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Economics

FOERIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN INDIA: AN ECONOMETRICS ANALYSIS

KEYWORDS:

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ABSTRACT

Indian Economy opened up to the global world in 1991 by following Foreign Investors to make investment in India. By directly investing capital in the listed or unlisted companies in a country is called Foreign Direct Investment. many world economies including India have obtained financial benefit from FDI inflows for their economic growth, therefore average time required for FDI to make its contribution to economic growth is an important aspect which needs to be studied so that in this paper studies the long run relationship between the GDP and FDI in India by using the linear trend analysis and chow test. For the data and methodology, the time series analysis is applied on the time period from 2000 to 2016. Finally, the study finds out favourable effects of FDI in order to achieve higher economic growth in India.

Introduction

Foreign Direct Investment plays a very important role in the development of the nation. Sometimes domestically available capital is inadequate for the purpose of overall development of the country. Foreign capital is seen as a way of filling in gaps between domestic savings and investment. India can attract much larger foreign. The economic development witnessed during the past two decades in India rests to a great extent on Foreign Direct Investment (FDI). FDI has been a vital non-debt financial force behind the economic upsurge in India. Special investment vantages like cheap cost wages and tax exemptions on the amount being invested attract foreign companies to invest in India. FDI in India is done across a wide range of industries and its relentless influx reflects the tremendous scope, faith and trust that foreign investors have in the Indian economy.

Foreign Direct Investment

Foreign Direct Investment (FDI) is fund flow between the countries in the form of inflow or outflow by which one can able to gain some benefit from their investment whereas another can exploit the opportunity to enhance the productivity and find out better position through performance. Any decision on investing is thus a combination of an assessment of internal resources, competitiveness, and market analysis and Market expectations.

To ensure an uninterrupted inflow of FDI in India, the Indian government has created conducive trade atmosphere and effective business policy measures in place. This strategy reflected in the steps taken by the government, such as easing out the restrictions levied on sectors like stock exchanges, power exchanges, defence, telecommunications and PSU oil refineries to name a few According to Paul Mittal FDI is generally defined as "A form of long term international capital movement, made for the purpose of productive activity and accompanied by the intention of managerial control or participation in the management of foreign firm."

Foreign investments mean both foreign portfolio investments and foreign direct investments. FDI bring better technology and management, access to marketing networks and offers competition, the latter helping Indian companies improve, quite apart from being good for consumers.

Objectives of the study

1. To identify FDI inflows in India.

2. To analyze the relationship between FDI and Economic Growth.

3. To analyze the future trends of FDI in India.

Data source and methodology

This study aims to know about FDI and its impact on economic growth in India. The nature of the study was both descriptive and analytical. This study carried out in the period between 2000-01 to2015-16. The secondary data were collected from the various issues of world investment reports published by United Nations Conformance on Trade and Development (UNCTAD), fact sheet on foreign direct investment published by reserve bank of India, Department of Industries policy & promotion Govt. of India. In order to find out above mentioned objectives the statistical tools like; Correlation, Trend Analysis and chow Test.

Foreign Direct Investment and Gross Domestic Product in India

Since the initially the foreign direct investment in India in 1991, the role of foreign investment in the growth process has been acknowledge by the policy makers. Greater emphases on FDI inflows have been laid in recent years by allowing 100 percent FDI in various economic activities. In the background the present analysis attempts to understand the inflows of FDI in India and GDP growth during period 2000-01 to 2015-16.

Table 1 -Foreign Direct Investment and Gross Domestic Product in India

(InCrores.)				
Year	FDI Inflow	percentage increase	GDP at current price	percentage increase
2000-2001	12645		2000743	
2001-2002	19361	53.11	2175260	8.72
2002-2003	14932	-22.88	2343864	7.75
2003-2004	12117	-18.85	2625819	12.03
2004-2005	17138	41.44	2971464	13.16
2005-2006	24613	43.62	3390503	14.10
2006-2007	70630	186.96	3953276	16.60

2007-2008	98664	39.69	4582086	15.91
2008-2009	122919	24.58	5303567	15.75
2009-2010	123378	0.37	6108903	15.18
2010-2011	97320	-21.12	7248860	18.66
2011-2012	165146	69.69	8391691	15.77
2012-2013	121907	-26.18	9388876	11.88
2013-2014	147518	21.01	10472807	11.54
2014-2015	189107	28.19	12541208	19.75
2015-2016	262322	38.72	13575000	8.24

Source: Fact Sheet on Foreign Direct Investment",

Department of Industrial Policy and Promotion.

From the above table, it is clear that GDP at current price has continuously increased over the years, however the rate of increase varies across the year in 2000-01 the GDP at current price in India was 2000743 crores. At the end of the study period (2015-16) the GDP at current price was 13575000 crores. On the other hand FDI shows the tendency of ups and downs at first FDI in India was 12645 crores in the year of 2000-01. Next, FDI rose speedy in 2006-07(189.96), but then starts falling for the coming years like 2007-08 to 2015-16, the FDI is minimum in the year 2002-03(-22.88). In 2006-07, GDP is also increased by more amount earlier (16.6) it may be due to appreciable rise in FDI. Once again the FDI flourished in 2012-13(69.69) after that it declined till 2015-16(38.72). Indeed the increment in GDP remains continued probably due to the influence of the FDI current and past years. However, in comparison of study period both GDP and FDI have increased but there path of increment differs.

Chow - test analysis on FDI Inflows in India and GDP

The study uses GDP as the macroeconomic variable of the Indian economy is the one of the pull factor of FDI inflows into India at nation level. There is direct relationship between the market size and FDI inflows. One of the popular methods of testing for difference between two (or more) regression is the chow test. A chow test is a particular test for structure change; an econometric test to determine whether the coefficients in a regression model are the same in separate sub samples. In a reference paper of G.C. Chow (1960), "the standard F test for the equality of two sets of coefficients in linear regression models" is called a Chow test. The test is based on the following assumptions,

(a) $u1i \sim N(0,\sigma^2)$
$u2i \sim N(0, \sigma^2)$
(b) u1i and u2i are distributed independently .

Table 2-Chow - test analysis on FDI Inflows in India and GDP

Period I	2000-01 to 2007-08 (n_1=8)
	Y= -63500.65+.0324X1
	(19205.91) (.0062)
	R^2 =0.82
Period II	2008-09 to 2015-16 (n2=8)
	Y = 20157.51 + .00146X1
	(39215.84) (.0041)
	R^2 = 0.67
period I and Period II Combined	2000-01 to 2015-16 (n=n_1+n2, n=16)
	Y= -18705.66 + 0.018X1
	(12701.5) (.0018)
	R^2 = 0.88

Hypothesis

Ho: There is no significant relationship between FDI and GDP
Ha: There is significant relationship between FDI and GDP

The Tabular Value of F at the 95 percent level of significance with V1=2 and V2 = 12 Degrees of freedom is 3.89 and calculated value is more than the table value. Hence we reject null hypothesis. There is some relationship between the FDI Inflows in India and GDP in India. Calculated value = 117.99 and Table value = 3.89

Karl Pearson Correlation co-efficient

Karl Pearson correlation co-efficient for total FDI and GDP in India for the year 2000-01 to 2015-16were shown in the following table 3.

Table 3- Karl Pearson Correlation co-efficient

variable		FDI Inflows	GDP
FDI Inflows	Pearson Correlation	1	.911**
	Sig. (2-tailed)		0
	N	1499717	1499717
GDP	Pearson Correlation	.911**	1
	Sig. (2-tailed)	0	
	N	1499717	1499717

Karl Pearson correlation co-efficient for total FDI and GDP in India for the period 2000-01 to 2015-16 for the data given in the above table. This analysis is showing that these two variables have a strong positive correlation between them. So it is quite evident from the data that increased in FDI in India because of the positive effects on the economic development on the country.

Future prediction on Foreign Direct Investment in India

Along with the Trend forecast value of the FDI inflows in India has been calculated for the next 5 years that is from 2016-17 to 2020-21 which are shown in the table 4 were as follows,

Table 4- Future prediction on Foreign Direct Investment in India

Year	Trend Projection
2016-2017	218488.55
2017-2018	233165.75
2018-2019	247842.96
2019-2020	255181.56
2020-2021	262520.16

The trend projections shows that the foreign direct investment inflow has been always an increasing from 2016-17 to 2020-21. The analysis of trend value showing the inflows of FDI in 2016-17 as 218488.55 crores, 2017-18 as 233165.75 crores, 2018-19 as 247842.96 crores, 2019-20 as 255181.56 crores and 2020-21 as 262520.16 crores which earlier shows that FDI is going to grow in near future thereby bring prosperity for the economic growth.

Conclusion

Foreign Direct Investment has helped the Indian economy grow and the government continues to encourage more investment of this sort. Attracting foreign direct investment has become an integral part of the economic development strategies for India. FDI has been a booming factor that has bolstered the economic life of

India. Over the years FDI flow is increasing. The FDI trend in Indian Economy is moving in upward direction that too with the good speed. Indian Economy is one of the promising investment destinations for most of the developed and developing nations. Main reason for the FDI inflows has been related to the investment climate, poor infrastructure, foreign exchange rate fluctuation and business facilitation, which are comparatively at lower level. It is concluded that the trend of FDI in India showed a positive picture. Foreign investors are enjoying the benefits of liberalized FDI policy by investing into equity shares of Indian corporate on automatic route. It is expected that in the upcoming year FDI will grow more than the last years.

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