.

4. Research Methodology

The current study is historical and analytical in nature because data have been collected regarding past events along with mathematical operations are conducted. The secondary data for the study have been collected for 17 years (2014-15 to 2016-2017) from RBI's bulletin 2017, rbi.com and tradingeconomies.com. The trend and growth of FDI equity inflows and GDP of India has been analyzed with the help of various statistical tools- trend analysis, mean score, standard deviation, CAGR, and a regression (LST) analysis has been conducted with the help of SPSS software.

5. Analysis and Interpretation

Table 1
Year wise FDI Equity Inflows & the GDP of India (INR Crore)

year	FDI Equity Inflows (independent variable)	GDP at current price (dependent variable)
2000-01	10733 (100)	2000743 (100)
2001-02	18654 (173.80)	2175260 (108.72)
2002-03	12871 (119.92)	2343864 (117.15)
2003-04	10064 (93.77)	2625819 (131.24)
2004-05	14653 (136.52)	291464 (14.57)
2005-06	24584 (229.05)	3390503 (169.46)
2006-07	56390 (525.39)	3953276 (197.59)
2007-08	98642 (919.05)	4582086 (229.02)
2008-09	142829 (1330.75)	5303567 (265.08)
2009-10	123120 (1147.12)	6108903 (305.33)
2010-11	97320 (906.74)	7248860 (362.31)
2011-12	165146 (1538.68)	8391691 (419.43)
2012-13	121907 (1135.81)	9388876 (469.27)
2013-14	147518 (1374.43)	10472807 (523.45)
2014-15 [#]	189107 (1761.92)	12433749 (621.46)
2015-16 [#]	262322 (2444.07)	13675331 (683.51)
2016-17 [#]	291696 (2717.75)	15251028 (762.27)
Total	1787556	109637827
Mean Score	105150.35	6449283.94
SD	88418.01	4490911.20
CAGR	21.44 %	12.69 %

Source: RBI Bulletin 2017 & tradingeconomies.com

Note: figures in brackets are showing trend & # shows figures are provisional.

The analytical table 1 reveals trend and growth in FDI equity inflows and GDP of the State of India through various statistical techniques over the period under study. Figures of FDI equity inflows are showing an oscillating trend over the period under study with a CAGR 21.44 per cent and SD 88418.01. The mean score of FDI equity inflows was INR 105150.35 Crore which was more than the figures of FDI during first 8 years & 2010-11 otherwise mean score was less

than these figures over the period under study. The GDP of India at current price showed an increasing trend with a CAGR 12.96 per cent and a SD 4490911.20 during the period under study. The mean score of GDP was INR 6449283.94 Crore which was more than the figures of GDP during first 10 years and after that it was less than these figures over the period under consideration.

Figure 1
Year wise FDI Equity Inflows & GDP of India (INR Cr.)

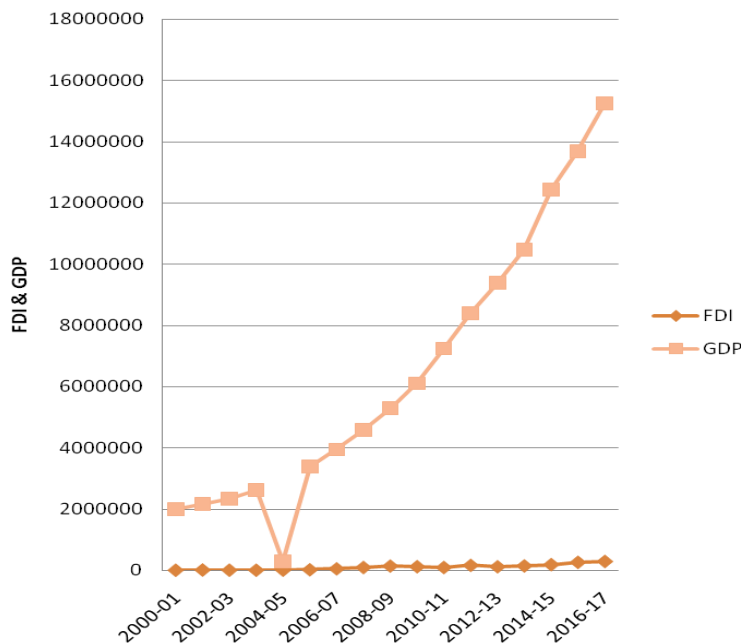


Figure 1 also shows the same trend and growth patterns as were calculate mathematically under table1. Hence, the figure 1 makes more strengthen the claims of the analysis made on the basis of table 1.

Table2

		GDP	FDI
Pearson Correlation	GDP	1.000	.949
	FDI	.949	1.000
Sig. (1-tailed)	GDP	.	.000
	FDI	.000	.
N	GDP	17	17
	FDI	17	17

Source: Researcher's own calculations.

The analytical table 2 predicted the relationship between the dependent variable (GDP) and independent variable (FDI equity inflows). The results of correlation depict that the

independent variable affect GDP by high degree of correlation (r=0.949). It is evident from the analysis that the independent variable has a significant impact on GDP of the State of India.

Table3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
dimension0 1	.949 ^a	.901	.894	1.45955E6	1.464

a. Predictors: (Constant), FDI

b. Dependent Variable: GDP

Source: Researcher's own calculations.

Table 4 ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.907E14	1	2.907E14	136.478	.000 ^a
	Residual	3.195E13	15	2.130E12		
	Total	3.227E14	16			

a. Predictors: (Constant), FDI

b. Dependent Variable: GDP

Source: Researcher's own calculations.

In the analytical table 3, the alphabet 'a' stands for FDI equity inflows (independent) and 'b' for GDP (dependent variable). The value of Durbin-Watson test proves validity of regression analysis if the value of test is less than 2 and in the present study this value is 1.464. Hence, stepwise regression is valid for present data. The value of R-square predicts the proportion by which change in dependent variable is explained by independent variable. Hence, the model summary from the

analytical table 3 predicted that 0.901 times variation in the GDP is explained by FDI equity inflows.

The analytical table 4 makes sure the test of acceptability of the model from a statistical prospective. The regression row exposes the variation that has been accounted for by the model. The rest of rows display information about the variation that has been defined by the model. From the analysis it is clear that F-Statistics is significant since, P-value (0.000) is less than 0.5.

Table5

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1379830.964	560012.966		2.464	.026
	FDI	48.211	4.127	.949	11.682	.000

a. Dependent Variable: GDP

Source: Researcher's own calculations.

The analytical table 5 deals with regression coefficients which forms an equation of regression line. The 'B' value of the table expose regression coefficient of independent variable. The following regression equation can be made as a result of analysis:-

$$GDP = 48.211 \text{ FDI equity inflows} + 1379830.964$$

6. Findings and Suggestions

Throughout the analysis an increasing trend was observed in case of dependent variable (GDP) and an oscillating trend in

case of independent variable (FDI equity inflows). A significant impact of FDI inflows ($r=0.949$) on GDP of India was registered over the period under study. Hence, it is generalized that if FDI equity inflows will increase there will be increment in GDP assuming other things being equal.

After considering the results of the study, it is suggested that all the country should need to simplify the FDI regulations so that GDP could grow very fast. In India FDI growth is the result of BJP government during last few years and likewise in future also government should focus on healthy FDI policy so that maximum opportunity could be obtained to the develop the nation through FDI.

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