# A STUDY OF FDI AND INDIAN ECONOMY

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## CHAPTER – 1

### 1.0 INTRODUCTION

One of the most striking developments during the last two decades is the spectacular growth of FDI in the global economic landscape. This unprecedented growth of global FDI in 1990 around the world make FDI an important and vital component of development strategy in both developed and developing nations and policies are designed in order to stimulate inward flows. In fact, FDI provides a win – win situation to the host and the home countries. Both countries are directly interested in inviting FDI, because they benefit a lot from such type of investment. The 'home' countries want to take the advantage of the vast markets opened by industrial growth. On the other hand the 'host' countries want to acquire technological and managerial skills and supplement domestic savings and foreign exchange. Moreover, the paucity of all types of resources viz. financial, capital, entrepreneurship, technological know- how, skills and practices, access to markets- abroad- in their economic development, developing nations accepted FDI as a sole visible panacea for all their scarcities. Further, the integration of global financial markets paves ways to this explosive growth of FDI around the globe.

## 1.1 AN OVERALL VIEW

The historical background of FDI in India can be traced back with the establishment of East India Company of Britain. British capital came to India during the colonial era of Britain in India. However, researchers could not portray the complete history of FDI pouring in India due to lack of abundant and authentic data. Before independence major amount of FDI came from the British companies. British companies setup their units in mining sector and in those sectors that suits their own economic and business interest. After Second World War, Japanese companies entered Indian market and enhanced their trade with India, yet U.K. remained the most dominant investor in India.

Further, after Independence issues relating to foreign capital, operations of MNCs, gained attention of the policy makers. Keeping in mind the national interests the policy makers designed the FDI policy which aims FDI as a medium for acquiring advanced technology and to mobilize foreign exchange resources. The first Prime Minister of India considered foreign investment as "necessary" not only to supplement domestic capital but also to secure scientific, technical, and industrial knowledge and capital equipments. With time and as per economic and political regimes there have been changes in the FDI policy too. The industrial policy of 1965, allowed MNCs to venture through technical collaboration in India. However, the country faced two severe crisis in the form of foreign exchange and financial resource mobilization during the second five year plan (1956 -61). Therefore, the government adopted a liberal attitude by allowing more frequent equity participation to foreign enterprises, and to accept equity capital in technical collaborations. The government also provides many incentives such as tax concessions, simplification of licensing procedures and de- reserving

some industries such as drugs, aluminium, heavy electrical equipments, fertilizers, etc in order to further boost the FDI inflows in the country. This liberal attitude of government towards foreign capital lures investors from other advanced countries like USA, Japan, and Germany, etc. But due to significant outflow of foreign reserves in the form of remittances of dividends, profits, royalties etc, the government has to adopt stringent foreign policy in 1970s. During this period the government adopted a selective and highly restrictive foreign policy as far as foreign capital, type of FDI and ownerships of foreign companies was concerned.

Government setup Foreign Investment Board and enacted Foreign Exchange Regulation Act in order to regulate flow of foreign capital and FDI flow to India. The soaring oil prices continued low exports and deterioration in Balance of Payment position during 1980s forced the government to make necessary changes in the foreign policy. It is during this period the government encourages FDI, allow MNCs to operate in India. Thus, resulting in the partial liberalization of Indian Economy. The government introduces reforms in the industrial sector, aimed at increasing competency, efficiency and growth in industry through a stable, pragmatic and non-discriminatory policy for FDI flow.

Infact, in the early nineties, Indian economy faced severe Balance of payment crisis. Exports began to experience serious difficulties. There was a marked increase in petroleum prices because of the gulf war. The crippling external debts were debilitating the economy. India was left with that much amount of foreign exchange reserves which can finance its three weeks of imports. The outflowing of foreign currency which was deposited by the Indian NRI's gave a further jolt to Indian economy. The overall Balance of Payment reached at Rs.( -) 4471 crores. Inflation reached at its highest level of 13%. Foreign reserves of the country stood at Rs.11416 crores. The continued political uncertainty in the country during this period adds further to worsen the situation. As a result, India's credit rating fell

in the international market for both short- term and long- term borrowing. All these developments put the economy at that time on the verge of default in respect of external payments liability. In this critical face of Indian economy the then finance Minister of India Dr. Manmohan Singh with the help of World Bank and

IMF introduced the macro – economic stabilization and structural adjustment programm. As a result of these reforms India open its door to FDI inflows and adopted a more liberal foreign policy in order to restore the confidence of foreign investors.

Further, under the new foreign investment policy Government of India constituted FIPB (Foreign Investment Promotion Board) whose main function was to invite and facilitate foreign investment through single window system from the Prime Minister's

Office. The foreign equity cap was raised to 51 percent for the existing companies. Government had allowed the use of foreign brand names for domestically produced products which was restricted earlier. India also became the member of MIGA

(Multilateral Investment Guarantee Agency) for protection of foreign investments.

Government lifted restrictions on the operations of MNCs by revising the FERA Act 1973. New sectors such as mining, banking, telecommunications, highway construction and management were open to foreign investors as well as to private sector.

**Table-1.1**

**FDI INFLOWS IN INDIA (*from 1948-2010*)**

| **Amount of FDI** | **Mid 1948** | **March 1964** | **March 1974** | **March 1980** | **March 1990** | **March 2000** | **March 2010** |
|---|---|---|---|---|---|---|---|
| ***In crores*** | **256** | **565.5** | **916** | **933.2** | **2705** | **18486** | **1,23,378** |

Source: Kumar[39] 1995, various issues of SIA Publication.

There is a considerable decrease in the tariff rates on various importable goods.

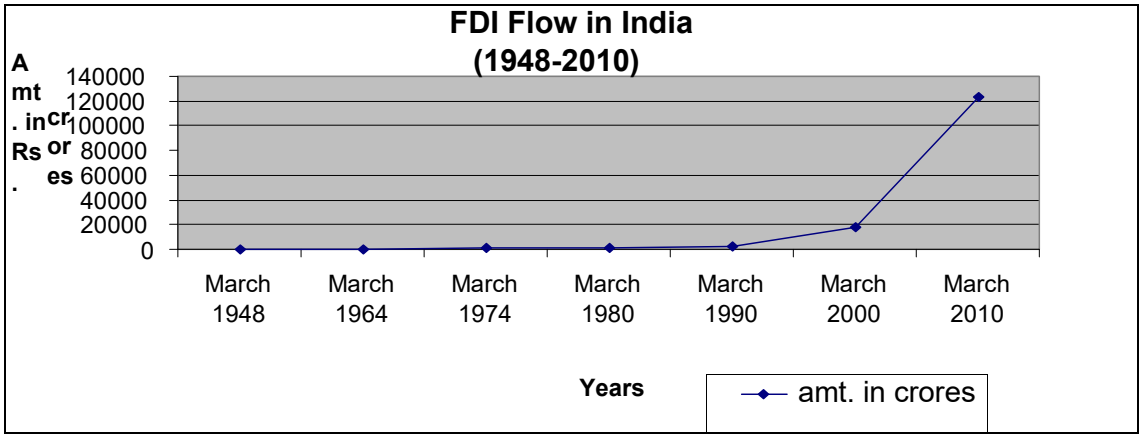
Table –1.1 shows FDI inflows in India from 1948 – 2010.FDI inflows during 1991-92 to March 2010 in India increased manifold as compared to during mid 1948 to march 1990 (Chart-1.1).

The measures introduced by the government to liberalize provisions relating to FDI in 1991 lure investors from every corner of the world. There were just few (U.K, USA, Japan, Germany, etc.) major countries investing in India during the period mid 1948 to march 1990 and this number has increased to fifteen in 1991. India emerged as a strong economic player on the global front after its first generation of economic reforms.

As a result of this, the list of investing countries to India reached to maximum number of 120 in 2008. Although, India is receiving FDI inflows from a number of sources but large percentage of FDI inflows is vested with few major countries. Mauritius, USA, UK, Japan, Singapore, Netherlands constitute 66 percent of the entire FDI inflows to India.

FDI inflows are welcomed in 63 sectors in 2008 as compared to 16 sectors in 1991.

**Chart – 1.1**




Source: Kumar 1995, various issues of SIA Publication.

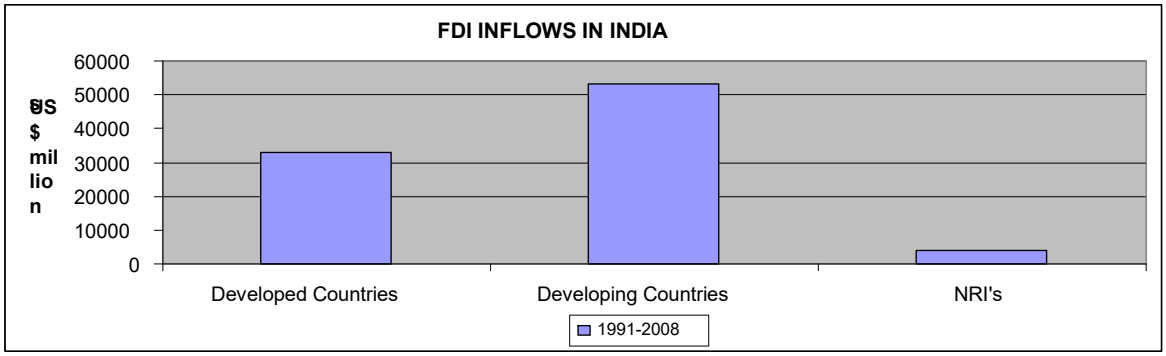
The FDI inflows in India during mid 1948 were Rs, 256 crores. It is almost double in March 1964 and increases further to Rs. 916 crores. India received a cumulative FDI inflow of Rs. 5,384.7 crores during mid 1948 to march 1990 as compared to Rs.1,41,864 crores during August 1991 to march 2010 (Table-1.1). It is observed from the (Chart – 1.1) that there has been a steady flow of FDI in India after its independence. But there is a sharp rise in FDI inflows from 1998 onwards. U.K. the prominent investor during the pre and post independent era stands nowhere today as it holds a share of 6.1 percent of the total FDI inflows to India.

## 1.2 FDI INFLOWS IN INDIA IN POST REFORM ERA

India's economic reforms way back in 1991 has generated strong interest in foreign investors and turning India into one of the favourite destinations for global FDI flows. According to A.T. Kearney[1], India ranks second in the World in terms of attractiveness for FDI. A.T. Kearney's 2007 Global Services Locations Index ranks India as the most preferred destination in terms of financial attractiveness, people and skills availability and business environment. Similarly, UNCTAD's[76] World Investment Report, 2005 considers India the 2nd most attractive destination among the TNCS. The positive perceptions among investors as a result of strong economic fundamentals driven by 18 years of reforms have helped FDI inflows grow significantly in India. The FDI inflows grow at about 20 times since the opening up of the economy to foreign investment. India received maximum amount of FDI from developing economies (Chart – 1.2). Net FDI flow in India was valued at US$ 33029.32 million in 2008. It is found that there is a huge gap in FDI approved and FDI realized (Chart- 1.3). It is observed that the realization of approved FDI into actual disbursements has been quite slow. The

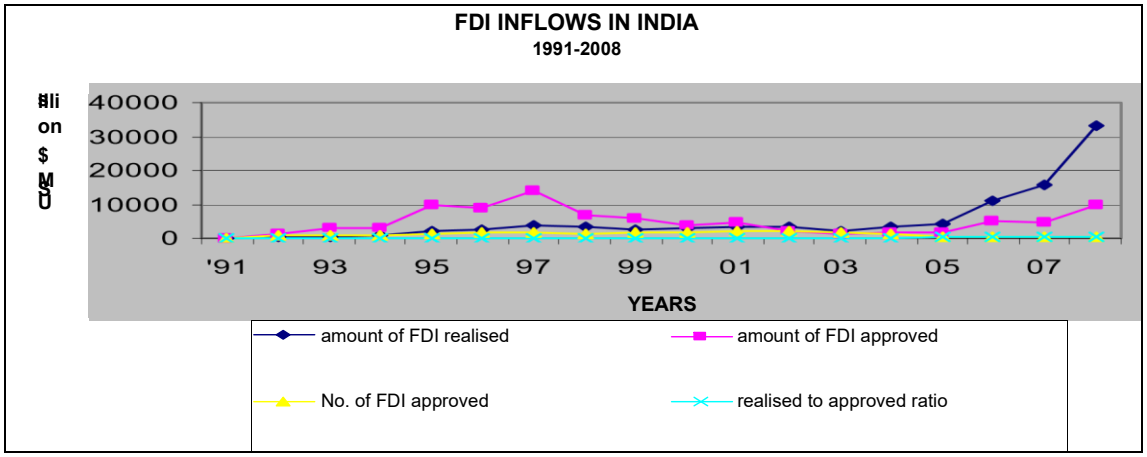
reason of this slow realization may be the nature and type of investment projects involved. Beside this increased FDI has stimulated both exports and imports, contributing to rising levels of international trade. India's merchandise trade turnover increased from US$ 95 bn in FY02 to US$391 bn in FY08 (CAGR of 27.8%).

**Chart-1.2**




Source: compiled and computed from the various issues of SIA Bulletin, Ministry of Commerce, GOI

**Chart-1.3**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

India's exports increased from US$ 44 bn in FY02 to US$ 163 bn in FY08 (CAGR of

24.5%). India's imports increased from US$ 51 bn in FY02 to US$ 251 bn in FY08 (CAGR of 30.3%). India ranked at 26th in world merchandise exports in 2007 with a share of 1.04 percent.

Further, the explosive growth of FDI gives opportunities to Indian industry for technological upgradation, gaining access to global managerial skills and practices, optimizing utilization of human and natural resources and competing internationally with higher efficiency. Most importantly FDI is central for India's integration into global production chains which involves production by MNCs spread across locations all over the world. (Economic Survey 2003-04).[16]

## 1.3 OBJECTIVES

The study covers the following objectives:

1. To study the trends and patterns of flow of FDI.
2. To assess the determinants of FDI inflows.
3. To evaluate the impact of FDI on the Economy.

## 1.4 HYPOTHESES

The study has been taken up for the period 1991-2008 with the following hypotheses:

1. Flow of FDI shows a positive trend over the period 1991-2008.
2. FDI has a positive impact on economic growth of the country.

## 1.5 RESEARCH METHODOLOGY

### 1.5.1 DATA COLLECTION

This study is based on secondary data. The required data have been collected from various sources i.e. World Investment Reports, Asian Development Bank's Reports, various Bulletins of Reserve Bank of India, publications from Ministry of Commerce,

Govt. of India, Economic and Social Survey of Asia and the Pacific, United Nations,

Asian Development Outlook, Country Reports on Economic Policy and Trade Practice- Bureau of Economic and Business Affairs, U.S. Department of State and from websites of World Bank, IMF, WTO, RBI, UNCTAD, EXIM Bank etc.. It is a time series data and the relevant data have been collected for the period 1991 to 2008.

### 1.5.2ANALYTICAL TOOLS

In order to analyse the collected data the following mathematical tools were used. To work out the trend analyses the following formula is used:

a.) Trend Analysis i.e. $\hat{y} = a + b\,x$

where $\hat{y}$ = predicted value of the dependent variable

a = y – axis intercept,

b = slope of the regression line (or the rate of change in y for a given change in x),

x = independent variable (which is *time* in this case).

b.) Annual Growth rate is worked out by using the following formula:

AGR = (X2- X1)/ X1

where X1 = first value of variable X

X2 = second value of variable X

c.) Compound Annual Growth Rate is worked out by using the following formula:

$$CAGR\ (t_0, t_n) = (V(t_n)/V(t_0))^{1/tn - t_0} -1$$

where

$V(t_0)$: start value, $V(t_n)$: finish value, $t_n - t_0$: number of years.

In order to analyse the collected data, various statistical and mathematical tools were used.

### 1.5.3MODEL BUILDING

Further, to study the impact of foreign direct investment on economic growth, two models were framed and fitted. The foreign direct investment model shows the factors influencing the foreign direct investment in India. The economic growth model depicts the contribution of foreign direct investment to economic growth. The two model equations are expressed below:

1 FDI = f [TRADEGDP, RESGDP, R&DGDP, FIN. Position, EXR.]

2 GDPG = f [FDIG]

where,

FDI= Foreign Direct Investment

GDP = Gross Domestic Product

FIN. Position = Financial Position

TRADEGDP= Total Trade as percentage of GDP.

RESGDP= Foreign Exchange Reserves as percentage of GDP.

R&DGDP= Research & development expenditure as percentage of GDP.

FIN. Position = Ratio of external debts to exports

EXR= Exchange rate

GDPG = level of Economic Growth

FDIG = Foreign Direct Investment Growth

Regression analysis (Simple & Multiple Regression) was carried out using relevant econometric techniques. Simple regression method was used to measure the impact of FDI flows on economic growth (proxied by GDP growth) in India. Further, multiple regression analysis was used to identify the major variables which have impact on foreign direct investment. Relevant econometric tests such as coefficient of determination $R^2$, Durbin – Watson [D-W] statistic, Standard error of coefficients, TStatistics and F- ratio were carried out in order to assess the relative significance, desirability and reliability of model estimation parameters.

## 1.6 IMPORTANCE OF THE STUDY

It is apparent from the above discussion that FDI is a predominant and vital factor in influencing the contemporary process of global economic development. The study attempts to analyze the important dimensions of FDI in India. The study works out the trends and patterns, main determinants and investment flows to India. The study also examines the role of FDI on economic growth in India for the period 1991-2008. The period under study is important for a variety of reasons. First of all, it was during July 1991 India opened its doors to private sector and liberalized its economy. Secondly, the experiences of South-East Asian countries by liberalizing their economies in 1980s became stars of economic growth and development in early 1990s. Thirdly, India's experience with its first generation economic reforms and the country's economic growth performance were considered safe havens for FDI which led to second generation of economic reforms in India in first decade of this century. Fourthly, there is a considerable change in the attitude of both the developing and developed countries towards FDI. They both consider FDI as the most suitable form of external finance. Fifthly, increase in competition for FDI inflows particularly among the developing nations.

The shift of the power center from the western countries to the Asia sub – continent is yet another reason to take up this study. FDI incentives, removal of restrictions, bilateral and regional investment agreements among the Asian countries and emergence of Asia as an economic powerhouse (with China and India emerging as the two most promising economies of the world) develops new economics in the world of industralised nations. The study is important from the view point of the macroeconomic variables included in the study as no other study has included the explanatory

variables which are included in this study. The study is appropriate in understanding inflows during 1991- 2008.

### 1.7 LIMITATIONS OF THE STUDY

All the economic / scientific studies are faced with various limitations and this study is no exception to the phenomena. The various limitations of the study are:

1. At various stages, the basic objective of the study is suffered due to inadequacy of time series data from related agencies. There has also been a problem of sufficient homogenous data from different sources. For example, the time series used for different variables, the averages are used at certain occasions. Therefore, the trends, growth rates and estimated regression coefficients may deviate from the true ones.
2. The assumption that FDI was the only cause for development of Indian economy in the post liberalised period is debatable. No proper methods were available to segregate the effect of FDI to support the validity of this assumption.
3. Above all, since it is a Ph.D. project and the research was faced with the problem of various resources like time and money.

# CHAPTER-2

# REVIEW OF LITERATURE

## 2.0 INTRODUCTION

The comprehensive literature centered on economies pertaining to empirical findings and theoretical rationale tends to demonstrate that FDI is necessary for sustained economic growth and development of any economy in this era of globalization. The reviewed literature is divided under the following heads:

- **Temporal studies**
- **Inter – Country studies**
- **Inter – Industry studies**
- **Studies in Indian Context**

## 2.1 TEMPORAL STUDIES

Dunning John H.[14] (2004) in his study "Institutional Reform, FDI and European Transition Economics" studied the significance of institutional infrastructure and development as a determinant of FDI inflows into the European Transition Economies. The study examines the critical role of the institutional environment (comprising both institutions and the strategies and policies of organizations relating to these institutions) in reducing the transaction costs of both domestic and cross border business activity. By setting up an analytical framework the study identifies the determinants of FDI, and how these had changed over recent years.

Tomsaz Mickiewicz, Slavo Rasosevic and Urmas Varblane[73] (2005), in their study, "The Value of Diversity: Foreign Direct Investment and Employment in Central Europe during Economic Recovery", examine the role of FDI in job creation and job preservation as well as their role in changing the structure of employment. Their analysis refers to Czech Republic, Hungary, Slovakia and Estonia. They present descriptive stage model of FDI progression into Transition economy. They analyzed the employment aspects of the model. The study concluded that the role of FDI in employment creation/ preservation has been most successful in Hungary than in Estonia. The paper also find out that the increasing differences in sectoral distribution of FDI employment across countries are closely relates to FDI inflows per capita. The bigger diversity of types of FDI is more favorable for the host economy. There is higher likelihood that it will lead to more diverse types of spillovers and skill transfers. If policy is unable to maximize the scale of FDI inflows then policy makers should focus much more on attracting diverse types of FDI.

Iyare Sunday O, Bhaumik Pradip K, Banik Arindam[28] (2004), in their work "Explaining FDI Inflows to India, China and the Caribbean: An Extended Neighborhood Approach" find out that FDI flows are generally believed to be influenced by economic indicators like market size, export intensity, institutions, etc, irrespective of the source and destination countries. This paper looks at FDI inflows in an alternative approach based on the concepts of neighborhood and extended neighborhood. The study shows that the neighborhood concepts are widely applicable in different contexts particularly for

China and India, and partly in the case of the Caribbean. There are significant common factors in explaining FDI inflows in select regions. While a substantial fraction of FDI inflows may be explained

by select economic variables, country – specific factors and the idiosyncratic component account for more of the investment inflows in Europe, China, and India.

Andersen P.S and Hainaut P.[3] (2004) in their paper "Foreign Direct Investment and Employment in the Industrial Countries" point out that while looking for evidence regarding a possible relationship between foreign direct investment and employment, in particular between outflows and employment in the source countries in response to outflows. They also find that high labour costs encourage outflows and discourage inflows and that such effect can be reinforced by exchange rate movements. The distribution of FDI towards services also suggests that a large proportion of foreign investment is undertaken with the purpose of expanding sales and improving the distribution of exports produced in the source countries. According to this study the principle determinants of FDI flows are prior trade patterns, IT related investments and the scopes for cross – border mergers and acquisitions. Finally, the authors find clear evidence that outflows complement rather than substitute for exports and thus help to protect rather than destroy jobs.

John Andreas[32] (2004) in his work "The Effects of FDI Inflows on Host Country Economic Growth" discusses the potential of FDI inflows to affect host country economic growth. The paper argues that FDI should have a positive effect on economic growth as a result of technology spillovers and physical capital inflows. Performing both cross – section and panel data analysis on a dataset covering 90 countries during the period 1980 to 2002, the empirical part of the paper finds indications that FDI inflows enhance economic Growth in developing economies but not in developed economies.

This paper has assumed that the direction of causality goes from inflow of FDI to host country economic growth. However, economic growth could itself cause an increase in FDI inflows. Economic growth increases the size of the host country market and strengthens the incentives for market seeking FDI. This could result in a situation where FDI and economic growth are mutually supporting. However, for the ease of most of the developing economies growth is unlikely to result in market – seeking FDI due to the low income levels. Therefore, causality is primarily expected to run from FDI inflows to economic growth for these economies.

Klaus E Meyer[34] (2003) in his paper "Foreign Direct investment in Emerging Economies" focuses on the impact of FDI on host economies and on policy and managerial implications arising from this (potential) impact. The study finds out that as emerging economies integrate into the global economies international trade and investment will continue to accelerate. MNEs will continue to act as pivotal interface between domestic and international markets and their relative importance may even increase further. The extensive and variety interaction of MNEs with their host societies may tempt policy makers to micro – manage inwards foreign investment and to target their instruments at attracting very specific types of projects. Yet, the potential impact is hard to evaluate ex ante (or even ex post) and it is not clear if policy instruments would be effective in attracting specifically the investors that would generate the desired impact. The study concluded that the first priority should be on enhancing the general institutional framework such as to enhance the efficiency of markets, the effectiveness of the public sector administration and the availability of infrastructure. On that basis, then, carefully designed but flexible schemes of promoting new industries may further enhance the chances of developing internationally competitive business clusters.

Klaus E Meyer, Saul Estrin, Sumon Bhaumik, Stephen Gelb, Heba Handoussa, Maryse Louis, Subir Gokarn, Laveesh Bhandari, Nguyen, Than Ha Nguyen, Vo Hung[35] (2005) in their paper "Foreign Direct Investment in Emerging Markets: A Comparative Study in Egypt, India, South Africa and Vietnam" show considerable variations of the characteristics of FDI across the four countries, all have had restrictive policy regimes, and have gone through liberalization in the early 1990. Yet the effects of this liberalization policy on characteristics of inward investment vary across countries. Hence, the causality between the institutional framework, including informal institutions, and entry strategies merits further investigation. This analysis has to find appropriate ways to control for the determinants of mode choice, when analyzing its consequences. The study concludes that the policy makers need to understand how institutional arrangements may generate favourable outcomes for both the home company and the host economy. Hence, we need to better understand how the mode choice and the subsequent dynamics affect corporate performance and how it influences externalities generated in favour of the local economy.

Vittorio Daniele and Ugo Marani[78] (2007) in their study, "Do institutions matter for FDI? A Comparative analysis for the MENA countries" analyse the underpinning factors of foreign Direct Investments towards the MENA countries. The main interpretative hypothesis of the study is based on the significant role of the quality of institutions to attract FDI. In MENA experience the growth of FDI flows proved to be notably inferior to that recorded in the EU or in Asian economies, such as China and India. The study suggests as institutional and legal reform are fundamental steps to improve the attractiveness of MENA in terms of FDI.

It is concluded from the above studies that market size, fiscal incentives, lower tariff rates, export intensity, availability of infrastructure, institutional environment, IT related investments and cross – border mergers and acquisitions are the main determinants of FDI flows at temporal level. FDI helps in creation/preservation of employment. It also facilitates exports. Diverse types of FDI lead to diverse types of spillovers, skill transfers and physical capital flows. It enhances the chances of developing internationally competitive business clusters (e.g. ASEAN, SAPTA, NAPTA etc.). The increasing numbers of BITs (Bilateral Investment Treaties among nations, which emphasizes non – discriminatory treatment of FDI) between nations are found to have a significant impact on attracting aggregate FDI flow as the concepts of neighbourhood and extended neighbourhood are widely applicable in different contexts for different countries. It is concluded that FDI plays a positive role in enhancing the economic growth of the host country.

**2.2 INTER – COUNTRY STUDIES**

Bhagwati J.N.[7] (1978), in his study "Anatomy and Consequences of Exchange Control Regimes" analyzed the impact of FDI on international trade. He concluded that countries actively pursuing export led growth strategy can reap enormous benefits from FDI.

Crespo Nuno and Fontoura Paula Maria[11] (2007) in their paper "Determinant Factors of FDI Spillovers – What Do We Rally Know?" analyze the factors determining the existence, dimensions

and sign of FDI spillovers. They identify that FDI spillovers depend on many factors like absorptive capacities of domestic firms and regions, the technological gap, or the export capacity.

Gazioglou S. and McCausland W.D.[21] (2000), in their study "An International Economic Analysis of FDI and International Indebtedness" developed a micro – foundations framework of analysis of FDI and integrated it into a macro level analysis.

They highlighted the importance of profit repatriation in generating different effects of FDI on net international debt, trade and real exchange rate in developed economies compared to less developed economies.

Chen Kun- Ming, Rau Hsiu –Hua and Lin Chia – Ching[10] (2005) in their paper "The impact of exchange rate movements on Foreign Direct Investment: Market – Oriented versus Cost – Oriented", examine the impact of exchange rate movements on Foreign Direct Investment. Their empirical findings indicate that the exchange rate level and its volatility in addition to the relative wage rate have had a significant impact on Taiwanese firms' outward FDI into China. They concluded that the relationship between exchange rates and FDI is crucially dependent on the motives of the investing firms.

Salisu A. Afees[56] (2004) in his study "The Determinants and Impact of Foreign Direct Investment on economic Growth in Developing Countries: A study of Nigeria" examines the determinants and impact

of Foreign Direct Investment on economic Growth in Developing Countries using Nigeria as a case study. The study observed that inflation, debt burden, and exchange rate significantly influence FDI flows into Nigeria. The study suggests the government to pursue prudent fiscal and monetary policies that will be geared towards attracting more FDI and enhancing overall domestic productivity, ensure improvements in infrastructural facilities and to put a stop to the incessant social unrest in the country. The study concluded that the contribution of FDI to economic growth in Nigeria was very low even though it was perceived to be a significant factor influencing the level of economic growth in Nigeria.

Lisa De Propis and Nigel Driffield[40] (2006) in their study "The Importance of Cluster for Spillovers from Foreign Direct Investment and Technology Sourcing", examine the link between cluster development and inward foreign direct investment.

They concluded that firms in clusters gain significantly from FDI in their region, both within the industry of the domestic firm and across other industries in the region.

Miguel D. Ramirez[42] (2006) in his study "Is Foreign Direct Investment Beneficial for Mexico? An Empirical Analysis" examines the impact of Foreign Direct Investment on labour productivity function for the 1960- 2001 period is estimated that includes the impact of changes in the stock of private and foreign capital per worker. The error correction model estimates suggest that increase in both private and foreign investment per worker have a positive and economically significant effect on the rate of labour productivity growth. However, after taking into account the growing remittances of profits and dividends, there is a marked decrease in the economic effect of foreign capital per worker on the rate

of labour productivity growth. The study assesses the short – term interactions of the relevant variables via impulse response functions and variance decompositions based on a decomposition process that does not depend on the ordering of the variables.

Okuda Satoru[48] (1994) in his study "Taiwan's Trade and FDI policies and their effect on Productivity Growth" reviewed the course of Taiwan's trade and FDI policies.

The purpose of the study was to examine how these policies affected productivity of Taiwan's manufacturing sector. As an indicator of productivity, TEP indices of the Taiwan manufacturing were calculated at the subsector level. It is find out that the TEP growth for manufacturing as a whole was 2.6 per cent per annum the electronics and machinery maintained high productivity performance while examining the relationship between TEP and trade and FDI liberalization policies was examined. The study concludes that the policies of the Taiwan government have generally been relevant.

Rhys Jenkins[53] (2006) in his study "Globalization, FDI and Employment in Vietnam", examines the impact of FDI on employment in Vietnam, a country that received considerable inflow of foreign capital in the 1990s as part of its increased integration with the global economy. The study shows that the indirect employment effects have been minimal and possibly even negative because of the limited linkages which foreign investors create and the possibility of "crowding out of domestic investment". Thus, the study finds out that despite the significant share of foreign firms in industrial output and

exports, the direct employment generated has been limited because of the high labour productivity and low ratio of value added to output of much of this investment.

Emrah Bilgic[18] (2006) in her study "Causal Relationship between Foreign Direct Investment and Economic Growth in turkey", examines the possible causal relationship between FDI and Economic Growth in Turkey. The study finds out that there is neither a long run nor a short run effect of FDI on economic growth of Turkey. Thus the study could not find any patterns for each hypothesis of "FDI led Growth" and "Growth driven FDI" in Turkey. The main reason of this result is that the country had unstable growth performances and very low FDI inflows for the period under analysis. The study suggests that in order to have a sustained economic development the government should improve the investment environment with the ensured political and economic stability in the country.

Korhonen Kristina[36] (2005) in her study "Foreign Direct Investment in a changing Political Environment" compares Finnish Investment during the restrictive period in 1984- 1997, with the liberal period in 1998-2002. The study reveals that the political environment of the firm in the host country may have a special role among the other parts of the firm's environment because of the supremacy of the host government to use its political power in order to intervene in FDI. The study states that TNC may not need to bargain alone but may lobby from its home government. Therefore, the study adds the concept of authority services to the list of TNC's bargaining techniques. The empirical results of the study suggest that the change in the political environment in Korea in 1998 had a clear impact on Finnish investment in Korea. The findings indicate that repeat investments had been

engaged regardless of the investment policy liberalization, but the acquisitions had not taken place without the change in Korea's investment policy. The results also suggest that the modified strategy performance model can be successfully used to assess the impact of change in the firm's external environment. The results indicate that firms scan their political environment continuously in order to anticipate and respond to possible changes.

Rydqvist Johan[55] (2005), in his work "FDI and Currency Crisis: Currency Crisis and the inflow of Foreign Direct Investment" analyse if there are any changes in the flow of FDI before, during and after a currency crisis. The study found that no similarities in regions or year of occurrence of the currency crisis. The depth, length and structure of each currency crisis together with using the right definition of a currency crisis are two important factors relating to the outcomes in this study.

Charlotta Unden[9] (2007) in his study "Multinational Corporations and Spillovers in Vietnam- Adding Corporate Social Responsibility" focuses the presence of MNCs and how they have influenced the Vietnamese economy is examined. Specifically, MNCs spillover effects on domestic enterprises are discussed. The paper also discussed the challenges and obstacles to implementation and development of corporate social responsibility policies. It shows that there is potential for positive spillover effects, such as production methods and information spread from MNCs to domestic suppliers. However, the company must be large enough to be contracted and there is a risk that the gap will widen between the few large strong suppliers and the huge number of small – and medium – sized companies that operate in Vietnam. The paper also shows that MNCs can work as catalysts by transferring CSR guidelines and a long – term way of thinking to domestic companies.

Thai Tri Do[72] (2005) in his study, "The impact of Foreign Direct Investment and openness on Vietnamese economy" examines the impact of FDI on Vietnamese economy by using Partial Adjustment Model and time series data from 1976 to 2004. FDI is shown to have not only short run but also long run effect on GDP of Vietnam. The study also examines the impact of trade openness on GDP and it is found that trade is stronger than that of FDI.

Alhijazi, Tahya Z.D[2] (1999) in his work, "Developing Countries and Foreign Direct Investment" analysed the pros and cons of FDI for developing countries and other interested parties. This thesis scrutinizes the regulation of FDI as a means to balance the interests of the concerned parties, giving an assessment of the balance of interests in some existing and potential FDI regulations. The study also highlights the case against the deregulation of FDI and its consequences for developing countries. The study concludes by formulating regulatory FDI guidelines for developing countries.

Johannes Cornelius Jordaan[31] (2005) in his study, "Foreign Direct investment and neighbouring influences" evaluates the influences of a number of economic and socio – political influences of neighbouring countries on the host country's FDI attractiveness. Three groups, consisting of developed, emerging and African countries are evaluated, with the main emphasis on African countries. Results of the study indicate that an improvement in civil liberties and political rights, improved infrastructure, higher growth rate and a higher degree of openness of the host country, higher levels of human capital attract FDI to the developed countries but deter FDI in emerging and African countries- indicating cheap labour as a determinant of FDI inflows to these countries. Further, Oil –

Owned countries in Africa's attract more FDI than non – oil endowed countries – emphasing the importance of natural resources in Africa.

Pawin Talerngsri[50] (2001) in his study, "The Determinants of FDI Distribution across Manufacturing Activities in an Asian Industrializing Country: A Case of Japanese FDI in Thailand" identifies and investigates the 'industry – level Determinants' of FDI in the context of Asian industrializing countries by using the data on Japanese FDI in Thailand. The study examines the influences of location – specific characteristics of host industries such as factor endowments, trade costs, and policy factors. More distinctively, it examines the effect of vertical (input-output) linkages among Japanese firms. The study finds out that Japanese FDI in Thailand was not evenly distributed across manufacturing activities. Some capital / technological – intensive industries like rail equipments and air crafts did not receive any FDI during a specified period. On the other hand, other relatively labour – intensive industries like TV Radio, and communications equipment industry and motor vehicle industry received disproportionately large values of FDI.

Jainta Chomtoranin[29] (2004) in her study, "A Comparative Analysis of Japanese and American Foreign Direct Investment in Thailand" assesses the determinants of Japanese and American FDI in Thailand during 1970-2000. In this analysis, the short and long-term determinants of both FDI are estimated. This study concludes that, in the short and the long run, Japanese FDI is found to be driven by trade factors and the yen appreciation. While the American FDI is driven by market factor, specifically the income level of Thai people. Japanese FDI is trade – oriented, whereas the American FDI is market – seeking oriented.

Khor Chia Boon[33] (2001) in his study, "Foreign Direct Investment and Economic Growth" investigates the casual relationship between FDI and economic growth. The findings of this thesis are that bidirectional causality exist, between FDI and economic growth in Malaysia i.e. while growth in GDP attracts FDI, FDI also contributes to an increase in output. FDI has played a key role in the diversification of the Malaysian economy, as a result of which the economy is no longer precariously dependent on a few primarily commodities, with the manufacturing sector as the main engine of growth.

Tatonga Gardner Rusike[71] (2007) in his study, "Trends and determinants of inward Foreign Direct Investment to South Africa" analyses Trends and determinants of inward Foreign Direct Investment to South Africa for the period 1975-2005. The analysis indicated that openness, exchange rate and financial development are important in long run determinants of FDI. Increased openness and financial development attract FDI. While an increase (depreciation) in the exchange rate deters FDI to South Africa. Market size emerges as a short run determinant of FDI although it is declining in importance. The analysis also showed that FDI itself, imports and exchange rate explain a significant amount of the forecast error variance. The influence of market size variable is small and declining over time.

Belem Iliana Vasquez Galan[6] (2006) in his study, "The effect of Trade Liberalization and Foreign Direct Investment in Mexico" analyses the importance of liberalization and FDI on Mexico's economy. The major findings of the study demonstrated that the main determinants of GDP are capital accumulation, labour productivity and FDI. Further, findings confirm that exports, differences in

relative wages and currency depreciation are explicative of FDI. Exports are highly dependent on the world economy and exchange rate fluctuations. Labour productivity and FDI improve human capital. Similarly GDP and human capital induce productivity gains and capital accumulations improve due to technology transfers, infrastructure, personal income and peso appreciation. The study showed that an expansionary monetary policy has the capacity to decelerate the interest rate and thereby to enhance FDI and its spillovers.

Jing Zhang[30] (2008) in his work, "Foreign Direct Investment, Governance, and the Environment in China: Regional Dimensions" includes four empirical studies related to FDI, Governance, economic growth and the environment. The results of the thesis are, first, an intra-country pollution haven effect does exist in China. Second, FDI is attracted to regions that have made more effort on fighting against corruption and that have more efficient government. Third, government variables do not have a significant impact on environmental regulation. Fourth, economic growth has a negative effect on environmental quality at current income level in China. Lastly, foreign investment has positive effects on water pollutants and a neutral effect on air pollutants

Swapna S. Sinha[69] (2007) in his thesis," Comparative Analysis of FDI in China and India: Can Laggards Learn from Leaders?" focuses on what lessons emerging markets that are laggards in attracting FDI, such as India, can learn from leader countries in attracting FDI, such as China in global economy. The study compares FDI inflows in

China and India. It is found that India has grown due to its human capital, size of market, rate of growth of the market and political stability. For china, congenial business climate factors comprising of making structural changes, creating strategic infrastructure at SEZs and taking strategic policy initiatives of providing economic freedom, opening up its economy, attracting diasporas and creating flexible labour law were identified as drivers for attracting FDI.

Samuel Adams[57] (2009) in his paper, "Can Foreign Direct Investment help to promote growth in Africa" provides a review of Foreign Direct Investment and economic growth literature in the context of developing countries and particularly Sub- Saharan Africa. The main findings of the study are as follows, first, FDI contribution to economic development of the host country in two main ways, augmentation of domestic capital and enhancement of efficiency through the transfer of new technology, marketing and managerial skills, innovation and best practices. Secondly, FDI has both benefits and costs and its impact is determined by the country specific conditions in general and the policy environment in particular in terms of the ability to diversify, the level of absorption capacity, targeting of FDI and opportunities for linkages between FDI and domestic investment.

Yew Siew Youg[85] (2007) in his study, "Economic Integration, Foreign Direct Investment and Growth in ASEAN five members" examines the effects of economic integration on FDI flows and the effects of FDI flows on economic growth in ASEAN 5 countries. The study found that market size, economic integration, human capital, infrastructure and existing FDI stock are the important determinants of FDI for ASEAN countries. The study also found that FDI, economic integration and

human capital are robustly significant to economic growth, manufacturing sector growth and high technology sector growth for ASEAN countries. The FDI flow into ASEAN countries was found to be inversely proportional to the per capita income of the five countries.

It is concluded that the effect of FDI on economic growth of ASEANS countries was found to be higher for countries with higher per capita income. Coupled with strong intra – industry trade in the manufacturing sector of ASEAN countries an integrated approach to draw in FDI and promote manufacturing and high technology growth should be accelerated. The machinery and electrical appliances industry contributes the highest trade in the region and is highly integrated in intra – industry trade within the region. The key hubs of the industry within the region are Malaysia and Singapore.

Sasidharan Subash and Ramanathan A.[59] (2007), study on "Foreign Direct Investment and Spillovers: Evidence from Indian Manufacturing". It is an attempt to empirically examine the spillover effects from the entry of foreign firms using a firm level data of Indian manufacturing industries. Firm – level data of Indian manufacturing industries are used for the period 1994-2002. They consider both horizontal and vertical spillover effects of FDI. Consistent with the results of the previous studies, the study finds no evidence of horizontal spillover effects. However, the study finds negative vertical spillover effects.

Diana Viorela Matei[13] (2007) in her study, "Foreign Direct Investment location determinants in Central and Eastern European Countries" focuses on central and Eastern European former state – planned economies and investigates why multinationals chose to locate their investments in these

countries. The main findings of the study are that market potential, privatization and agglomeration factors have significant effects upon FDI location choice, helping to explain the attractiveness for FDI of these host countries.

Kostevc Crt, Tjasa Redek, Andrej Susjan[37] (2007) in their study "Foreign Direct Investment and institutional Environment in Transition Economies" analysed the relation between FDI and the quality of the institutional environment in transition economies. The analysis confirmed a significant impact of various institutional aspects on the inflow of foreign capital. To isolate the importance of the institutional environment from the impact of other factors, a panel data analysis was performed using the data of 24 transition economies in the period 1995-2002. The findings showed that in the observed period the quality of the institutional environment significantly influenced the level of FDI in transition economies. Other variables that proved to have a statistically significant influence were budget deficit, insider privatization and labour cost per hour.

Rudi Beijnen[54] (2007) in his study, "FDI in China: Effects on Regional Exports" investigates the existence of a significant FDI – Export linkage in China, using panel data at the provincial level over the 1995 to 2003. The theory of FDI proposes the possibility of an export creating effect. However, the results show that if the model is correctly specified, there is no evidence for the existence of a significant FDI-export linkage. The study concluded that the claims of the reference studies concerning the presence of a FDI – export linkage are not valid.

Taewon Suh, Omar J. Khan[70] (2003) in their study, "The effects of FDI inflows and ICT infrastructure on exporting in ASEAN/ATTA countries: A comparison with other regional blocs in emerging markets", explores the impact of both the increase in FDI inflows and the increase in information and communication technology infrastructure investments on exporting in ASEAN nations (the trade bloc of which is known as AFTA) compared with two other major trade blocs: CEFTA and LAIA. The analysis is based on data from cross – section of countries (26 emerging markets from three trade blocs) over time (from 1995 to 2000). The results show that the increase of investment in ICT infrastructure yields positive and significant returns in the national exporting level only for the ASEAN / AFTA and CEFTA sample. The impact of the increase of FDI inflows on export is significant only in the CEFTA and LAIA samples.

Garrick Blalock[20] (2006) in his work, "Technology adoption from Foreign Direct Investment and Exploring: Evidence from Indonesian Manufacturing" contains three essays on technology adoption from foreign direct investment and exploring. The first essay investigates how technology that accompanies FDI diffuses in the host economy and finds that multinationals wish to limit technology leakage to domestic rivals, they benefits from deliberate technology transfer to suppliers that may lower input prices or raise input quality. The second essay examines how firm attributes affect innovation by investing the adoption of technology brought with FDI. The findings suggest that the more competent firms have already adopted technologies with high returns and low costs, whereas less competent firms have room to catch up and can still benefit from the adoption of 'low hanging fruit technology' the third essay asks whether firms acquire technology though exporting and find strong evidence that firms benefits from a one time jump in productivity upon entering export markets.

Dexin Yang[12] (2003) in his study, "Foreign Direct Investment from Developing Countries: A case study of China's Outward Investment" presents an interpretation of FDI by Chinese firms. The research is motivated by the phenomenon that compared with foreign investment in China; direct investment from China has so far attracted relatively little attention from researchers. Given the difficulties in providing a convincing explanation of the patterns of China's outward FDI by using mainstream theories, this thesis develops a network model of FDI by formalizing network ideas from business analysis for application to economic analysis, and interprets China's outward FDI in terms of network model. This thesis holds that Chinese firms were engaged in FDI for various network benefits. Accordingly, the geographic distribution of China's outward FDI reflected the distribution of network benefits required by Chinese firms and the relevant cost saving effects for containing such benefits. As the functioning of networks relies on elements of market economies, the development of China's outward FDI was affected by the progress of marketisation in China.

Minquan liu, Luodan Xu, Liu Liu[43] (2004) in their study, "Wage related Labour standards and FDI in China: Some survey findings from Guangdong Province" presents findings from a Survey of Foreign Invested Enterprises (FIEs) in Guangdong China, on the relationship between Foreign Direct Investment and wage – related labour standards (regular wages, and compliance with official overtime and minimum wage) which show that wage – related standards are statistically high in FIEs whose home countries' standards are higher, after controlling for other influences. However, a cost – reduction FIE is more likely to be associated with inferior standards.

D.N Ghosh[22] (2005) in his paper 'FDI and Reform: Significance and Relevance of Chinese Experience" finds that if India shed its inhibitions about FDI and follow in the footsteps of China, than India would be in a position to realize its full potential. China's FDI saga has been a textbook replay of what institutional economics would call "adaptive efficiency" on the part of its political regime. The country made courageous but careful choices in difficult circumstances, signaling radical departure from the belief system it has been accustomed to for decades. The study concluded that both china and India have demonstrated that for a late industrializing country the Washington consensus is not necessarily a good model to follow. It might be appropriate for countries with a good institutional infrastructure and efficient private sector, but for others it can be a recipe for disaster. China seems to have discovered its own reform model with "Chinese Characteristics". A western observer calls it the "Beijing Consensus". India is currently fumbling to validate a different kind of model – call it the "India Consensus"- for democrating country in a globally interdependent world.

It is concluded from the analysis of the above studies that political environment, debt burden, exchange rate, FDUI spillovers significantly influence FDI flow to the developing countries. It is also observed that countries pursuing export led growth strategy and firms in clusters gain more benefits from FDI. It is also found that improve infrastructure, higher growth rate, higher degree of openness of the host economy and higher levels of human capital attract FDI to the developed as well as developing nations. It augments domestic savings and enhances efficiency of human capital (through transfer of new technology, marketing and managerial skills, innovation and best practices)

## 2.3 INTER – INDUSTRY STUDIES

Guruswamy Mohan, Sharma Kamal, Mohanty Jeevan Prakash, Korah Thomas J.[26] (2005) in their paper, "FDI in India's Retail Sector:" More Bad than Good", find that retail in India is severely constrained by limited availability of bank finance, dislocation of labor. The study suggests suitable measures like need for setting up of national commission to study the problems of the retail sector and to evolve policies that will enable it to cope with FDI. The study concludes that the entry of FDI in India's retailing sector is inevitable. However, with the instruments of public policy in its hands, the government can slow down the process. The government can try to ensure that the domestic and foreign players are more or less on an equal footing and that the domestic traders are not at a special disadvantage. The small retailers must be given the opportunity to provide more personalized service, so that their higher costs are taken advantage of by large supermarkets and hypermarkets.

Park Jongsoo[49] (2004) conducted a study on "Korean Perspective on FDI in India: Hyundai Motors' Industrial Cluster" indicates that industrial clusters are playing an important role in economic activity. The key to promoting FDI inflows into India may lie in industries and products that are technology – intensive and have economies of scale and significant domestic content.

Sarma EAS[58] (2005) in his paper 'Need for Caution in Retail FDI" examines the constraints faced by traditional retailers in the supply chain and give an emphasis on establishment of a package of safety nets as Thailand has done. India should also draw lessons from restrictions placed on the expansion of organized retailing, in terms of sourcing, capital requirement, zoning etc, in other Asian countries. The

article comments on the retail FDI report that as commissioned by the Department of Consumer Affairs and suggests the need for a more comprehensive study.

Gonzalez J.G[25] (1988) in his study "Effect of Foreign Direct Investment in the presence of sector specific unemployment" extends the work done by Srinivasan[68] (1983) "International factor movements, commodity trade and commercial policy in a specific factor model", by making an analysis of the welfare effects of foreign investment. The study shows that if there are no distortions, foreign investment enhances the social uplift of the people. The study strongly favours import substitution policies since such a strategy provides greater job opportunities to the people and consequently improves their standards of living. But the study finds that welfare effects of foreign Investment do not explain the pattern of trade in the economy. Thus, both Srinivasan (1983) and Gonzalez (1998) concluded that foreign direct investment and distortions of the labour market results in social uplift of the people.

Sharma Rajesh Kumar[67] (2006) in his article "FDI in Higher Education: Official Vision Needs Corrections", examines the issues and financial compulsions presented in the consultation paper prepared by the Commerce Ministry, which is marked by Shoddy arguments, perverse logic and forced conclusions. This article raises four issues which need critical attention: the objectives of higher education, its contextual relevance, the prevailing financial situation and the viability of alternatives to FDI. The conclusion of the article is that higher education needs long – term objectives and a broad vision in tune with the projected future of the country and the world. Higher education will require an

investment of Rs. 20,000 to 25,000 crore over the next five or more years to expand capacity and improve access. For such a huge amount the paper argues, we can look to FDI.

To sum up, it can be said that industrial clusters are playing a significant role in attracting FDI at Inter – industry level. It is argued that industries and products that are technology – intensive and have economies of scale and significant domestic content attract FDI at industrial level.

**2.4STUDIES IN INDIAN CONTEXT**

Nayak D.N[46] (2004) in his paper "Canadian Foreign Direct Investment in India: Some Observations", analyse the patterns and trends of Canadian FDI in India. He finds out that India does not figure very much in the investment plans of Canadian firms. The reasons for the same is the indifferent attitude of Canadians towards India and lack of information of investment opportunities in India are the important contributing factor for such an unhealthy trends in economic relation between India and Canada. He suggested some measures such as publishing of regular documents like newsletter that would highlight opportunities in India and a detailed focus on India's area of strength so that Canadian firms could come forward and discuss their areas of expertise would got long way in enhancing Canadian FDI in India.

Balasubramanyam V.N Sapsford David[4] (2007) in their article "Does India need a lot more FDI" compares the levels of FDI inflows in India and China, and found that FDI in India is one tenth of that of china. The paper also finds that India may not require increased FDI because of the structure and composition of India's manufacturing, service sectors and her endowments of human capital. The requirements of managerial and organizational skills of these industries are much lower than that of

labour intensive industries such as those in China. Also, India has a large pool of well – Trained engineers and scientists capable of adapting and restructuring imported know – how to suit local factor and product market condition all of these factors promote effective spillovers of technology and know-how from foreign firms to locally own firms. The optimum level of FDI, which generates substantial spillovers, enhances learning on the job, and contributes to the growth of productivity, is likely to be much lower in India than in other developing countries including China. The country may need much larger volumes of

FDI than it currently attracts if it were to attain growth rates in excess of 10 per cent per annum. Finally, they conclude that the country is now in a position to unbundle the FDI package effectively and rely on sources other than FDI for its requirements of capital.

Naga Raj R[45] (2003) in his article "Foreign Direct Investment in India in the 1990s: Trends and Issues" discusses the trends in FDI in India in the 1990s and compare them with China. The study raises some issues on the effects of the recent investments on the domestic economy. Based on the analytical discussion and comparative experience, the study concludes by suggesting a realistic foreign investment policy.

Morris Sebastian[44] (1999) in his study "Foreign Direct Investment from India: 1964-83" studied the features of Indian FDI and the nature and mode of control exercised by Indians and firms abroad, the causal factors that underlie Indian FDI and their specific strengths and weaknesses using data from government files. To this effect, 14 case studies of firms in the textiles, paper, light machinery,

consumer durables and oil industry in Kenya and South East Asia are presented. This study concludes that the indigenous private corporate sector is the major source of investments. The current regime of tariff and narrow export policy are other reasons that have motivated market seeking FDI.

Resources seeking FDI has started to constitute a substantial portion of FDI from India. Neither the "advantage concept" of Kindlebrger, nor the concept of large oligopolies trying to retain their technological and monopoly power internationally of Hymer and Vaitsos are relevant in understanding Indian FDI, and hence are not truly general forces that underlie FDI. The only truly general force is the inexorable push of capital to seek markets, whether through exports or when conditions at home put a brake on accumulation and condition abroad permit its continuation.

Nirupam Bajpai and Jeffrey D. Sachs[47] (2006) in their paper "Foreign Direct Investment in India: Issues and Problems", attempted to identify the issues and problems associated with India's current FDI regimes, and more importantly the other associated factors responsible for India's unattractiveness as an investment location. Despite India offering a large domestic market, rule of law, low labour costs, and a well working democracy, her performance in attracting FDI flows have been far from satisfactory.

The conclusion of the study is that a restricted FDI regime, high import tariffs, exit barriers for firms, stringent labor laws, poor quality infrastructure, centralized decision making processes, and a very limited scale of export processing zones make India an unattractive investment location.

Kulwinder Singh[38] (2005) in his study "Foreign Direct Investment in India: A Critical analysis of FDI from 1991-2005" explores the uneven beginnings of FDI, in India and examines the developments (economic and political) relating to the trends in two sectors: industry and infrastructure.The study concludes that the impact of the reforms in India on the policy environment for FDI presents a mixed picture. The industrial reforms have gone far, though they need to be supplemented by more infrastructure reforms, which are a critical missing link.

Chandan Chakraborty, Peter Nunnenkamp[8] (2004) in their study "Economic Reforms, FDI and its Economic Effects in India" assess the growth implications of FDI in India by subjecting industry – specific FDI and output data to Granger causality tests within a panel co -integration framework. It turns out that the growth effects of FDI vary widely across sectors. FDI stocks and output are mutually reinforcing in the manufacturing sector. In sharp contrast, any causal relationship is absent in the primary sector. Most strikingly, the study finds only transitory effects of FDI on output in the service sector, which attracted the bulk of FDI in the post – reform era. These differences in the FDI – Growth relationship suggest that FDI is unlikely to work wonders in India if only remaining regulations were relaxed and still more industries opened up o FDI.

Basu P., Nayak N.C, Vani Archana[5] (2007) in their paper "Foreign Direct Investment in India: Emerging Horizon", intends to study the qualitative shift in the FDI inflows in India in – depth in the last fourteen odd years as the bold new policy on economic front makes the country progress in both quantity and the way country attracted

FDI. It reveals that the country is not only cost – effective but also hot destination for

R&D activities. The study also finds out that R&D as a significant determining factor for FDI inflows for most of the industries in India. The software industry is showing intensive R&D activity, which has to be channelized in the form of export promotion for penetration in the new markets. The study also reveals strong negative influence of corporate tax on FDI inflows.

To sum up, it can be said that large domestic market, cheap labour, human capital, are the main determinants of FDI inflows to India, however, its stringent labour laws, poor quality infrastructure, centralize decision making processes, and a vary limited numbers of SEZs make India an unattractive investment location.

## 2.5 CONCLUSIONS

The above review of literature helps in identifying the research issues and gaps for the present study. The foregoing review of empirical literature confirms/highlights the following facts

- Institutional infrastructure and development are the main determinants of FDI inflows in the European transition economies. Institutional environment (comprising both institutional strategies and policies of organizations relating to these institutions) plays critical role in reducing the transaction costs of both domestic and cross border business activity.
- FDI plays a crucial role in employment generation/ preservation in Central Europe.
- It is found that bigger diversity of types of FDI lead to more diverse types o spillovers and skill transfers which proves more favourable for the host economy.

- It is also found that apart from market size, exports, infrastructure facilities, institutions, source and destination countries, the concept of neighborhood and extended neighborhood is also gaining importance especially in Europe, China and India.
- In industrial countries high labour costs encourage outflows and discourage inflows of FDI. The principle determinants of FDI in these countries are IT – related investments, trade and cross – border mergers and acquisitions.
- Studies which underlie the effects of FDI on the host countries economic growth shows that FDI enhance economic growth in developing economies but not in developed economies. It is found that in developing economies FDI and economic growth are mutually supporting. In other words economic growth increases the size of the host country market and strengthens the incentives for market seeking FDI. It is also observed that bidirectional causality exist between FDI and economic growth i.e. growth in GDP attracts FDI and FDI also contributes to an increase in output.
- Studies on developing countries of South, East and South East Asia shows that fiscal incentives, low tariffs, BITs (Bilateral Investment Treaties) with developed countries have a profound impact on the inflows of aggregate FDI to developing countries.
- Studies on role of FDI in emerging economies shows that general institutional framework, effectiveness of public sector administration and the availability of infrastructural facilities enhance FDI inflows to these nations. FDI also enhance the chances of developing internationally competitive business

  clusters

- It is observed that countries pursuing export – led growth strategies reaps enormous benefits from FDI.
- The main determinants of FDI in developing countries are inflation, infrastructural facilities, debts, burden, exchange rate, FDI spillovers, stable political environment etc.
- It is found that firms in cluster gain significantly from FDI in their region, within industry and across other industries in the region.
- It is also observed that FDI have both short – run and long – run effect on the economy. So, regulatory FDI guidelines must be formulated in order to protect developing economies from the consequences of FDI flows.

## 2.6 RESEARCH ISSUES AND RESEARCH GAPS

The above review of literature proves beneficial in identifying the research issues and the research gaps, which are mainly the edifices on which the objectives of the present study are based on. There is hardly any study in India which has taken macroeconomic variables like foreign exchange reserves, total trade, financial position, research and development expenditure while assessing the determinants and impact of FDI on Indian economy. The present study tries to include these above said variables in assessing the determinants and impact of FDI in India at the macro – level. Further, there is hardly any study in India, which documents the trends and patterns of FDI at world level, Asian level and Indian level. Thus, the present study is an endeavour to discuss the trends and patterns of FDI, its determinants and its impact on Indian economy. The present study differs from the early

studies in many ways and enriches the existing literature in the following ways: Firstly, it has included variables other than the variables included by other scholars. Secondly, the present study documents the trends and patterns of FDI at World, Asian and Indian level. Thirdly, the present study tries to highlight the changing attitude of developing countries towards FDI and attitude change of developed countries towards developing countries in understanding their contribution in contemporary international relations and development process. Fourthly, the study presents the experiences of first and second generation of economic reforms on Indian economy.

# CHAPTER-3

# TRENDS AND PATTERENS OF FDI INFLOWS

## 3.0 INTRODUCTION

One of the most prominent and striking feature of today's globalised world is the exponential growth of FDI in both developed and developing countries. In the last two decades the pace of FDI flows are rising faster than almost all other indicators of economic activity worldwide. Developing countries, in particular, considered FDI as the safest type of external finance as it not only supplement domestic savings, foreign reserves but promotes growth even more through spillovers of technology, skills, increased innovative capacity, and domestic competition. Now a days, FDI has become an instrument of international economic integration.

Located in South Asia, India is the 7$^{th}$ largest, and the 2$^{nd}$ most populated country in the world. India has long been known for the diversity of its culture, for the inclusiveness of its people and for the convergence of geography. Today, the world's largest democracy has come to the forefront as a global resource for industry in manufacturing and services. Its pool of technical skills, its base of an English – speaking populace with an increasing disposable income and its burgeoning market has all combined to enable India emerge as a viable partner to global industry. Recently, investment opportunities in India are at a peak.

This chapter covers the trends and patterns of FDI inflows at World, Asian and Indian level during 1991-2008.

### 3.1TRENDS AND PATTERNS OF FDI FLOW IN THE WORLD

The liberalization of trade, capital markets, breaking of business barriers, technological advancements, and the growing internationalization of goods, services, or ideas over the past two decades makes the world economies the globalised one. Consequently, with large domestic market, low labour costs, cheap and skilled labour, high returns to investment, developing countries now have a significant impact on the global economy, particularly in the economics of the industrialized states. Trends in World FDI flows (Table -3.1 and Chart-3.1) depict that developing countries makes their presence felt by receiving a considerable chunk of FDI inflows. Developing economies share in total FDI inflows rose from 26% in 1980 to 40% in 1997.

**Table-3.1**

**FDI INFLOWS IN THE WORLD**

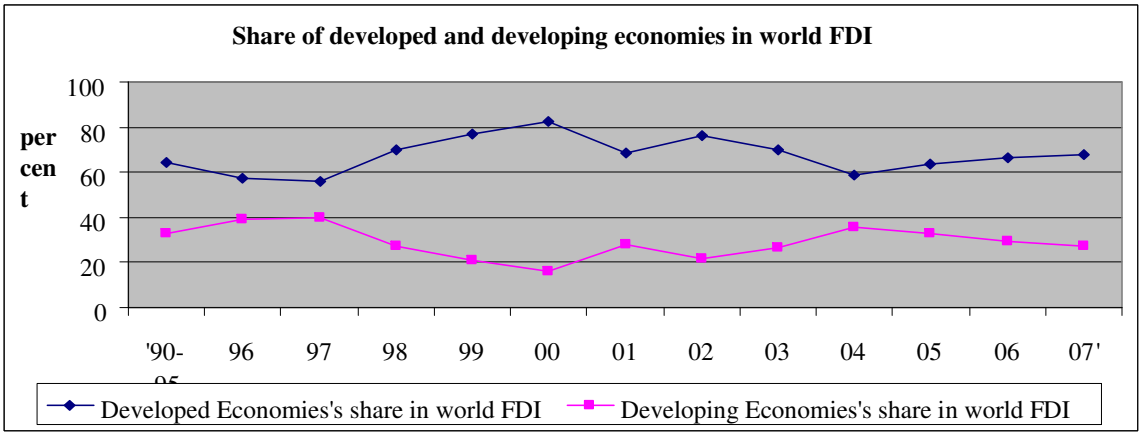
*amount in US $ Billion*

| Years/ Countries | 1990-95 | 96 | 97 | 98 | 99 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| World FDI | 225.3 | 386.1 | 478.1 | 694.5 | 1088.3 | 1492 | 735.1 | 716.1 | 632.6 | 648.1 | 958.7 | 1411 | 1833.3 |
| Developed Economies share in world FDI | 64.4 | 57.1 | 56 | 69.7 | 77.1 | 82.2 | 68.4 | 76.5 | 69.9 | 58.6 | 63.8 | 66.7 | 68 |
| Developing Economies share in world FDI | 33 | 39.5 | 39.9 | 27 | 20.7 | 15.9 | 27.9 | 21.7 | 26.3 | 36 | 33 | 29.3 | 27.3 |

Source: compiled from the various issues of WIR, UNCTAD, World Bank

However, the share during 1998 to 2003 fell considerably but rose in 2004, again in 2006 and 2007 it reduces to 29% to 27% due to global economic meltdown. Specifically, developing Asia received 16 %, Latin America and the Caribbean 8.7 %, and Africa 2 %. On the other hand, developed economies show an increasing upward trend of FDI inflows, while developing economies show a downward trend of FDI inflows after 1995.

**Chart-3.1**




Source: compiled from the various issues of WIR, UNCTAD, World Bank

However, India shows a steady pattern of FDI inflows during 1991-2007 (Chart- 3.2).

The annual growth rate of developed economies was 33%, developing economies was 21% and India was 17% in 2007 over 2006. During 1991-2007 the compound annual growth rate registered by developed economies was 16%, developing economies was merely 2%, and that of India was 41%.

### 3.1.1 MOST ATTRACTIVE LOCATION OF GLOBAL FDI

It is a well-known fact that due to infrastructural facilities, less bureaucratic structure and conducive business environment China tops the chart of major emerging destination of global FDI inflows. The other most preferred destinations of global FDI flows apart from China are Brazil, Mexico, Russia, and India. The annual growth rate registered by China was 15%, Brazil was 84%, Mexico was 28%, Russia was 62%, and India was 17% in 2007 over 2006. During 1991-2007 the compound annual growth rate registered by China was 20%, Brazil was 24%, Mexico was 11%, Russia was 41% (from 1994), and India was 41%. India's FDI need is stood at US$ 15 bn per year in order to make the country on a 9% growth trajectory (as projected by the Finance Minister of India in the current Budget[74]). Such massive FDI is needed by India in order to achieve the objectives of its second generation economic reforms and to maintain the present growth rate of the economy. Although, India's share in world FDI inflows has increased from 0.3% to 1.3% (Chart-3.2 & Table – 3.2) from 1990-95 to 2007. Though, this is not an attractive share when it is compared with China and other major emerging destinations of global FDI

inflows.

**Table 3.2**

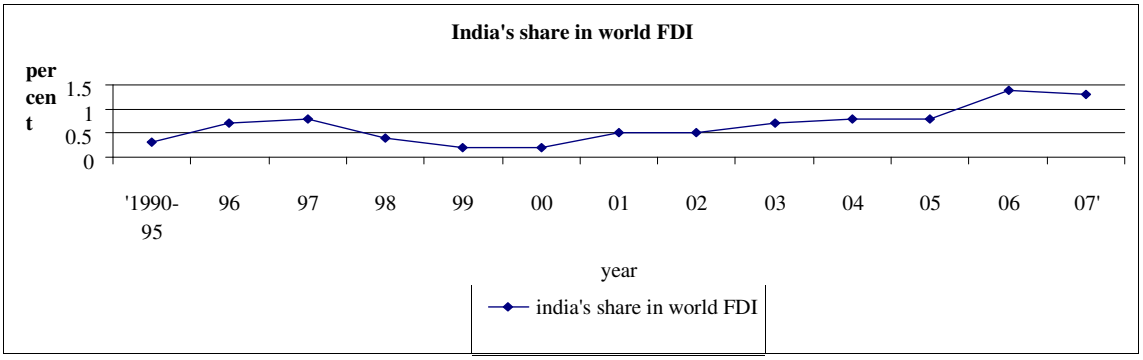
**SHARE OF INDIA IN WORLD FDI** *amount in US $ Billion*

| Years/ Countries | 1990-95 | 96 | 97 | 98 | 99 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| World FDI | 225.3 | 386.1 | 478.1 | 694.5 | 1088 | 1492 | 735 | 716.1 | 632.6 | 648.1 | 958.7 | 1411 | 1833.3 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| India's share in world FDI | 0.3 | 0.7 | 0.8 | 0.4 | 0.2 | 0.2 | 0.5 | 0.5 | 0.7 | 0.8 | 0.8 | 1.4 | 1.3 |

Source: compiled from the various issues of WIR, UNCTAD, World Bank

**Chart-3.2**




Source: compiled from the various issues of WIR, UNCTAD, World Bank

(Table-3.3) reveals that during the period under review FDI inflow in India has increased from 11% to 69%. But when it is compared with China, India's FDI inflows stand no where. And when it is compared with rest of the major emerging destinations of global FDI India is found at the bottom of the ladder (Table-3.3 and Chart- 3.3).

**Table- 3.3**

**EMERGING ECONOMIES OF THE WORLD**

*amount in US $ Billion*

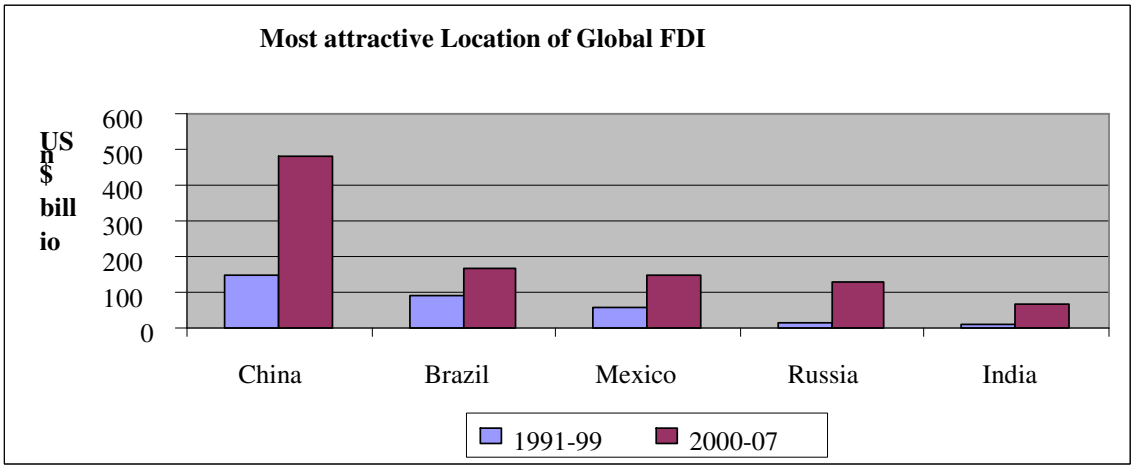
.

| Year/ Country | China | Brazil | Mexico | Russia | India |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1990-99 | 148.5 | 89.4 | 56.4 | 15 | 11.4 |
| 2000-07 | 483 | 169 | 147.4 | 126.2 | 69 |

Source: compiled from the various issues of WIR, UNCTAD, World Bank

**Chart 3.3**




Source: compiled from the various issues of WIR, UNCTAD, World Bank

The reason could be bureaucratic hurdles, infrastructural problems, business environment, or government stability. India has to consider the five point strategy as put forward by the World Bank for India, if India wants to be an attractive location of global FDI in the coming years.

### 3.2 TRENDS AND PATTERNS OF FDI FLOW IN ASIA

In the South, East, and South – East Asia block India is at 3rd place after China and Singapore (Table-3.4, Chart- 3.4). South, East, South – East Asia block registered an annual growth rate of 19% in 2007 over 2006 and compound annual growth rate of 17% on an annualized basis during 1991-2007. India's share has increased from 1.5% in 199095 to 9.2% in 2007 while China's share was decreased to 33 per

cent in 2007 from 43.4 per cent in 1990-95. It is found that there is an increment of 5.8% in case of India while there is a decrement of 9.8% in case of China. It is evident from (Table-3.4) that India's share among developing countries in FDI inflow was 1.4% in the last decade and 2.8% in **Table- 3.4**

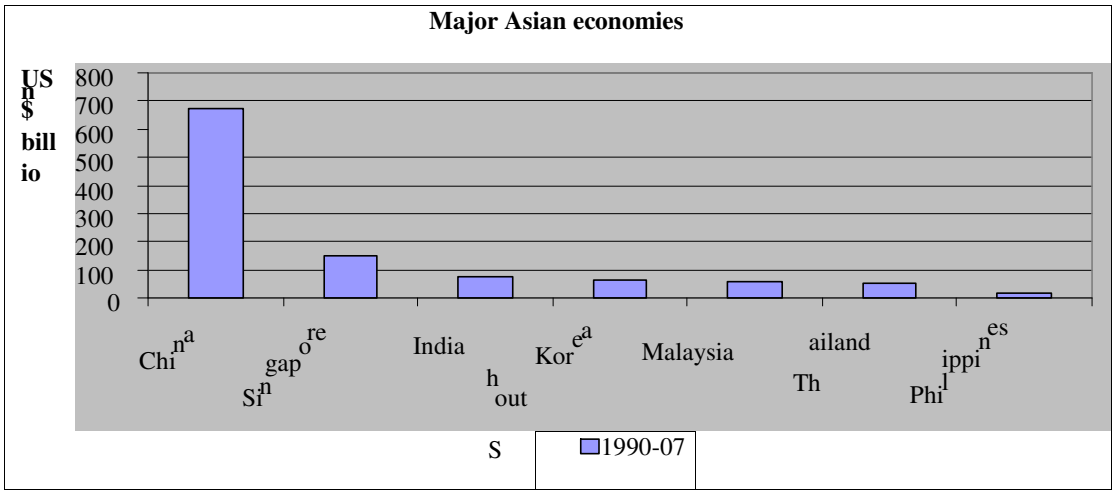
**EMERGING ECONOMIES OF ASIA**

*amount in US $ Billion*

| COUNTRY | 1990-1999 | 2000-2007 |
|---|---|---|
| CHINA | 188 | 483.1 |
| SINGAPORE | 43.3 | 108 |
| INDIA | 12 | 63.3 |
| SOUTH KOREA | 21 | 41.5 |
| MALAYSIA | 25 | 33.1 |
| PHILLIPPINES | 6.1 | 13.3 |
| THAILAND | 17 | 37.2 |
| ALL DEVELOPING COUNTRIES | 831 | 2227.1 |
| INDIA's SHARE (%) | 1.4 | 2.8 |
| CHINA's SHARE (%) | 22.6 | 21.7 |

Source: compiled from the various issues of WIR, UNCTAD

**Chart -3.4**




Source: compiled from the various issues of WIR, UNCTAD

2000-2007 while China's share was 22.6% in 1991-99 and 21.7 per cent in 2000-07. When the shares of these two countries are compared it is found that China's share is 21.7% in the present decade while India's share is miniscule (i.e. 2.8%).

**Table -3.5**

**DOING BUSINESS INDICATORS**

| Doing Business Indicators | India | China |
|---|---|---|
| Doing Business | 122 | 83 |
| Registering Property | 105 | 30 |
| Trading Across Borders | 90 | 48 |
| Enforcing Contracts | 180 | 18 |
| Closing a business | 140 | 62 |
| The costs imports and exports | | |
| Cost to export (US$ per container) | 945 | 460 |

| | | |
|---|---|---|
| Cost to import (US$ per container) | 960 | 545 |
| Difficulty of enforcing commercial contracts | | |
| Procedures (numbers) | 46 | 34 |
| Duration (days) | 1420 | 406 |
| Cost (percentage of claim) | 39.6 | 11.1 |

Source: Doing business in India: 2009, World Bank.

The "doing business[84]" conducted by World Bank put forward certain indicators (Table 3.5) where China beats India in attracting high FDI inflows. High trade and transaction costs are mainly due to the country's lack of quality infrastructure. This lack of infrastructure discourages resource – seeking and export – oriented investment. The reason for the low level of FDI in India as compared to China could be any but the fact is that China opened its door to foreign investment in 1978 while India in 1991.

There is an appreciable increase in the level of FDI inflows in the South Asian Region. Asia registered an annual growth rate of 17% in 2007 over 2006 and compound annual growth rate of 18% on an annualized basis during 1991-2007. India, Pakistan,
Bangladesh are receiving higher volume of inflows since 1990. According to World
Investment Report[77] 2007 (WIR), India has emerged as major recipient of FDI in South Asia. Its share is nearly 75% of total FDI flow to South Asia.

Infact, the Comprehensive Economic Cooperation Agreement (CECA) with Singapore, Free Trade Agreements (FTAs) with Singapore and Thailand and by becoming the member of ASEAN Regional Forum India has made its presence felt in East Asia region. India, is trying hard so that the

largest free Trade Area, even larger than the existing EU-NAFTA combined area, could come up in the East Asia region. This suggested largest FTA would make the bilateral trade to the new heights in the coming years.

Due to CECA and FTAs with Singapore, it emerged as the third biggest investing country in India. Its ranking improved by 4th place. And if this pace of investment continued from Singapore it is hoped that it will become the largest investing country in India in the coming years and Singapore may prove to be a Hong Kong or Taiwan to India.

### 3.3 TRENDS AND PATTERNS OF FDI FLOW IN INDIA

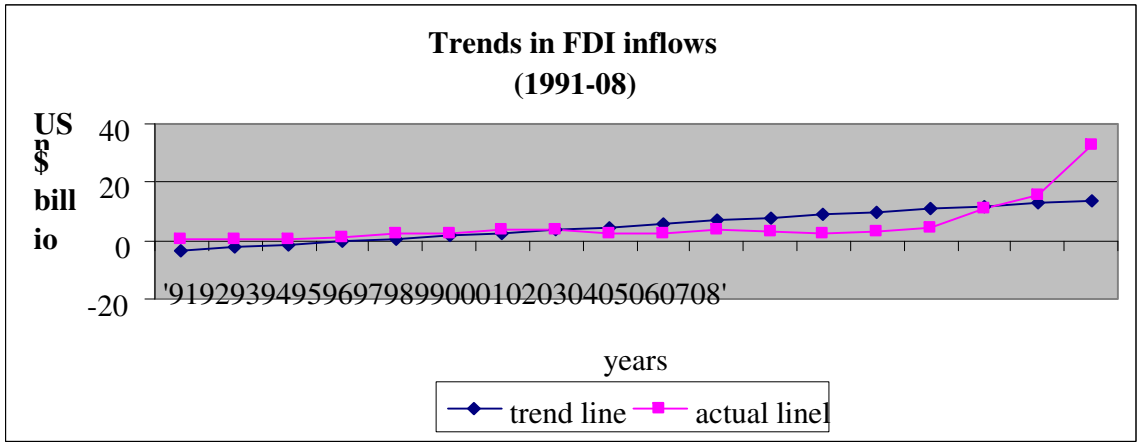
Economic reforms taken by Indian government in 1991 makes the country as one of the prominent performer of global economies by placing the country as the 4th largest and the 2nd fastest growing economy in the world. India also ranks as the 11th largest economy in terms of industrial output and has the 3rd largest pool of scientific and technical manpower. Continued economic liberalization since 1991 and its overall direction remained the same over the years irrespective of the ruling party moved the economy towards a market – based system from a closed economy characterized by extensive regulation, protectionism, public ownership which leads to pervasive corruption and slow growth from 1950s until 1990s.

In fact, India's economy has been growing at a rate of more than 9% for three running years and has seen a decade of 7 plus per cent growth. The exports in 2008 were $175.7 bn and imports were $287.5 bn. India's export has been consistently rising, covering 81.3% of its imports in 2008, up from 66.2% in 1990-91. Since independence, India's BOP on its current account has been negative. Since 1996-97, its overall BOP has been positive, largely on account of increased FDI and deposits from

Non – Resident Indians (NRIs), and commercial borrowings. The fiscal deficit has come down from 4.5 per cent in 2003-04 to 2.7 per cent in 2007-08 and revenue deficit from 3.6 per cent to 1.1 per cent in 2007-08.

As a result, India's foreign exchange reserves shot up 55 per cent in 2007-08 to close at US $309.16 billion – an increase of nearly US $110 billion from US $199.18 billion at the end of 2006-07. Domestic saving ratio to GDP shot up from 29.8% in 2004-05 to 37.7% in 2007-08. For the first time India's GDP crossed one trillion dollars mark in 2007. As a consequence of policy measures (taken way back in 1991) FDI in India has increased manifold since 1991 irrespective of the ruling party over the years, as there is a growing consensus and commitments among political parties to follow liberal foreign investment policy that invite steady flow of FDI in India so that sustained economic growth can be achieved. Further, in order to study the impact of economic reforms and FDI policy on the magnitude of FDI inflows, quantitative information is needed on broad dimensions of FDI and its distribution across sectors and regions.

**Chart- 3.5**

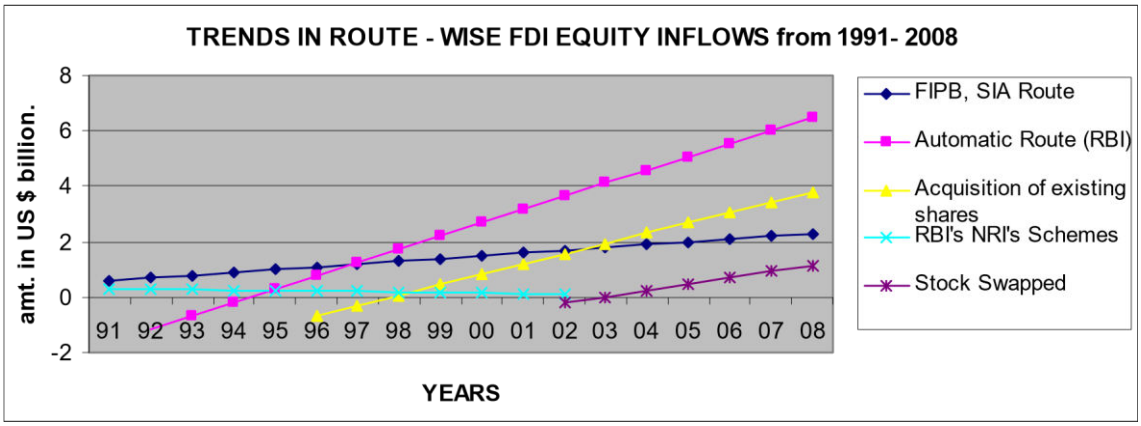



Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

The actual FDI inflows in India is welcomed under five broad heads: ( i ) Foreign Investment Promotion Board's (FIPB) discretionary approval route for larger projects, (ii) Reserve Bank of India's (RBI) automatic approval route, (iii) acquisition of shares route (since 1996), (iv) RBI's non – resident Indian (NRI's) scheme, and (v) external commercial borrowings (ADR/GDR) route. An analysis of the last eighteen years of trends in FDI inflows (Chart-3.5 and Chart-3.6) shows that there has been a steady flow of FDI in the country upto 2004, but there is an exponential rise in the FDI inflows from

2005 onwards.

**Chart – 3.6**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

Further, the actual inflows of FDI through various routes in India are described in Chart- 3.6. The FIPB route – represents larger projects which require bulk of inflows and account for government's discretionary approval. Although, the share of FIPB route is declining somewhat as compared to RBI's automatic route and acquisition of existing shares route. Automatic approval route via RBI shows an upward trend of FDI inflows since 1995. This route is meant for smaller sized

investment projects. Acquisition of existing shares route and external commercial borrowing route gained prominence (in

1999 and 2003) and shows an upward increasing trend. However, FDI inflows through NRI's route show a sharp declining trend. It is found that India was not able to attract substantial amount of FDI inflow from 1991-99. FDI inflows were US$ 144.45 million in

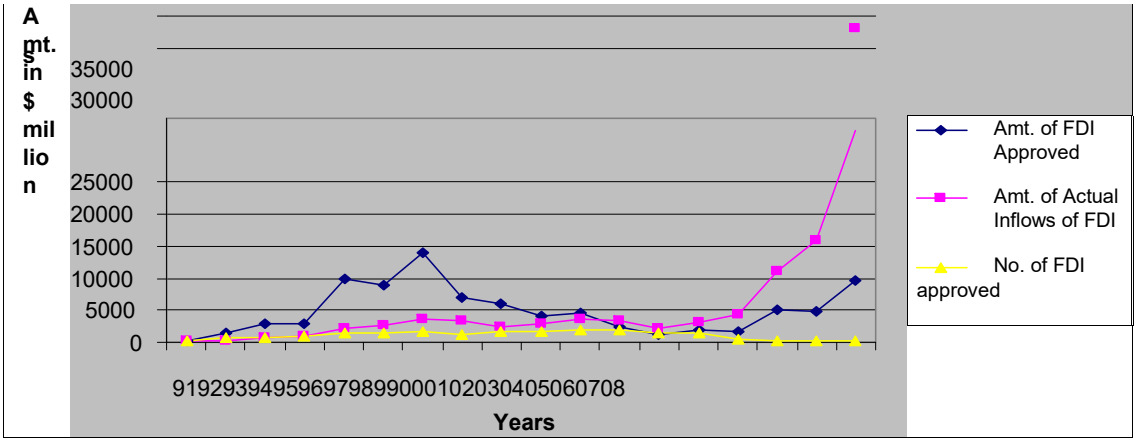
1991 after that the inflows reached to its peak to US$ 3621.34 million in 1997. Subsequently, these inflows touched a low of US $2205.64 million in 1999 but then shot up in 2001. Except in 2003, which shows a slight decline in FDI inflows, FDI has been picking up since 2004 and rose to an appreciable level of US$ 33029.32 million in 2008.

The annual growth rate was 107% in 2008 over 2007, and compound annual growth rate registered was 40% on an annualized basis during 1991-2008. The increase in FDI inflows during 2008 is due to increased economic growth and sustained developmental process of the country which restore foreign investor's confidence in Indian economy despite global economic crisis. However, the pace of FDI inflows in India has definitely been slower than China, Singapore, Russian Federation, and Brazil.

A comparative analysis of FDI approvals and inflows (Chart – 3.7) reveals that there is a huge gap between the amount of FDI approved and its realization into actual disbursements. A difference of almost 40 per cent (Chart – 3.8) is observed between investment committed and actual inflows during the year 2005-06. All this depends on various factors, namely regulatory, procedural, government clearances, lack of sufficient infrastructural facilities, delay in implementation of projects, and non-cooperation from the state government etc.

**Chart – 3.7**

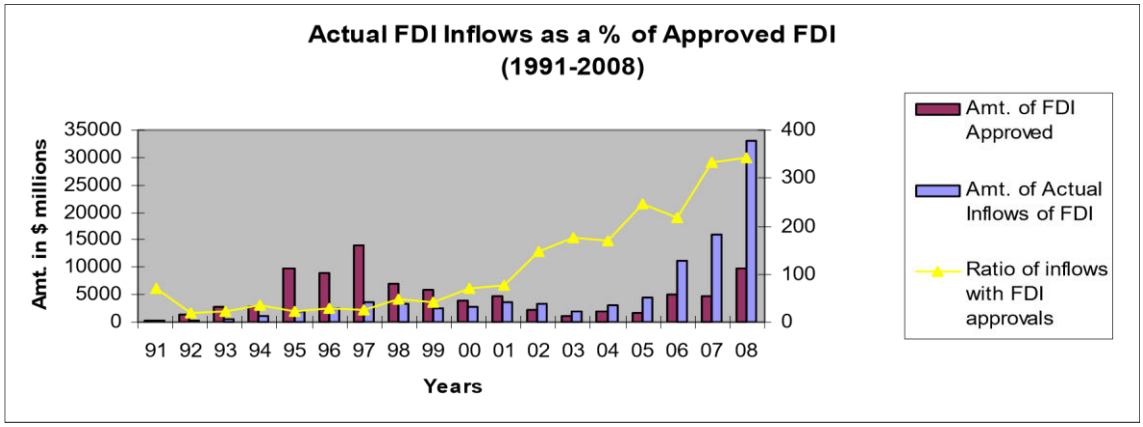
**Approved and Actual FDI Inflows (1991-2008)**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

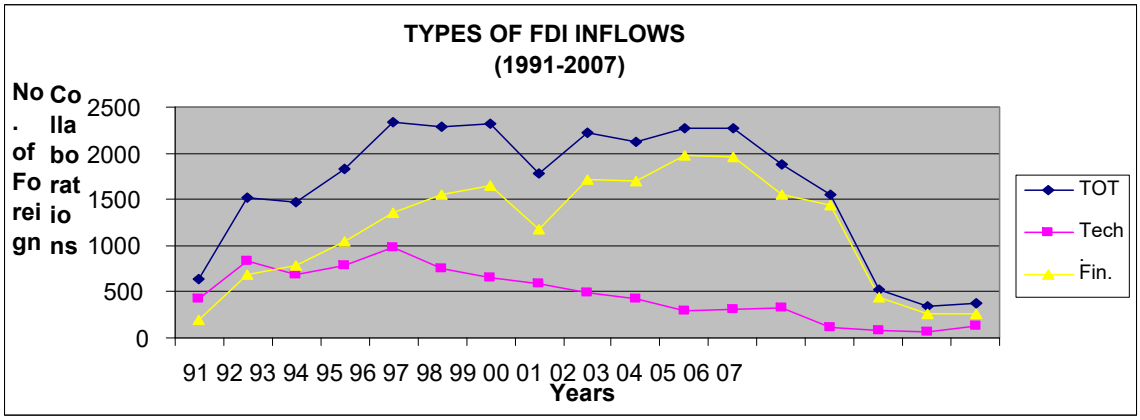
Infact, many long term projects under foreign collaborations get delayed considerably, or in some cases, they may even be denied in the absence of proper and sufficient infrastructural support and facilities. These are perhaps some reasons that could be attributed to this low ratio of approvals vs. actual inflows.

**Chart – 3.8**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

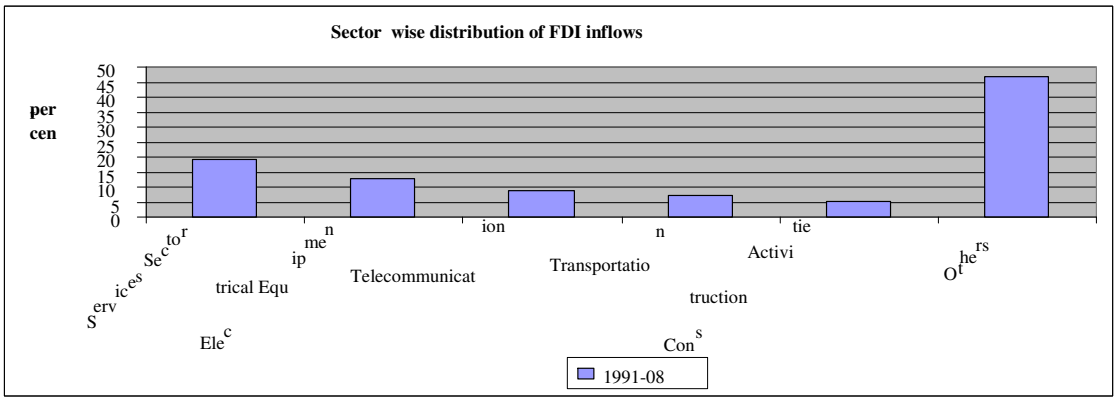
**Chart – 3.9**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

Although, total number of foreign collaborations has increased since 1991. It is evident from (Chart – 3.9) that financial collaborations have gradually outnumbered the technical collaborations which indicate that investors are more interested in financial collaborations rather than technical ones. The increase in financial collaboration could be because of the relaxation given by government in the investment norms for financial collaborations.

**Chart – 3.10**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

The major sectors (Chart- 3.10) attracting FDI inflows in India have been Services and Electrical & electronics amounting US$ 30,421millions or 32 % of total FDI. Service sector tops the chart of FDI inflows in 2008 with India emerged as a top destination for

FDI in services sector. Services exports are the major driving force in promoting exports. Keeping in mind the rising service sector India should open doors to foreign companies in the export – oriented services which could increase the demand of unskilled workers and low skilled services and also increases the wage level in these services. Data in

(Chart- 3.10) reveal that the top 5 sectors in aggregate for FDI inflows constitute US$ 50,479 millions during August 1991 to Dec. 2008 which accounts for 53.2% of total FDI inflow. Out of this, nearly 40.8% of FDI inflows are in high priority areas like Services,

Electrical Equipments, Telecommunication, etc.

**3.4 SOURCES OF FDI IN INDIA**

India has broadened the sources of FDI in the period of reforms. There were 120 countries investing in India in 2008 as compared to 15 countries in 1991. Thus the number of countries investing in India increased after reforms. After liberalization of economy Mauritius, South Korea, Malaysia, Cayman Islands and many more countries predominantly appears on the list of major investors apart from U.S., U.K., Germany,

Japan, Italy, and France which are not only the major investor now but during

**Table-3.6**

**MAJOR SOURCES OF FDI IN INDIA**

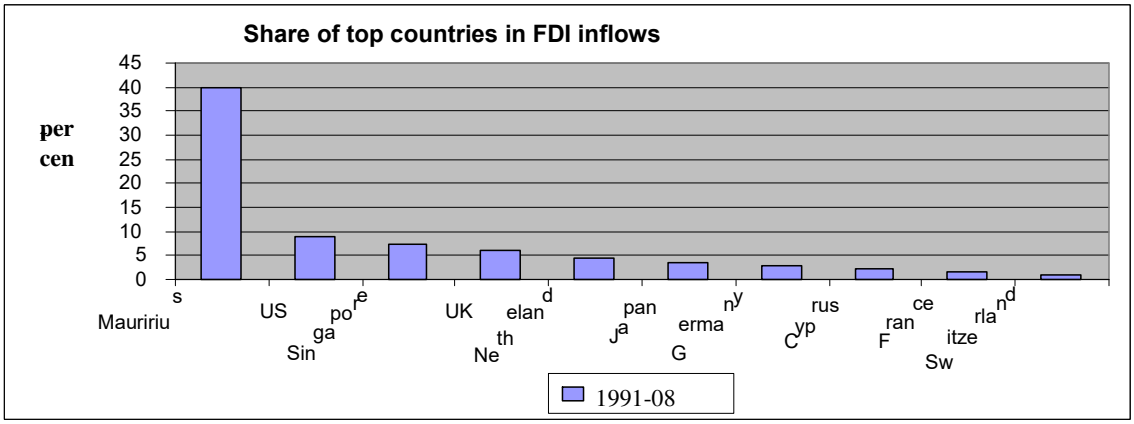
| Mauritius | USA | Singapore | UK | Netherlands | Japan | Germany | Cyprus | France | Switzerland |
|---|---|---|---|---|---|---|---|---|---|
| 39.9 | 8.8 | 7.2 | 6.1 | 4.4 | 3.4 | 2.9 | 2.1 | 1.5 | 1.1 |

Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

pre- liberalizations era also. The analysis in (Table-3.6) presents the major investing countries in India during 1991-2008. Mauritius (Chart- 3.11) is the largest investor in

India during 1991-2008. FDI inflows from Mauritius constitute about 39.9% of the total FDI in India and enjoying the top position on India's FDI map from 1995. This dominance of Mauritius is because of the Double Taxation Treaty i.e. DTAA- Double Taxation Avoidance Agreement between the two countries, which favours routing of investment through this country. This (DTAA) type of taxation treaty has been made out with Singapore also.

**Chart- 3.11**




Source: compiled & computed from the various issues of Economic Survey, RBI Bulletin, Ministry of Commerce

The US is the second largest investing country in India. While comparing the investment made by both (Mauritius and US) countries one interesting fact comes up which shows that there is a huge difference

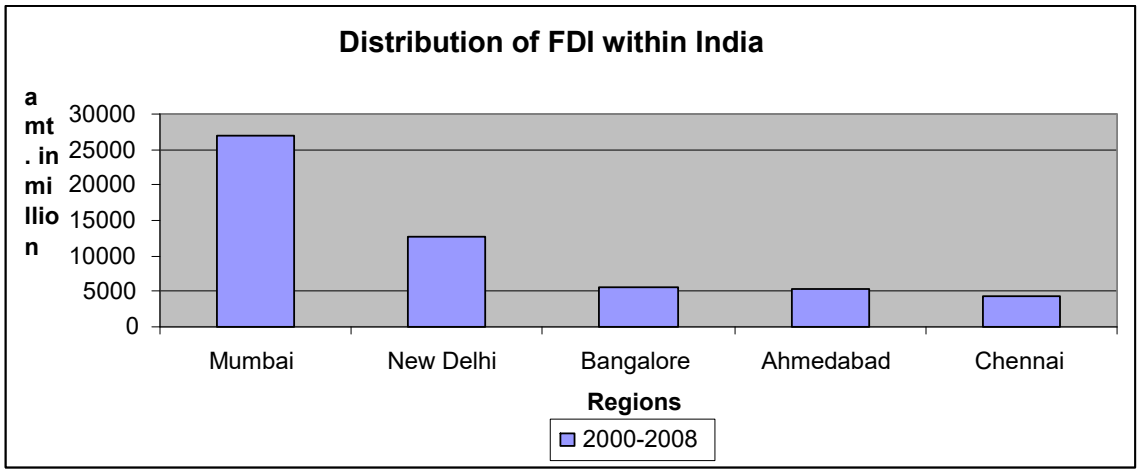
(between FDI inflows to India from Mauritius and the US) in the volume of FDI received from Mauritius and the US. FDI inflow from Mauritius is more than double then that from the US. The other major countries are Singapore with a relative share of 7.2% followed by UK, Netherlands, Japan, Germany, Cyprus, France, and Switzerland.

Thus, an analysis of last eighteen years of FDI inflows shows that only five countries accounted for nearly 66% of the total FDI inflows in India. India needs enormous amount of financial resources to carry forward the agenda of transformation (i.e. from a planned economy to an open market), to tackle imbalance in BOP, to accelerate the rate of economic growth and have a sustained economic growth.

### 3.5 DISTRIBUTION OF FDI WITHIN INDIA

FDI inflows in India are heavily concentrated around two cities, Mumbai (US$ 26899.57 million) and Delhi (US$ 12683.24 million). Bangalore, Ahmedabad and Chennai are also receiving significant amount of FDI inflows. These five cities (Chart- 3.12) together account for 69 per cent of total FDI inflows to India. Mumbai and Delhi together received 50 per cent of total FDI inflows to India during 2000 to 2008.

**Chart- 3.12**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Mumbai received heavy investment from Mauritius (29%), apart from U.K. (17%), USA (10%), Singapore (9%) and Germany (4%).The key sectors attracting FDI inflows to Mumbai are services (30%), computer software and hardware (12%), power (7%), metallurgical industry (5%) and automobile industry (4%). Mumbai received 1371 numbers of technical collaborations during 1991-2008. Delhi received maximum investment from Mauritius (58%), apart from Japan (10%), Netherlands (9%), and UK (3%).While the key industries attracting FDI inflows to Delhi region are telecommunications (19%), services (18%), housing and real estate (11%), automobile industry (8%) and computer software and hardware (6%). As far as technical collaborations are concerned Delhi received 315 numbers of technical collaborations during 1991- 2008.

Heavy investment in Bangalore came from Mauritius (40%) alone. The other major investing countries in Bangalore are USA (15%), Netherlands (10%), Germany (6%), and

UK (5%). Top sectors reported the FDI inflows are computer software and hardware (22%), services (11%), housing and real estate (10%), telecommunications (5%), and fermentation industries (4%). Bangalore received 516 numbers of technical collaborations during 1991-2008. Chennai received FDI inflows from Mauritius (37%), Bermuda (14%), USA (13%), Singapore (9%) and Germany (4%). The key sectors attracting FDI inflows are construction activities (21%), telecommunications (10%), services (10%), computer software and hardware (7%), automobile industry (7%), As far as technical collaborations are concerned, Chennai received 660 numbers of technical collaborations during 1991-2008.

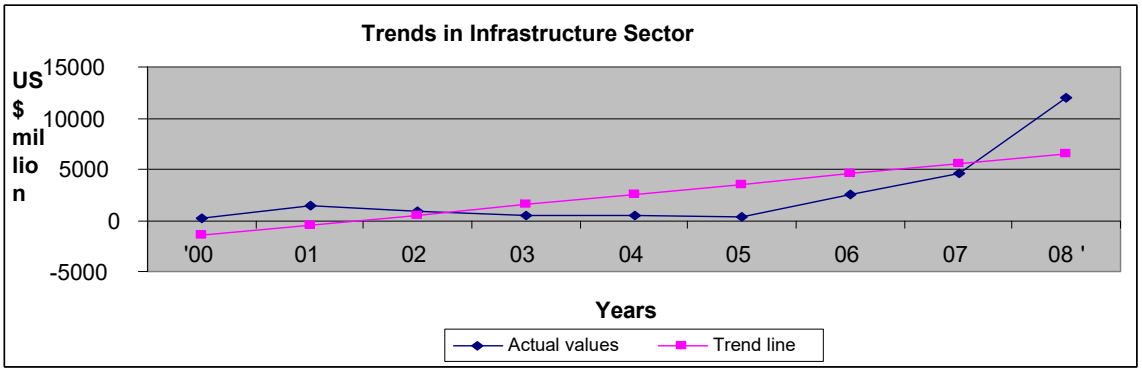
### 3.6 TRENDS AND PATTERNS OF FDI FLOW AT SECTORAL LEVEL

#### 3.6.1 Infrastructure Sector

FDI up to 49% is allowed for investing companies in infrastructure/ services sector (except telecom sector) through FIPB route. The infrastructure sector constitutes Power, Non-conventional energy, Petroleum and natural gas, Telecommunication, Air Transport, Ports, Construction activities and (including roads and highways), real estate. The infrastructure sector accounted for 28.62% of total FDI inflows from 2000 to 2008. Initially the inflows were low but there is a sharp rise in investment flow from 2005 onwards (Chart – 3.13).Telecommunication received the highest percentage (8.05%) followed by construction activities (6.15%), real estate (5.78%), and power (3.16%). The major investment comes from Mauritius (56.30%) and Singapore (8.54%). In order to attract the investment, New Delhi (23.2%) and Mumbai (20.47%) enjoy the top two positions in India.

Infrastructure sector received 2528 numbers of foreign collaborations with an equity participation of US$ 111.0 bn; 41.15% of the total investment. Out of 2528 foreign collaborations 633 were technical and 2795 are financial collaborations during 19912008. The top Indian companies which received FDI inflows in Infrastructure sector during 2000 to 2008 are IDEA, Cellule Ltd, Bhaik Infotel P.Ltd, Dabhol Power Company Ltd, Aircel Ltd, Relogistics Infrastructure P.Ltd.

**Chart- 3.13**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

India has encouraged FDI in infrastructure sector from the very initiation of its economic reforms, but the demand for it is still not being fulfilled. In fact, investment is heavily concentrated in consumer durables sector rather than in long – term investment projects such as power generation, maintaining roads, water management and on modernizing the basic infrastructure. Maitra[41] (2003) reveals that the shortage of power is estimated at about 10% of the total electrical energy and approximately 20% of peak capacity requirement.

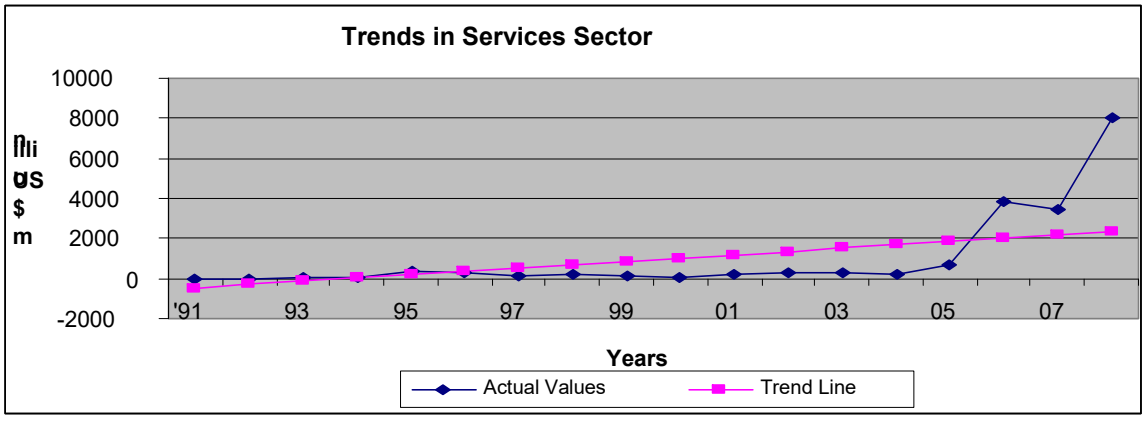
However, insufficient and poor conditions of India's infrastructure are the major factors to the slowdown in growth which reduces the trust and enthusiasm for FDI from investors and economic growth of the country. Further, insufficient power supply, inadequate and unmaintained roads, an over-

burdened railway system, severely congested urban areas, may continue to plague the Indian economy in the coming years.

### 3.6.2 Services Sector

Services sector puts the economy on a proper glide path. It is among the main drivers of sustained economic growth and development by contributing 55% to GDP. There is a continuously increasing trend of FDI inflows in services sector with a steep rise in the inflows from 2005 onwards (Chart-3.14). Service sector received an investment of US$ 19.2 bn which is 19.34% of the total FDI inflows from 1991-2008 from FIPB/SIA, acquisition of existing shares and RBI's automatic routes only. However, this amount does not include FDI inflows received through acquisition route prior to Jan. 2000. Among the subsectors of services sectors, financial services attract 10.25% of total FDI inflows followed by banking services (2.22%), insurance (1.60%) and non- financial services (1.62%) respectively. Outsourcing, banking, financial, information technology oriented services make intensive use of human capital. FDI would be much more efficient and result oriented in these services vis- a-vis services which make intensive use of semiskilled and unskilled labour.

**Chart-3.14**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

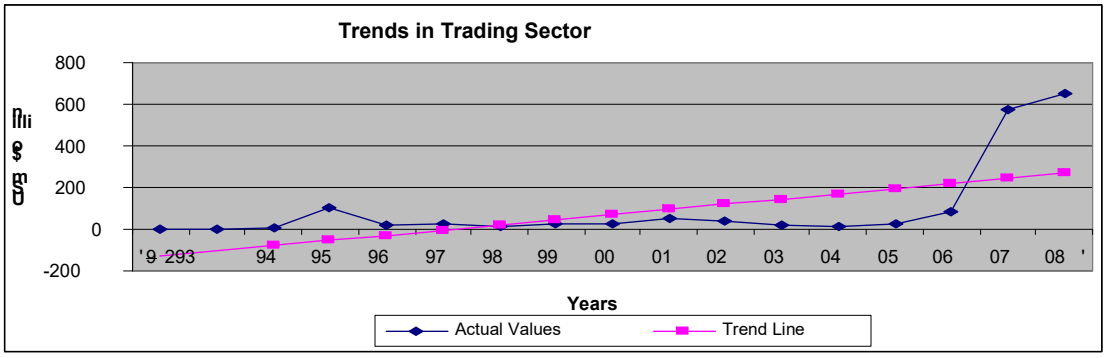
In India, FDI inflows in services sector are heavily concentrated around two major cities- Mumbai (33.77%) and Delhi (16.14%). Mauritius top the chart by investing 42.52% in services sector followed by UK (14.66%), Singapore (11.18%). The total number of approvals for services sector (financial non-financial) have been of the order of 1626 (5.78% of the total approvals) with an equity participation of US$ 8.7 bn, 10.28% of the total investment. Services sector ranks 3rd in the list of sectors in terms of cumulative FDI approved from August 1991 to Dec 2008. Out of 1626 numbers of foreign collaborations, 77 are technical and 1549 are financial in nature. Majority of collaborations in technology transfers are from USA (30) and UK (8).the leading Indian companies which received FDI inflows in services sector are: Cairn (I) Ltd, DSP Merrill Lynch Ltd, AAA Global Ventures Pvt. Ltd., Kappa Industries Ltd, Citi Financial Consumer Finance (I) Ltd, Blue Dart Express Ltd, Vyasa Bank Ltd, CRISIL Ltd, Associates India Holding Co. Pvt. Ltd, Housing Development Finance Corp. Ltd.

### 3.6.3 Trading Sector

Trading sector received 1.67% of the total FDI inflows from 1991-2008. Trading (wholesale cash and carry) received highest percentage (84.25%) of total FDI inflow to this sector from 2000-2008 followed by trading (for exports) with 9.04%, e-commerce with (2.38%). Trading sector shows a trailing investment pattern upto 2005 but there is an exponential rise in inflows from 2006 onwards (Chart – 3.15). Further, major investment inflows came from Mauritius (24.69%), Japan (14.81%), and

Cayman Island (14.60%) respectively from 2000-2008. Investment in India is heavily concentrated in three cities viz. Mumbai (40.76%), Bangalore (15.97%), and New Delhi (12.05%). As far as

**Chart – 3.15**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

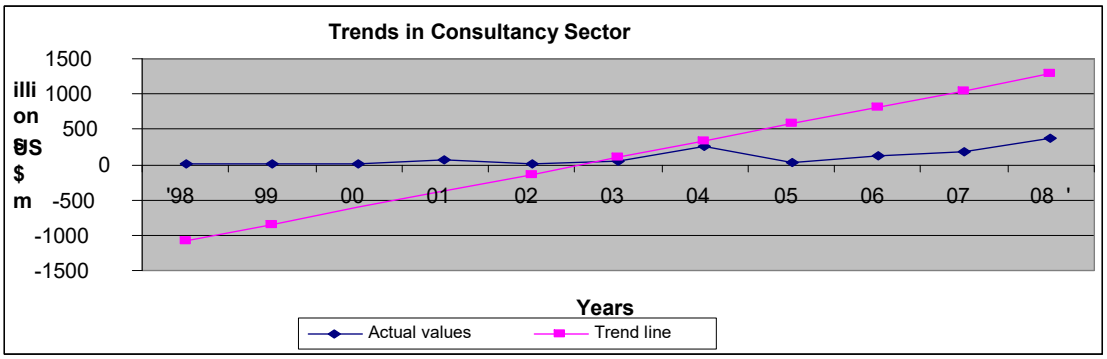
technology transfers are concerned, total numbers of 20 technical and 1111 financial collaborations have been approved for Trading sector from 1991-2008. Maximum numbers of technology transfers are approved from USA (5), Japan (3) and Netherlands.

The top five Indian companies which received FDI inflows are Multi Commodity Exchanges of India Ltd, Anchor Electricals, Multi Commodity Exchanges of India Ltd, Metro Cash and Carry India Pvt. Ltd, Essilor India Pvt. Ltd.

### 3.6.4 Consultancy Sector

Consultancy Sector received US$ 1.1 bn which is 1.14% of total inflows received from 2000-2008 through FIPB/SIA route, acquisition of existing shares and RBI's automatic route. Management services received an investment of US$ 737.6 million, marketing US$138.65 million and Design and Engineering services constitute an investment of US$ 110.43.

**Chart – 3.16**



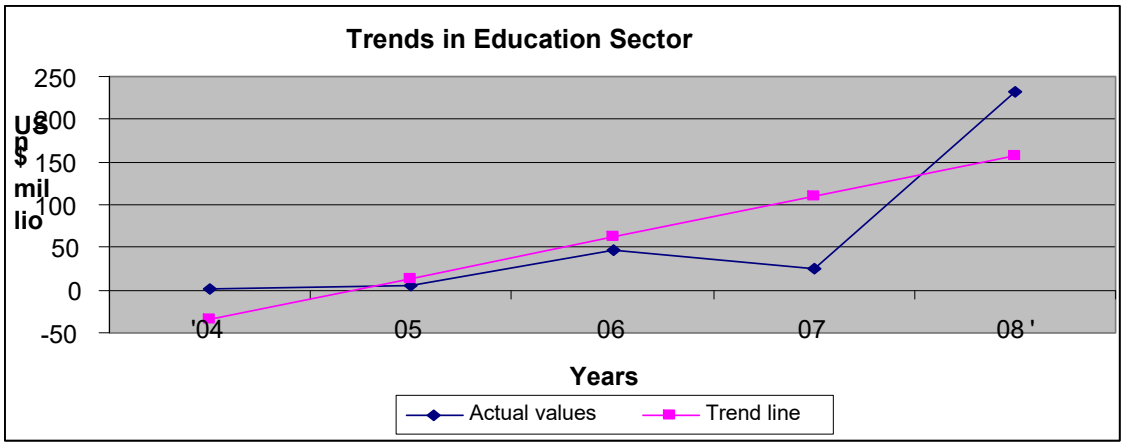

Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Major share of investment in consultancy services comes from Mauritius with 37.2%, USA (25.47%) and Netherlands 6.63% respectively. FDI inflows in consultancy sector registered a continuous increasing trend of FDI inflows from 2005 onwards (Chart- 3.16). Further, in India Mumbai (38.76%) and New Delhi (13.01%) received major percentages of FDI inflow for consultancy sector from 2000-2008. Total numbers of technology transfers in consultancy services are 125, out of which 40 technical collaborations are approved with USA, 21 with UK, and 14 with Germany from 1991-2008.

### 3.6.5 Education Sector

FDI up to 100% is allowed in education sector under the automatic route. Education sector received US$ 308.28 million of FDI inflow from 2004-2008. Education sector shows a steep rise in FDI inflows from 2005 onwards (Chart-3.17). Heavy investment in education sector came from Mauritius with 87.95%, followed by Netherlands (3.76%), USA (2.93%) respectively.

**Chart- 3.17**



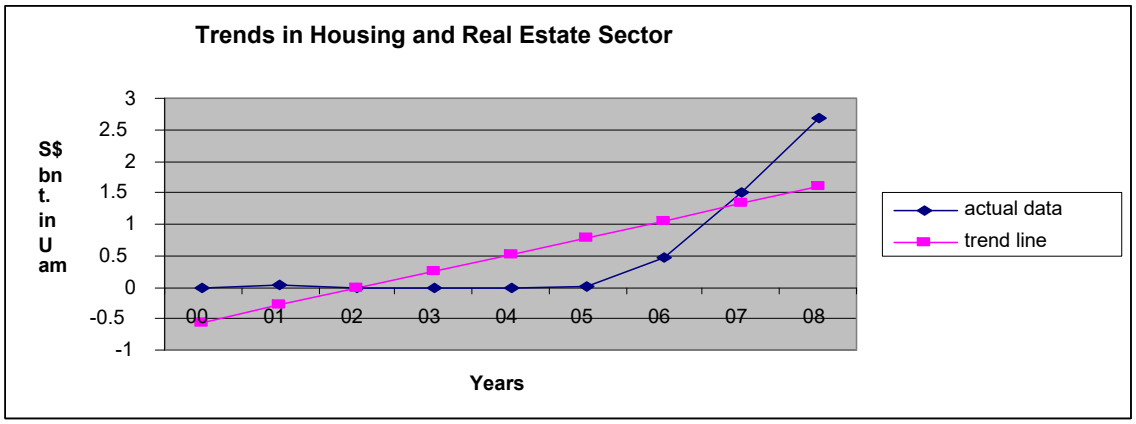

Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

In India, Bangalore received 80.14% of total FDI inflow followed by Delhi (6.45%), Mumbai (5.58%) respectively. As far as technology transfer and financial collaborations are concerned, total number of 2 technical and 112 financial collaboration are approved for education sector. Out of 2 technical collaborations, USA and Japan begged one each during 1991-2008. Further, India is endowed with a large pool of skilled people with secondary and tertiary level of education. India with this level of education attracts foreign firms in science, R & D, and high technology products and services. The endowment of science, engineering, and technology oriented people facilitate the spillovers of technology and know – how. Moreover, the medium of instruction at these education levels is English – the lingua franca of business. India with this added advantage benefits in attracting foreign firms in education sector.

### 3.6.6 Housing and Real Estate sector

Housing and Real Estate sector accounts US$ 4.7 bn of FDI inflows which is 5.78% of the total inflows received through FIPB/SIA route, acquisition of existing shares and RBI's automatic route during 2000 – 2008. There is an exponential rise (Chart – 3. 18) in the amount of FDI inflows to this sector after 2005.

**Chart-3.18**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

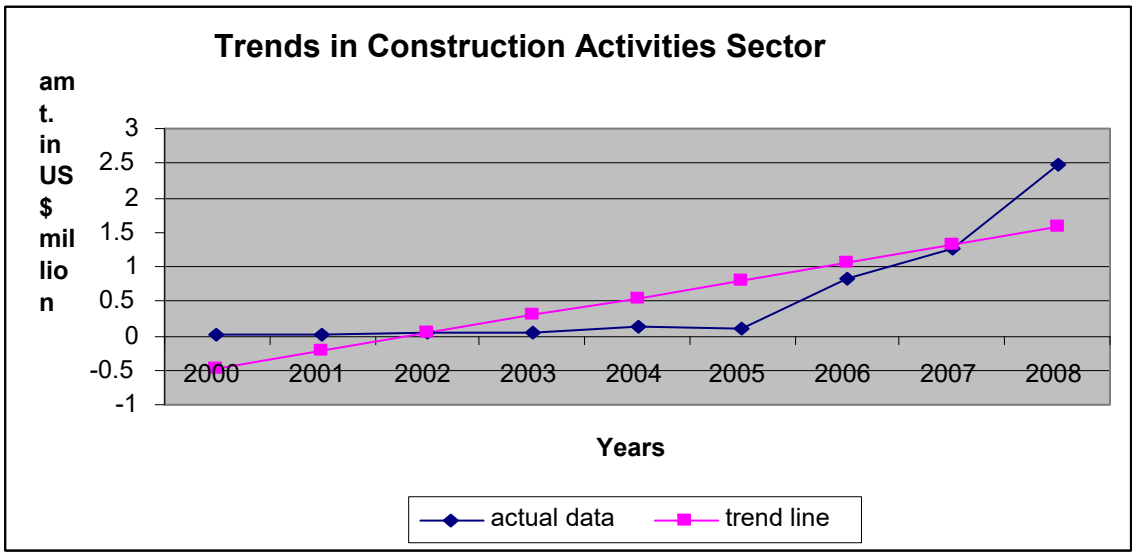
Heavy investment i.e. 61.96% came from Mauritius. In terms of most attractive locations in India New Delhi and Mumbai with 34.7% and 29.8% shares are on the first and second positions. The total numbers of foreign collaborations in Housing and Real Estate sector is 18 with an equity participation of US$1.0 bn during 1991-2008. Maximum numbers of foreign collaborations in Housing and Real Estate sector is with Mauritius (7), Singapore (2), and U.K (2). The top five Indian companies which received maximum FDI inflows in this sector are: Emaar MGF Land P. Ltd, Emaar MGF Land P. Ltd, Shivaji Marg

Properities, Shyamaraju & Company (India) Pvt. Ltd, and India Bulls Infrastructure Development.

### 3.6.7 Construction activities sector

Construction activities Sector includes construction development projects viz. housing, commercial premises, resorts, educational institutions, recreational facilities, city and regional level infrastructure, township. The amount of FDI in construction activities during Jan 2000 to Dec. 2008 is US$ 4.9 bn which is 6.15% of the total inflows received through FIPB/SIA route, acquisition of existing shares and RBI's automatic route. The construction activities sector shows a steep rise in FDI inflows from 2005 onwards (Chart- 3.19). Major investment in construction activities is received from Mauritius which is accounted nearly 58.61% of total FDI inflows during 2000-2008. In India Delhi, Mumbai, and Hyderabad receives maximum amount (viz. US$ 1245.61, 1000.5, and 943.22 bn) of investment. As far as technology transfers are concerned, total numbers of 9 technical and 223 numbers of financial collaborations have been approved for construction activities, which accounts for 0.11% of the total collaborations approved during August 1991 to December 2008.

**Chart-3.19**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Maximum numbers of technical collaborations are approved with France (3) and USA

(2). The top five Indian companies' which received FDI inflows in this sector are: W.S

Electric Ltd, Carmen Builders & Construction Pvt. Ltd, Caitlin Builders & Developers Pvt. Ltd, W.S.

Electric Ltd, and PVP Ventures Pvt. Ltd.

### 3.6.8 Automobile Industry

Automobile Industry Sector comprises Passenger cars, auto ancillaries etc. FDI inflows in the automobile Industry sector, during Jan 2000 to Dec. 2008 is US$ 3.2 bn which is

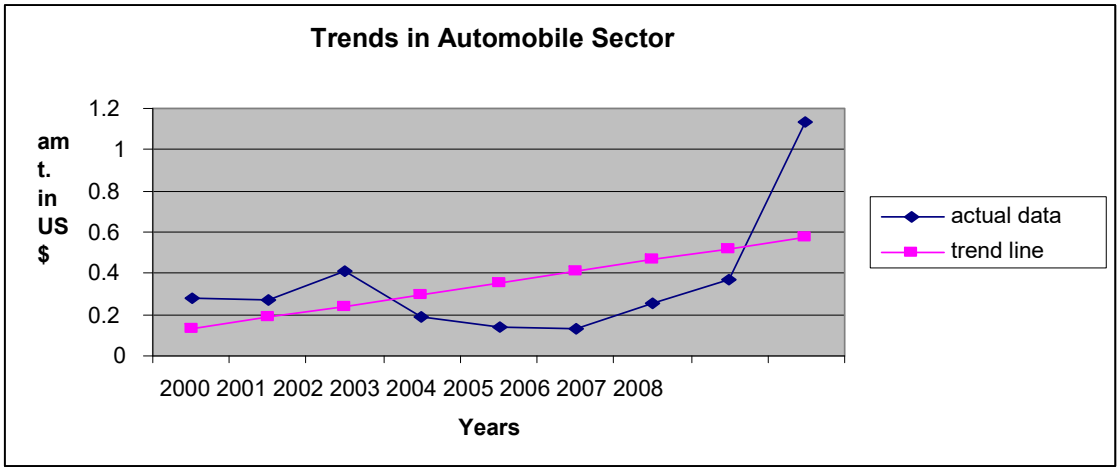
4.09% of the total inflows received through FIPB/SIA route, acquisition of existing shares and RBI' automatic route. The trends in automobile sector show that there is a continuous increase of investment

in this sector after 2005 onwards (Chart- 3.20). Major investment came from Japan (27.59%), Italy (14.66%), USA (13.88%) followed by

Mauritius(7.77%) and Netherlands (6.91%). in India Mumbai, New Delhi and Ahmedabad received major chunks of investment i.e. 36.98%, 26.63% and 9.47%). The total numbers of approvals for automobile industry have been of the order of 1611 with an equity participation of US$ 6.1 bn, which is 7.01% of the total investment.

Automobile industry sector ranks 5$^{th}$ in the list of sectors in terms of cumulative FDI approved from August 1991 to Dec 2008. Out of 1611 numbers of foreign collaborations approved 734 are technical and 877 are financial in nature.

**Chart-3.20**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Highest numbers of technical collaborations with Japan in automobile Industry.

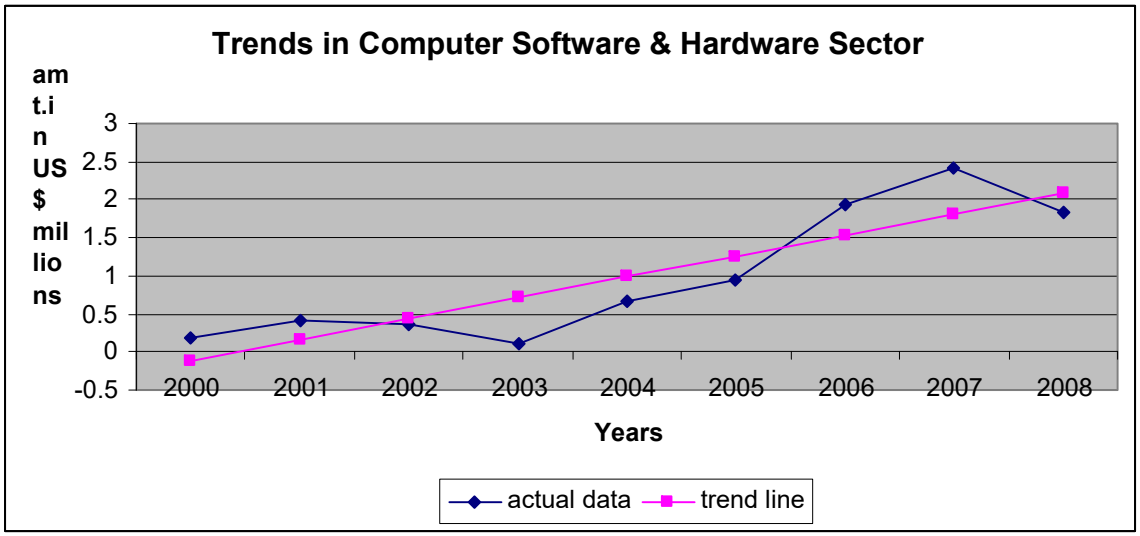
Major Indian companies which received highest percentage of FDI inflows in automobile industry are Escorts Yamaha Motor Ltd, Yamaha Motors India Pvt. Ltd, Punjab Tractors

Ltd., Yamaha Motor Escorts Ltd, Endurance Technologies P. Ltd, General Motors India Ltd, and Fiat India Automobile P. Ltd.

### 3.6.9 Computer Software and Hardware Sector

Computer Software and Hardware sector received US$ 8.9 bn which constitute 11.43% of the total FDI inflows during the period Jan 2000 to Dec 2007. Computer Software and Hardware sector shows a continuous increasing trend of FDI inflows (Chart-3.21). Mauritius with an investment of US$ 4789 bn remained at the top among the investing countries in India in this Sector. Other major investing countries in this sector are USA (12.88%), Singapore (10.07%) etc. Among Indian locations Mumbai received 22.44% of investment followed by Bangalore (10.8%), and Chennai (9.90%).

**Chart-3.21**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Computer Software and Hardware industry fetched 3636 numbers of foreign

collaborations. Out of 3636, 125 are technical and 3511 are financial in nature with an equity participation of US$ 3.0bn. Major technological transfers come from USA (43.2%) and Japan (10.4%). The top Indian companies which received FDI inflows in this sector are: I Fliex Solutions Ltd, I Flex Solutions ltd, Tata Consultancy Services Ltd,

Infrasoft Technologies Ltd, Mphasis BFL Ltd, I- Flex Solutions Ltd, Digital Global Soft

Ltd, India Bulls Financials Services P. Ltd, IFLEX Solutions Ltd, Unitech Reality Projects Ltd.

### 3.6.10 Telecommunications Sector

Telecommunications Sector comprises Telecommunications, Radio Paging, Cellular

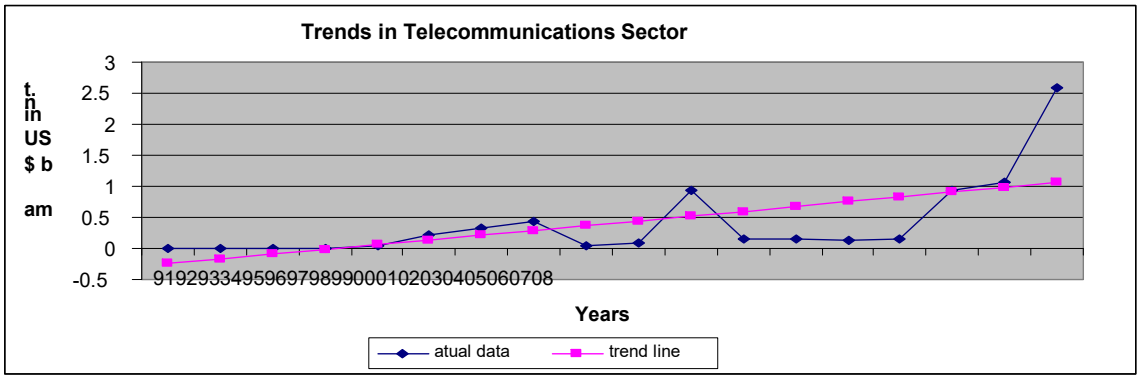
Mobile/ Basic Telephone Services etc. India received cumulative FDI inflows of US$ 100.4 bn during 1991-2008. Out of this, Telecommunications Sector received an inflow of US$ 8.2 bn, which is 8.4% of the total FDI inflows during August 1991 to December 2008. There has been a steady flow of FDI in telecommunications from 1991 to 2005, but there is an exponential rise in FDI inflows after 2005 (Chart-3.22). Mauritius with

82.22% of investment remains on the top among the investing countries in this sector.

Other investing countries in the telecom sector are Russia (5.41%) and USA (2%). New

Delhi attracts highest percentage (32.58%) of FDI inflows during Jan 2000 to Dec 2008. The total numbers of approvals for telecommunications Industry have been of the order of 1099 with an equity participation of US$ 13.3 bn, 14.34% of the total investment. Telecommunication sector ranks 2$^{nd}$ in the list of sectors in terms of cumulative FDI approved from August 1991 to Dec 2008.

**Chart-3.22**




Source: compiled and computed from the various issues SIA Bulletin, Ministry of Commerce, GOI

Out of 1099 foreign collaborations, 139 are technical and 960 are financial in nature.

Highest numbers (32) of technical collaborations are approved with USA followed by Japan (19), U.K. (12), Canada (12) and Germany (12). The leading Indian companies which received FDI inflows in this sector are: Bhaik Infotel p. Ltd, Aircel Ltd, Bharti

Tele Ventures Ltd, Bharti Telecom ltd, Flextronics Software Systems Ltd, Hathway Cable & Data Com. Pvt. Ltd, Unitech Developers & Projects Ltd, Hutchison Essar South Ltd. Etc.

## 3.7 INTERNATIONAL INVESTMENT AGREEMENTS

India is the founding member of GATT (General Agreement on Trade and Tariffs). India is also a signatory member of South Asian Free Trade Agreement (SAFTA). India has signed BITs (Bilateral Investment Treaties) with both developed and developing nations. India has concluded 57 numbers (upto 2006) of BITs, out of which 27 are with developed nations and majority of them, are with developing countries of Asia (16), the Middle East

(9), Africa (4), and Latin America (1). India also maintains double tax avoidance agreements (tax treaties) with 70 countries (upto 2006). Apart from BITs and tax treaties India is the member of many FTAs (Free Trade Area, nearly 17 in numbers, upto 2006)).

### 3.8 CONCLUSIONS

The above analysis of Trends and Patterns of FDI inflows reveals the following facts:-

- FDI has gained momentum in the economic landscape of world economies in the last three decades. It had outpaced almost all other economic indicators of economic transactions worldwide.
- FDI is considered as the safest type of external finance both by the developed and developing nations. So, there is growing competition among the countries in receiving maximum inward FDI.
- Trends in world FDI inflows shows that maximum percentage of global FDI is vested with the developed nation. But in the last two decades, developing countries by receiving 40% of global FDI in 1997 as against 26% in 1980 make waves in the economics of developed nations.
- Among developing nations of the world, the emerging economies of the Asian continent are receiving maximum share (16%) of FDI inflows as against other emerging countries of Latin America (8.7%) and Africa (2%).
- In the last two decades, India has significantly increased its share of world FDI from 0.7% in 1996 to 1.3% in 2007.

- China is the major recipient of global FDI flows among the emerging economies of the world. It is also the most preferred destination of global FDI flow. India is at 5th position in the category of most attractive location of global FDI.
- It is found that FDI flows to India have increased from 11% in 1991-99 to 69% in 2000-2007.
- In the South, East and South-East Asia block India is at 3rd place after China and Singapore in receiving FDI inflows.
- India is the major recipient of FDI inflows in South-Asia region. It constitutes 75% of total FDI inflows to this region.
- In order to have a generous flow of FDI, India has maintained Double Tax Avoidance Agreements (DTAA) with nearly 70 countries of the world.
- India is the signatory member of south Asian Free Trade Agreement (SAFTA). Apart from SAFTA, India is also the member of many (of nearly 17) Free Trade Agreements (FTAs).
- It is found that China's share is 21.7% and India's share is miniscule (i.e. 2.8%) among the emerging economies of the world in the present decade.
- India has considerably decreased its fiscal deficit from 4.5 percent in 2003-04 to 2.7 percent in 2007-08 and revenue deficit from 3.6 percent to 1.1 percent in 2007-08.
- India has received increased NRI's deposits and commercial borrowings largely because of its rate of economic growth and stability in the political environment of the country.
- Economic reform process since 1991 have paves way for increasing foreign exchange reserves to US$ 251985 millions as against US$ 9220 millions in 1991-92.

- During the period under study it is found that India's GDP crossed one trillion dollar mark in 2007. Its domestic saving ratio to GDP also increases from 29.8 percent in 2004-05 to 37 percent in 2007-08.
- FDI in India has increased manifold since 1991. FDI inflows in India have increased from US$ 144.45 millions in 1991to US$ 33029.32 millions in 2008.
- An analysis of last eighteen years of trends in FDI inflows in India shows that initially the inflows were low but there is a sharp rise in investment flows from 2005 onwards.
- Although there has been a generous flow of FDI in India but the pace of FDI inflows has been slower in India when it is compared with China, Russian federation, Brazil and Singapore.
- The study reveals that there is a huge gap (almost 40%) between the amount of FDI approved & its realization into actual disbursement in India.
- It is also found that investors in India are inclined toward having more financial collaborations rather than technical ones.
- Among sectors, Services sector tops the chart of FDI inflows in India in 2008. Nearly, 41% of FDI inflows are in high priority areas like services, electrical equipments, telecommunication etc.
- The sources of FDI inflows are also increased to 120 countries in 2008 as compared to 15 countries in 1991 and a few countries (UK, USA, Germany, Japan, Italy, and France etc.) before 1991. Mauritius, South Korea, Malaysia, Cayman Islands and many more countries appears for the first time in the source list of FDI inflows after 1991.
- Mauritius is the major investing country in India during 1991-2008. Nearly 40% of FDI inflows came from Mauritius alone.

- The other major investing countries are USA, Singapore, UK, Netherlands, Japan, Germany, Cypress, France and Switzerland.
- An analysis of last eighteen years of FDI inflows in the country shows that nearly 66% of FDI inflows came from only five countries viz. Mauritius, USA, Singapore, UK, and Netherlands.
- Mauritius and United states are the two major countries holding first and the second position in the investor's list of FDI in India. While comparing the investment made by both countries, one interesting fact comes up which shows that there is huge difference in the volume of FDI received from Mauritius and the U.S. It is found that FDI inflows from Mauritius are more than double from that of U.S.
- FDI inflows in India are concentrated around two cities i.e. Mumbai and New Delhi. Nearly 50 percent of total FDI inflows to India are concentrated in these two cities. Apart from Mumbai and Delhi Bangalore, Ahemdabad, and Chennai also received significant amount of FDI inflows in the country.
- It is observed that among Indian cities maximum (1371) foreign collaborations were received Mumbai.
- The Infrastructure sector received 28.62% of total FDI inflows in the present decade. This sector received maximum member (2528) of foreign collaboration among sectors. Although this sector received the maximum amount of FDI Inflows, but the demand of this sector are still unfulfilled. So, investment opportunities in this sector are at its peak. Trend in infrastructure shows that FDI inflows were low initially but there is a sharp rise in investment flow from 2005 onwards.

- Services sector received 19.34% of total FDI inflows from 1991-2008. This sector is the main driver of economic growth by contributing 55% to GDP. Services sector shows a continuously increasing trend of FDI inflows with a steep rise in the inflows from 2005 onwards.
- Trading sector received 1.67% of total FDI inflows from 1991-2008. Major investment (25%) in this sector came from Mauritius. Trading sector shows a trailing investment pattern up to 2005 but there is an exponential rise in FDI inflows from 2006 onwards.
- Consultancy Sector received 1.14% of total inflows from 2000-2008. FDI inflows in consultancy sector registered a continuous increasing trend of FDI inflows from 2005 onwards.
- Education sector received US $308.28 million of FDI inflows from 2004-2008. The sector shows a steep rise in FDI inflows from 2005 onwards.
- Housing and Real Estate Sector accounts for 5.78% of total FDI inflows during 2000-2008. There is an exponential rise in the amount of FDI inflows to this sector after 2005.
- Construction Activities Sector received 6.15% of the total inflows during 2000 to Dec. 2008. The Construction Activities Sector shows a steep rise in FDI inflows from 2005 onwards.
- Automobile Industry received US $3.2 billion of total FDI inflows to the country during 2000 to 2008. The trends in automobile sector show that there is a continuous increase of investment in this sector after 2005 onwards.
- Computer Software and Hardware sector received US $8.9 billion of total FDI inflows during 2000 to Dec. 2007. This sector shows a continuous increasing trend of FDI inflows.
- Telecommunications Sector received an inflow of US $8.2 billion during 1991 to 2008. There has been a steady flow of FDI in the telecommunication from 1991 to 2005, but there is an exponential rise in FDI inflows after 2005.

- It is observed that major investment in the above sectors came from Mauritius and investments in these sectors in India are primarily concentrated in Mumbai and New Delhi.
- Maximum numbers (3636) of foreign collaborations during 1991-2008 are concluded in the computer software and hardware sector.
- It is found that maximum (i.e. 734) technical collaborations are concluded in automobile sector while computer software and hardware sector fetched maximum (3511) financial collaborations during 1991-2008.
- It is observed that major FDI inflows in India are concluded through automatic route and acquisition of existing shares route than through FIPB, SIA route during 1991-2008.
- It is found that India has signed 57 members of Bilateral Investment Treaties up to 2006. Maximum numbers of BITS are signed with developing countries of Asia (16), the Middle East (9), Africa (4) and Latin America (1) apart from the developed nation (i.e. 27 in numbers).

# CHAPTER-4

# FDI AND INDIAN ECONOMY

## 4.0INTRODUCTION

Nations' progress and prosperity is reflected by the pace of its sustained economic growth and development. Investment provides the base and pre-requisite for economic growth and development. Apart from a nation's foreign exchange reserves, exports, government's revenue, financial position, available supply of domestic savings, magnitude and quality of foreign investment is necessary for the

well being of a country. Developing nations, in particular, consider FDI as the safest type of international capital flows out of all the available sources of external finance available to them. It is during 1990s that FDI inflows rose faster than almost all other indicators of economic activity worldwide. According to WTO[83], the total world FDI outflows have increased nine – fold during 1982 to 1993, world trade of merchandise and services has only doubled in the same. Since 1990 virtually every country- developed or developing, large or small alike- have sought FDI to facilitate their development process. Thus, a nation can improve its economic fortunes by adopting liberal policies vis-à-vis by creating conditions conducive to investment as these things positively influence the inputs and determinants of the investment process. This chapter highlights the role of FDI on economic growth of the country.

**4.1FDI AND INDIAN ECONOMY**

Developed economies consider FDI as an engine of market access in developing and less developed countries vis-à-vis for their own technological progress and in maintaining their own economic growth and development. Developing nations looks at FDI as a source of filling the savings, foreign exchange reserves, revenue, trade deficit, management and technological gaps. FDI is considered as an instrument of international economic integration as it brings a package of assets including capital, technology, managerial skills and capacity and access to foreign markets. The impact of FDI depends on the country's domestic policy and foreign policy. As a result FDI has a wide range of impact on the country's economic policy. In order to study the impact of foreign direct investment on economic growth, two models were framed and fitted. The foreign direct investment model shows the factors

influencing the foreign direct investment in India. The economic growth model depicts the contribution of foreign direct investment to economic growth.

**4.2Selection of Variables**: Macroeconomic indicators of an economy are considered as the major pull factors of FDI inflows to a country. The analysis of above theoretical rationale and existing literature also provides a base in choosing the right combination of explanatory variables that explains the variations in the flows of FDI in the country. In order to have the best combination of explanatory variables for the determinants of FDI inflows into India, different alternatives combination of variables were identified and then estimated. The alternative combinations of variables included in the study are in tune with the famous specifications given by United Nations Conference on Trade and Development, (UNCTAD 2007)[77]. The study applies the simple and multiple regression method to find out the explanatory variables of the FDI inflows in the country. The regression analysis has been carried out in two steps. In the first step, all variables are taken into consideration in the estimable model. In the second stage, the insignificant variables are dropped to avoid the problem of multi-colinearity and thus the variables are selected. However, after thorough analysis of the different combination of the explanatory variables, the present study includes the following macroeconomic indicators: total trade (TRADEGDP), research and development expenditure (R&DGDP), financial position (FIN.Position), exchange rate (EXR), foreign exchange reserves (RESERVESGDP), and foreign direct investment (FDI), foreign direct investment growth rate (FDIG) and level of economic growth (GDPG). These macroeconomic

indicators are considered as the pull factors of FDI inflows in the country. In other words, it is said that FDI inflows in India at aggregate level can be considered as the function of these said macroeconomic indicators. Thus, these macroeconomic indicators can be put in the following specifications:

**MODEL-1**

$FDI_t = a + b_1TRADEGDP_t + b_2RESGDP_t + b_3R\&DGDP_t + b_4FIN.\ Position_t + b_5EXR_t + e\ldots$ (4.1)

**MODEL-2**

$GDPG_t = a + bFDIG_t + e$..... (4.2)

where,

FDI= Foreign Direct Investment

GDP = Gross Domestic Product

FIN. Position = Financial Position

TRADEGDP= Total Trade as percentage of GDP.

RESGDP= Foreign Exchange Reserves as percentage of GDP.

R&DGDP= Research & development expenditure as percentage of GDP.

FIN. Position = Ratio of external debts to exports

EXR= Exchange rate

GDPG = level of Economic Growth FDIG =

Foreign Direct Investment Growth

t = time frame

**4.2.1 FOREIGN DIRECT INVESTMENT (FDI)**: It refers to foreign direct investment.

Economic growth has a profound effect on the domestic market as countries with expanding domestic markets should attract higher levels of FDI inflows. The generous **Table - 4.1**

**FDI FLOW IN INDIA**

***amount in Rs. crores***

| Years | FDI inflows in India |
|---|---|
| **1991-92** | **409** |
| **1992-93** | **1094** |
| **1993-94** | **2018** |
| **1994-95** | **4312** |
| **1995-96** | **6916** |
| **1996-97** | **9654** |
| **1997-98** | **13548** |
| **1998-99** | **12343** |

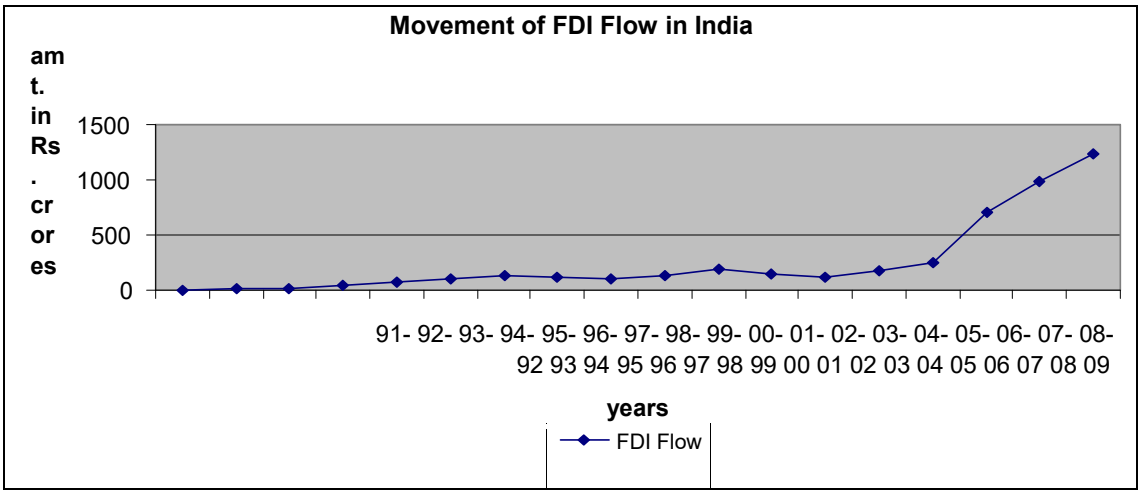
| | |
|---|---|
| **1999-00** | **10311** |
| **2000-01** | **10368** |
| **2001-02** | **18486** |
| **2002-03** | **13711** |
| **2003-04** | **11789** |
| **2004-05** | **14653** |
| **2005-06** | **24613** |
| **2006-07** | **70630** |
| **2007-08** | **98664** |
| **2008-09** | **123025** |

*Source:* various issues ofSIA Bulletin.

flow of FDI (Chart - 4.1 and Table - 4.1) is playing a significant and contributory role in the economic growth of the country. In 2008-09, India's FDI touched Rs. 123025 crores

up 56% against Rs. 98664 crores in 2007-08 and the country's foreign exchange reserves touched a new high of Rs.1283865 crores in 2009-10. As a result of India's economic reforms, the country's annual growth rate has averaged 5.9% during 1992-93 to 2002-03.

**Chart – 4.1**




*Source:* various issues ofSIA Bulletin.

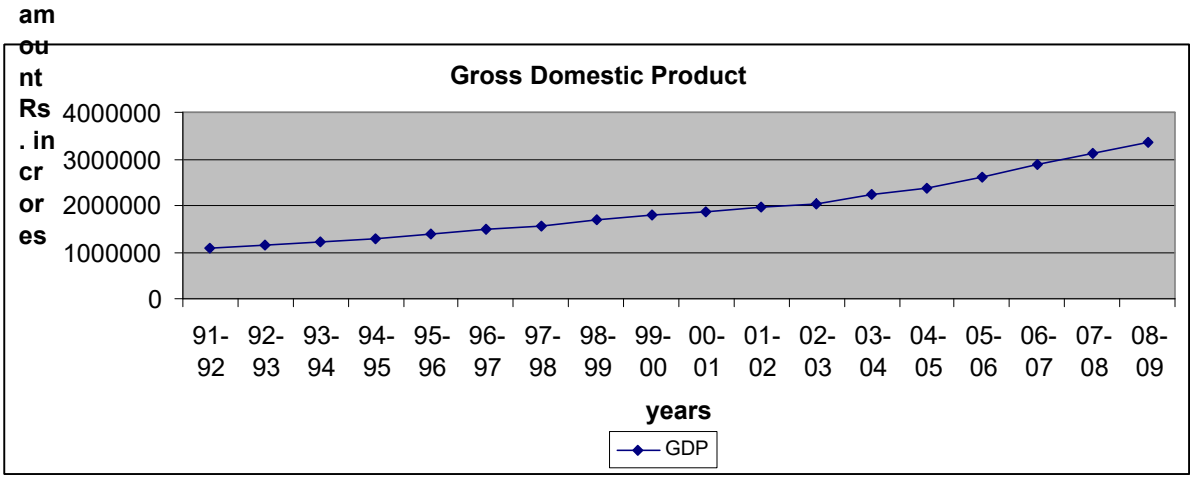
Notwithstanding some concerns about the large fiscal deficit, India represents a promising macroeconomic story, with potential to sustain high economic growth rates. According to a survey conducted by Ernst and Young[19] in June 2008 India has been rated as the fourth most attractive investment destination in the world after China, Central Europe and Western Europe. Similarly, UNCTAD's World Investment Report[76] 2005 considers India the 2nd most attractive investment destination among the Transnational Corporations (TNCs). All this could be attributed to the rapid growth of the economy and favourable investment process, liberal policy changes and procedural relaxation made by the government from time to time.

**4.2.2 GROSS DOMESTIC PRODUCT (GDP):** Gross Domestic Product is used as one of the independent variable. The tremendous growth in GDP (Chart-4.2, Table- 4.2) since

1991 put the economy in the elite group of 12 countries with trillion dollar economy. India makes its presence felt by making remarkable progress in information technology, high end services and knowledge process services. By achieving a growth rate of 9% in three consecutive years opens new avenues to foreign investors from 2004 until 2010,

India's GDP growth was 8.37 percent reaching an historical high of 10.10 percent in 2006.

**Chart- 4.2**




Source: various issues of RBI Bulletin

**Table - 4.2**

**GROSS DOMESTIC PRODUCT**

***amount in Rs. crores***

| Years | GDP at factor cost |
|---|---|
| **1991-92** | **1099072** |
| **1992-93** | **1158025** |
| **1993-94** | **1223816** |

| | |
|---|---|
| **1994-95** | **1302076** |
| **1995-96** | **1396974** |
| **1996-97** | **1508378** |
| **1997-98** | **1573263** |
| **1998-99** | **1678410** |
| **1999-00** | **1786525** |
| **2000-01** | **1864301** |
| **2001-02** | **1972606** |
| **2002-03** | **2048286** |
| **2003-04** | **2222758** |
| **2004-05** | **2388768** |
| **2005-06** | **2616101** |
| **2006-07** | **2871120** |
| **2007-08** | **3129717** |
| **2008-09** | **3339375** |

*Source:* various issues ofRBI Bulletin

India's diverse economy attracts high FDI inflows due to its huge market size, low wage rate, large human capital (which has benefited immensely from outsourcing of work from developed countries). In the present decade India has witnessed unprecedented levels of economic expansion and also seen healthy growth of trade. GDP reflects the potential market size of Indian economy. Potential market size of an economy can be measured with two variables i.e. GDP (the gross domestic product) and GNP (the gross national product).GNP refers to the final value of all the goods and services produced plus the net factor income earned from abroad. The word 'gross' is used to indicate the valuation of the

national product including depreciation. GDP is an unduplicated total of monetary values of product generated in various kinds of economic activities during a given period, i.e. one year. It is called as domestic product because it is the value of final goods and services produced domestically within the country during a given period i.e. one year. Hence in functional form GDP= GNP-Net factor income from abroad. In India GDP is calculated at market price and at factor cost. GDP at market price is the sum of market values of all the final goods and services produced in the domestic territory of a country in a given year. Similarly, GDP at factor cost is equal to the GDP at market prices minus indirect taxes plus subsidies. It is called GDP at factor cost because it is the summation of the income of the factors of production

Further, GDP can be estimated with the help of either (a) Current prices or (b) constant prices. If domestic product is estimated on the basis of market prices, it is known as GDP at current prices. On the other hand, if it is calculated on the basis of base year prices prevailing at some point of time, it is known as GDP at constant prices.

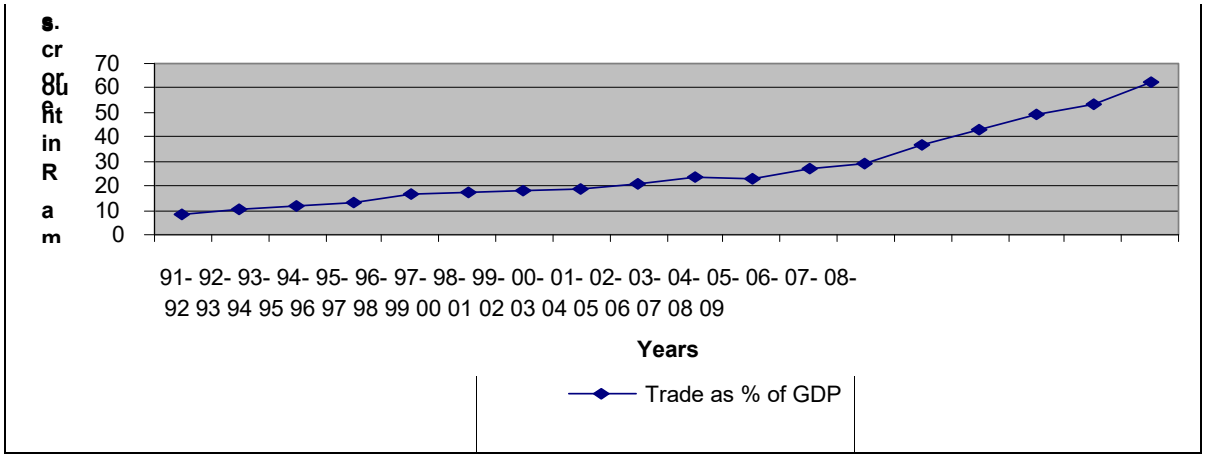
Infact, in a dynamic economy, prices are quite sensitive due to the fluctuations in the domestic as well as international market. In order to isolate the fluctuations, the estimates of domestic product at current prices need to be converted into the domestic product at constant prices. Any increase in domestic product that takes place on account of increase in prices cannot be called as the real increase in GDP. Real GDP is estimated by converting the GDP at current prices into GDP at constant prices, with a fixed base year. In this context, a GDP deflator is used to convert the GDP at current prices to GDP at constant prices. The present study uses GDP at factor cost (GDPFC) with constant prices as one of the explanatory variable to the FDI inflows into India for the aggregate analysis.

Gross Domestic Product at Factor cost (GDPFC) as the macroeconomic variable of the Indian economy is one of the pull factors of FDI inflows into India at national level. It is conventionally accepted as realistic indicator of the market size and the level of output. There is direct relationship between the market size and FDI inflows. If market size of an economy is large than it will attract higher FDI inflows and vice versa i.e. an economy with higher GDPFC will attract more FDI inflows. The relevant data on GDPFC have been collected from the various issues of Reserve bank of India (RBI) bulletin and Economic Survey of India.

**4.2.3 TOTAL TRADE (TRADEGDP):** It refers to the total trade as percentage of GDP.

Total trade implies sum of total exports and total imports. Trade, another explanatory variable in the study also affects the economic growth of the country. The values of exports and imports are taken at constant prices. The relationship between trade, FDI and growth is well known. FDI and trade are engines of growth as technological diffusion through international trade and inward FDI stimulates economic growth. Knowledge and technological spillovers (between firms, within industries and between industries etc.) contributes to growth via increasing productivity level. Economic growth, whether in the form of export promoting or import substituting strategy, can significantly affect trade flows. Export led growth leads to expansion of exports which in turn promote economic growth by expanding the market size for developing countries.

**Chart- 4.3**




Source: various issues of RBI Bulletin

India prefers export stimulating FDI inflows, that is, FDI inflows which boost the demand of export in the international market are preferred by the country as it nullifies the gap between exports and imports.

**Table - 4.3**

**TOTAL TRADE**

***amount in Rs. crores***

| Years | Total Trade |
|---|---|
| **1991-92** | **91892** |
| **1992-93** | **117063** |
| **1993-94** | **142852** |

| | |
|---|---|
| **1994-95** | **172645** |
| **1995-96** | **229031** |
| **1996-97** | **257737** |
| **1997-98** | **284276** |
| **1998-99** | **318084** |
| **1999-00** | **374797** |
| **2000-01** | **434444** |
| **2001-02** | **454218** |
| **2002-03** | **552343** |
| **2003-04** | **652475** |
| **2004-05** | **876405** |
| **2005-06** | **1116827** |
| **2006-07** | **1412285** |
| **2007-08** | **1668176** |
| **2008-09(P)** | **2072438** |

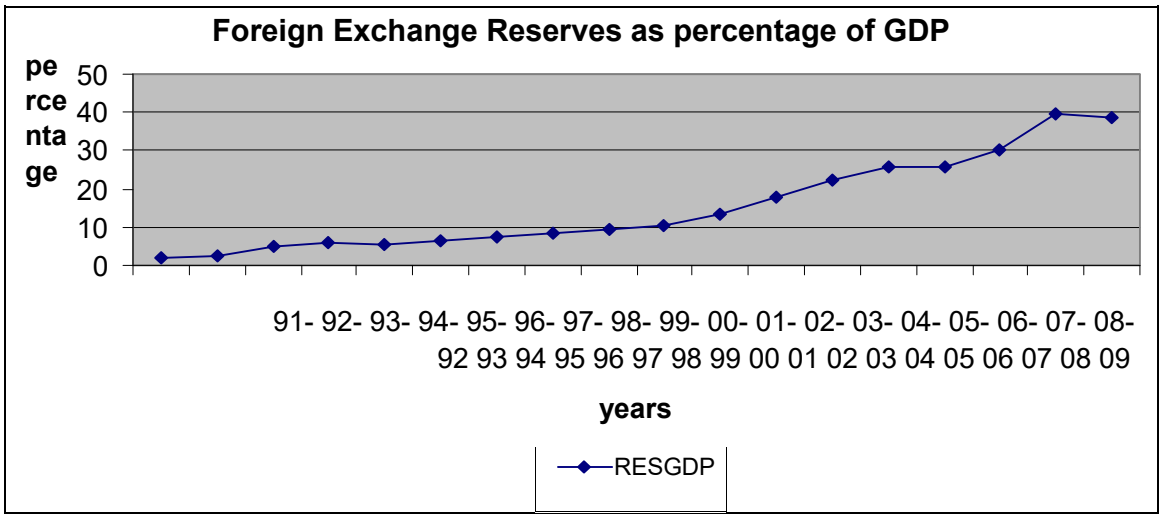
*Source:* various issues ofRBI Bulletin. (P) Provisional Since liberalization, the value of India's international trade (Chart-4.3) has risen to Rs. 2072438 crores in 2008-09 from Rs. 91892 crores in 1991-92. As exports from the country have increased manifolds after the initiation of economic reforms since 1991

(Table – 4.3). India's major trading partners are China, United States of America, United Arab Emirates, United Kingdom, Japan, and European Union. Since 1991, India's exports have been consistently rising although India is still a net importer. In 2008-09 imports were Rs. 1305503 crores and exports were Rs. 766935 crores. India accounted for 1.45 per cent of global merchandise trade and 2.8 per cent of global commercial services export.

Economic growth and FDI are closely linked with international trade. Countries that are more open are more likely to attract FDI inflows in many ways: Foreign investor brings machines and equipment from outside the host country in order to reduce their cost of production. This can increase exports of the host country. Growth and trade are mutually dependent on one another. Trade is a complement to FDI, such that countries tending to be more open to trade attract higher levels of FDI.

**4.2.4 FOREIGN EXCHANGE RSERVES (RESGDP):** RESGDP represents Foreign Exchange Reserves as percentage of GDP. India's foreign exchange reserves comprise foreign currency assets (FCA), gold, special drawing rights (SDR) and Reserve Tranche Position (RTP) in the International Monetary Fund. The emerging economic giants, the BRIC (Brazil, Russian Federation, India, and China) countries, hold the largest foreign exchange reserves globally and India is among the top 10 nations in the world in terms of foreign exchange reserves. India is also the world's 10th largest gold holding country (Economic Survey 2009-10)[17]. Stock of foreign exchange reserves shows a country's financial strength. India's foreign exchange reserves have grown significantly since 1991 (Chart-4.4). The reserves, which stood at Rs. 23850 crores at end march 1991, increased gradually to Rs. 361470 crores by the end of March 2002, after which rose steadily reaching a level of Rs. 1237985 crores in March 2007. The reserves stood at Rs. 1283865 crores as on March 2008 (Table- 4.4).

**Chart- 4.4**




Source: various issues of RBI Bulletin

Further, an adequate FDI inflow adds foreign reserves by exchange reserves which put the economy in better position in international market. It not only allows the Indian government to manipulate exchange rates, commodity prices, credit risks, market risks, liquidity risks and operational risks but it also helps the country to defend itself from speculative attacks on the domestic currency. Adequate foreign reserves of India

**Table - 4.4**

**FOREIGN EXCHNAGE RESERVES**

***amount in Rs. crores***

| Years | Foreign Exchange Reserves |
|---|---|
| **1991-92** | **23850** |

| | |
|---|---|
| **1992-93** | **30744** |
| **1993-94** | **60420** |
| **1994-95** | **79781** |
| **1995-96** | **74384** |
| **1996-97** | **94932** |
| **1997-98** | **115905** |
| **1998-99** | **138005** |
| **1999-00** | **165913** |
| **2000-01** | **197204** |
| **2001-02** | **264036** |
| **2002-03** | **361470** |
| **2003-04** | **490129** |
| **2004-05** | **619116** |
| **2005-06** | **676387** |
| **2006-07** | **868222** |
| **2007-08** | **1237985** |
| **2008-09** | **1283865** |

***Source:*** **various issues ofRBI Bulletin.**

indicates its ability to repay foreign debt which in turn increases the credit rating of India in international market and this helps in attracting more FDI inflows in the country. An analysis of the sources of reserves accretion during the entire reform period from 1991 on wards reveals that increase in net FDI from Rs. 409 crores in 1991-92 to Rs. 1,23,378 crores by March 2010. NRI deposits increased from Rs.27400 crores in 1991-92 to Rs.174623 by the end of March 2008. As at the end of

March 2009, the outstanding NRI deposits stood at Rs. 210118 crores. On the current account, India's exports, which were Rs. 44041 crore during 1991-92 increased to Rs. 766935 crores in 2007-08.

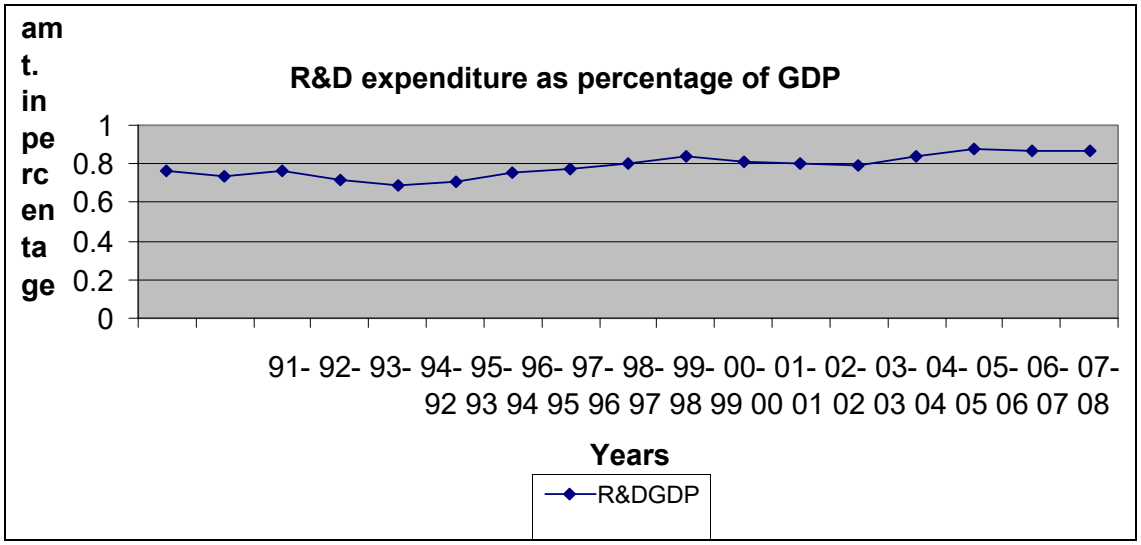
India's imports which were Rs. 47851 crore in 1991-92 increased to Rs. 1305503 crores in 2008-09. India's current account balance which was in deficit at 3.0 percent of GDP in 1990-91 turned into a surplus during the period 2001-02 to 2003-04. However, this could not be sustained in the subsequent years. In the aftermath of the global financial crisis, the current account deficit increased from 1.3 percent of GDP in 2007-08 to 2.4 percent of GDP in 2008-09 and further to 2.9 percent in 2009-10. Invisibles, such as private remittances have also contributed significantly to the current account. Enough stocks of foreign reserves enabled India in prepayment of certain high – cost foreign currency loans of Government of India from Asian Development Bank (ADB) and World Bank (IBRD)

Infact, adequate foreign reserves are an important parameter of Indian economy in gauging its ability to absorb external shocks. The import cover of reserves, which fell to a low of three weeks of imports at the end of Dec 1990, reached a peak of 16.9 months of imports at the end of March 2004. At the end of March 2010, the import cover stands at 11.2 months. The ratio of short – term debt to the foreign exchange reserves declined from 146.5 percent at the end of March 1991 to 12.5 percent as at the end of March 2005, but increased slightly to 12.9 percent as at the end of March 2006. It further increased from 14.8 percent at the end of March 2008 to 17.2 percent at the end of March 2009 and 18.8 percent by the end of March 2010. FDI helps in filling the gap between targeted foreign exchange requirements and those derived from net export earnings plus net public foreign aid. The basic argument behind this gap is that most developing countries face either a shortage of domestic

savings to match investment opportunities or a shortage of foreign exchange reserves to finance needed imports of capital and intermediate goods.

**4.2.5 RESEARCH & DEVELOPMENT EXPENDIYURE (R&DGDP):** It refers to the research and development expenditure as percentage of GDP (Chart-4.5). India has large pool of human resources and human capital is known as the prime mover of economic activity.

**Chart-4.5**




Source: various issues of RBI Bulletin

**Table - 4.5**

**RESEARCH & DEVELOPMENT EXPENDITURE**

***amount in Rs. crores***

| Years | National Expenditure on Research & Development |
|---|---|
| 1991-92 | 8363.31 |
| 1992-93 | 8526.18 |
| 1993-94 | 9408.79 |
| 1994-95 | 9340.94 |
| 1995-96 | 9656.11 |
| 1996-97 | 10662.41 |
| 1997-98 | 11921.83 |
| 1998-99 | 12967.51 |
| 1999-00 | 14397.6 |
| 2000-01 | 15683.37 |
| 2001-02 | 16007.14 |
| 2002-03 | 16353.72 |
| 2003-04 | 17575.41 |
| 2004-05 | 19991.64 |
| 2005-06 | 22963.91 |
| 2006-07 | 24821.63 |
| 2007-08 | 27213 |

***Source:*** **various issues ofRBI Bulletin.**

India has the third largest higher education system in the world and a tradition of over 5000 year old of science and technology. India can strengthen the quality and affordability of its health care, education system, agriculture, trade, industry and services by investing in R&D activities.

India has emerged as a global R&D hub since the last two decades. There has been a significant rise in the expenditure of R&D activities (Table-4.5) as FDI flows in this sector and in services sector is increasing in the present decade. R&D activities (in combination with other high – end services) generally known as "Knowledge Process Outsourcing" or KPO are gaining much attention with services sector leading among all sectors of Indian economy in receiving / attracting higher percentage of FDI flows. It is clear from (Chart- 4.5) that the expenditure on R&D activities is rising significantly in the present decade. India has been a centre for many research and development activities by many TNCs. Today, companies like General Electric, Microsoft, Oracle, SAP and IBM to name a few are all pursuing R&D in India. R&D activities in India demands huge funds thus providing greater opportunities for foreign investors.

**4.2.6 FINANCIAL POSITION (FIN. Position):** FIN. Position stands for Financial Position. Financial Position (Chart-4.6, Table- 4.6) is the ratio of external debts to exports. It is a strong indicator of the soundness of any economy. It shows that external debts are covered from the exports earning of a country.

**Table - 4.6**

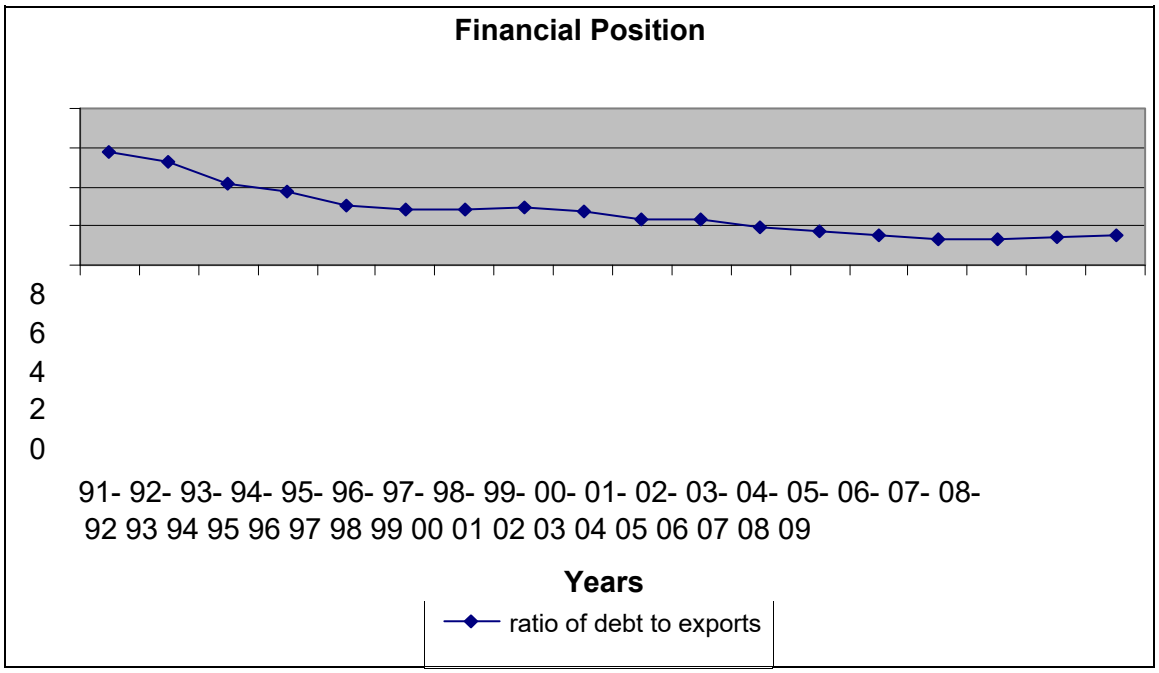
**FINANCIAL POSITION**

***amount in Rs. crores***

| Years | Exports | Debt |
|---|---|---|
| 1991-92 | 44041 | 252910 |
| 1992-93 | 53688 | 280746 |
| 1993-94 | 69751 | 290418 |
| 1994-95 | 82674 | 311685 |
| 1995-96 | 106353 | 320728 |
| 1996-97 | 118817 | 335827 |
| 1997-98 | 130100 | 369682 |
| 1998-99 | 139752 | 411297 |
| 1999-00 | 159561 | 428550 |
| 2000-01 | 203571 | 472625 |
| 2001-02 | 209018 | 482328 |
| 2002-03 | 255137 | 498804 |
| 2003-04 | 293367 | 491078 |
| 2004-05 | 375340 | 581802 |
| 2005-06 | 456418 | 616144 |
| 2006-07 | 571779 | 746918 |
| 2007-08 | 655864 | 897955 |
| 2008-09 | 766935 (P) | 1169575 |

***Source:*** **various issues ofRBI Bulletin, (P) - Provisional**

**(Chart-4.6)**




Source: various issues of RBI Bulletin

External debt of India refers to the total amount of external debts taken by India in a particular year, its repayments as well as the outstanding debts amounts, if any. India's external debts, as of march 2008 was Rs. 897955, recording an increase of Rs.1169575 crores in march 2009 (Table – 4.6) mainly due to the increase in trade credits. Among the composition of external debt, the share of commercial borrowings was the highest at 27.3% on March 2009, followed by short – term debt (21.5%), NRI deposits (18%) and multilateral debt (17%).Due to arise in short – term trade credits, the share of short – term debt in the total debt increased to 21.5% in march 2009, from 20.9% in march 2008. As a result the short – term debt accounted for 40.6% of the total external debt on March 2009. In 2007 India was rated the 5$^{th}$ most indebted country (Table – 4.6.1) according to an international comparison of external debt of the twenty most indebted countries.

**Table-4.6.1**

**INTERNATIONAL COMPARISON OF TOP TEN DEBTOR COUNTRIES, 2007**

| Country | External Debt stock, Total (US $ bn) | Concessional Debt/Total Debt (%) | Debt Service ratio (%) | External Debt to GNI (%) | Short term debt/ Total debt (%) | Forex reserves to Total debt (%) |
|---|---|---|---|---|---|---|
| China | 373.6 | 10.1 | 2.2 | 11.6 | 54.5 | 413.9 |
| Russian Federation | 370.2 | .4 | 9.1 | 29.4 | 21.4 | 129.1 |
| Turkey | 251.5 | 2.1 | 32.1 | 38.8 | 16.6 | 30.4 |
| Brazil | 237.5 | 1.0 | 27.8 | 18.7 | 16.5 | 75.9 |
| India | 224.6 | 19.7 | 4.8 | 19.0 | 20.9 | 137.9 |
| Poland | 195.4 | .4 | 25.6 | 47.7 | 30.9 | 33.6 |
| Mexico | 178.1 | .6 | 12.5 | 17.7 | 5.1 | 49 |
| Indonesia | 140.8 | 26.2 | 10.5 | 33.9 | 24.8 | 40.4 |
| Argentina | 127.8 | 1.3 | 13.0 | 49.7 | 29.8 | 36.1 |
| Kazakhstan | 96.1 | 1.0 | 49.6 | 103.7 | 12.2 | 18.4 |

The ratio of short – term debt to foreign exchange reserves (Table-4.6.2) stood at 19.6% in March 2009, higher than the 15.2% in the previous year. India's foreign exchange reserves provided a cover of 109.6% of the external debt stock at the end of March 2009, as compared to 137.9% at the end of March 2008. An assessment of sustainability of external debt is generally undertaken based on

the trends in certain key ratios such as debt to GDP ratio, debt service ratio, short – term debt to total debt and total debt to foreign exchange reserves. The ratio of external debt to GDP increased to 22% as at end march 2009 from 19.0% as at end – March 2008. The debt service ratio has declined steadily over the year, and stood at 4.8 % as at the end of March 2009.

**Table -4.6.2**

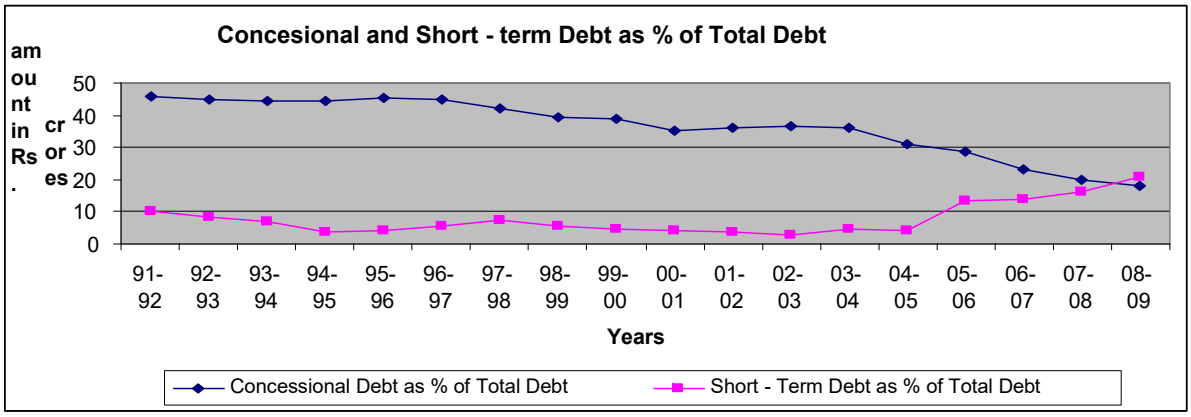
| Year | Debt Service Ratio (%) | Ratio of Foreign Exchange to Debt |
|---|---|---|
| 1991-92 | 35.3 | 0.15 |
| 1992-93 | 30.2 | 0.12 |
| 1993-94 | 27.5 | 0.22 |
| 1994-95 | 25.4 | 0.27 |
| 1995-96 | 25.9 | 0.24 |
| 1996-97 | 26.2 | 0.3 |
| 1997-98 | 23.0 | 0.35 |
| 1998-99 | 19.5 | 0.37 |
| 1999-00 | 18.7 | 0.4 |
| 2000-01 | 17.1 | 0.46 |
| 2001-02 | 16.6 | 0.56 |
| 2002-03 | 13.7 | 0.75 |
| 2003-04 | 16.0 | 0.98 |
| 2004-05 | 16.1 | 1.26 |
| 2005-06 | 5.9 | 1.16 |
| 2006-07 | 10.1 | 1.41 |
| 2007-08 | 4.7 | 1.66 |

| | | |
|---|---|---|
| **2008-09** | **4.8** | **1.43** |

Source: various issues of RBI Bulletin

However, the share of concessional debt (Chatr-4.6.1) in total external debt declined to 18.2% in 2008-2009 from 19.7 % in 2007-2008.

**(Chart-4.6.1)**




Source: various issues of RBI Bulletin

Large fiscal deficit has variety of adverse effects: reducing growth, lowering real incomes, increasing the risks of financial and economic crises and in some circumstances it can also leads to high inflation.

Recently the finance minister of India had promised to cut its budget deficit to 5.5% of the GDP in 2010 from 6.9% of GDP in 2009. As a result the credit – rating outlook was raised to stable from negative by standard and poor's based on the optimism that faster growth in Asia's third largest and world second fastest growing economy will help the government cut its budget deficit. The government also plans to cut its debt to 68% of the GDP by 2015, from its current levels of 80%. In order to reduce the ratio of debt to GDP there must be either a primary surplus (i.e. revenue must

exceed non interest outlays) or the economy must grow faster than the rate of interest, or both, so that one must outweigh the adverse effect of the other.

**4.2.7 EXCHANGE RATES (EXR):** It refers to the exchange rate variable. Exchange rate is a key determinant of international finance as the world economies are globalised ones.

**Table - 4.7**

**EXCHANGE RATES**

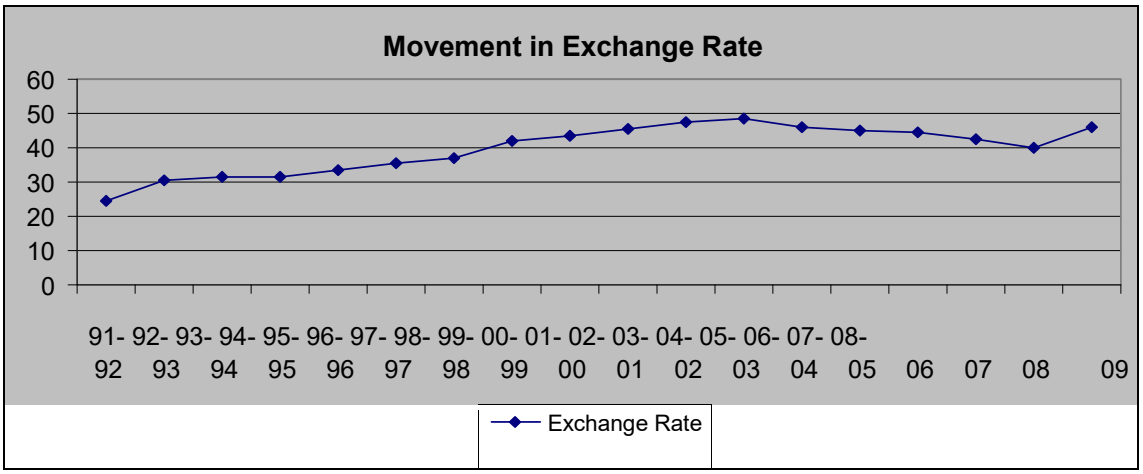
| Years | Exchange Rates |
|---|---|
| 1991-92 | 24.5 |
| 1992-93 | 30.6 |
| 1993-94 | 31.4 |
| 1994-95 | 31.4 |
| 1995-96 | 33.4 |
| 1996-97 | 35.5 |
| 1997-98 | 37.2 |
| 1998-99 | 42.1 |
| 1999-00 | 43.3 |
| 2000-01 | 45.7 |
| 2001-02 | 47.7 |
| 2002-03 | 48.4 |
| 2003-04 | 45.9 |
| 2004-05 | 44.9 |
| 2005-06 | 44.3 |

| | |
|---|---|
| **2006-07** | **42.3** |
| **2007-08** | **40.2** |
| **2008-09** | **45.9** |

***Source:*** **various issues ofSIA Bulletin.**

There are a number of factor which affect the exchange rate viz. government policy, competitive advantages, market size, international trade, domestic financial market, rate of inflation, interest rate etc. Exchange rate touched a high of Rs. 48.4 in 2002-03 (Table -4.7).

**Chart- 4.7**




Source: *various issues of RBI Bulletin*

Since 1991 Indian economy has gone through a sea change and that changes are reflected on the Indian Industry too. There is high volatility in the value of INR/USD. There is high appreciation in the value of INR from 2001-02 (Chart -4.7) which has swept away huge chunk of profits of the companies.

**4.2.8 GROSS DOMESTIC PRODUCT GROWTH (GDPG):** It refers to the growth rate of gross domestic product. Economic growth rate have an effect on the domestic market, such that countries with expanding domestic markets should attract higher levels of FDI. India is the 2nd fastest growing economy among the emerging nations of the world. It has the third largest GDP in the continent of Asia. Since 1991 India has emerged as one of the wealthiest economies in the developing world. During this period, the economy has grown constantly and this has been accompanied by increase in life expectancy, literacy rates, and food security. It is also the world most populous democracy. The Indian middle class is large and growing; wages are low; many workers are well educated and speak English. All these factors lure foreign investors to India. India is also a major exporter of highly – skilled workers in software and financial services and provide an important 'back office destination' for global outsourcing of customer services and technical support. The Indian market is widely diverse. The country has 17 official languages, 6 major religion and ethnic diversity. Thus, tastes and preferences differ greatly among sections of consumers.

**4.2.9 FOREIGN DIRECT INVESTMENT GROWTH (FDIG):** In the last two decade world has witnessed unprecedented growth of FDI. This growth of FDI provides new avenues of economic expansion especially, to the developing countries. India due to its huge market size, diversity, cheap labour and large human capital received substantial amount of FDI inflows during 1991-2008. India received cumulative FDI inflows of Rs. 577108 crore during 1991 to march 2010. It received FDI inflows of Rs. 492303 crore during 2000 to march 2010 as compared to Rs. 84806 crore during 1991 to march 99. During 1994-95, FDI registered a 110% growth over the previous year and a 184% age growth in 2007-08 over 2006-07. FDI as a percentage of gross total investment increased to 7.4% in

2008 as against 2.6% in 2005. This increased level of FDI contributes towards increased foreign reserves. The steady increase in foreign reserves provides a shield against external debt. The growth in FDI also provides adequate security against any possible currency crisis or monetary instability. It also helps in boosting the exports of the country. It enhances economic growth by increasing the financial position of the country. The growth in FDI contributes toward the sound performance of each sector (especially, services, industry, manufacturing etc.) which ultimately leads to the overall robust performance of the Indian economy.

### 4.3 ROLE OF FDI ON ECONOMIC GROWTH

In order to assess the role of FDI on economic growth, two models were used. The estimation results of the two models are supported and further analysed by using the relevant econometric techniques viz. Coefficient of determination, standard error, f- ratio, t- statistics, D-W Statistics etc. In the foreign direct investment model (Model-1, Table- 4.8), the main determinants of FDI inflows to India are assessed. The study identified the following macroeconomic variables: TradeGDP, R&DGDP, FIN.Position, EXR, and ReservesGDP as the main determinants of FDI inflows into India. And the relation of these variables with FDI is specified and analysed in equation 4.1. In order to study the role of FDI on Indian economy it is imperative to assess the trend pattern of all the variables used in the determinant analysis. It is observed that FDI inflows into India shows a steady trend in early nineties but shows a sharp increase after 2005, though it had fluctuated a bit in early 2000. However, Gross domestic product shows an increasing trend pattern since 1991-92 to 2007-08 (Table 4.2 and Chart - 4.2). Another variable i.e. tradeGDP maintained a steady trend pattern upto 2001-02, after that it

shows a continuous increasing pattern upto 2008-09. ReservesGDP, another explanatory variable shows low trend pattern upto 2000-01 but gained momentum after 2001-02 and shows an increasing trend. In addition to these trend patterns of the variables the study also used the multiple regression analysis to further explain the variations in FDI inflows into India due to the variations caused by these explanatory variables.

**MODEL-1**

***FOREIGN DIRECT INVESTMENT MODEL***

FDI = f [TRADEGDP, R&DGDP, EXR, RESGDP, FIN. Position]

**Table-4.8**

| Variable | Coefficient | Standard Error | t- Statistic |
|---|---|---|---|
| **Constant** | 26.25 | .126 | 207* |
| **TradeGDP** | 11.79 | 7.9 | 1.5* |
| **ReservesGDP** | 1.44 | 3.8 | .41 |
| **Exchange rate** | 7.06 | 9.9 | .72** |
| **Financial health** | 15.2 | 35 | .45 |
| **R&DGDP** | -582.14 | 704 | .83** |

$R^2$ = 0.623 Adjusted $R^2$= 0.466

D-W Statistic = .98, F-ratio = 7.74

***Note***: * = Significant at 0.25, 0.10 levels; ** = Significant at 0.25 level.

In Foreign Direct Investment Model (Table 4.8), it is found that all variables are statistically significant. Further the results of Foreign Direct Investment Model shows that TradeGDP, R&DGDP, Financial Position (FIN.Position), exchange rate (EXR), and ReservesGDP (RESGDP) are the important macroeconomic determinants of FDI inflows in India. The regression results of (Table 4.8) shows that TradeGDP, ReservesGDP, Financial Position, exchange rate are the pull factors for FDI inflows in the country whereas R&DGDP acts as the deterrent force in attracting FDI flows in the country. As the regression results reveal that R&DGDP exchange rate does not portray their respective predicted signs. However, R&DGDP shows the unexpected negative sign instead of positive sign and exchange rate shows positive sign instead of expected negative sign. In other words, all variables included in the foreign direct investment model shows their predicted signs (Table – 4.9) except the two variables (i.e. Exchange rate & R&DGDP) which deviate from their respective predicted signs. The reason for this deviation is due to the appreciation of Indian Rupee in the international market and low expenditure on R&D activities in the activities in the country.

**Table – 4.9**

**PREDICTED SIGNS OF VARIABLES**

| Variables | Predicted Sign | Unexpected Sign |
|---|---|---|
| TradeGDP | + | |
| ReservesGDP | + | |
| Exchange Rate | - | + |
| Financial Position | + | |

| | | |
|---|---|---|
| R&DGDP | + | - |

It is observed from the results that the elasticity coefficient between FDI & TradeGDP is 11.79 which implies that one percent increase in Trade GDP causes 11.79 percentage increase in FDI inflows in India. The TradeGDP shows that the predicted positive sign. Hence, Trade GDP positively influences the flow of FDI into India. Further, it is seen from the analysis that another important promotive factor of FDI inflows to the country is ReservesGDP. The positive sign of ReservesGDP is in accordance with the predicted sign. The elasticity coefficient between ReserveGDP and FDI inflows is 1.44. It implies that one percent increase in ReserveGDP causes 1.44 percentage increases in FDI inflows into India. The other factor which shows the predicted positive sign is FIN.Position
(financial position). The elasticity coefficient between financial position and FDI is 15.2 % which shows that one percent increase in financial position causes 15.2 percent of FDI inflows to the country. India prefers FDI inflows in export led strategy in boosting its exports.

Further, the analysis shows that the trend pattern of external debt to exports (i.e. FIN. Position) has been decreasing continuously since 1991-92, indicating towards a strong economy. This positive indication is a good fortune to the Indian economy as it helps in attracting foreign investors to the country.

One remarkable fact observed from the regression results reveal that R&DGDP shows a negative relationship with FDI inflows into India. The results show that the elasticity coefficient between FDI and R&D GDP is -582.14. This implies that a percentage increase in R&DGDP causes nearly 582 percent reductions in the FDI inflows. This may be attributed to the low level of R&D activities in the country. This is also attributed to the high interest rate in the country and also investments in Brownfield projects are more as compared to investments in Greenfield projects. India

requires more knowledge cities, Special Economic Zones (SEZs), Economic Processing Zones (EPZs), Industrial clusters, IT Parks, Highways, R&D hubs etc. so government must attract Greenfield investment. Another variable which shows the negative relationship with FDI is exchange rate. The elasticity coefficient between FDI and Exchange rate is 7.06 which show that one percent increase in exchange rate leads to a reduction of 7.06 percentage of FDI inflows to the country. The exchange rate shows a positive sign as expected of negative sign. Conventionally, it is assumed that exchange rate is the negative determinant of FDI inflows. This positive impact of exchange rate on the FDI inflows could be attributed to the appreciation of the Indian rupee against US Dollar. This appreciation in the value of Rupee helped the foreign firms in many ways. Firstly, it helped the foreign firms in acquiring the firm specific assets cheaply. Secondly, it helped the foreign firms in reducing the cost of firm specific assets (this is particularly done in case of Brownfield projects). Thirdly, it ensures the foreign firm higher profit in the longrun (as the value of the assets in appreciated Indian currency also appreciates). The results of foreign Direct Investment Model also facilitates in adjudging the relative importance of the determinants of FDI inflows from the absolute value of their elasticity coefficients. In this regard it is observed from the regression results of Table - 4.8 that among the positive determinants, FDI inflows into India are more elastic to FIN. Position than to TradeGDP and ReservesGDP. It is also observable that FDI inflows are more sensitive to R&DGDP than to exchange rate as the elasticity coefficient between FDI and exchange rate is least, whereas the elasticity coefficient between FDI and R&DGDP is more. Further, to decide the suitability and relevancy of the model results the study also relies on other econometric techniques. The coefficient of determination i.e. R- squared shows that the model has a good fit, as 62% of foreign direct investment is being explained by the variables included in the model. In order to take care of autocorrelation problem, the

Durbin – Watson (D-W statistics) test is used. The D-W Statistic is found to be .98 which confirms that there is no autocorrelation problem in the analysis. Further the value of adjusted R-square and F-ratio also confirms that the model used is a good

statistical fit.

**MODEL-2**

***ECONOMIC GROWTH MODEL***

GDPG = f [FDIG]

**Table-4.10**

| **Variable** | **Coefficient** | **Standard Error** | **t- Statistic** |
|---|---|---|---|
| **Constant** | .060322925 | 0.00007393156391 | 815.92 |
| **FDIG** | 0.039174416 | .020661633 | 1.8959 |

$R^2$= 0.959 Adjusted $R^2$= 0.956

D-W Statistic = 1.0128, F-ratio = 28.076

***Note***: * = Significant at 1%

In the Economic Growth Model (Table – 4.10), estimated coefficient on foreign direct investment has a positive relationship with Gross Domestic Product growth (GDPG). It is revealed from the analysis that FDI is a significant factor influencing the level of economic growth in India. The coefficient of

determination, i.e. the value of $R^2$ explains 95.6% level of economic growth by foreign direct investment in India. The F-statistics value also explains the significant relationship between the level of economic growth and FDI inflows in India. D-W statistic value is found 1.0128 which confirms that there is no autocorrelation problem in the analysis.

Thus, the findings of the economic growth model show that FDI is a vital and significant factor influencing the level of growth in India.

### 4.4 CONCLUSIONS

It is observed from the results of above analysis that TradeGDP, ReservesGDP, Exchange rate, FIN. Position, R&DGDP and FDIG are the main determinants of FDI inflows to the country. In other words, these macroeconomic variables have a profound impact on the inflows of FDI in India. The results of foreign Direct Investment Model reveal that TradeGDP, ReservesGDP, and FIN. Position variables exhibit a positive relationship with FDI while R&DGDP and Exchange rate variables exhibit a negative relationship with FDI inflows. Hence, TradeGDP, ReservesGDP, and FIN. Position variables are the pull factors for FDI inflows to the country and R&DGDP and Exchange rate are deterrent forces for FDI inflows into the country. Thus, it is concluded that the above analysis is successful in identifying those variables which are important in attracting FDI inflows to the country. The study also reveals that FDI is a significant factor influencing the level of economic growth in India. The results of Economic Growth Model and Foreign Direct Investment Model show that FDI plays a crucial role in enhancing the level of economic growth in the country. It helps in increasing the trade in the international market. However, it has failed in raising the R&D and in stabilizing the exchange rates of the economy.

The positive sign of exchange rate variables depicts the appreciation of Indian Rupee in the international market. This appreciation in the value of Indian Rupee provides an opportunity to the policy makers to attract FDI inflows in Greenfield projects rather than attracting FDI inflows in Brownfield projects.

Further, the above analysis helps in identifying the major determinants of FDI in the country. FDI plays a significant role in enhancing the level of economic growth of the country. This analysis also helps the future aspirants of research scholars to identify the main determinants of FDI at sectoral level because FDI is also a sector – specific activity of foreign firms' vis-à-vis an aggregate activity at national level.

Finally, the study observes that FDI is a significant factor influencing the level of economic growth in India. It provides a sound base for economic growth and

development by enhancing the financial position of the country. It also contributes to the GDP and foreign exchange reserves of the country.

## CHAPTER – 5

## FINDINGS AND SUGGESTIONS

## 5.0 INTRODUCTION

Finally, it may be concluded that developing countries has make their presence felt in the economics of developed nations by receiving a descent amount of FDI in the last three decades. Although India is not the most preferred destination of global FDI, but there has been a generous flow of FDI in India since 1991. It has become the 2nd fastest growing economy of the world. India has substantially increased its list of source countries in the post – liberalisation era. India has signed a number of bilateral and multilateral trade agreements with developed and developing nations. India as the founding member of GATT, WTO, a signatory member of SAFTA and a member of MIGA is making its presence felt in the economic landscape of globalised economies. The economic reform process started in 1991 helps in creating a conducive and healthy atmosphere for foreign investors and thus, resulting in substantial amount of FDI inflows in the country.

No doubt, FDI plays a crucial role in enhancing the economic growth and development of the country. Moreover, FDI as a strategic component of investment is needed by India for achieving the objectives of its second generation of economic reforms and maintaining this pace of growth and development of the economy. This chapter highlights the main findings of the study and sought valuable suggestions.

**5.1FINDNGS OF THE STUDY:** The main findings of the study are as under:

### 5.1.1 Trends and Patterns of FDI flows at World level:

- It is seen from the analysis that large amount of FDI flows are confined to the developed economies. But there is a marked increase in the FDI inflows to developing economies from

1997 onwards. Developing economies fetch a good share of 40 percent of the world FDI inflows in 1997 as compared to 26 percent in 1980s.

- Among developing nations, Asian countries received maximum share (16%) of FDI inflows as compared to other emerging developing countries of Latin America (8.7 %) and Africa (2%).
- India's share in World FDI rose to 1.3% in 2007 as compared to 0.7% in 1996. This can be attributed to the economic reform process of the country for the last eighteen years.
- China is the most attractive destination and the major recipient of global FDI inflows among emerging nations. India is at 5th position among the major emerging destinations of global FDI inflows. The other preferred destinations apart from China and above to India are Brazil, Mexico and Russia. It is found that FDI inflows to India have increased from 11% in 1990-99 to 69% in 20002007.

**5.1.2 Trends and patterns of FDI flows at Asian level**:

- India, with a share of nearly 75% emerged as a major recipient of global FDI inflows in South Asia region in 2007.
- As far as South, East and South – East block is concerned India is at 3rd place with a share of 9.2% while China is at number one position with a share of 33% in

  2007. Other major economies of this block are Singapore, South Korea, Malaysia, Thailand and Philippines.

- While comparing the share of FDI inflows of China and India during this decade (i.e. 2000-2007) it is found that India's share is barely 2.8 percent while china's share is 21.7 percent.

### 5.1.3 Trends and patterns of FDI flows at Indian level:

- Although India's share in global FDI has increased considerably, but the pace of FDI inflows has been slower than China, Singapore, Brazil, and Russia.
- Due to the continued economic liberalization since 1991, India has seen a decade of 7 plus percent of economic growth. Infact, India's economy has been growing more than 9 percent for three consecutive years since 2006 which makes the country a prominent performer among global economies. At present India is the $4^{th}$ largest and $2^{nd}$ fastest growing economy in the world. It is the $11^{th}$ largest economy in terms of industrial output and has the $3^{rd}$ largest pool of scientific and technical manpower.
- India has considerably decreased its fiscal deficit from 4.5 percent in 2003-04 to 2.7 percent in 2007-08 and revenue deficit from 3.6 percent to 1.1 percent in 2007-08.
- There has been a generous flow of FDI in India since 1991 and its overall direction also remained the same over the years irrespective of the ruling party.
- India has received increased NRI's deposits and commercial borrowings largely because of its rate of economic growth and stability in the political environment of the country.
- Economic reform process since 1991 have paves way for increasing foreign exchange reserves to US$ 251985 millions as against US$ 9220 millions in 1991-92.

- During the period under study it is found that India's GDP crossed one trillion dollar mark in 2007. Its domestic saving ratio to GDP also increases from 29.8 percent in 2004-05 to 37 percent in 2007-08.

- An analysis of last eighteen years of trends in FDI inflows in India shows that initially the inflows were low but there is a sharp rise in investment flows from 2005 onwards.

- It is observed that India received FDI inflows of Rs.492302 crore during 20002010 as compared to Rs. 84806 crore during 1991-1999. India received a cumulative FDI flow of Rs. 577108 crore during 1991to march 2010.
- A comparative analysis of FDI approvals and inflows reveals that there is a huge gap between the amount of FDI approved and its realization into actual disbursements. A difference of almost 40 percent is observed between investment committed and actual inflows during the year 2005-06.
- It is observed that major FDI inflows in India are concluded through automatic route and acquisition of existing shares route than through FIPB, SIA route during 1991-2008.
- In order to have a generous flow of FDI, India has maintained Double Tax Avoidance Agreements (DTAA) with nearly 70 countries of the world.
- India has signed 57 (upto 2006) numbers of Bilateral Investments Treaties (BITs). Maximum numbers of BITS are signed with developing countries of Asia (16), the Middle East (9), Africa (4) and Latin America (1) apart from the developed nation (i.e. 27 in numbers). India has also become the member of prominent regional groups in Asia and signed numbers of Free Trade Area (nearly 17 in number).

- Among the sectors, services sector received the highest percentage of FDI inflows in 2008. Other major sectors receiving the large inflows of FDI apart from services sector are electrical and electronics, telecommunications, transportations and construction activities etc. It is found that nearly 41 percent of FDI inflows are in high priority areas like services, electrical equipments, telecommunications etc.
- India has received maximum number of financial collaborations as compared to technical collaborations.
- India received large amount of FDI from Mauritius (nearly 40 percent of the total FDI inflows) apart from USA (8.8 percent), Singapore (7.2 percent), U.K (6.1 percent), Netherlands (4.4 percent) and Japan (3.4 percent).
- It is found that India has increased its list of sources of FDI since 1991. There were just few countries (U.K, Japan) before Independence. After Independence from the British Colonial era India received FDI from U.K., U.S.A., Japan,

  Germany, etc. There were 120 countries investing in India in 2008 as compared to 15 countries in 1991. Mauritius, South Korea, Malaysia, Cayman Islands and many more countries predominantly appears on the list of major investors in India after 1991. This broaden list of sources of FDI inflows shows that India is successful in restoring the confidence of foreign investors through its economic reforms process.
- It is also found that although the list of sources of FDI flows has reached to 120 countries but the lion's share (66 percent) of FDI flow is vested with just five countries (viz. Mauritius, USA, UK, Netherlands and Singapore).

- Mauritius and United states are the two major countries holding first and the second position in the investor's list of FDI in India. While comparing the investment made by both countries, one interesting fact comes up which shows that there is huge difference in the volume of FDI received from Mauritius and the U.S. It is found that FDI inflows from Mauritius are more than double from that of the U.S.
- State- wise FDI inflows show that Maharashtra, New Delhi, Karnataka, Gujarat and Tamil Nadu received major investment from investors because of the infrastructural facilities and favourable business environment provided by these states. All these states together accounted for nearly 69.38 percent of inflows during 2000-2008.
- It is observed that among Indian cities Mumbai received maximum numbers (1371) of foreign collaborations during 1991-2008.

### 5.1.4 Trends and patterns of FDI flows at Sectoral level of Indian Economy:

- **Infrastructure Sector:** Infrastructure sector received 28.6 percent of total FDI inflows from 2000 to 2008. Initially, the inflows were low but there is a sharp rise in FDI inflows from 2005 onwards. Among the subsectors of Infrastructure sector, telecommunications received the highest percentage (8 percent) of FDI inflows. Other major subsectors of infrastructure sectors are construction activities (6.15 percent), real estate (5.78 percent) and power (3.16 percent). Mauritius (with 56.3 percent) and Singapore (with 8.54 percent) are the two major investors in this sector. In India highest percentage of FDI inflows for infrastructure sector is with New Delhi (23.2 percent) and Mumbai (20.47 percent). Infrastructure sector received a total of. 2528 numbers of foreign collaborations in India. Out of 2528 numbers of foreign

collaborations 633 were technical and 2795 were financial collaborations, which involves an equity participation of US$ 111.0 bn. The top five Indian companies which received FDI inflows in Infrastructure sector during 2000 to 2008 are IDEA, Cellule Ltd., Bhaik Infotel P. Ltd., Dabhol power Company Ltd., and Aircel Ltd.

- **Services sector:** In recent years Services sector puts the economy on a proper gliding path by contributing 55 percent to GDP. There is a continuously increasing trend of FDI inflows in services sector with a steep rise in the inflows from 2005 onwards. Services sector received an investment of 19.2 bn from 1991 to 2008. Among the subsectors of services sector, financial services attract 10.2 percent of total FDI inflows followed by banking services (2.22 percent), insurance (1.6 percent) and non- financial services (1.62 percent). In India, Mumbai (with 33.77 percent) and Delhi (with 16 percent) are the two most attractive locations which receives heavy investment in services sector. It is found that among the major investing countries in India Mauritius tops the chart by investing 42.5 percent in services sector followed by U.K (14.66 percent) and

  Singapore (11.18 percent). During 1991 to Dec 2008 services sector received 1626 numbers of foreign collaborations, out of which 77 are technical and 1549 are financial in nature.

- **Trading sector:** Trading sector received 1.67 percent of the total FDI inflows from 1991-2008. The sector shows a trailing pattern upto 2005 but there is an exponential rise in inflows from 2006 onwards. Trading sector received 1130 (1111 numbers of financial collaborations and 20 numbers of technical collaborations) numbers of foreign collaborations during 1991-2008. Major investment in this sector came from Mauritius (24.69 percent), Japan (14.81 percent) and Cayman Island (14.6 percent) respectively during 2000-2008. In India, Mumbai (40.76

percent), Bangalore (15.97 percent) and New Delhi (12.05 percent) are the top three cities which have received highest investment in trading sector upto Dec. 2008. Trading of wholesale cash and carry constitute highest percentage (84 percent of total FDI inflows to trading sector) among the subsectors of trading sector.

- **Consultancy Sector:** Consultancy sector received 1.14% of total FDI inflows during 2000 to 2008. Among the subsectors of consultancy sector management services received highest amount of FDI inflows apart from marketing and design

  and engineering services. Mauritius invest heavily (37%) in the consultancy sector. In India Mumbai received heavy investment in the consultancy sector.

  Consultancy sector shows a continuous increasing trend of FDI inflows from 2005 onwards.

- **Education sector:** Education sector attracts foreign investors in the present decade and received a whopping 308.28 million of FDI inflows during 20042008. It registered a steep rise in FDI inflows from 2005. Mauritius remains top on the chart of investing countries investing in education sector. Bangalore received highest percentage of 80.14% of FDI inflows in India.

- **Housing and Real Estate Sector:** Housing and Real Estate sector received

  5.78% of total FDI inflows in India upto 2008. Major investment (61.96%) in this sector came from Mauritius. New Delhi and Mumbai are the two top cities which received highest percentage of (34.7% and 29.8%) FDI inflows. Housing sector shows an exponentially increasing trend after 2005.

- **Construction Activities Sector:** Construction Activities sector received US$ 4.9 bn of the total FDI inflows. Mauritius is the major investment country in India. New Delhi and Mumbai are the most preferred locations for construction

activities in India.

- **Automobile Sector:** Earlier Automobile Industry was the part of transportation sector but it became an independent sector in 2000. During Jan 2000 to dec. 2008 this industry received an investment of US$ 3.2 bn which is 4.09 % of the total FDI inflows in the country. Japan (27.59%), Italy (14.66%) and USA (13.88%) are the prominent investors in this sector. In India Mumbai and New Delhi with

  36.98 % and 26.63 percent of investment becomes favourite's destination for this sector.

  Maximum numbers of technical collaborations in this sector are with Japan.

- **Computer Hardware and Software Sector:** Computer Software and Hardware sector received an investment of US$ 8.9 bn during Jan 2000 to Dec. 2008. From 1991 to Dec. 1999 computer software and hardware was the part of electrical and electronics sector. However, it was segregated from electrical and electronics sector in 2000. This sector received heavy investment from Mauritius apart from USA and Singapore.

- It is observed that major investment in the above sectors came from Mauritius and investments in these sectors in India are primarily concentrated in Mumbai and New Delhi.

- Maximum numbers (3636) of foreign collaborations during 1991-2008 are concluded in the computer software and hardware sector.

- It is found that maximum (i.e. 734) technical collaborations are concluded in automobile sector while computer software and hardware sector fetched maximum (3511) financial collaborations during 1991-2008.

### 5.1.5FDI and Indian Economy

- The results of Foreign Direct Investment Model shows that all variables included in the study are statistically significant. Except the two variables i.e. Exchange Rate and Research and Development expenditure (R&DGDP) which deviates

  from their predicted signs. All other variables show the predicted signs.
- Exchange rate shows positive sign instead of expected negative sign. This could be attributed to the appreciation of Indian Rupee in international market which helped the foreign firms to acquire the firm specific assets at cheap rates and gain higher profits.
- Research and Development expenditure shows unexpected negative sign as of expected positive sign. This could be attributed to the fact that R&D sector is not receiving enough FDI as per its requirement. but this sector is gaining more attention in recent years.
- Another important factor which influenced FDI inflows is the TradeGDP. It shows the expected positive sign. In other words, the elasticity coefficient between TradeGDP and FDI inflows is 11.79 percent which shows that one percent increase in TradeGDP causes 11.79 percent increase in FDI inflows to India.
- The next important factor which shows the predicted positive sign is ReservesGDP. The elasticity coefficient between ReservesGDP and FDI inflows is 1.44 percent which means one percent increase in ReservesGDP causes an increase of 1.44 percent in the level of FDI inflows to the country.
- Another important factor which shows the predicted positive sign is FIN. Position i.e. financial position. The elasticity coefficient between financial position and FDI inflows is 15.2 percent

i.e. one percent increase in financial position causes 15.2 percent increase in the level of FDI inflows to the country.

- In the Economic Growth Model, the variable GDPG (Gross Domestic Product Growth i.e. level of economic growth) which shows the market size of the host economy revealed that FDI is a vital and significant factor influencing the level of economic growth in India.

In a nutshell, despite troubles in the world economy, India continued to attract substantial amount of FDI inflows. India due to its flexible investment regimes and policies prove to be the horde for the foreign investors in finding the investment opportunities in the country.

### 5.2 SUGGESTIONS

Thus, it is found that FDI as a strategic component of investment is needed by India for its sustained economic growth and development. FDI is necessary for creation of jobs, expansion of existing manufacturing industries and development of the new one. Indeed, it is also needed in the healthcare, education, R&D, infrastructure, retailing and in longterm financial projects. So, the study recommends the following suggestions:

- The study urges the policy makers to focus more on attracting diverse types of FDI.
- The policy makers should design policies where foreign investment can be utilised as means of enhancing domestic production, savings, and exports; as medium of technological learning and technology diffusion and also in providing access to the external market.

- It is suggested that the government should push for the speedy improvement of infrastructure sector's requirements which are important for diversification of business activities.
- Government should ensure the equitable distribution of FDI inflows among states.

  The central government must give more freedom to states, so that they can attract FDI inflows at their own level. The government should also provide additional incentives to foreign investors to invest in states where the level of FDI inflows is quite low.
- Government should open doors to foreign companies in the export – oriented services which could increase the demand of unskilled workers and low skilled services and also increases the wage level in these services.
- Government must target at attracting specific types of FDI that are able to generate spillovers effects in the overall economy. This could be achieved by investing in human capital, R&D activities, environmental issues, dynamic products, productive capacity, infrastructure and sectors with high income elasticity of demand.
- The government must promote policies which allow development process starts from within (i.e. through productive capacity and by absorptive capacity).
- It is suggested that the government endeavour should be on the type and volume of FDI that will significantly boost domestic competitiveness, enhance skills, technological learning and invariably leading to both social and economic gains.
- It is also suggested that the government must promote sustainable development through FDI by further strengthening of education, health and R&D system, political involvement of people and by ensuring personal security of the citizens.

- Government must pay attention to the emerging Asian continent as the new economic power – house of business transaction and try to boost the trade within this region through bilateral, multilateral agreements and also concludes FTAs with the emerging economic Asian giants.
- FDI should be guided so as to establish deeper linkages with the economy, which would stabilize the economy (e.g. improves the financial position, facilitates exports, stabilize the exchange rates, supplement domestic savings and foreign reserves, stimulates R&D activities and decrease interest rates and inflation etc.) and providing to investors a sound and reliable macroeconomic environment.
- As the appreciation of Indian rupee in the international market is providing golden opportunity to the policy makers to attract more FDI in Greenfield projects as compared to Brownfield investment. So the government must invite Greenfield investments.
- Finally, it is suggested that the policy makers should ensure optimum utilisation of funds and timely implementation of projects. It is also observed that the realisation of approved FDI into actual disbursement is quite low. It is also suggested that the government while pursuing prudent policies must also exercise strict control over inefficient bureaucracy, red - tapism, and the rampant corruption, so that investor's confidence can be maintained for attracting more FDI inflows to India. Last but not least, the study suggests that the government ensures FDI quality rather than its magnitude.

Indeed, India needs a business environment which is conducive to the needs of business. As foreign investors doesn't look for fiscal concessions or special incentives but they are more of a mind in having access to a consolidated document that specified official procedures, rules and regulations,

clearance, and opportunities in India. In fact, this can be achieved only if India implements its second generation reforms in totality and in right direction. Then no doubt the third generation economic reforms make India not only favourable FDI destination in the world but also set an example to the rest of the world by achieving what is predicted by Goldman Sachs[23,24] (in 2003, 2007) that from 2007 to 2020, India's GDP per capita in US$ terms will quadruple and the Indian economy will overtake France and Italy by 2020, Germany, UK and Russia by 2025, Japan by 2035 and US by 2043.

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