IMPACT OF LIBERALIZATION ON FDI STRUCTURE IN INDIA

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Abstract

Direct investment across national borders is a distinct feature of economics, which has recently gained strong attention of majority of countries. Foreign direct investment (FDI) is considered to be a growth spurring agent by most of the countries of the world since it brings along technical, managerial and entrepreneurial abilities which are considered essential for development. Foreign direct investment is one of the most crucial and strategic tool for developing a country's competitiveness and efforts must be made to promote FDI level in any country (Badar, 2006). Going by this ideology, foreign direct investment is being sought by most of the developing countries of the world for promoting the cause and expansion of economic development.

India, being no exception and eager to promote the cause of economic growth had to seek assistance of foreign direct investment in parity with other many developing countries. The country also became host to huge inflows of FDI during the period 1990s and 2000s due to her efforts to develop conducive environment for it, through liberalization of trade, market deregulation, privatization of enterprises and promoting regional integration. Actually in the early 1990s, Indian government adopted a liberal policy towards foreign flows, especially in high technology arena and exports. Various incentives and relaxations over foreign ownership were given during 1990s giving a major boost to FDI inflows (Kumar, 2005). In a way eighties can be considered as the fore-runners of the liberalization policy of 1990s and so this period is tagged with term pre-liberalization period in the study. The period after 1991 is announced as post liberalization period during which not only the quantum of FDI to India escalated but the sectoral composition of FDI also underwent tremendous change.

Objectives :

The study is conducted with the following objectives:

(i) To detect the growth of FDI inflows to India during pre and post liberalization period.

(ii) To examine the structural aspects of FDI in India.

(iii) To explore the altered sectoral composition of FDI under the impact of liberalization adopted by India.

Data base and Methodology:

The data used in the study has been collected from the publications of Secretariat of Industrial Assistance, Department of Industrial Policy & Promotion; and Reserve Bank of India and Annual Economic Surveys. Compound Annual Growth rates have been used to quantify growth of FDI flows. To detect the relative share of different sectors or industries in the FDI inflows to India, percentage share of each sector or industry has been computed. Ranks have been assigned to different sectors with highest numeric value getting first rank and subsequent lower figures with assignment of ranks in ascending order.

Discussion and results: The discussion part has been divided in to three sections. Section I detects the growth rates of FDI inflows in pre and post liberalization periods. Section II discusses the relative position of different sectors and industries receiving FDI in pre and post liberalization period. Section III is devoted to analysis of the shares of different sectors in the FDI inflows to the developing countries as well as world.

Section I

Growth of FDI inflows in Pre and Post Liberalization Period

In the pre liberalization period the Indian government's attitude towards FDI inflows was not fully open rather half hearted (Nagraj, 2003). The investment coming to the country through different channels had to seek prior approval. The data of FDI available for this period is of the amount approved rather than actually received. However, the amount approved increased manifold during this period.

Table 1

Growth of FDI inflows (approved) in India (Pre-Liberalization Period)

Year	Amount in Rs. million
1981	106
1982	628
1983	619
1984	1130
1985	1260
1986	1069
1987	1730
1988	2884
1989	3167
1990	1283
CAGR 1981-1990	**29.46***

Source : Economic Survey, Ministry of Finance. various issues.

Note: * statistically significant at 5 percent of Level

Table 1 exhibits the data regarding FDI inflows approved in India from the year 1981 to the year 1990. During 1981-90 there has been surge of more than 12 times from rupees 105.71 million in 1981 to rupees 1283.21 million till 1990. The compound annual growth rate for the period has been found as 29.46 percent. It is, however, pertinent to mention here that the growth of approved FDI may not attain much significance as in India there has usually been wide gap between approved and actual foreign direct inflows.

Table 2

Growth of FDI inflows (Actual) (Post -Liberalization Period)

Year	Amount in Rs. million
1991-92	3535
1992-93	6912
1993-94	18619
1994-95	31122
1995-96	64854
1996-97	87522
1997-98	129898
1998-99	132692
1999-00	101667
2000-01	123538
2001-02	167777

2002-03	181956
2003-04	116172
2004-05	172665
2005-06	192991
2006-07	503857
2007-08	797356
2008-09	1397687
2009-10	1309799
CAGR 1991-2010	**29.58***

Source: Obtained from SIA News Letters, various issues.
Note : All data are from January to December but in 1991 from August to December

The Table 2 shows the FDI actual inflows to India during the period 1991 to 2010. The two decades of 1991 to 2000 and 2001 to 2010 saw a phenomenal rise in FDI inflows. In absolute sense the FDI inflows surged nearly 34 times from rupees 3535 million the year 1991 to Rs.123538 million in the year 2000. Since the quantum of FDI had already increased till the year 2000, the growth of FDI inflows during the period 2001-2010 does not look high, as it is nearly eight times from Rupees 167777 million in the year 2001 to Rupees 1309799 million in the year 2010. A close appraisal of the table expresses that the magnitude of FDI inflows has escalated multiple times over the two decades. The overall compound annual growth rate (CAGR) for the period 1991 to 2010 is calculated to be 29.58 percent.

However, there has been a huge gap between the FDI approved and FDI actually received in the early period of liberalization (Nagraj,2003). The data in Table 3 indicates the amount of approved and actual inflows of FDI in India since 1991.

Table 3
FDI Inflows to India (Approved Vs. Actual Inflows)

Year	FDI Approved Rs. million	FDI Inflows Rs. million	Realization in percent
1991	5049	3535	70.01
1992	38179	6912	18.1
1993	88618	18619	21.01
1994	89552	31122	34.75
1995	308821	64854	21.01
1996	308860	87522	28.34
1997	503889	129898	25.78
1998	275896	132692	48.1
1999	251403	101667	40.44
2000	172370	123538	71.67
2001	209397	167777	80.12
2002	110581	181955	164.55
2003	54166	116172	214.47
2004	87412	172665	197.53
2005	78995	192991	244.31
2006	230036	503857	218.91
Total	**2813224**	**2035776**	**72.36**

Source: Handbook of Industrial Policy & Statistics, 2006-07, DIPP.
Note : All data are from January to December but in 1991 from August to December

A glance at Table 3, reveals that the realization rate of FDI for the year 1991 was more than 70 percent of approved FDI but this rate remained dismally low in the year 1992 when it was just 18 percent. During the period 1993-97, it ranged between 20 to 40 percent. However, the trend improved significantly in the years 2000 and 2001 with the realization rate escalating to 71.62 percent and 80.12 percent respectively. Subsequently in the years 2003 and 2004, the realization rate jumped to more than 100 percent. This could be attributed to the adoption of the policy of automatic approval adopted during this period. The overall realization rate for the period 1991-2006 accounted to 72.36 percent, with approved cumulative FDI amounting to Rs. 2813224 million against Rs. 2035776 million.

After the policy of 1991 there came significant relaxation in FDI rules and regulations. The government adopted various routes through which FDI could enter the country (Nagraj, 2003). The detailed analysis of different routes of entry and their relative shares is manifested in the following table.

Table 4

DIFFERENT ROUTES WITH PERCENT SHARE IN FDI INFLOWS OF INDIA

	Approval by govt. Route (FIPB, SIA)	Inflows through Automatic Route	Inflows through acquisition of existing shares#	RBI's various schemes for NRI *	Aggregate amount from all routes (in Rs. million)	Stock swapped	Closing balance of advance	Total Cumulative in Rupees million
1991(Aug-Dec.)	54.1	0		45.9	**3535**			**3535**
Year (Jan-Dec)1992	71.0	6.9		22.1	**6912**			**6912**
1993	55.9	12.9		31.1	**18,619**			**18620**
1994	51.6	11.7		36.8	**31,122**			**31122**
1995	61.4	8.2		30.7	**64,654**			**64654**
1996	65.9	7.1	3.5	23.6	**87,522**			**87522**
1997	78.0	6.7	7.3	8.0	**129,898**			**129898**
1998	62.1	4.6	30.6	2.7	**132,692**			**132692**
1999	66.8	8.2	21.2	3.8	**92,599**		9,068	**101667**
2000	60.7	16.3	19.7	3.3	**104,411**		19,126	**123537**
2001	60.0	20.2	18.4	1.4	**160,711**		7,066	**167777**
2002	43.1	24.2	32.6	0.1	**161,344**	840.0	19,771	**181956**
2003	44.9	24.5	30.6		**95,639**	1,725.0	18,808	**116172**
2004	32.8	36.7	30.5		**147,813**		24,852	**172665**
2005	25.8	35.6	38.6		**192,707**	283.7		**192991**
2006	13.8	63.9	22.3		**503,572**			**503572**
2007	16.5	55.1	28.4		**654,949**	142,405.8		**797357**
2008	9.7	71.9	18.4		**1,397,254**	211.9		**1397467**
2009Jan. To Nov.	18.4	69.7	12.0		**1,237,944**	2,581.4		**1240527**
Cumulative average Percentage	47.0	25.5	22.4	17.47	95.5	2.7	1.80	100.00

over 1991-2009

Source: Percentages calculated on the basis of data published by RBI,(FED), Central Office, Mumbai.

Note: 1. Inflows through ADRs/GDRs/FCCBs against the FDI approvals have not been included.

2. # Data prior to 1996 not published by RBI.

3.* Since 2003, inflows included under the heading RBI's Automatic Route.

The data in the Table 4 shows the route wise FDI equity inflows to India. The amount of FDI inflows received in 1991 was Rs. 3535 million which entered through only two routes viz. FIPB/SIA (54.1 percent) and RBI's various NRI schemes (45.9 percent). Secretariat of Industrial Assistance (SIA) FIPB, route has garnered the highest quantum among the various routes till 2003. In the year 1992, this route had 71 percent share of FDI in the country. During the period of 1991-2009, this channel got one fourth of aggregate inflow of FDI.

RBI automatic approval route (under delegated power) was introduced, in 1992 to facilitate the entry of foreign investors. Although, in this year the inflows received through this route were as meager as 6.9 percent of the total FDI approved but its jumped to as high as to 71.9 percent in the year 2008.

RBI's various NRI schemes to get FDI have not been very effective as the share received through these has been perpetually decreasing, from as high as 45.95 percent in 1991 to the low of 8 percent in 1997 and as low as 0.07 percent in 2002. Finally in the year 2003, this route was merged with the RBI's automatic approval route, whose share then superseded the share of FIPB/SIA approval route. RBI's automatic approval route accounted for more than one half of the aggregate FDI received during the period 1991-2009.

Since the year 1996, inflows on account of acquisition of shares have also been included in FDI. In the years 1996 and 1997, the approved FDI through this route was 3.47 percent and 7.34 percent of the total FDI, respectively and rose to more than 30 percent during the year 1998 and 2002. However, after 2005 the share of this route fell down and came to 11.97 percent in 2009. The overall share of FDI garnered through this route during the period 1991-2009 in 9.67 percent. Since 1999, the closing balance of advances has also been included while calculating the total amount of FDI inflows and swapped stock were also added since 2002.

Section II

Sectoral Composition of FDI Inflows in Pre and Post Liberalization Period

The analysis of the sectoral distribution of FDI inflows in a country is as important as the study of quantum of FDI got. The sectoral composition of FDI impacts economic growth of the country in an impressive way. If in composition of FDI, there is significant share of the manufacturing sector, a positive effect can be seen on economic growth of the country. But on the other side, we can expect negative bearing on economic growth if the sectoral composition of FDI is skewed towards the primary sector or the service sector, (Aykut and Sayek 2006).

Since the post independence period the government of India has been cautious regarding the nature of FDI inflows coming to the country. Actually FDI in India was opted mainly to reap the benefits of advanced technology which it supposedly brings in its wake. This may be the reason that government of India has not put much barrier to the FDI which was technology oriented even in the comparatively restrictive periods (Kumar,1998, Nagraj, 2003). Therefore, the analysis of structure of FDI or its sectoral composition in India is of utmost importance which is taken up in the present study.

Table 5

"Sector wise Foreign Direct Investment in India

	1980		1990		1997	
Industry /Group	**FDI in million Rs.**	**Percent**	**Amount of FDI in million Rs.**	**Percent**	**Amount of FDI in million Rs.**	**Percent**
Agriculture	385	4.13	2560	9.46	4310	1.18
Petroleum	368	3.94	30	0.11	3330	0.91
Minerals	78	0.84	80	0.30	410	0.11
Services	**320**	**3.43**	**890**	**3.29**	**54650**	**14.97**
Manufacturing	**8116**	**86.97**	**22980**	**84.95**	**17320**	**48.00**
Electric goods and machinery	975	10.45	2950	10.91	29400	8.31
Textiles products	320	3.43	920	3.40	10390	2.85
Metal products and metal	1187	12.72	1410	5.21	7600	2.08
Machine and machine tools	710	7.61	3540	13.09	19310	5.29
Transport	515	5.52	2820	10.43	24570	6.73
Food and beverages	391	4.19	1620	5.99	24310	6.66
Chemicals and allied products	3018	32.34	7690	28.43	32530	8.91
Others Manufacturing industries	1000	10.72	2030	7.50	27120	7.43
Others	65	0.70	510	1.89	127170	34.83
Aggregate	**9332**	**100.00**	**27050**	**100.00**	**365100**	**100.00"**

Source : Kumar (2005) and RBI Bulletin April 1985, August 1993 and October 2000)

Note: We acknowledge this table, to the source (Kumar, 2005)

Table 5 presents the sector wise composition of FDI in India at three points of time 1980, 1990 and 1997. The sectoral composition of FDI in India has observed a significant change in 1990s in relation to 1980s (Kumar, 2005). Close perusal of this table reveals that the largest share of FDI inflow in the pre liberalization era were in the manufacturing sector and it was as high as 86.97 percent of total FDI in 1980 and nearly 85 percent in the year 1990. But during the post liberalization period the FDI inflows to services and infrastructure sector have risen significantly. This has resulted in the share of manufacturing sector reduced to 48 percent in 1997. The combined share of plantation, mining and petroleum markedly fell from nearly 9 percent in 1980 to just 2 percent in 1997. Chemicals & allied products which held 32.34 percent share in FDI in 1980s lost its long standing by coming down to the share of 8.91 percent. Similarly metal & metal product which had a substantial position with 12.72 percent share in total FDI fell to the paltry percentage of 2.08. During 1990s the service sector clearly emerged as a major sector receiving FDI with the share of more than one sixth of total FDI. Another note worthy feature is that in the year 1997 , the FDI is also quite evenly distributed between industries like food and beverages, electrical and electronic, transport equipment, chemical and allied products, metal and metal products and miscellaneous. Earlier there was a very heavy concentration in relatively technology intensive sectors in manufacturing (Kumar, 2005).

Table 6

Sector wise FDI Inflows to India

	2000-2009			**1991-99**		
	Amount in million Rs.	**Percentage to total**	**Rank**	**Amount in million Rs.**	**Percentage to total**	**Rank**
Services	1014916.85	21.49	**1**	40443.82	11.08	**2**
Computer Hardware and software *	424586.22	8.99	**2**	0	0.00	
Telecommunications	398199.18	8.43	**3**	40376.82	11.06	**3**
Housing & real estate	352550.37	7.47	**4**	0	0.00	
Construction	326943.23	6.92	**5**	0	0.00	
Automobiles industry	205545.58	4.35	**6**	0	0.00	
Power generation	202838.58	4.30	**7**	36433.77	9.98	**5**
Metallurgical industry	131669.7	2.79	**8**	6333.34	1.73	**12**
Petroleum & Natural gas	112657.8	2.39	**9**	0	0.00	
Chemicals other than fertilizers	108775.1	2.30	**10**	39861.28	10.92	**4**
Electrical equipment	95018.86	2.01	**11**	46424.75	12.72	**1**
Trading	88031.97	1.86	**12**	6714.21	1.84	**11**
Hotel & Tourism	80355.57	1.70	**13**	3043.49	0.83	**17**
Information Broadcasting	79536.3	1.68	**14**	0	0.00	
Cement & Gypsum product	74856.69	1.59	**15**	1663.54	0.46	**20**
Drug & Pharamceuticals	74309.34	1.57	**16**	8221.2	2.25	**10**
Agriculture Services	71231.74	1.51	**17**	0	0.00	
Consultancy Services	68425.06	1.45	**18**	220.02	0.06	**34**
Ports	66675.18	1.41	**19**	0	0.00	

Food Processing industries	44443.54	0.94	**20**	23676.92	6.49	**6**
Electronics*	36373.25	0.77	**21**	0	0.00	
Textiles (including dyed & printed)	35566.62	0.75	**22**	8293.49	2.27	**9**
Mechanical & Engineering industry	35360.53	0.75	**23**	8511.2	2.33	**8**
Fermentation industry	32876.18	0.70	**24**	804.69	0.22	**26**
Hospitals & diagnostic centres	32199.59	0.68	**25**	0	0.00	
Sea Transport	31644.28	0.67	**26**	0	0.00	
Mining	29345.98	0.62	**27**	0	0.00	
Industrial Machinery	22358.11	0.47	**28**	3627.9	0.99	**15**
Paper and pulp	18957.16	0.40	**29**	8659.35	2.37	**7**
Ceramics	17740.56	0.38	**30**	1719.45	0.47	**19**
Education	16747.64	0.35	**31**	0	0.00	
Machine tools	16939.04	0.36	**32**	1614.8	0.44	**21**
Rubber goods	13231.79	0.28	**33**	3058.89	0.84	**16**
Diamond, Gold ornaments	12256.62	0.26	**34**	0	0.00	
Medical & surgical appliances	14967.99	0.32	**35**	866.42	0.24	**25**
Air Transport (including frieght)	10152.83	0.21	**36**	0	0.00	
Commercial, office & Household Equipment	9371.57	0.20	**37**	5407.19	1.48	**14**
Non-conventional energy	9357.28	0.20	**38**	0	0.00	
Printing of books	9186.19	0.19	**39**	0	0.00	
Soaps, cosmetics &Toilet Preprations	6804.99	0.14	**41**	24.17	0.01	**37**
Agricultural Machinery	6689.45	0.14	**42**	1883.49	0.52	**18**
Glass	6230.59	0.13	**43**	5651.42	1.55	**13**
Vegetable oils & vanaspati	6056.34	0.13	**44**	469.43	0.13	**28**
Earth moving machinery	5846.24	0.12	**45**	277.9	0.08	**32**
Retail Trading(single brand)	8226.96	0.17	**40**	0	0.00	
Fertilizers	4871.99	0.10	**46**	696.63	0.19	**27**
Railway related components	4470.58	0.09	**47**	0	0.00	
Processing coffee & rubber	3813.75	0.08	**48**	0	0.00	
Photographic film &paper	2580.2	0.05	**49**	289.53	0.08	**31**
Sugar	1839.04	0.04	**50**	260.06	0.07	**33**
Leather goods and pickers	1846.4	0.04	**51**	1120.98	0.31	**23**
Industrial instruments	1736.85	0.04	**52**	397.99	0.11	**30**
Timber products	876.74	0.02	**53**	0	0.00	
Coal production	624.8	0.01	**54**	0	0.00	
Dye stuff	601.74	0.01	**55**	464.14	0.13	**29**
Scientfic instruments	511.44	0.01	**56**	144.06	0.04	**36**
Boilers and steam generators	423.46	0.01	**57**	157.38	0.04	**35**
Glue & Gelatin	398.44	0.01	**58**	1180	0.32	**22**
Prime movers	178.3	0.00	**59**	1053.25	0.29	**24**

Coir	62.09	0.00	**60**	0	0.00	
Mathematical& drawing instruments	50.45	0.00	**61**	0	0.00	
Defence industries	2.37	0.00	**62**	0	0.00	
Miscellaneous industries	231372.07	4.90		55027.4	15.07	
Sub Total	**4722312.36**	100.00		**365074.37**	**100**	
Grand Total**	**4817826.08**			**576821.2**		

Source: Calculated by author on the basis of data complied from various issues of SIA - News letters, DIPP, GOI

Note 1 : Sector receiving highest FDI is assigned rank one and subsequent sectors given ranks in ascending order.

2: Data for the period 1991 to 1999 pertains to FDI approved and from the year 2000 onwards pertains to actual FDI inflows.

3: * included in Electrical Equipments till 2003.

4: **Grand total includes acquisition of shares, advance of inflow, stock swapped and NRI-RBI schemes.

A detailed year wise trend analysis of sector wise distribution of FDI in India is build in Table 6 which shows percentage share and the rankings of different sectors in attracting the FDI during the periods 2000- 2009 and 1991-1999.

The table depicts the significant change in the sectoral composition of FDI during the period 1991-2009a. Major shift in the composition of FDI could be the result of policy liberalization and the changes in sectoral policies of FDI from time to time (Mathiyazhagan K. Maathai, 2005). Earlier many sectors which were not open to FDI were thrown open and limits of many others have been raised in the post liberalization period.

The trend shown by the table is not random rather it shows the definite dominance of certain sectors which have emerged as strategic due to their huge share in the FDI inflows in the country. First of all we observe that FDI inflows growth in service sector has been phenomenal in the last two decades. Since the onset of liberalization, the country experienced a high jump in the inflows of FDI in service sector because of the tremendous growth potential that it possesses. This sector has ranked among the top ten sectors attracting FDI since 1991. Service sector comprising financial and non financial banking and insurance, outsourcing and research & development services ranked two during 1991-99 by attracting 11.08 percent of total FDI inflows during that period. However, it gained rank one by adding 21.49 percent share to the cumulative FDI for the period 2000-09.

Computer software and hardware sector was not taken independently till the year 2003 and till then it was merged under the head electrical. It was taken separately since the year 2004. It accounted for major share to the order of 8.99 percent in the cumulative FDI inflows for the period 2000-09 and grabbed the second rank. Establishment of software technology parks, regulatory reforms by the Indian government, the growing Indian market and availability of skilled work force have been important factors in boosting FDI inflows to this sector in India. Hardware industry which includes personal computers, servers, laptops and software industry which includes e-commerce activities enjoy the 100 percent FDI permission under the automatic route. High growth prospects in terms of increased consumption in India as well as increasing demand for IT exports are expected to lead to more FDI in this sector in coming years.

FDI in telecommunications sector has been rising tremendously recently. Telecom industry which touches telecommunication, cellular mobiles and basic telephones services has ranked among the top ten sectors in attracting FDI since 1991. For the period 1991-99 it added 11.06 percent and for the period 2000-09 it added 8.43 percent to the respective FDI cumulative inflows. The government of India has taken measures to ensure pro-active and positive policies to boost FDI to this sector. A number of telecom services providers are working in both the private and public sector. Two most crucial causes behind the huge FDI inflows to telecom sector are the growing demand in India and the private sector participation in this sector. The limit to FDI in telecom was increased from 49 percent to 74 percent in the year 2005. FDI up to 49 percent can be allotted to certain telecom sectors under automatic route, however in case of license companies, FDI requires a prior approval provided it has total ceiling of 74 percent. Since India has one of the longest communication networks across the globe, even more FDI in this sector is expected to pour down in future.

Housing and real estate sector was opened to FDI in the year 2005 and since the year 2006 this sector is ranking among top five sectors in attracting FDI inflows. The government of India allows FDI up to 100 percent in this sector according to certain guidelines, which state that the minimum built up area should be 50,000 square meters for the projects of constructions development and the minimum area should be 25 acre for integrated townships. India has become one the most prime destinations in terms of construction activities and real estate investments. It was again during the union budget of 2005 that the gates were opened for FDI construction industry. Construction industry which has ranked among the top five sectors in attracting FDI since 2006, includes housing, commercial premises, hotels, resorts, hospitals, educational institutions, recreational facilities and city & regional level infra structure. FDI to this sector is permissible under automatic route. For the period 2000-2009, the housing and real estate sector accounted for 7.47 percent share of the total FDI inflows of that period and scored fourth rank while the construction activities account for 6.92 percent share and scored fifth rank.

FDI inflows to automobile industry in India have been increasing at a fast pace and this sector has ranked among the top ten receivers of FDI inflows since the year 2000. During the period 2000 2009, it attracted 4.35 percent of total FDI received and scored sixth rank. Hundred percent FDI is allowed in this sector and India is becoming a prime destination for many international players in the automobile industry who wish to set up their business in India. The basic advantages that India can provide to automobile producers are advanced technology, cost effectiveness, efficient manpower and above all the growing demand.

The power sector in India has attracted considerable FDI during the period 1991-99 and accounted for 9.98 percent share of total FDI inflows during this period, grabbing the fifth rank. During the period 2000- 2009 it gained the seventh rank by garnering 4.30 percent share to the cumulative FDI. The huge size of the market in this sector and high returns on investment are two important factors in boosting FDI inflows to power sector. 100 percent FDI in allowed under automatic route in almost all the sub sectors of power sector except the atomic energy.

FDI inflows to metallurgical industries have remained less noticeable after 1991. The percentage share of this sector has not been high although it managed to place itself in the top ten recipients. During the period 1991-99 this sector attracted just 1.73 percent of FDI inflows and in the period 2000- 2009, the share rose marginally to 2.79 percent giving it eighth rank. FDI in this sector can help bring the latest technology but this sector could not garner much FDI, since India this sector is largely dominated by the public sector.

FDI inflows to petroleum and natural gas have started pouring in since the year 2004. Since then the inflows to this sector have picked up in absolute sense and it has just managed to rank itself among the toppers although important initiatives have been taken by the Indian government to drive FDI inflows. Hundred percent FDI is permitted under automatic route and the growing demand for petroleum and natural gas necessitates more investment in this sector. During the period 2000- 2009, this sector accounted for mere 2.39 percent of the total inflows.

Chemicals other than fertilizers have attracted a significant portion of FDI during 1980s and 1990s. Even during the period 1991-99 this sector ranked as high as four. However, it ranked at number ten by receiving 2.30 percent of cumulative FDI during 2000-2009.

During the period 1991-99 the electrical equipment industry attracted the maximum share of 12.72 percent of total FDI during that period scoring rank one. The rank of this sector slipped down to eleven during the period 2000-2009. But it is worth mentioning here that before the year 2003, the big share attained by this sector was deceptive because till that period computer software & hardware and electronics industry were also included under this head.

There is a long list of different sectors attracting FDI in India. The new entrants in the FDI regime are information and broadcasting, ports, printing of books, education hospitals & diagnostics, Air transport, railway related components, non-conventional energy, diamond & gold ornament and defence industries. But there are other industries like drug & pharmaceuticals, cement & gypsum, food processing, textiles, fermentation, hotel and tourism, paper and pulp, ceramics, agricultural machinery, scientific instruments, boilers and steam generators, glue and gelatin and glass industries whose positions have been more or less the same over the years from 1991 to 2009,

Based upon the data given by SIA-DIPP, in India there are sixty two sectors in which FDI inflows are coming. It is interesting to know that the top ten sectors jointly attract almost 70 percent of the FDI inflows coming to India every year. The cumulative FDI inflows for the period 2001 to 2009 indicate that service sector in India generated FDI to the tune of Rs. 1014916.85 million, followed by computer software and hardware with amount of Rs.424586.22 million during the above said period. It is not surprising that both these two sectors account for more than 30 percent of India’s FDI. Housing & real estate and construction industry are among the new sectors attracting large FDI inflows that came under top ten sectors in attracting maximum inflows. Electrical equipment industry and chemicals other than fertilizers, although managed to be among the top rankers but these sectors have lost their strong foot hold over the FDI which these had earlier.

One fact which is clear from the discussion is that during India’s post reforms substantial proportion of FDI has gone to services, infrastructure & relatively low technology intensive consumer goods industries. In the pre reform period there was high concentration in technology intensive manufacturing industries. FDI was selectively channeled into technology intensive manufacturing through a cautious policy. In the post reform period, however, new industries such as services and infrastructure were opened to FDI which led to more of it going to these and thus bringing down the share of manufacturing (Kumar 2005, p. 1462). There was no policy to direct the FDI to certain branches, within the manufacturing also. Hence, many consumer goods industries gained importance which earlier did not have so much exposure to FDI.

Section III

Sector wise FDI inflows to Developing Countries and the World

If we look at the sector wise composition of global FDI inflows and that of the developing countries of the world we find that trend has gone in favour of service sector. Never the less, a similar trend in case of FDI in manufacturing and services sectors can be seen at global level also. Hence, we can say that the phenomenon of change in the sectoral composition of FDI in India might have been affected by the global move and not only by adoption of liberal policy towards FDI after 1991.

Table 7

Sector and industry wise distribution of FDI Inflows to Developing economies and World

	1990-92				2006-08			
Sector/industry	Developing economies		World		Developing economies		World	
	Amount in $ million	Percentage to Total	Amount in $ million	Percentage to Total	Amount in $ million	Percentage to Total	Amount in $ million	Percentage to Total
Aggregate Inflows	**46 603**	**100**	**175 893**	**100**	**455 006**	**100**	**1 776 660**	**100**
Primary Sector	**4 224**	**9**	**14 912**	**8**	**52 737**	**12**	**235 582**	**13**
Agriculture and allied	696	1	709	0	4 651	1	6 200	0
Mining and petroleum	3 528	8	14 174	8	47 973	11	229 268	13
primary Unspecified	-	-	28	0	114	0	114	0
Manufacturing Sector	**18 184**	**39**	**53 611**	**30**	**133 945**	**29**	**418 348**	**24**
Machinery and equipment	2 926	6	7 068	4	12 023	3	37 650	2
Food, beverages and tobacco	2 394	5	7 159	4	8 138	2	69 754	4
Chemicals and chemical products	2 346	5	7 770	4	15 302	3	82 370	5
Transport equipments &vehicles	611	1	3 167	2	5 615	1	12 341	1
Other manufacturing	927	2	3 462	2	2 979	1	19 769	1
Electrical and electronic equipment	788	2	1 555	1	15 472	3	39 816	2
Wood and wood products	330	1	1 757	1	2 881	1	10 019	1

mineral products (Non-metallic)	407	1	1 237	1	3 889	1	13 382	1
Textiles, clothing and leather	375	1	1 511	1	5 467	1	14 194	1
Metal and metal products	1 155	2	3 648	2	12 538	3	43 072	2
Coal, petroleum products and nuclear fuel	326	1	- 789	- 0	7 590	2	12 950	1
Publishing, printing and recorded media	-	-	108	0	396	0	6 402	0
Precision instruments	58	0	855	0	641	0	5 158	0
Rubber and plastic products	64	0	563	0	2 207	0	6 733	0
Unspecified secondary	5 477	12	14 541	8	38 807	9	44 737	3
Services	**18 434**	**40**	**92 673**	**53**	**255 193**	**56**	**1 050 994**	**59**
Electricity, gas and water services	2 746	6	3 387	2	8 823	2	53 728	3
Transport and communications	2 117	5	5 567	3	26 415	6	110 087	6
Financial services	3 375	7	28 090	16	77 731	17	338 537	19
Trade services	2 942	6	19 044	11	32 057	7	138 648	8
Construction activites	795	2	1 071	1	11 667	3	25 109	1
Hotels and restaurants business	1 149	2	3 240	2	4 753	1	8 331	0
Health and social services	41	0	50	0	267	0	1 098	0
Other services	378	1	6 522	4	3 238	1	20 143	1
Business activities	4 463	10	20 700	12	81 298	18	319 778	18
Community, social and personal service activities	19	0	2 308	1	2 841	1	7 138	0
Education services	-	-	1	0	229	0	2 137	0
Public administration and defence services	1	0	1 421	1	243	0	1 737	0
Unspecified tertiary	409	1	1 273	1	5 630	1	24 522	1
Buying and selling of property	-	-	77	0	-	-	10 402	1
Unspecified	**5 760**	**12**	**14 620**	**8**	**13 130**	**3**	**61 334**	**3**

Source: Calculated by Authors on the basis of data extracted from annexed table 23, World Investment Report, 2008, UNCTAD .

Table7 exhibits the distribution of global FDI inflows among different sectors along with their percentage shares. A surprising fact manifested is that the shares of primary sector have rather increased in case of world inflows as well as in case of developing countries. In 1990-92 the share of primary sector in FDI inflows to developing countries was 9 percent which increased to 12 percent in 2006-08. In case of world inflows it increased from 8 percent to 13 percent in the same period. However, the share of manufacturing sector has certainly dipped both in case of FDI inflows of developing countries and the world. In 1990-92, manufacturing sector accounted for 39 percent share of FDI inflows to developing countries which considerably fell to 29 percent in 2006-08. FDI inflows to manufacturing sector were 30 percent of the total inflows of the world in 1990-92 which noticeably came down to 24 percent in 2006-08. On the other hand service sector attracted 40 percent of FDI inflows to developing countries in 1990-92 but substantially jumped to 56 percent in 2006-08. Similarly in global FDI inflows service sector which accounted for 53 percent in 1990-92 was able to channelize 59 percent of inflows.

On the basis of above discussion, one may suspect whether the change in the sector wise composition of FDI in India is the result of liberalization or it is due to the global phenomenon of changing composition of FDI.

Conclusion: The present study concludes that FDI inflows have shown significant growth during post liberalization period. The compound annual growth rate of Actual FDI inflows during this period is found as high as 29.56 percent. The analysis of structure of FDI in India reveals that after liberalization there definitely has been a shift in favor of service sector and a steep dive in the share of manufacturing sector. However, this trend matches the trend of change in the structure of FDI inflows to the developing countries and the world.

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