

IMPACT OF FDI ON INDIAN ECONOMY AND INDUSTRY DURING PRE AND POST-REFORM PERIOD

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[FDI is generally assumed to be more productive than domestic investment, because FDI encourages the incorporation of new modern technologies in the production function of the host economy. Hence it is believed that, FDI will enable the host economy to produce exportable goods, thus earn foreign exchange to them and also provide employment opportunities which will increase the level of income and decrease poverty. One of the biggest advantages of FDI enjoyed by India has been economic growth. A remarkable inflow of FDI in various industrial units in India has boosted the economic life of country. The main objective of the paper is to analyse the impact of FDI on Indian economy, as in the case of some industrial variables as well as some macro variables. The progress of these macro and industrial variables have also been studied by dividing them in the categories of pre and post-reforms period, which has also assisted in assessing the effectiveness of the reforms initiated by the government in the Indian economy. The research paper is theoretical as well as empirical in nature. It is based on the secondary data which are mainly available from various reports of government and semi-government organizations in this field, research publications and also relevant websites on the internet. The data collected from such various sources have been classified, tabulated and analysed by using some conventional statistical tools and concluding observations made.]

Keywords: Domestic Investment, Foreign Direct Investment, Indian Economy, Pre and Post Reform Period.]

Introduction:

Inviting foreign direct investment has become a key element of development strategies for many developing nation. The FDI is essential for leap-frogging economic growth through its upliftment of domestic capital, productivity and employment.

The FDI involves the transfer of capital, technology and other skills (managerial, marketing, accounting finance and so on)

as has been observed so far. This process gives rise to costs and benefits for the developing nations involved: the investing nation (the source of investment) and the host (the recipient or the destination of investment). It is not clear, however, what costs are borne out and what benefits are enjoyed by the two nations, at least not quantitatively. There is even a fundamental disagreement on the

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composition of costs and benefits of FDI from the perspectives of the two nations. This disagreement is indicated by the big gap between those holding pro-globalization as well as free market views, and those with anti-globalization, and anti-market views. Moreover, the division of welfare gains between the host nation and the investing nation does not only depend on the given market prices, but also on the bargaining power of the two nations over the terms of the agreement governing a particular FDI project. Nevertheless, one nation's losses are not necessarily the other nation's gains.

FDI is generally assumed to be more productive than domestic investment, because FDI encourages the incorporation of new modern technologies in the production function of the host economy. Hence it is believed that, FDI will enable the host economy to produce exportable goods, thus earn foreign exchange to them and also provide employment opportunities which will increase the level of income and decrease poverty. One of the biggest advantages of FDI enjoyed by India has been economic growth. A remarkable inflow of FDI in various industrial units in India has boosted the economic life of country.

Objective & Research Methodology of the Study

The main objective of the paper is to analyse the impact of FDI on Indian economy with the help of some selected variables in the industrial sector as well as some macro variables. In this paper,

we have also examined empirically the impact of FDI on industrial output, employment and a comparison of pre and post-reforms period of the above said variables of this sector.

The research paper is theoretical as well as empirical in nature. It is based on the secondary data which are mainly available from various reports of government and semi-government organizations in this field, research publications and the renowned books in this particular topic and also relevant websites on the Internet. The data collected from such various sources have been classified, tabulated and analysed by using some conventional statistical tools. The present study deals with the empirical analysis on the impact of FDI on Indian economy. The choice of the periods of study is dictated purely by the availability of a complete data series with respect to all variables. For the sake of maintaining consistency, data on all variables have been converted into a single unit (Rs.Crore). A comparative picture of the dynamic behavior for these macro variables has been highlighted with the help of their trends and growth rates.

FDI and Growth of Indian Economy & Industry

To analyze the contribution of FDI to Indian Economy, the present study has considered domestic investment (DI), foreign exchange reserves (FER), exports (EXP) and imports (IMP) as the main revealing variables for the purpose. Though, there are many macro variables on which impact of FDI could be

examined, but the limitation of the availability of data has confined us to examine the effects of FDI on these macro variables only. In addition to examine the contribution of FDI on these macro variables, their dynamic behaviour has also been studied with the help of their trends and growth rates. In order to capture the impact of FDI on the above macro variables in best possible manner,

a variety of mathematical models have been tried.

The progress of these macro variables have also been studied by dividing them in the categories of pre and post-reforms period, which has also assisted in assessing the effectiveness of the reforms initiated by the government in the Indian economy.

Table 1

Trends & Growth Rates: FDI and Related Macro Variables

Sl. No.	Variable	Trends	Growth Rates (%)	R ²
1.	FDI	1236.68* (6.48)	24.6* (5.49)	(a) 0.79 (b) 0.74
2.	DI	27832.65* (12.95)	13.9* (14.2)	(a) 0.93 (b) 0.96
3.	FER	32110.61* (8.31)	23.66* (18.65)	(a) 0.84 (b) 0.97
4.	Exports	19407.2* (15.36)	14.96* (24.07)	(a) 0.98 (b) 0.96
5.	Imports	24043.77* (17.18)	16.85* (22.89)	(a) 0.98 (b) 0.96

- Notes:**
1. In parentheses are t-values,
 2. * The coefficients are significant at $\alpha = 0.01$,
 3. In R² column (a) stands for trends & (b) for growth rates.

Source: Adapted from Salindr Singh (2008).

Table 1, given above, exhibits the trend and growth rates of FDI, DI, FER, Exports and Imports. It is quite evident to highlight that the trends and growth rates of these macro variables calculated during the post reforms period of the economy are highly significant at 1% level of significance as is revealed by their

t-values given in the parentheses of the columns representing trends and growth rates in the table. The high values of R² also reveal that the fitness is quite good. The figures in the trend column represent per unit increase in the dependent variables while the growth rates represent the relative change in them.

Table 2
Estimates of the Simple Regression Models

Sl. No.	Model	Regression Coefficients	R ²	t-values
1.	DI = a ₁ +b ₁ FDI	14.88*	0.59	3.66
2.	FER = a ₂ +b ₂ FDI	15.00*	0.48	3.67
3.	EXP = a ₃ +b ₃ FDI	12.72*	0.68	4.55
4.	Imp = a ₄ +b ₄ FDI	14.11*	0.68	4.39

Notes: * The coefficients are significant at $\alpha = 0.01$

Source: Adapted from Salindr Singh (2008).

Table 2 present the results of the estimates for the regression coefficients of the simple regression models considered for identifying the impact of FDI on DI, FER, EXP and IMP respectively for the Indian economy. The estimated regression coefficients represent the rate of change in the dependent variables for a unit change in the independent variable. For example, in the first model at serial No.1, the value of this regression coefficient is 14.88, which mean that if FDI is increased by rupee one crore in the

economy then the corresponding increase of DI in the economy will be to the extent of Rs. 14.88 Crores. Similar kind of interpretation holds for the impact of FDI on other macro variables in the table. The t-values, given in the last column of the table reveal that all the regression coefficients are significant at 1% level of significance. The R² values given in the table reveal the percentage of variation explained by FDI, which is also a important objective of the study.

Table 3
Estimates of the Log-linear Regression Models

Sl. No.	Model	Regression Coefficients	R ²	t-values
1.	$\text{Log DI} = \text{Log } A_1 + B_1 \text{ Log FDI}$	0.297*	0.86	6.74
2.	$\text{Log FER} = \text{Log } A_2 + B_2 \text{ Log FDI}$	0.556*	0.75	5.94
3.	$\text{Log Exp} = \text{Log } A_3 + B_3 \text{ Log FDI}$	0.554*	0.84	6.99
4.	$\text{Log Imp} = \text{Log } A_4 + B_4 \text{ Log FDI}$	0.484*	0.83	7.64

Notes: * The coefficients are significant at $\alpha = 0.01$

Source: Adapted from Salindr Singh (2008).

Table 3 test the results of the estimates for the regression coefficients of the log-linear regression models considered for identifying the effects of FDI on macro variables (as mentioned in table 2 above) for the Indian economy. In this table, the log-linear relations between FDI (as an independent variable) and DI, FER, EXP, IMP (as dependent variables) have been analysed. Here, the estimated regression coefficients of the models represent the elasticities of the dependent (macro) variables with respect to FDI. These represent the percentage change in the dependent variables corresponding to 1% change in the independent variable. For example, the value as 0.297 for the first model has the interpretation that when there is 1% increase in FDI, the

corresponding increase in DI is of the amount of 0.297 per cent. Similar kind of interpretations can be had for the remaining coefficients of the respective models. The t-values given in the last column reveal that all the regression coefficients are highly significant, i.e., the FDI is affecting the macro variables of the economy positively and in a significant manner. The high values of R² also reveal that the fitness is quite good. Thus on the basis of the information available from the table, it may be said that the FDI is strengthening the position of these macro variables in the economy. Hence, it indicates that the decision taken by the Government in inviting FDI in the country is appropriate and worthwhile for the growth and development of the economy.

Table 4 (Rs. in Crore)
Pre and Post-reforms Foreign Exchange Reserves

Years	Pre-reforms	Years	Post-reforms
1970	733	1991	23850
1971	857	1992	30744
1972	888	1993	60420
1973	994	1994	79781
1974	1023	1995	74384
1975	1886	1996	94932
1976	3243	1997	115905
1977	4863	1998	138005
1978	5821	1999	165913
1979	5934	2000	197204
1980	5545	2001	264036
1981	4025	2002	361470
1982	4782	2003	490129
1983	5972	2004	619116
1984	7244	2005	676387
1985	7819	2006	868222
1986	8151	2007	1237965
1987	7686	2008	1283865
1988	7040	2009	1259665
1989	6252	2010	1361013
1990	11416	2011	1506139
Mean	4865.42	Mean	519483.09
S.D	2978.03	S.D	518724.55
C.V	61.20	C.V	99.85
Growth Rate	18.2	Growth Rate	24.6

Source: Economic Survey of India. Notes:

1. Use of t-test has been made to test the significance of the difference of means,
2. Table value of t at $\alpha = 0.01$ is 2.78,
3. Observed value of t = 4.37,
4. The difference is highly significant at one percent level. It means FDI has contributed significantly during post-reforms.

Table 4 examines the dynamic behaviour of pre and post reforms foreign exchange reserves. After comparing one finds that the average of foreign exchange reserves in post-reforms period is more than twenty five times of the average of pre-

reforms period, which may be due to an important and implicit role of FDI on this variable. Again, using test one may notice that the difference between the average values of FER during the two period is significant at 1% level of significance, i.e.

the average of FER during post-reforms period is significantly higher than that of the average of pre-reforms period. Similarly a comparison of FER with the help of growth rate highlight that the growth rate during post-reforms period

(24.6) is more than that of the growth rate in pre-reforms period (18.2). One may, therefore, assess an indirect contribution of FDI, among other factors, for such a substantial growth of FER during post-reforms period.

Table 5
Pre and Post-reforms Exports (Rs. in Crore)

Years	Pre-reforms	Years	Post-reforms
1970	1535	1991	44041
1971	1608	1992	53688
1972	1971	1993	69751
1973	2523	1994	82674
1974	3329	1995	106353
1975	4036	1996	118817
1976	5142	1997	130100
1977	5408	1998	139752
1978	5726	1999	159561
1979	6418	2000	203571
1980	6711	2001	209018
1981	7806	2002	255137
1982	8803	2003	293367
1983	9771	2004	375340
1984	11744	2005	456418
1985	10895	2006	571779
1986	12452	2007	655864
1987	15674	2008	840755
1988	20232	2009	845534
1989	27658	2010	1142922
1990	32553	2011	1465959
Mean	9618.8	Mean	391447.66
S.D	8365.28	S.D	394061.44
C.V	86.96	C.V	100.66
Growth Rate	17.02	Growth Rate	19.54

Source: Economic Survey of India. Notes:

1. Use of t-test has been made to test the significance of the difference of means,
2. Table value of t at $\alpha = 0.01$ is 2.78, 3. Observed value of t = 6.51,
4. The difference is highly significant at level. It means FDI has contributed significantly during post-reforms.

In table 5, the behaviour of pre and post-reforms exports has been analysed. This

has been done with a view to assess the effect of economic reforms on exports

which implicitly also indicate the impact of FDI. It is clear from the table that the average of exports in post-reforms period, is more than eleven times of the average of pre-reforms period, which implies that FDI is contributing for exports in the Indian economy. Again, the coefficient of variation (C.V) figures in the two period reveal that exports in case of post-reforms period is more stable than that of the pre-

reforms period. Using t-test, one finds that the difference between the averages of exports during two period is significant at one per cent level of significance which may indicate the positive contribution of FDI in enhancing the exports during post-reforms period. Finally, the overall growth rate of exports in post-reforms period is higher (19.54) than that of the growth rate of pre-reforms period (17.02).

Table 6 (Rs. in Crore)
Pre and Post-reforms Imports

Years	Pre-reforms	Years	Post-reforms
1970	1634	1991	47851
1971	1825	1992	63375
1972	1867	1993	73101
1973	2955	1994	89971
1974	4519	1995	122678
1975	5265	1996	138920
1976	5074	1997	154176
1977	6020	1998	178332
1978	6811	1999	215236
1979	9143	2000	230873
1980	12549	2001	245200
1981	13608	2002	297206
1982	14293	2003	359108
1983	15831	2004	501065
1984	17134	2005	660409
1985	19658	2006	840506
1986	20096	2007	1012312
1987	22244	2008	1374436
1988	28235	2009	1363736
1989	35328	2010	1683467
1990	43198	2011	2345463
Mean	13680.33	Mean	571305.76
S.D	11436.16	S.D	637771.59
C.V	83.59	C.V	111.63
Growth Rate	18.8	Growth Rate	22.01

Source: Economic Survey of India. Notes:

1. Use of t-test has been made to test the significance of the difference of means,
2. Table value of t at $\alpha = 0.01$ is 2.78, 3. Observed value of t = 6.17,
4. The difference is highly significant at one percent level. It means FDI has contributed significantly during post-reforms.

Table 6 above, presents a comparative picture of pre and post-reforms period for imports. It is observed from the table that the average of imports in post-reforms period is more than nine times of the average of pre-reforms period, which may also include the contribution of FDI on this variable. Similarly, the coefficients of variation (C.V) values in the table have shown more stability in imports during the post-reforms period. The t-test has shown that the difference between the averages of imports is highly significant,

i.e., average imports of the post-reforms period are significantly greater than that of the average of pre-reforms period. Lastly, the overall growth rates of imports during pre and post reforms period reveal that it is higher (22.01) in case of post-reforms period than that of pre-reforms period (18.8). From the results of the table, one may conclude that the substantial increase in the imports during post-reforms period may be due to the imports in terms of technology transfer, new innovations, new R&D, in the country.

Table 7

Trends & Growth Rates: FDI and Industrial Variables

Sl. No.	Variable	Trends	Growth Rates (%)	R ²
1.	FDI	1336.78* (6.48)	24.6* (6.48)	(a) 0.89 (b) 0.83
2.	Industrial Output	70325.73* (22.39)	12.8* (13.64)	(a) 0.87 (b) 0.83
3.	Industrial Employment	0.004371 (1.28)	0.18 (2.19)	(a) 0.12 (b) 0.12

Notes: 1. In parentheses are t-values, 2. * The coefficients are significant at $\alpha = 0.01$, 3. In R² column (a) stands for trends & (b) for growth rates.

Source: Adapted from Salindr Singh (2008).

Table 7, given above, exhibits the trend and growth rates of foreign direct investment, industrial output and employment. It is quite pertinent to highlight that the trends and growth rates of FDI and industrial output calculated during the post-reforms period of the economy are highly significant at 1% level of significance as revealed by their t-values given in the parentheses of the

columns representing trend and growth rates in the table. The high values of R² also reveal that the fitness is quite good. However, the trend and growth rate of industrial employment is not statistically significant but both of these are positive, which implies that these are increasing with time though the increase is quite miniscule. The figures in the trend column represent per unit increase in the

dependent variables while the growth rates represent the relative change in them. The significance of the growth rate in industrial output and simultaneously insignificant growth in industrial employment happens to be very close to

reality as the technology used in case of FDI is quite forward and of capital intensive in nature which leads to faster growth in output and slower growth in employment.

Table 8
Estimates of the Regression Models

Sl. No.	Model	Regression Coefficients	R ²	t-values
1.	$IO = a_1 - i - b_1 FDI$	43.39*	0.89	6.44
2.	$EMP = a_a + b_2 FDI$	0.0506**	0.34	3.40
3.	$\text{Log IO} = \text{Log A}_i + B_i \text{Log FDI}$	0.289*	0.89	8.62
4.	$\text{Log EMP} = \text{Log A}_2 + B_2 \text{Log FDI}$	0.0108*	0.48	3.27

Notes: 1. * The coefficients are significant at $\alpha = 0.01$,
2. ** The coefficients are significant at $\alpha = 0.05$

Source: Adapted from Salindr Singh (2008).

Table 8 reveal the results of the estimates for the regression coefficients in some simple as well as log-linear regression models considered for identifying the impact of FDI on the industrial output (IO) and Employment (EMP) for the Indian economy. The estimated regression coefficients represent the rate of change in the dependent variables for a unit change in the independent variable. For example, in the first model at serial No.1, the value of this regression coefficient is 43.39, which mean that if FDI is increased by Rupee one crore in the economy then the corresponding increase in the IO of the economy will be of the amount of Rs. 43.39 crores. Similar kind of interpretation holds for the employment coefficient. At serial Nos. 3 & 4, Log-linear relations between FDI (as an independent variable)

and IO, EMP (as dependent variables) have been analysed. Here, the estimated regression coefficients of the models represent the elasticities of dependent variables (IO, EMP) with respect to the independent variable (FDI). These represent the percentage change in the dependent variables corresponding to 1% change in the independent variable. For example, the value as 0.289 for the third model has the interpretation that when there is one percent increase in FDI, there is 0.289% increase in IO of the economy, and similar kind of interpretation holds for the coefficient of model 4. The t-values, given in the last column reveal that all the regression coefficients are statistically significant. Hence, this kind of information will surely invite many policy implications for the economy.

Table 9

(Rs. in Crore)

Pre and Post-reforms Industrial Output

Years	Pre-reforms	Years	Post-reforms
1978	44343.79	1991	270563.5
1979	52257.85	1992	299195.8
1980	61084.04	1993	368613.8
1981	73672.52	1994	425744.3
1982	86237.61	1995	517987
1983	93532.96	1996	670514.2
1984	105564.8	1997	692519.6
1985	120155.4	1998	825422.6
1986	133043.6	1999	866423.5
1987	153973.1	2000	897938.4
1988	184348.8	2001	926901.9
1989	230659.4	2002	962456.6
1990	270563.5	2003	1100807
Mean	123802.9	Mean	678852.93
S.D	69624.54	S.D	277181.45
C.V	56.23	C.V	40.83

Source: Annual Survey of Industries. Notes:

1. Use of t-test has been made to test the significance of the difference of means,
2. Table value of t at $\alpha = 0.01$ is 2.78,
3. Observed Value of t = 6.65, 4. The difference is highly significant at one percent level. It means FDI has contributed significantly during post-reforms.

Table 9 shows a comparative picture of pre and post-reforms periods for industrial output, which is to assess the impact of economic reforms on industrial output which implicitly also indicate the impact of FDI. After comparison one finds that the average of industrial output in post-reforms period is almost six times of the average of pre-reforms period, which also include the contribution of FDI on this variable. Again, the coefficient of variation (C.V) figures in the two periods reveal that industrial output in case of post-reforms period is more consistent

than that of the pre-reforms period. Finally, the use of t-test has been made to test the significance of the difference between the means of industrial outputs corresponding to the pre and post-reforms periods and the test has shown that the difference is highly significant, i.e., average output of the post-reforms period is significantly greater than that of the average of pre-reforms period. One may, therefore, conclude that the FDI has been an important factor among the host of other factors.

Table 10

(Persons in Crore)

Pre and Post-reforms Industrial Employment

Years	Pre-reforms	Years	Post-reforms
1978	2.12	1991	2.67
1979	2.19	1992	2.71
1980	2.23	1993	2.72
1981	2.26	1994	2.74
1982	2.35	1995	2.75
1983	2.4	1996	2.79
1984	2.42	1997	2.82
1985	2.29	1998	2.82
1986	2.5	1999	2.81
1987	2.53	2000	2.8
1988	2.57	2001	2.78
1989	2.6	2002	2.72
1990	2.64	2003	2.7
Mean	2.39	Mean	2.75
S.D	0.16	S.D	0.05
C.V	7.02	C.V	1.82

Source: Economic Survey of India. Notes:

1. Use of t-test has been made to test the significance of the difference of means,
2. Table value of t at $\alpha = 0.01$ is 2.80,
3. Observed value of t = 7.47,
4. The difference is highly significant at one percent level. It means FDI has contributed significantly during post-reforms.

Table 10 above examines the behaviour of pre and post-reforms employment with the help of t-test. The average of employment in post-reforms period has been found to be relatively more in comparison to pre-reforms average. Similarly the coefficient of variation (C.V) values in the table, have shown more stability in industrial employment during the post-reforms period. The difference

between the averages of industrial employment as observed by t-values is highly significant at 1% level which means the average employment during post-reforms period has been seemingly higher than that of the average in pre-reforms period. Therefore, we may conclude that FDI has contributed significantly in enhancing employment during the post-reforms period.

Major Findings of the Study

The impact of foreign direct investment on some macro and industrial variables has been analysed in both ways, i.e., theoretically as well as empirically.

1. It is absolutely necessary to state that the trends and growth rates of FDI and Industrial output calculated during the post-reforms period of the economy are highly significant at 1% level of significance. However, the trend and growth rate of industrial employment is not statistically significant but both of these are positive, which implies that these are growing with time though the growth is insignificant. The significance of the growth rate in industrial output and simultaneously insignificant growth in industrial employment seem to be very close to reality as the technology used in case of FDI is quite forward and of capital intensive in nature which leads to faster growth in output and slower growth in employment.
2. The impact of FDI on industrial output and employment is quite significant and having positive relationships with them which means the increase in FDI will boost the industrial sector of the economy and it is a healthy sign for the overall growth and development of the Indian economy.
3. It is noted from the comparative picture of pre and post reforms periods for industrial output and employment that the averages of these variables are significantly higher in post-reforms period than that of the pre-reforms period which indicates the significant contribution of FDI on these variables during the post-reforms period.
4. It may be concluded that the contribution of FDI in industrial output has been of diverging nature, that is, the industrial output commands better position during post-reforms period when compared in absolute sense, and the industrial output commands healthy position during pre reforms period when it is compared in relative sense.
5. It is quite necessary to pinpoint that the trends and growth rates of FDI and related macro variables calculated during the post reforms period of the economy are highly significant at 1% level of significance as revealed by their t-values. Thus, on the basis of this information one may conclude that all the macro variables are showing a significant growth with time.
6. It is observed that all the regression coefficients of the macro variables are statistically significant at 1% level of significance as indicated by their t-values. For example, in the second model at serial no. 2, the value of regression coefficient is 14.88, which mean that if FDI is increased by rupee one crore in the economy then the corresponding increase in the DI of the economy will be of the amount

of Rs 14.88 Crores. Thus, from this result, one may notice that FDI has contributed to the domestic investment (DI) of the country and the nature of FDI inflows is of the crowd-in domestic investments in Indian economy. It may also be the result of the nature of forward and backward linkages of FDI in the economy. Similar kind of results of FDI on other macro variables can be seen from the table mentioned above.

7. It is clear from the log-linear regression coefficients that the entire coefficient are quite significant at $\alpha = 0.01$. The elasticities of DI, FER, EXP and IMP with respect to FDI reveal that FDI plays a dominating role in enhancing the position of the above variables and hence justifies that FDI has been affecting Indian economy in a positive manner.
8. It is observed from the comparative picture of pre and post -reforms periods for FER, EXP, and IMP that the averages of all these macro variables are significantly higher in post-reforms period than that of the pre-reforms period. This kind of results may be due to the significant contribution of FDI on these variables during post-reforms period.

Limitations of the Study

There has also been a problem of sufficient homogeneous data from different sources. Although enough of data on FDI was available with RBI, DIPP, Ministry of Commerce and Industry, UNCTAD but

there was no consistency and similarity in the data. For example, in the time series data used for different variables, the averages are considered at certain occasions. Therefore, the trends, growth rate and estimated regression coefficients may deviate from the true ones. FDI in the post-reforms period was easily and up-to-date available but consistent and continuous FDI data on pre-reforms period was difficult to found as no organisation has made efforts to compile it till date. Lastly, it is important to note that missing data do not necessarily mean that the information does not exist in the country or outside. Rather, it may indicate that scholar did not find any information in the sources used for this study.

Concluding Observations

The present paper analyzes the contribution of foreign direct investment on some macro and industrial variables in theoretical as well as in empirical manner. For this purpose, some regression models, in the form of simple, log-linear relations, using t-test have been examined empirically. The results of the respective models reveal that FDI is contributing significantly to these variables. The use of t-test has been made to compare the difference between the averages of pre and post-reforms period for these macro and industrial variables. The growth rates of the macro and industrial variables have also been compared for the two period. The results from the study reveal that there is a positive contribution of FDI on these

selected macro and industrial variables of the Indian Economy, which will showcase many policy implications in future years.

References :

- Agosin, MR, & Ricardo Mayer (2000). 'Foreign Investment in Developing Countries: Does it Crowd in Domestic Investment?' *UNCTAD Discussion Paper*, No. 146, Geneva: UNCTAD.
- Bajpai, Nirupam and Sachs, Jeffery D (2001). "Foreign Direct Investment in India: Issues and Problems". *HIID, Development Discussion Paper*. No. 759.
- Banga, Rashmi (2005). *Impact of Liberalisation on Wages and Employment in Indian Manufacturing Industries*, Working Paper, No. 153.
- Basu P., Nayak N.C, Archana (2007). "Foreign Direct Investment in India: Emerging Horizon". *Indian Economic Review*. Vol. XXXXII, No. 2, pp. 255-266.
- Brahmabhatt, M., T.G. Srinivasan and K. Murell (1996). 'India in Global Economy' World Bank: International Economics Department.
- *Centre for Monitoring Indian Economy*, Various Publications.
- *Economic Survey*. (Various Issues). Ministry of Finance. New Delhi: Government of India.
- Federation of Indian Chambers of Commerce & Industry (FICCI). (2001). 'The Experience of Foreign Direct Investors in India'. April [232] 2001. New Delhi
- Foreign Direct Investment in India, *National Council of Applied Economic Research (NCAER)*, March, 1998. New Delhi.
- Foreign Trade & Balance of Payment, *Centre for Monitoring Indian Economy*, (Various Issues). Mumbai.
- Government of India, Directorate General of Commercial Intelligence and Statistics, *Monthly Statistics of Foreign Trade in India*, (Various Issues). Kolkata.
- Government of India: Ministry of Finance, *Economic Survey*. (Various Issues). New Delhi.
- Government of India: Planning Commission (2002). *Report of the Steering Group on Foreign Direct Investment*, New Delhi.
- Government of India: Secretariat of Industrial Assistance. Ministry of Industry, *News letter*. (Various Issues). New Delhi.
- Kumar Nagesh and Jaya Pradhan (2002). Foreign Direct Investment, Externalities and Economic Growth in Developing Countries. *RIS Discussion Papers Research and Information Systems for the Non- Aligned and other Developing Countries*. April, 2002.
- Patnaik, Prabhat & Chandrasekhar, C.P. (1995). Indian Economy under Structural Adjustment'. *Economic and Political Weekly*. November 25th, 1995.
- RBI. *Handbook of Statistics on the Indian Economy*, (Various Issues). Mumbai: Reserve Bank of India.
- Salindr Singh (2008). "An Analysis of the Impact of Foreign Direct Investment on Indian Economy". PhD Thesis. Department of Economics, M.J.P. Rohailkhand University, Bareilly, Uttarpradesh.
- Sapna Hooda (2011). "A Study of FDI and Indian Economy". PhD Thesis, Department of Humanities and Social Sciences, National Institute of Technology, Kurukshetra, Haryana.

Time's Journey

Notes for the Contributors

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Formatting Requirements	<ol style="list-style-type: none">1. Articles should be written in a formal, simple style, clear and concise English and should be submitted in soft copy. Articles should range between 3000 and 6000 words and to be submitted with the cover page bearing only the title of the article, author/s' names, designations, official addresses, phone/fax numbers, and email addresses. The author's name should not appear on the main body of the paper.2. Manuscripts should be typed double-spaced on A4 size text and font size 12 of Times New Roman and should be submitted with a declaration that the paper has not been published or submitted for publication elsewhere.3. Articles must be accompanied by an abstract in not more than 300 words and 4-6 keywords.4. Reference guidelines specified in the Publication Manual of the American Psychological Association must be followed in the following styles: Bergquist, J. M. (1992). German Americans. In J. D. Buenker & L. A. Ratner (Eds.), <i>Multiculturalism in the United States: A comparative guide to acculturation and ethnicity</i> (pp. 53-76). New York, NY: Greenwood. Hamfi, A. G. (1981). The funny nature of dogs. <i>E-journal of Applied Psychology</i>, 2(2), 38-48. Retrieved from http://ojs.lib.swin.edu.au/index.php/fdo. Strunk, W., Jr., & White, E. B. (1979). <i>The guide to everything and then some more stuff</i>. New York, NY: Macmillan.5. Quotations must correspond to the original source in wording, spelling and punctuation and should be acknowledged in the proper manner by giving references. Please note that manuscripts that do not give text-based references may be resubmitted by the author after re-working.6. Notes could be used to provide additional comments and information for discussion.
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