

FOREIGN DIRECT INVESTMENT AND ITS IMPACT ON GROSS DOMESTIC PRODUCT: A COMPARISON OF INDIA AND CHINA

***Dr. Sanjeet Kumar & ** Vivek Jangid**

*Assistant Professor, Department of Business Administration, Chaudhary Devi Lal University, Sirsa

**Assistant Professor, Department of Business Administration, Chaudhary Devi Lal University, Sirsa

Abstract

Foreign Direct Investment (FDI) is the process whereby residents of one country (the home country) acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country (the host country). FDI has a great impact on the GDP of any country. The study is conducted to analyze the impact of inflow and outflow of FDI on GDP and to compare the inflow and outflow of FDI of India with that of China. In order to validate the hypothesis, t-test and correlation has been applied at 5% and 1% significance level, respectively. The study concludes that there is significant difference in the FDI inflow of India and China; there is significant difference in the FDI outflow of India and China; there is impact of FDI inflow on GDP of India as well as that of China; and there is impact of FDI outflow on GDP in case of India as well as in case of China.

Keyword: Production, distribution, inflow, outflows etc.

Introduction

In today's world, foreign capital in the form of direct investment is gaining momentum day by day. So many countries in the world are opening their doors to foreign players to invest in their country, and so with the India. After 1992, LPG (Liberalization, Privatization and Globalization) policy has been strongly adopted in our country. FDI in many sectors has been allowed. It may be seen from last twenty to twenty five year, India's Gross Domestic Product (GDP) is also gaining momentum. Same is the case with that of China. Both India and China is now considered as the leading countries not only in Asia but in the world. The effort has been made in the study

to compare these two countries on FDI and GDP front. The effort has also been made to analyze the impact of FDI inflow and outflow on GDP of both these country. This study is going to be very helpful to the policy maker to formulate the policy with regard to opening the further doors in unopened or partly opened sectors to foreign players.

Review of Literature

Devajit (2012) defined the foreign direct investment (FDI) as a strategic component of investment, which is needed by India for achieving the economic reforms and maintains the pace of growth and development of the economy. It was found that the paces of FDI inflows in India initially were low due to regulatory policy framework but there was a sharp rise in investment flows from 2005 onwards because of the new policy initiative. The study tries to find out how FDI seen as an important economic catalyst of Indian economic growth by stimulating domestic investment, increasing human capital formation and by facilitating the technology transfers. The main purpose of the study was to investigate the impact of FDI on economic growth of India.

Sutradhar (2011) stated that the foreign direct investment (FDI) plays an important role in the growth and development of different sectors and industries in the host country. It was found that some countries attract FDI in a particular sector of their economy. The study addresses the recent trends in sector-wise distribution of FDI in the world in general and India in particular. Further an attempt was made to study how the change in FDI policy in India led to the growth of different industries in the country.

Saravanan, Anandan et. al. (2012) examined the status of inward foreign direct investment flow into India. Ever since macroeconomic structural changes initiated in 1991, the impact of ongoing process of Liberalization, Privatization and Globalization in attracting inward FDI into India has become focal point of the study, at a time when economy of India and China experience a slowdown in the backdrop of global financial crisis and economic recession. It was stated that globalization process and its implication on inward FDI could be evaluated in terms of economic indicators such as GDP, GDP growth rate, import trade, export trade and trade openness. The study consisted of two parts. First part was to deal with performance analysis of inward FDI flows in the post-liberalization period and the second was to deal with FDI outlook for 2009 and beyond.

Objectives and Hypothesis

The following objectives have been kept in mind to conduct the study:

1. To comparative analyze the inflow and outflow of FDI between India and China.
2. To comparative analyze the impact of inflow and outflow of FDI on GDP of India and China.

In order to achieve the above said objectives, following alternative hypothesis has been formulated:

H_{a1} : There is a significant difference in the flow of FDI between India and China.

H_{a2} : There is significant relationship between flow of FDI and GDP of India and China.

Research Methodology

The study is based on the secondary data. The data is collected from internet websites. The data has been taken from the year 1990 to 2013. In order to validate the hypothesis, t-test has been applied to comparative analyze the flow of FDI between India and China at 5 percent significance level and to know the impact of inflow and outflow of FDI on GDP, correlation has been applied at 1 percent significance level.

Results and Discussions

Table 1 shows the total inflows of foreign direct investment in India and China during the period starting from 1990 to 2013. For the purpose of calculating the trend, 1990 has taken as the base year.

The mean value of inflow of foreign direct investment in India is found to be US \$ 12169.675 million and for China, the mean is found to be US \$ 60856.70 million. As far as the results of t-test is concerned for testing the hypothesis, the calculated value (9.316) is greater than the critical t-value (2.068), therefore it is found that there is significant difference in the FDI inflow of India and China. It is also confirmed by the fact that p-value *i.e.* 0.000 at 5% level is less than 0.05, which shows the significant difference between the two. Therefore, the alternate hypothesis (H_{a1}) is accepted.

Table 1:- Inflows of Foreign Direct Investment (in US \$ Million)

Sr. No.	Year	India		China	
		Inflow	Trend	Inflow	Trend
1	1990	236.7	100.00	3487.1	100.00
2	1991	75.0	31.68	4366.3	125.2
3	1992	252.0	106.46	11007.5	315.66
4	1993	532.0	224.75	27515.0	789.05
5	1994	974.0	411.5	33766.5	968.32
6	1995	2151.0	908.7	37520.5	1075.9
7	1996	2525.0	1066.75	41725.5	1196.5
8	1997	3619.0	1528.93	45257.0	1309.1
9	1998	2633.0	1112.37	45462.8	1303.5
10	1999	2168.0	915.92	40318.7	1156.22
11	2000	3588.0	1515.84	40714.8	1167.58
12	2001	5477.6	2314.15	46877.6	1344.31
13	2002	5629.7	2378.41	52742.9	1512.5
14	2003	4321.1	1825.55	53504.7	1534.36
15	2004	5777.8	2440.9	60630.0	1738.69
16	2005	7621.8	3220.0	72406.0	2076.39
17	2006	20327.8	8588.0	72715.0	2085.25
18	2007	25349.9	10709.7	83521.0	2395.14
19	2008	47138.7	19914.9	108312.0	3106.07
20	2009	35657.3	15064.3	95000.0	2724.32
21	2010	27431.2	11589	114734.0	3290.24
22	2011	36190.4	15289.5	123985.0	3555.51
23	2012	24195.8	10222.1	121080.0	3472.22
24	2013	28199.4	11913.5	123911.0	3553.41
Mean		12169.675		60856.70	
Df		23		23	
t-stat.		9.316			
Sig.		0.000			
t-Value		2.068			

Source: -UNACTAD REPORT 2014

Significance level: 5 percent

(Data Processed through Microsoft Excel 2010)

Table 2 shows the outflows of foreign direct investment from India and China during the period starting from 1990 to 2013. Again 1990 have taken as the base year to calculate the trend.

The mean value of outflow of foreign direct investment from India is found to be US\$ 4941.6291 million and in case of China, the mean is found to be US\$ 22772.5041 million. The calculated value (3.091) is greater than the critical t-value (2.068), therefore it is found that there is

significant difference in the FDI outflow of India and China. It is also confirmed by the fact that p-value *i.e.* 0.002 at 5% level is less than 0.05, which shows the significant difference between the two. Therefore, the alternate hypothesis (H_{a1}) is accepted.

Table 2:- Total Outflows of Foreign Direct Investment (in US\$ Million)

Sr. No.	Year	India		China	
		Outflow	Trend	Outflow	Trend
1	1990	6.0	100	830.0	100.00
2	1991	11.0	183.33	913.0	110.0
3	1992	24.0	400	4000.0	481.9
4	1993	0.4	6.67	4400.0	530.12
5	1994	82.0	1366.6	2000.0	240.96
6	1995	119.0	1983.33	2000.0	240.96
7	1996	240.0	4000	2114.0	254.69
8	1997	113.0	1883.33	2562.5	308.73
9	1998	47.0	783.33	2633.8	317.32
10	1999	80.0	1333.33	1774.3	213.77
11	2000	514.4	8573.33	915.8	110.33
12	2001	1397.4	23290.0	6885.4	829.56
13	2002	1678.0	27966.6	2518.4	303.42
14	2003	1875.8	31263.3	2854.7	343.93
15	2004	2175.4	362.56.6	5498.0	662.40
16	2005	2985.5	49758.33	12261.2	1477.25
17	2006	14285.0	238083	21160.0	2549.39
18	2007	17233.8	287230	26510.0	3193.97
19	2008	21147.4	352456.67	55910.0	6736.14
20	2009	16031.3	267188.3	56530.0	6810.84
21	2010	15932.2	265536.6	68811.0	8290.48
22	2011	12456.1	207601.6	74654.0	8994.4
23	2012	8485.7	141428.3	87804.0	10578.79
24	2013	1678.7	27978.3	101000.0	12168.67
Mean		4941.6291		22772.5041	
Df		23			
t-stat.		3.091			
Sig.		0.002			
t-Value		2.068			

Source: - UNACTAD REPORT 2014
(Data Processed through Microsoft Excel 2010)

Significance level: 5 Percent

From the table 3, it is found that there is positive correlation between FDI inflow and GDP of India ($r=0.874$). Similarly, there is positive correlation between FDI inflow and GDP of China ($r=0.934$). So it may say that there is significant relationship between FDI inflow and GDP of India as well as that of China. The result may also be confirmed from the p-value (0.000) at 1% significance level, which is below 0.01. Therefore, the alternate hypothesis (H_{a2}) has been accepted.

Table 3: FDI Inflow and GDP (US\$ Million)

Sr. No.	Year	India		China	
		Inflow	GDP	Inflow	GDP
1	1990	236.7	32660.801	3487.1	35693.733
2	1991	75.0	27484.234	4366.3	37946.864
3	1992	252.0	29326.235	11007.5	42266.054
4	1993	532.0	28419.372	27515.0	44050.128
5	1994	974.0	33301.447	33766.5	55922.421
6	1995	2151.0	36659.964	37520.5	72800.755
7	1996	2525.0	39978.689	41725.5	85608.463
8	1997	3619.0	42316.042	45257.0	95265.312
9	1998	2633.0	42874.103	45462.8	101946.196
10	1999	2168.0	46686.708	40318.7	108327.860
11	2000	3588.0	47660.915	40714.8	119847.494
12	2001	5477.6	49395.499	46877.6	132480.691
13	2002	5629.7	52396.856	52742.9	145382.756
14	2003	4321.1	61835.646	53504.7	164095.873
15	2004	5777.8	72158.561	60630.0	193164.433
16	2005	7621.8	83421.501	72406.0	225690.259
17	2006	20327.8	94911.677	72715.0	271295.088
18	2007	25349.9	123870.019	83521.0	349405.594
19	2008	47138.7	122409.707	108312.0	452182.727
20	2009	35657.3	136537.243	95000.0	499023.352
21	2010	27431.2	170845.887	114734.0	593050.227
22	2011	36190.4	188010.014	123985.0	732189.195
23	2012	24195.8	185874.473	121080.0	822949.003
24	2013	28199.4	187679.720	123911.0	924027.045
r		0.874		0.934	
Sig.		0.000		0.000	

Source: - The World Bank Report 2014, IMF report 2014

Significance level: 1 Percent

(Data Processed through PASW SPSS 20)

From the table 4, it is found that there is positive correlation between FDI outflow and GDP of India ($r=0.706$). Whereas, there is perfectly positive correlation between FDI outflow and GDP of China ($r=1.0$). So it may say that there is significant relationship FDI outflow and GDP of India as well as that of China. The result may also be confirmed from the p-value (0.000) at 1% significance level, which is below 0.01. Therefore, the alternate hypothesis (H_{a2}) has been accepted.

Table 4: FDI Outflow and GDP

Sr. No.	Year	India		China	
		Outflow	GDP	Outflow	GDP
1	1990	6.0	32660.801	314.4	35693.733
2	1991	11.0	27484.234	329.7	37946.864
3	1992	24.0	29326.235	362.8	42266.054
4	1993	0.4	28419.372	373.8	44050.128
5	1994	82.0	33301.447	469.2	55922.421
6	1995	119.0	36659.964	604.2	72800.755
7	1996	240.0	39978.689	703.1	85608.463
8	1997	113.0	42316.042	774.5	95265.312
9	1998	47.0	42874.103	820.9	101946.196
10	1999	80.0	46686.708	864.7	108327.860
11	2000	514.4	47660.915	949.2	119847.494
12	2001	1397.4	49395.499	1041.6	132480.691
13	2002	1678.0	52396.856	1135.4	145382.756
14	2003	1875.8	61835.646	1273.6	164095.873
15	2004	2175.4	72158.561	1490.4	193164.433
16	2005	2985.5	83421.501	1731.1	225690.259
17	2006	14285.0	94911.677	2069.3	271295.088
18	2007	17233.8	123870.019	2651.3	349405.594
19	2008	21147.4	122409.707	3413.6	452182.727
20	2009	16031.3	136537.243	3748.5	499023.352
21	2010	15932.2	170845.887	4433.3	593050.227
22	2011	12456.1	188010.014	5447.3	732189.195
23	2012	8485.7	185874.473	6092.8	822949.003

24	2013	1678.7	187679.720	6807.4	924027.045
r	0.706			1.000	
Sig.	0.000			0.000	

Source: - The World Bank Report 2014, IMF report 2014
(Data Processed through PASW SPSS 20)

Significant level: 1 Percent

Conclusion

The study concludes that there is significant difference in the FDI inflow of India and China as per the result of the t-test as the calculated value (9.316) is greater than the critical t-value (2.068). As far as the relationship between FDI outflow between the above discussed two countries are concerned, it is found that there is significant difference in the FDI outflow of India and China. In case of impact of flow of FDI on GDP, the result of correlation shows that there is impact of FDI inflow on GDP in case of India as well as that in case of China. For the impact of FDI outflow, the results shows that there is impact of FDI outflow on GDP of India as well as that of China.

References

Devajit M., “Impact of Foreign Direct Investment on Indian economy”, *Research Journal of Management Sciences*, Volume 1 (2), ISSN 2319–1171, September 29-31, 2012, , Retrieved from isca.in/IJMS/Archive/v1i2/5.ISCA-RJMgtS-2012-020.pdf.

Sutradhar D., “Sectoral Analysis of FDI in India”, *International Academic Research Journal of Business and Management*, Volume 1, Issue 6, Page no.78-85, 2011, ISSN 2227-1287 retrieved from www.ijrcm.org.in.

Himachalpathy R., Sureshkumar A., Dhanasekaran M., Saravanan R., Anandan G., “A Comparative Analysis of FDI in India and China”, *European Journal of Social Sciences*, Volume 29, ISSUE 1, 2012, pp. 26-37, ISSN 1450-2267 retrieved from www.todayscience.org/JFE/v2-1/JFE.2291-4951.2014.0201001.pdf.