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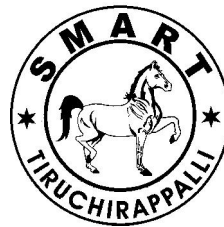
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# THE EFFECT OF LIBERALIZATION AND GLOBALIZATION OF FOREIGN DIRECT INVESTMENT IN INDIA

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## Abstract

*Foreign direct investment (FDI) has played an important role in the process of globalization during the past two decades. Due to liberalization of policies and globalization, the Foreign Direct Investment (FDI) Inflows are on an increasing trend. Foreign Direct Investment (FDI) has been one of the most fascinating and hot topics among researchers in the field of international trade and commerce. It is an important form of fast international expansion to increase ownership of assets, drive location-specific advantages and acquire additional knowledge. FDI in industrial sectors in India has become a point of discussion due to various reasons. Starting from the service sector; information technology, telecommunication sector; manufacturing etc there is a continuous fluctuation in FDI Inflows over the years. Earlier FDI targeted for manufacturing industries, automobile industries, transportation industry etc., but since a couple of years Service Sector has been attracting the highest FDI inflows. The present study is conducted to compare the FDI Inflows to the country during the Pre and Post Liberalization Period and to analyze the change in pattern of sectoral composition of India with the Global FDI inflows. Further an attempt is made to identify the factors which influence Foreign Direct Investment into the country.*

*Key words: Foreign Direct Investment, Inflow of FDI, Post-Liberalization period, Determinants, India.*

## 1. Introduction

Foreign Direct Investment (FDI) is an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy in an enterprise resident in an economy other than that of the FDI enterprise, affiliate enterprise or foreign affiliate. FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. [1]

FDI flows comprise equity and non-equity forms of investment. The equity capital flows comprises of the foreign direct investor's purchase of shares of an enterprise and also include the foreign direct investor's share in reinvested earnings. Besides, the equity form of FDI also includes short or long term intra-company loans and debt transactions between foreign direct investor and the affiliates. The non-equity forms of FDI include investments through such activities as subcontracting, management contracts, turnkey arrangements, franchising and licensing and products sharing.

Foreign Direct Investment involves the ownership and control of a foreign company in

a foreign country. In exchange for this ownership, the investing country usually transfers some of its financial, technical, managerial, trademark and other resources to the recipient country. The Government of India, in March 2003, revised the FDI definition in line with international practices. The revised FDI data now includes 'equity capital' including that of unincorporated entities, non-cash acquisition against technology transfer, plant and machinery, goodwill, business development, control premium, and non-competition fees. It also includes 're-invested earnings' including that of incorporated entities, unincorporated entities and reinvested earnings of indirectly held direct investment enterprises.

Foreign Direct Investment supplements domestic investment for achieving a higher level of economic growth and development. FDI offers benefits to domestic industry as well as to the consumer by providing opportunities for technological upgradation, access to global managerial skills and practices, optimal utilization of human and natural resources, making industry internationally competitive, opening up export market, providing backward and forward linkages and access to international quality goods and services. Thus, foreign investment and technology play an important role in the economic development of a nation.

India, without exception, as in case of other developing countries, is eager to prompt her economic growth through foreign direct investment. In the early 1980s, Indian government adopted a liberal policy towards FDI, especially in high technology areas and exports and thus FDI friendly environment was created. Later

during 1990s in order to create favorable investment climate in India, trade liberalization, market deregulation, privatization of national ownerships, were encouraged. In a way eighties were the fore-runners of the liberalization policy of 1990s and so this period is termed as Pre-Liberalization Period in the study. The period after 1991 is termed as Post Liberalization Period during which not only the quantum of FDI to India escalated but also the sectoral composition of FDI underwent tremendous change

## **2. Statement of the problem**

Capital and investment are the essential pillars of economic development of every country. Savings, capital and investment along with human resources are the essential hub of development. But the short supplies of domestic capital limit the growth of developing countries. Low GDP keeps the savings and investment rates low, which in turn, limits growth. Poor technological base of production is another factor impinging upon growth of the developing countries. FDI mitigates these constraints to growth of the developing and emerging countries.

The Inflows of FDI to both developed and developing countries have been progressively increasing throughout the decade of 1990s. But the developed countries are the highest gainers as far as FDI Inflows are concerned (World Investment Report, 2003). India liberalized its policies and globalized its economy only since 1991 hence there is a need to analyze the trends and progress of FDI in India before and after the adoption of the liberalization policies and globalization.

The government of India set for itself an ambitious target of achieving \$ 10 billions of actual FDI Inflows per year. However, our country has so far not succeeded in achieving this target. To achieve the target, besides the policy implementations and amendments, the root cause or reason for FDI flow into the country should be identified.

### **3. Review of Literature**

Laura Alfaro (2003), in his paper finds that FDI flows into the different sectors of the economy (namely primary, manufacturing, and services) exert different effects on economic growth. FDI Inflows into the primary sector tend to have a negative effect on growth whereas FDI Inflows in the manufacturing sector a positive one. Evidence from the foreign investments in the service sector is ambiguous. Kulwinder Singh (2005) has analyzed FDI flows from 1991-2005. A sectoral analysis in his study reveals that while FDI shows a gradual increase and has become a staple of success in India, the progress is hollow. The telecommunications and power sector are the reasons for the success of infrastructure. He comments that FDI has become a game of numbers where the justification for the growth and progress is the money that flows in and not the specific problems plaguing the individual sub-sectors. He finds that in the comparative studies the notion of infrastructure has gone a definitional change. Shiralashetti.A.S & S.S.Huger (2009) has made a comparison of FDI Inflows during Pre and Post Liberalization Period, country-wise, sector-wise and region-wise. On sector-wise comparison the service sector enjoys the lion-

share as compared to all other sectors of the Indian economy. Jaya Gupta (2007) made an attempt to review the change in sectoral trends in India due to FDI Inflows since liberalization. This paper also examines the changed policy implications on sectoral growth and economic development of India as a whole.

### **4.0 Objectives of the Study**

The study is conducted with the following objectives:

1. To examine the growth of FDI Inflows to India during Pre and Post Liberalization period.
2. To detect the changes in the sectoral composition of FDI under the policy of liberalization.
3. To identify factors that are responsible for flow of FDI to Indian economy.

### **4.1 Methodology**

#### **4.1.1 Nature and Source of Data**

The present study is of analytical nature and makes use of secondary data. The relevant secondary data are collected from various publications of Government of India, Reserve Bank of India and World Investment Report 2009 Published by UNCTAD etc.

#### **4.1.2 Period of the Study**

FDI inflows into India are analyzed taking into account Pre and Post Liberalization Period from 1980-81 to 2009-10. While sector wise analyses are conducted during the Post Liberalization Period from 1991-92 to 2009-10.

### 4.1.3 Hypothesis Framed

The following are the hypotheses which are framed for the study.

- ♦ To test whether the trend of sector wise FDI Inflows in India matches the global structure.
- ♦ To test the significance of the key factors which influence the flow of FDI into the country.

### 4.1.4 Tools used

FDI Inflows during Pre and Post Liberalization Period in India are compared by means of compounded annual growth rate. Sectoral composition of FDI Inflow into India and Global sector wise composition are analyzed by means of Trend Analysis. Multiple Regression analysis is used to identify the factors which influence FDI inflow into the country.

### 4.1.5 Scope and Limitations of the Study

The study was confined to FDI Inflows during Pre and Post Liberalization Period in India. Further, the study was limited to sector-wise flows of FDI in India and cumulative FDI Inflows have been taken for the purpose of analysis.

## 5. Growth of FDI inflows in Pre and Post Liberalization Period

Foreign Direct Investment into India till 1991 was restricted and moderately allowed only in a few sectors. This was mainly because of the kind of policies which the government of India has adopted over the years, which was 'inward looking strategy' and based upon dependence of external borrowings which in turn resulted in foreign debts. Later, the government realized the

need for foreign investment to bridge the gap between domestic savings and the amount of investments required. In 1991 when the government of India started liberalizing its policies and globalizing the economy, FDI was looked upon as a key component of economic reforms package. The New Industrial Policy of 1991 also gave utmost priority for attracting FDI. In this process, the government started opening up of domestic sectors to the private and foreign participation which was earlier reserved only for the public sector. This was followed by slow but significant relaxation of regulatory and entry restrictions on FDI Inflows. This led to the substantial increase in the volume of FDI Inflows into India during the Post Liberalization Period.

**Table- 1** shows the volume of FDI Inflows during the Pre and Post Liberalization Period. The Compounded Annual Growth Rate (CAGR) during the period 1980-81 to 1990-91 was 25.46 percent. This rate has excavated to 34.73 percent showing the relaxation of regulatory and entry restrictions of FDI Inflows during Post Liberalization Period.

## 6. Inter Sectoral Analysis of Foreign Direct Investment

A detailed trend analysis showing the amount and percentage share of FDI Inflows into various sectors and industries in India during Post Liberalization Period is shown in **Table- 2**. This helps the analysis of the growth and developments which has taken place across the sectors and industries. For the purpose of analysis, the Post Liberalization Period is classified into three phases, the I Phase is the period from 1991-1999, II Phase from 2000 to 2005 and III Phase from 2006- 2009.

The share of FDI Inflows in the **primary sector** which consists of agriculture and other related agricultural activities, mining, coal production, petroleum and natural gas has increased from 0.63 percent in 1991-99 to 4.98 percent in 2006-10 with a marginal fall in 2000-05 to 0.59 percent.

The **manufacturing sector** which consists of 28 industries during the period 1991-99 has recorded a share of 56.21 percent of the total FDI Inflows during the period. This share of FDI Inflows has increased during 2000-05 to 58.21 percent consisting of 31 industries. During 2006-10 seven more industries attracted foreign direct investment with an absolute number of 38 industries in the manufacturing sector attract FDI. The seven new industries which were the recipient of Foreign Direct Investment during 2006-10 were automobile industry, computer hardware and software, electronics, diamond and gold ornaments, printing of books, manufacture of railway related components and coir. Though the number of industries in this sector has increased, the share of FDI in manufacturing sector to cumulative FDI Inflows has decreased to 29.84 percent. This is mainly due to the decline in the share of foreign direct investment in these manufacturing industries such as electrical equipment, chemicals, food processing industries, drugs and pharmaceuticals, miscellaneous mechanical engineering, textiles, paper products, cement and gypsum products, glass, rubber goods, commercial, office and household equipment, machine tools, medical and surgical equipment, fertilizers, leather goods, earth moving machinery, industrial instrument, soaps and

cosmetics, timber products, glue and gelatin, scientific instruments and miscellaneous instruments.

The share of FDI Inflows to **Service Sector** has increased its share from 43.16 percent in 1991-99 to 41.20 percent in 2000-05 and to 65.05 percent in 2006-10. The share of FDI Inflows has tremendously increased in services which consist of financial and non-financial services such as banking, insurance, outsourcing, research and development, courier and other services. Trading, Hotel and Tourism are the other industries where the FDI share has increased. While foreign direct investment has made an entry into information and broadcasting, hospital and diagnostic services, education, retail trade, housing and real estate, construction, ports, sea and air transport, non-conventional energy industries during 2006-10. On the other hand, the share of FDI Inflows has declined in telecommunications, transport, consultancy services, fuel (power and oil) industries.

The table and chart shown below elaborates the fact that the sectoral composition of FDI has undergone a significant change during the period 1991-99, 2000-05 and 2006-09. Major shift in the composition of FDI could be attributed to policy liberalization and the changes in sectoral policies of FDI from time to time. 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. During 1991-2005, only 43 industries were opened to foreign direct investment but from 2006 onwards due to further liberalization of FDI policies the number of industries has increased to 64.

## 7. Intra Sectoral Analysis of Foreign Direct Investment

The trend shown in table 2 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 it is observed that FDI Inflows into **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 the 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. Services which comprises financial and non financial banking and insurance, outsourcing and research & development services ranked three during 1991-99 and 00-05 by attracting 9.71 and 9.61 percent of total FDI Inflows during the two periods. However, it moved to rank one by adding 23.69 percent share to the cumulative FDI for the period 2006-10.

**Computer software and hardware sector** was not taken independently till the year 2006 and till then it was merged under the head electrical. It accounted for major share to the order of 7.69 percent in the cumulative FDI Inflows for the period 2006-10. Establishment of software technology parks, regulatory reforms by the Indian government, the growing Indian market and availability of skilled work force are the 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 the coming years.

In recent years, FDI in **tele communications sector** has been rising tremendously. 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, 00-05 it was 9.69 and 9.53 percent to the respective FDI cumulative inflows. But during 2006-10, the share of FDI Inflows to this sector has marginally reduced and recorded 8.11 percent. The government of India has taken measures to ensure pro-active and positive policies to boost FDI to this sector. A number of telecom service 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% in this sector. According to certain guidelines, 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 of the 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 in 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 2006-10, the housing and real estate sector accounted for 9.01 percent share of the total FDI inflow while the construction activities account for a similar percent share.

FDI Inflows to **automobile industry** in India have been increasing at a fast pace and this sector attracted 3.60 percent of total FDI received during 2006-10. 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 8.75 percent share of total FDI

Inflows during this period. During the period 2000- 2005 it increased its share to 16.96 percent 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 is allowed under automatic route in almost all the sub sectors of power sector except the atomic energy.

FDI Inflows to **metallurgical industries** have increased from 1.52 to 2.41 and 2.83 percent during 1991-99, 2000-05 and 2006-10. FDI Inflow into this sector is not able to garner as it 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 2006- 2010, this sector accounted for 2.28 percent of the total inflows.

**Chemicals other than fertilizers** have attracted a significant portion of FDI during 1980s and 1990s. This sector received 2.30 percent of cumulative FDI during 2000-2009 and was ranked in the tenth place among the top FDI receiving industries.

During the period 1991-99 the **electrical equipment industry** attracted the maximum share of 11.74 percent of total FDI during the period and it further increased its share to 19.10



percent during 2000-05. But during 2006-10, the share has declined to 1.94 percent. This is due to the fact that the computer software and hardware which was earlier shown in electrical equipment separated as an independent sector since 2004 due to the prominence in this sector.

India's post reforms experience suggests that substantial proportion of FDI has gone to services, infrastructure & relatively low technology intensive consumer goods industries compared to high concentration in technology intensive manufacturing industries in the pre reform period. In the Pre Reform Period, FDI was consciously channeled into technology intensive manufacturing through a selective policy. In the post reform period, however, opening up of new industries such as services and infrastructure to FDI has led to a lot of FDI going to these sectors thus bringing down the share of manufacturing.

## 8. Global Sectoral Composition of FDI Inflows

Besides, analyzing the inter sector and intra sector FDI Inflows in India, it was found necessary to analyze the global sectoral composition of FDI flows to compare and find out the sectoral change in pattern of FDI in India with that of developed, developing countries and the world. Table 3 exhibits the distribution of global FDI Inflows with their percentage shares during the two periods of 1990-92 and 2006-08.

A surprising fact manifested was that the shares of **primary sector** have rather increased in case of world inflows as well as in case of developed and developing countries. In 1990-92 the share of primary sector in FDI Inflows to developed countries was 8 percent which had

increased to 12 percent in 2006-08. Following the same trend the developing countries also has increased their share of FDI inflows from 9 to 12 percent from 1990-92 to 2006-08. In case of world inflows it increased from 8 percent to 13 percent in the same period.

The share of **manufacturing sector** has certainly dipped in all the three cases of FDI Inflow of developed, developing countries and the world. In 1990-92, manufacturing sector accounted for 28 percent share of FDI Inflows to developed countries which considerably fell to 22 percent in 2006-08. The share of FDI Inflows to developing countries also had observed a similar fall from 39 percent in 1990-92 to 29 percent in 2006-08. On the other hand, FDI inflow to manufacturing sector was 30 percent of the total inflows of the world in 1990-92 which noticeably came down to 24 percent in 2006-08.

**Service sector** attracted 65 percent of FDI Inflows to developed countries in 1990-92 but substantially increased its share to 66 percent in 2006-08. The developing countries with a share of 52 percent in 1990-92 have jumped to 59 percent in 2006-08. Similarly in global FDI Inflows service sector which accounted for 61 percent in 1990-92 was able to channelize 63 percent of inflows. On the basis of the above discussion, it is to be suspected 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.

On analyzing the sector wise FDI Inflows into India, it was found that the sectoral

concentration of FDI in Service sector is very much in contrast with the Global share of FDI Inflows. It is concluded that the trend of sector wise FDI Inflows in India matches the trend of change in the structure of FDI Inflows to the developed, developing countries and even the world.

## 9. Factors Responsible for Inflow of FDI

One of the important objectives of this study is to identify the determinants of FDI Inflows. However, this will enable to examine the policies relating to each one of these determinants so as to make the overall environment favorable for increased inflows of FDI into India. In this context, the following determinants were selected:

Gross Domestic Product (GDP), Coal Production (CLPRDN), Number of telephone lines (TELE), Exports (EXP), Imports (IMP), Number of commercial vehicles registered (COMMVHL) a proxy for infrastructural development, Population (POP) a proxy for potential market size, foreign exchange reserve (EXRSR) and industrial disputes (IDIS).

With these above variables, the multiple regression equation fitted as given below.

$$\text{FDI} = a + b_1 \text{GDP} + b_2 \text{CLPRN} + b_3 \text{TELE} + b_4 \text{EXP} + b_5 \text{IMP} + b_6 \text{COMMVHL} + b_7 \text{POP} + b_8 \text{EXRSR} + b_9 \text{IDIS}$$

In the above equation, "a" is the intercept, and  $b_1, b_2, b_3, b_4, b_5, b_6, b_7, b_8, b_9$  are the coefficients of the respective variable.

From the table it could be noted that the variables included in the regression equation explained nearly 97% of the variations in the

FDI inflows ( $R^2 = 0.968$ ). Then F value also is found statistically significant ( $F=33.6453$ ) implying that the equation is fit for drawing inferences.

Among the determinants included in the equation, GDP, TELE, EXP, IMP, COMMVHL & IDIS were found to be statistically significant. The other determinants were not statistically significant.

◆ **GDP** represents the productive capacity of the economy. It reflects both the size of the domestic market and the purchasing power of the citizens. A positive relationship between GDP and FDI implies that FDI flows into an economy with a sufficiently large host country market to accommodate the increase in local supply. From the equation it is clear GDP is statistically significant. It implies that a unit increase in GDP would lead to 0.016 unit increase in FDI. The positive relationship between GDP and FDI has to be read in conjunction with India's object to achieve a higher growth rate.

◆ **Coal Production** is taken as a proxy for mineral resources in the country. This determinant was not statistically significant in the function.

◆ **Number of telephone lines**, taken as a proxy for improvement in the standard of living of the people, was positively related to FDI inflows. This implies that with improvement in standard of living, the demand for improved communication facilities would go up. This, in turn, would open up opportunities for MNCs to invest in the development of telecom sector. The statistically significant coefficient of this variable ( $t=1.96941$ ) indicates, that for every unit

increase in number of telephones, the FDI inflows would go up by 0.17 unit. This is very much justified by the Governmental action to privatize the telecom sector. This could be given a boost to the inflow of FDI into India. Further, with the improvement in communication facilities in the country, the access to remote markets would become possible, which would enlarge the business opportunities. This again would have favorable impact of the inflow of FDI.

◆ **Exports** have inverse relationship with the FDI inflows. This is because, as the level of a nation's export increases, it has the effect of altering local labour market and driving domestic wages towards world levels. So FDI becomes less profitable. Hence the exports would decline with increase in inflows of FDI. This is also very much supported by the increasing wage levels in the private sector units in Indian economy. As regards the public sector and government employees, the Government had announced the Pay Commission causing a hefty hike in wages and salary. This is very much confirmed by the negative sign in the regression equation shown above. The coefficient of exports was also statistically significant. With every unit addition to exports, the FDI inflows would decline by 0.02 units.

◆ As regards **imports**, they are directly related to inflow of FDI. This is very much inconsistent with the findings of the previous studies. The past studies have concluded that FDI flows into those countries that are importing goods from abroad. More substitution argument also explains the reasons for inflow of FDI. FDI credits vertically integrated production units and also increases the amount of trade. Given the

oligopolistic structure of markets and international integration, imports and the level of FDI are always complementary. In the case of India, with the liberalization, entry of MNCs has facilitated inflow of modern technology. As a result, imports have gone up, along with the increase in inflow of FDI. The coefficient of imports in the above regression equation was statistically significant. 1 unit increase in imports leads to 0.059 unit increase in imports.

◆ There exists a very close relationship between **infrastructural development** and inflow of FDI. This is because, the infrastructure should improve to attract foreign manufacturers. With lower wages and greater profit potential, there exists a positive relationship between FDI inflows and the level of development of the country's infrastructure. In the above regression equation, the number of commercial vehicles registered was taken as a proxy for industrial development. The variable was found to be statistically significant as could be seen from the equation. With every unit addition to number of commercial vehicles registered, the FDI inflows would go up by about 0.45 units.

◆ **Population** is considered as a measure of potential market size of the host country. A larger population would increase the project profit from foreign investment. Hence FDI inflows have a direct relationship with the size of population. But in the regression equation fitted, population was not statistically significant.

◆ **Foreign exchange reserves** were also not statistically significant in the above equation.

◆ **Industrial Disputes** in a country reflects the level of manufacture in the industrial sector. With larger number of industrial disputes, the

product of the industrial sector is bound to be low. This would bring down the profit expectations. As a result, number of individual disputes adversely affects the inflow of FDI. In Indian experience, the increasing disturbance in the industrial scene has a depending effect on the inflow of FDI. Hence a negative sign associate with the coefficient of industrial dispute in the regression equation is very much consistent. In the above equation, industrial disputes turned out to be statistically significant. The coefficient indicated that with every unit increase in industrial disputes, the inflow of FDI would go down by 0.537 units.

## 10. Conclusion

The increased inflows have been characterized by a sharp change in their sectoral composition. During the period 2005-09 the share of manufacturing declined to almost half of what it was in 2004, share of services increased the maximum with mining and agriculture related activities receiving marginal amounts. Within services, Construction and Real Estate sector gained the most. The Financial services sector too gained . Major setback was, however, experienced by the IT & ITES sector. While the Energy sector gained relatively, telecommunication services managed to retain its share. Construction & Real Estate and Finance are thus the major gainers in this period.

The sector wise inflows of FDI in India shows a varying trend but acts as a catalyst for growth, quality maintenance and development of Indian Industries to a greater and larger extend. The technology transfer is also seen as one of the major change apart from increase in

operational efficiency, managerial efficiency, employment opportunities and infrastructure development. Therefore, there is an urgent need to adopt innovative policies and good corporate governance practices on par with international standards, by the Government of India, to attract more and more foreign capital in various sectors of the economy to make India a developed economy.

## References

- A.S.Shiralashetti & S.S.Huger, ICAFI Journal of Managerial Economics, Volm.VII No.1, Vol. 2, No.2, pp 261-271.
- Chandana Chakraborty, Peter Nunnenkamp (2008), "Economic Reforms, Foreign Direct Investment and Economic Growth in India: A Sector Level Analysis," World Development, Vol. 36, Issue 7, July 2008, pp1192-1212.
- Isabel Faeth (2009), "Determinants of Foreign Direct Investment – A Tale of Nine Theoretical Models," Journal of Economic Surveys, Vol. 23, No. 1, pp 165–196
- Jayachandran.G and A.Seilan (2010), "A Casual relationship between Trade, Foreign Direct Investment and Economic Growth for India", International Research Journal of Finance and Economics, Issue 42, pp 74-88.
- Kulwinder Singh "FDI in India: A Critical Analysis of Foreign Direct Investment from 1991-2005." Center for Civil Society, 2005, Research Internship Programme, New Delhi.
- Kumar, Nagesh (2005), "Liberalization and Foreign Direct Investments Flows and Development: Indian Experience in the 1990s," Economic and Political Weekly, Vol. 40, No. 14, pp 1459- 1469.

Laura Alfaro, "Foreign Direct Investment and Growth: Does the Sector Matter?", Working Paper Harvard Business School, April, 2003. Department of Economic Affairs, Ministry of Finance, Government of India.

Mathiyazhagan K. Maathai (2005), "Impact of foreign direct investment on Indian economy: A Sectoral Level Analysis?. ISAS Working Paper, Institute of South Asian Studies Singapore. Sebastin Morris (2004), "A Study of the Regional Determinants of Foreign Direct Investment in India, and the case of Gujarat," Working Paper No. 2004/03/07, 2004, Indian Institute of Management.

Mathiyazhagan K. Maathai and Dukhbandhu Sahoo(2008), "Do Foreign Direct Investment Inflows Benefit the Major Sectors in India," ISAS Working Paper, Institute of South Asian Studies Singapore. Handbook of Industrial Policy and Statistics, 2006-07, DIPP.

Prasad H.A.C and Sathish.R (2010), "Policy for India's Service Sector," Working Paper No.1/2010-DEA, SIA, Newsletters, (2000 to 2009).

World Investment Report, 2008, UNCTAD.

**Table - 1: Volume of FDI Inflows during Pre & Post Liberalization Period.**

FDI Inflows during Pre-Liberalization Period		FDI Inflows during Post-Liberalization Period	
Year	Amt. in US \$ Mn.	Year	Amt. in US \$ Mn.
1980-81	8	1991-92	129
1981-82	10	1992-93	315
1982-83	60	1993-94	586
1983-84	60	1994-95	1314
1984-85	60	1995-96	2144
1985-86	160	1996-97	2821
1986-87	196	1997-98	3557
1987-88	190	1998-99	2462
1988-89	267	1999-00	2155
1989-90	330	2000-01	4029
1990-91	97	2001-02	6130
		2002-03	5035
		2003-04	4322
		2004-05	6051
		2005-06	8961
		2006-07	22826
		2007-08	34835
		2008-09	35180
		2009-10	37182
<b>CAGR</b>	<b>25.46%</b>		<b>34.73%</b>

Source: SIA, Newsletter, various issues and compiled by the author.

Table - 2: Sectoral Composition of FDI Inflows in India

	Sectors	Amount in US \$ Million			% Share		
		1991-99	2000-05	2006-10	1991-99	2000-05	2006-10
<b>I</b>	<b>Primary</b>	<b>2612.98</b>	<b>5019.80</b>	<b>205520.81</b>	<b>0.63</b>	<b>0.59</b>	<b>4.98</b>
	Agricultural Machinery	1883.49	3631.86	3104.3	0.45	0.42	0.08
	Vegetable Oil & Vanaspathi	469.43	928.55	6177.91	0.11	0.11	0.15
	Sugar	260.06	459.39	1382.09	0.06	0.05	0.03
	Mining	-	-	27839.74	-	-	0.67
	Tea & Coffee Processing	-	-	3139.01	-	-	0.08
	Coal Production	-	-	622.81	-	-	0.02
	Agricultural Services	-	-	69,273.55	-	-	1.68
	Petroleum & Natural Gas	-	-	93,981.40	-	-	2.28
<b>II</b>	<b>Manufacturing</b>	<b>234176.56</b>	<b>498746.29</b>	<b>1235261.53</b>	<b>56.21</b>	<b>58.21</b>	<b>29.94</b>
	Computer Hardware & Software	-	-	317276.57	-	-	7.69
	Automobile industry	-	-	148596.96	-	-	3.60
	Electrical Equipment	46424.75	163639.03	80015.87	11.14	19.10	1.94
	Chemicals	39861.28	34703.21	81046.58	9.57	4.05	1.96
	Food Processing Industries	23676.92	23100.84	25114.81	5.68	2.70	0.61
	Drugs & Pharmaceuticals	8221.75	32283.8	43723.36	1.97	3.77	1.06
	Metallurgical Industries	6333.34	20617.64	116826.16	1.52	2.41	2.83
	Miscellaneous Mechanical Engineering	8511.20	10767.04	24773.84	2.04	1.26	0.60
	Textiles	8293.49	8570.37	28205.53	1.99	1.00	0.68
	Paper & Pulp Products	8659.35	5387.79	14047.95	2.08	0.63	0.34
	Cement & Gypsum Products	1663.54	30648.98	44693.41	0.40	3.58	1.08
	Glass	5651.42	4650.57	1580.59	1.36	0.54	0.04
	Rubber Goods	3058.89	6776.82	6643.02	0.73	0.79	0.16
	Commercial, Office & Household Equip.	5407.19	2983.65	6689.48	1.30	0.35	0.16
	Industrial Machinery	3627.9	4625.44	26427.22	0.87	0.54	0.64
	Machine Tools	1614.8	5016.49	12435.9	0.39	0.59	0.30
	Medical & Surgical Equipments	866.42	3605.31	12544.98	0.21	0.42	0.30
	Ceramics	1719.45	1775.87	16110.29	0.41	0.21	0.39
	Fertilizers	696.63	2596.3	2772.05	0.17	0.30	0.07
	Fermentation Industries	804.69	2353.03	23636.95	0.19	0.27	0.57
	Leather Goods	1120.98	840.97	1072.56	0.27	0.10	0.03
	Earth Moving Machinery	277.9	3074.18	2772.05	0.07	0.36	0.07
	Industrial Instruments	397.99	427.96	1308.89	0.10	0.05	0.03
	Photographic Film & Paper	289.53	318.01	2262.29	0.07	0.04	0.05
	Soaps & Cosmetics	24.17	3870.77	2948.41	0.01	0.45	0.07
	Electronics	-	-	12028.89	-	-	0.29
	Diamond, Gold Ornaments	-	-	10586.67	-	-	0.26
	Printing of Books	-	-	8123.57	-	-	0.20
	Railway Related Components	-	-	4104.35	-	-	0.10
	Timber Products	-	4668.68	879.37	-	0.54	0.02
	Dye- Stuffs	464.14	127.9	473.84	0.11	0.01	0.01
	Glue & Gelatin	1180	295.76	102.68	0.28	0.03	0.00
	Boiler & Steam Generating Plants	157.38	25.37	398.08	0.04	0.00	0.01
	Mathematical Surveying & Drawing	-	0.15	50.3	-	0.00	0.00
	Scientific Instruments	144.06	472.32	39.13	-	0.06	0.00
	Coir	-	-	38.34	-	-	0.00
	Defence Industries	-	2.37	4.5	-	0.00	0.00
	Miscellaneous Industries	55027.4	120519.67	154906.09	13.21	14.07	3.75

Table-2 Continued

<b>III</b>	<b>Services</b>	<b>179805.72</b>	<b>352970.79</b>	<b>2,685,595.02</b>	<b>43.16</b>	<b>41.20</b>	<b>65.08</b>
	Telecommunications	40376.82	81617.16	334,597.14	9.69	9.53	8.11
	Service Sector	40443.49	82299.69	977,632.32	9.71	9.61	23.69
	Consultancy Services	220.02	20085.87	50,532.12	0.05	2.34	1.22
	Trading	6714.21	8039.62	85,214.68	1.61	0.94	2.07
	Hotel & Tourism	3043.49	10154.46	82,126.67	0.73	1.19	1.99
	Prime Movers	1053.25	2.49	175.81	0.25	0.00	0.00
	Information & Broadcasting	-	-	73,290.15	-	-	1.78
	Hospital & Diagnostic Services	-	-	28,464.10	-	-	0.69
	Education	-	-	16,956.71	-	-	0.41
	Retail Trading	-	-	9,016.37	-	-	0.22
	Transportation Inds.	51520.67	80099.55	-	12.37	19.23	-
	Fuels (Power & Oil)	36433.77	70671.95	161,723.79	8.75	16.96	3.92
	Housing & Real Estate	-	-	371,606.56	-	-	9.01
	Construction	-	-	371,606.56	-	-	9.01
	Ports	-	-	59,910.78	-	-	1.45
	Sea Transport	-	-	24,298.42	-	-	0.59
	Non Conventional Energy	-	-	28,886.36	-	-	0.70
	Air Transport	-	-	9,556.48	-	-	0.23
	<b>TOTAL (I+II+III)</b>	<b>416595.26</b>	<b>856736.88</b>	<b>4126377.36</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Calculated by author on the basis of data compiled from various issues of SIA - Newsletters, DIPP, GOI

Figure - 1: Sectoral Composition of FDI during Post Liberalization Period

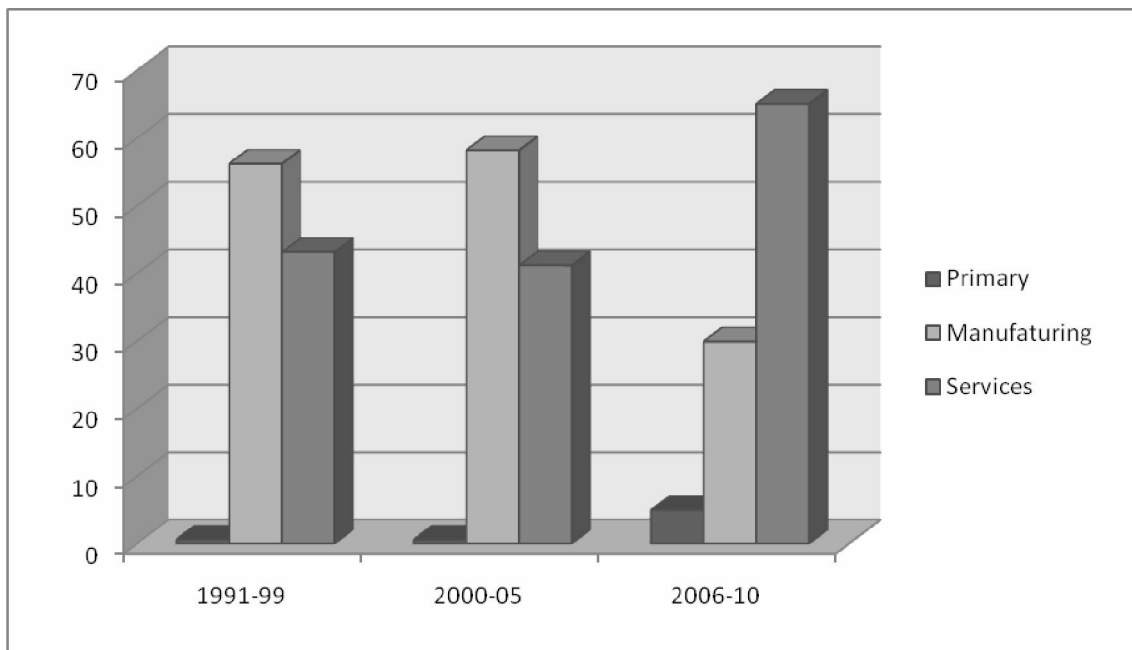




Table - 3: Global Sector-wise Composition of FDI Inflows (%)

	Sectors	1990-92			2006-08		
		Developed	Developing	World	Developed	Developing	World
<b>I</b>	<b>Primary -</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>13</b>
	Agriculture, hunting, forestry & fishing	0	1	0	0	1	0
	Mining, quarrying & petroleum	8	8	8	12	11	13
	Unspecified primary	0	0	0	0	0	0
<b>II</b>	<b>Manufacturing -</b>	<b>28</b>	<b>39</b>	<b>30</b>	<b>22</b>	<b>29</b>	<b>24</b>
	Food, beverages & Tobacco	4	5	4	5	2	4
	Textiles, Clothing & Leather	1	1	1	1	1	1
	Wood & wood products	1	1	1	0	1	1
	Publishing & Printing	0	0	0	1	0	0
	Coke, petroleum & nuclear fuel	-1	1	0	0	2	1
	Chemical & products	4	5	4	5	3	5
	Rubber & Plastic products	0	0	0	0	0	0
	Non-metallic mineral products	1	1	1	1	1	1
	Metal & metal products	2	2	2	2	3	2
	Machinery & Equipment	3	6	4	2	3	2
	Electrical & Electronic equipment	1	2	1	2	3	2
	Precision instruments	1	0	0	0	0	0
	Motor vehicles & other transport equip.	2	1	2	0	1	1
	Other manufacturing	2	2	2	1	1	1
	Unspecified secondary	7	12	8	0	9	3
<b>III</b>	<b>Services</b>	<b>65</b>	<b>52</b>	<b>61</b>	<b>66</b>	<b>59</b>	<b>63</b>
	Electricity, Gas & Water	1	6	2	3	2	3
	Construction	0	2	1	1	3	1
	Trade	13	6	11	8	7	8
	Hotels & restaurants	2	2	2	0	1	0
	Transport, storage & communications	3	5	3	6	6	6
	Finance	19	7	16	21	17	19
	Business activities	13	10	12	18	18	18
	Public Administration & Defence	1	0	1	0	0	0
	Education	0	0	0	0	0	0
	Health & Social Services	0	0	0	0	0	0
	Community, Social & personal service activities	2	0	1	0	1	0
	Other services	5	1	4	1	1	1
	Unspecified Teritary	1	1	1	2	1	1
	Private buying & selling of property	0	0	0	1	0	1
	Unspecified	7	12	8	4	3	3
	<b>Total (I+II+III)</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Calculated by author on the basis of data compiled from World Investment Report, 2008, UNCTAD



**Table 4: Regression Result of Determinants of Foreign Direct Investment**

S. No.	Variable	Coefficient	t value
	Intercept	-10971.3	-0.92407 *
1	Gross Domestic Product (GDP)	0.01545	1.92104**
2	Coal Production (CLPRDN)	-19.1496	-0.78795 *
3	Telephone Lines (TELE)	0.17323	1.96941 **
4	Exports (EXP)	-0.02327	-2.20087 **
5	Imports (IMP)	0.05961	3.73567 **
6	Commercial Vehicles (COMMVHL)	0.44694	1.92606 **
7	Population (POP)	24.46491	1.04618 *
8	Exchange Reserve (EXRSR)	0.00016	0.14534 *
9	Industrial Disputes (IDIS)	-0.53784	-2.189895 **

$R^2=0.968$

\*\* shows significance at 5% level

$F=33.6453$

\*shows not significant