

**FOREIGN DIRECT INVESTMENT (FDI)
FLOWS TO INDIA: A STUDY ON
REGIONAL DISTRIBUTION**

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This is to certify that the thesis titled, *“Foreign Direct Investment (FDI) Flows to India: A study on Regional Distribution”* is a bonafide record of the research work carried out by **Ms. Febina K**, under my supervision and guidance for the award of Ph D Degree of the University of Calicut and no part of the thesis has been presented before for the award of any degree, diploma, associateship, fellowship or other similar title of recognition. The corrections / suggestions from the adjudicators have been incorporated.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Broadly, investment can be subdivided into three as physical capital, financial capital and human capital. Physical capital creation occurs with the manufacturing of physical goods such as machines and equipments while financial capital is accumulated with the creation of equity capital. A country develops human capital gradually through the establishment of facilities for better health, education, research and development etc. While both physical capital and financial capital directly exert influence on the level of economic growth, the role of human capital is indirect. The accumulated financial capital ultimately gets channelized to the formation of physical capital. In the perception of economics, investment is the creation of physical capital. Investment can directly affect the direction of economic growth through the changes it can bring down to the level of production and consumption of goods and services in an economy. Thus, investment becomes inevitable for the sustainable sustenance of an economy. Investment in an open economy can either be domestic or foreign. For domestic investment to be accumulated in an economy, domestic saving needs to be properly generated and amassed. Domestic investment tends to reduce with a fall in the domestic savings. A reduction in the domestic investment ends up with reduced income, consumption and employment, which leads ultimately to a downtrend in economic growth. Here comes up the significance and need for foreign capital. In an open economy, foreign investment, specifically, direct foreign investment can be attracted to supplement the reduced level of domestic investment. Thus, Foreign Direct Investment (FDI) has been turned out to be a most

prominent form of capital flow to developing economies in the backdrop of globalization. FDI is a unique form of capital preferred by policy makers on account of its stable nature and resistance to the host economy's external debt stock. Beyond the provision of capital, FDI generates spillover effects of technology and knowledge in the host economy which stimulates economic progress. After the liberalization and privatization measures introduced in the beginning of 1990s, FDI flows to India strengthened. Thus, by the next decade, among the emerging market economies, India became one of the leading destinations for foreign investment. Route wise, automatic route has turned out to be the most prominent route for FDI inflows to India by surpassing government route, which is in line with the policy reforms. Further, the sectoral composition of FDI inflows in India has also gone through profound transformation since 1990's. In the pre-liberalization period, multitude of FDI streamed towards the manufacturing sector and in the era of liberalization, foreign investors centered on India's service sector. On a worldwide basis itself, foreign investors had begun to center on service sector by the early 90s. After liberalization, the principal changes in the policy regime on FDI in India encompasses establishing the limits of foreign investment in high priority industries, liberalizing and streamlining the procedures and mechanisms, bringing in transparency in the decision making process, easing of bureaucratic controls, expanding the list of industries or activities eligible for automatic route of FDI, encouraging investments by Non-Resident Indians (NRIs) and Overseas Corporate Bodies (OCBs), etc. Thus, the advent of FDI to India surged up in the form of mergers and acquisitions, green-field and brown-field investments, joint ventures etc. Increase in the volume of FDI inflows to India due to the liberal policy measures also boosted up the competition among the state governments for

fetching in more FDI to the respective states in recent years. Several states are focusing on attracting foreign investors to their regions by offering extensive incentives in the form of tax reduction, provision of land and public utilities at lower cost etc. As long as the state governments are in need of investment and investors require investment friendly locations, the output counts on the negotiating skills of individual states and also on the state's competence or necessity to collaborate with their counterparts to restrain competition. However, in the run to attract FDI inflows, only a few states could bring potentially positive outcome from FDI, even if several states incurred huge administrative and promotional costs. Nevertheless, the inter-state competition staged to captivate FDI inflows has prominent implications for broad inter-state variations in FDI inflows. Thus from April 2000 to March 2016, six regions such as Mumbai (Maharashtra, Daman and Diu and Dadra and Nagar Haveli), Delhi [National Capital Territory (NCT) of Delhi and some parts of Uttar Pradesh and Haryana], Bangalore (Karnataka), Chennai (Tamil Nadu and Puducherry), Ahmedabad (Gujarat) and Hyderabad (Andhra Pradesh) together received 74 per cent of FDI inflows while four regions such as Kanpur (Utharakhand and UttarPradesh), Bhubaneshwar (Odisha), Patna (Bihar and Jharkhand) and Guwahati (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura) left with only 0.36 per cent. Thus, it is inevitable to study about this huge difference in the magnitude of FDI inflows across the regions of India in order to curb the further occurring of unbalanced regional development in the country and thereby to impede the probability of befalling tough consequences on the socio-economic-political stability of the country. The present study is an attempt in this direction.

1.2 Statement of the Problem

India started to receive enhanced inflow of FDI since the outset of economic reforms in the beginning of 90s. The considerably raising volume of FDI to India has also been accompanied by substantial regional dissimilitude. The attendant regional disparity in FDI inflows to India resulted in the denial of benefits of liberalization to a number of poor states. In India, foreign investors typically stream their resources to economically advanced states; thus such regions including Mumbai, Chennai etc retained a principal share of FDI. As a whole, the six Indian regions with advanced economic conditions, *viz.*, Mumbai, Delhi, Bangalore, Chennai, Ahmadabad and Hyderabad together accounted for over **74 per cent** of FDI equity flows to India during April 2000 to March 2016 which reflects the distinct signs of FDI concentration at the regional level. At the time of liberalizing FDI regime in India in 90s, Policy makers envisioned to ensure the equitable distribution of FDI inflows to India that the entire part of India would avail the benefits from FDI impartially; those benefits include stable capital inflows, spillover from technological and marketing capabilities of foreign investors, crowding in domestic investment etc. Nevertheless, even now when it turns out nearly three decades after liberalization, majority of the poor regions in India struggle behind the advanced ones with the negligible portion of FDI they received. De facto, the volume or quantity of FDI received by particular regions is regarded as a parameter of economic development achieved by them without being considered the quality of FDI. Hence, hereafter onwards, it is essential to ensure that the rising FDI flows do not lead to a further increase in regional inequality. In view of this, the study examines the major determinants which

play a role in distributing varied magnitude of FDI across the regions of India; the role played by FDI at the regional level in India has also been identified.

1.3 Significance of the Study

India has been witnessing elevated inflows of FDI since 1990s; from the time onwards, countless studies have been emerged evaluating the pros and cons of FDI inflows to the economy. Nevertheless, even if the fact of subsistence of wide regional concentration in the inflow of FDI to India with only six or seven regions attracting unreasonably large portion is crystal clear, only very few analytical studies on the inter-state or inter-province differences in FDI inflows have occurred so far. Beyond barely identifying the interregional determinants and role of FDI inflows, the studies subsisting have not taken note of the multifarious impacts that may cause due to the magnitudinal variations in the FDI inflows across the regions in India. Thus, the significance of the present study is in analyzing the determinants and role of FDI inflows in the regions in India, on the basis of the magnitude of FDI received by each of them and the concept has not yet been covered by any of the subsisting studies.

1.4 Objectives of the Study

The objectives of the study are as follows:

1. To evaluate the trend and pattern of FDI inflows to India during the post reform period.
2. To evaluate the FDI policy framework of India.
3. To evaluate the trend and pattern and also to identify the determinants and role of FDI in Regions with High Inflow of FDI (RHIF) in India.

4. To evaluate the trend and to identify the determinants of FDI in Regions with Low Inflow of FDI (RLIF) in India.

1.5 Scope of the Study

This study covers the dynamics of inter-regional distribution of FDI inflows in India. The trend and pattern of FDI flows to India in the post liberalized regime has been evaluated. A review of the post independent policy framework on FDI in India has also been carried out. The trend and pattern, the role and determinants of FDI inflows in regions with high FDI inflows and the trend and determinants of FDI inflows in regions with low volume of FDI have also been examined.

1.6 Hypotheses of the Study

- Inflow of FDI in India is being rightly directed during the post reform period.
- The inflow of FDI is judiciously distributed across regions and sectors.
- Policy framework of FDI is apt with regard to the economic conditions of India.
- Inflow of FDI is being rightly directed and judiciously distributed in Regions with High Inflow of FDI (RHIF).
- The FDI in RHIF is explainable by domestic savings, domestic investment, size of host economy and deficit financing.
- FDI, along with domestic savings and industrial output contribute towards the size of the economy in RHIF.
- Inflow of FDI is being rightly directed in Regions with Low Inflow of FDI (RLIF).
- The FDI inflows in RLIF is explainable by financial intermediation, manufacturing output and capital expenditure of government.

1.7 Methodology

1.7.1 Frame

This study is based on descriptive research design. It principally assesses the region specific role and determinants of FDI inflows in India. The survey of literature signifies the wide-regional disparity existing in the distribution of FDI inflows with in developing countries and in India. The trend and pattern of the distribution of FDI inflows in India has been evaluated. The post independent policy regime on FDI in India has also been evaluated. Afterwards, it has been attempted to understand the magnitude-specific dynamics in the FDI inflows to India by examining the determinants and role of FDI inflows in regions with high volume of FDI and determinants of FDI inflows in regions with low volume of FDI.

1.7.2 Type of Data

The study is explanatory in nature and based on secondary data. However, a preliminary assessment of the foreign firms in Kerala has been done by meeting some of the officials at Infopark at Kochi. Discussions have been conducted with the managing director of Kochi Smart City Project and officials at the RBI's Kochi regional office.

Both time series and panel data have been used for analysis.

1.7.3 Sampling

In India, 17 Regions receive FDI inflows (DIPP, 2016). They are Mumbai [*Rank 1* (29 per cent – Rs 4157.53 billion)], Delhi [*Rank 2* (22 per cent – Rs 3323.12 billion)], Chennai [*Rank 3* (7 per cent – Rs 1185.47 billion)], Bangalore [*Rank 4* (7 per cent – Rs 1089.12 billion)], Ahmedabad [*Rank 5* (5 per cent – Rs 684.64 billion)], Hyderabad [*Rank 6* (4 per cent – Rs 595.56 billion)], Kolkata [*Rank 7* (1 per cent – Rs 208.47 billion)

)], Chandigarh [*Rank 8* (0.5 per cent – Rs 65.38 billion)], Jaipur [*Rank 9* (0.5 per cent – Rs 71.26 billion)], Kochi [*Rank 10* (0.5 per cent – Rs 67.39 billion)], Bhopal [*Rank 11* (0.5 per cent – Rs 66.14 billion)], Panaji [*Rank 12* (0.3 per cent – Rs 39.84 billion)], Kanpur [*Rank 13* (0.2 per cent – Rs 29.68 billion)], Bhubaneswar [*Rank 14* (0.1 per cent – Rs 19.97 billion)], Guwahati [*Rank 15* (0.03 per cent – Rs 4.47 billion)], Patna [*Rank 16* (0.03 per cent – Rs 5.39 billion)] and Jammu and Kashmir [*Rank 17* (0 per cent – Rs 0.37 billion)](as on the Quarterly Fact Sheet on FDI, Department of Industrial Policy and Promotion (DIPP), March 2016).

From these regions, two forms of categorization have been made by the researcher. The first category is Regions with High Inflows of FDI (RHIF). RHIF includes the top six ranked regions such as Mumbai, Delhi, Chennai, Bangalore, Ahmedabad and Hyderabad which received a total of 74 per cent of FDI from April 2000 to March 2016.

The second category is Regions with Low Inflows of FDI (RLIF). RLIF encompasses four regions with lowest ranks such as Kanpur, Bhubaneswar, Guwahati and Patna with the exclusion of Jammu and Kashmir since the percentage component of FDI received by Jammu is zero. RLIF received only a negligible portion of 0.36 per cent of FDI from April 2000 to March 2016.

1.7.4 Sources of Data

Data has been collected from the following sources:

- ❖ Reserve Bank of India (RBI) - RBI Bulletins, Hand book of Statistics on Indian States and Hand book of Statistics on Indian Economy.
- ❖ Department of Industrial Policy and Promotion (DIPP) - Quarterly Fact Sheets on FDI and FDI Newsletters.

- ❖ Websites of ‘Make in India’ initiative and ‘Invest India’ (National Investment Promotion and Facilitation Agency).
- ❖ Websites of Central Statistical Organization (CSO), National Institution for Transforming India (NITI) Aayog and archived website of erstwhile Planning Commission of India.
- ❖ Economic review reports of various state governments.
- ❖ World Investment Reports (WIRs) of United Nations Conference on Trade and Development (UNCTAD) and online data centre of UNCTAD.
- ❖ Websites of World Bank and International Monetary Fund (IMF).

1.7.5 Tools Used for Analysis

Essentially, percentage analysis, analysis with Compound Annual Growth Rate (CAGR) and Average Annual Growth Rate (AAGR), basic economic ratio analysis and correlation analysis have been performed. Principally, the following tools have been used.

1. Auto Regressive Integrated Moving Average (ARIMA) for forecasting the monthly FDI inflows to India with time series data.
2. Pooled OLS Regression for panel data analysis
3. Random-effects [Generalized Least Squares (GLS)] regression, also for panel data analysis.

1.7.6 Period

Period has been selected for study largely on the basis of the availability of data. Only limited sources are providing data on FDI in India and internationally. In India, Department of Industrial Policy and Promotion [(DIPP), *the DIPP was established in 1995 under the Ministry of Commerce and Industry as a nodal agency for design and*

facilitation of industrial, FDI, trade and commerce policies], and RBI are the only government institutions which provide reliable data on FDI inflows. DIPP's quarterly fact sheets on FDI are the major source for getting monthly and yearly inflows of FDI to India. However, DIPP provides yearly data of FDI inflows to India only from the year 2000-01 onwards. Monthly data of FDI inflows to India is available only from April 2005 in the fact sheets of DIPP. For the accomplishment of the present study, the researcher needed data of region-wise annual FDI inflows to India. However, the data required is available in the quarterly fact sheets of DIPP only from 2006-07 onwards. In this context, the researcher selected different periods from different sources for fulfilling each objective.

1. For accomplishing the first objective- to evaluate the trend and pattern of FDI inflows to India- the period taken is April 2005 to January 2019 (monthly data).
2. To evaluate the FDI policy of India, post independent period has been considered.
3. For achieving the third and fourth objectives, period from 2007-08 to 2015-16 (yearly data) has been considered.

1.8 Scheme of the Report

The research report has been subdivided in to seven chapters. After the first chapter of introduction, second chapter carries out an analysis of the empirical literature on FDI inflows. The third chapter is focusing on FDI policy in India. The fourth chapter expounds the trend and pattern of FDI inflows to India. Chapter five deals with FDI inflows in Regions with High Inflow of FDI (RHIF). Chapter six discusses the FDI inflows to Regions with Low Inflow of FDI (RLIF). Chapter seven discusses the major findings, policy implications and conclusion.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

It is sturdily substantiated that there is absolute regional disparity in the distribution of FDI inflows within developing economies. This fact is conspicuous with respect to India too. This sort of circumstance challenges the equitable distribution of factors of production all over the country. Chapter I primarily narrated this predicament – the subsistence of firm disparity in the distribution of FDI inflows across India. Consequently, this chapter recapitulates the studies that explored the determinants of FDI as well as the role of FDI in India and across the globe. Since the researcher centers only on FDI inflows, literature on FDI inflows from the perspective of the host economies alone has been considered. The extensive pool of literature available on FDI inflows, thus, can be broadly bifurcated in to 1) studies based on determinants of FDI inflows to host economies and 2) studies based on the influence of FDI on host economies.

2.2 Determinants of FDI Inflows to Host Economies

Enlarging interest in the causality and consequences of FDI has prompted the development of extensive literature in the topic. Thus, scholars commenced to study about the determinants of FDI inflows to host countries since its evolution. The following section deals with the summary of literature on the distribution and determinants of FDI.

Schneider & Frey (1985) studied the economic and political determinants of FDI with cross country data. It was found that the economic determinants of FDI are real per capita GNP and balance of payment deficit of host economies. Bilateral aid coming from

western countries is one of the political determinants of FDI. However, aid coming from communist countries negatively affects FDI. Further, the inflow of FDI is reduced with the subsistence of political instability in the host economy. Cassou (1997) examined the influence of tax policy on FDI inflows occurring between US and other countries using a panel data. It was found that beyond the host and home country corporate tax rates, the host and home country income tax rates are also significant in determining FDI inflows. Cooke (1997) applied a transaction cost framework to examine the influence of industrial relation on United State's (US) FDI across nine industries and 19 'Organization for Economic Co-operation and Development (OECD) countries'. It was found that US's FDI was negatively influenced by the presence of union penetration, centralized collective bargaining structures, stiff government restrictions on lay off and pervasive contract extension policies. FDI was positively influenced by high levels of education and policies requiring work councils. Noorbakhsh et al. (1999) analysed the relevance of human capital in attracting FDI inflows to developing economies. They found that human capital is statistically significant and most important in determining FDI inflows. Besides, the relevance of human capital in attracting FDI has been increasing over time. Fazekas (2000) examined the nature and determinants of the regional distribution of foreign investment enterprise employment in Hungary. It was found that FDI is attracted to regions where unemployment is lower due to better educational levels. FDI is attracted by geographical advantages too. Besides, a hike in FDI creates new job opportunities. Garibaldi et al. (2002) showed that while FDI can be well explained by economic fundamentals, financial market infrastructure and property rights indicator explains foreign portfolio investment.

Asiedu (2002) attempted to explore ‘whether the factors that attract FDI in developing countries affect FDI to countries in Sub-Saharan Africa (SSA) differently?’. It was revealed that higher return on investment and better condition of infrastructure positively affects the flow of FDI to non-SSA countries. However, those factors did not significantly impact FDI inflows to SSA countries. Nevertheless, trade openness is a factor which promotes FDI equally in SSA and non-SSA countries. Even if, the marginal benefit from increased openness is less for SSA and the situation makes the policy makers remember that policies that have been successful in a non-SSA country wouldn’t be successful in an SSA nation.

Shotar (2002) examined various factors which fetched in FDI to Qatar and the attractiveness of the country to foreign investment between 1980 and 2002. The study is relevant as it has done in the period in which the country undertook major norms of privatization, joined WTO and planned to have sustainable economic growth. It was found that FDI is affected by government spending and GDP in the short run. Kandiero & Chitiga (2003) examined the impact of openness to trade on FDI inflows to Africa. Besides the economy-wide openness, they analysed the effect of openness in the sectors of manufactured goods, primary commodities and services. Their empirical work is based on cross-country data from selected African countries during four different periods: 1980-1985, 1985-1990, 1990- 1995 and 1995-2001. They found that FDI to GDP ratio responds well to increased openness in the whole economy and in the service sector in particular.

Blomstrom & Kokko (2003) criticized the activity of many host economies providing investment incentives exclusively for foreign MNCs to influence their investment

decisions and to harvest spillovers from them. The authors made policy makers remember that providing investment incentives exclusively for foreign firms by forgetting the local investors is not an efficient way to raise national welfare in the host economy, and such a deed will lead to the shift of resources from the host economy to the foreign multinationals instead of occurring the opposite. Potential spillover benefits from FDI will be realized only if the local firms are also equipped to absorb foreign technologies and skills. They suggested that there exists necessity of good governance in the area of FDI policy for considering the investment incentive packages as part of the country's overall industrial policy, and make all incentives available on equal terms to all investors, foreign as well as local.

Banga (2003) examined the impact of government policies and investment agreements on FDI inflows to developed and developing countries including India. In the study, the author has undertaken estimation at two levels. First, using data for 15 developing countries of South, East and South East Asia for the period from 1980-81 to 1999-2000 and second is for ten developing countries from 1986-1987 to 1996-1997. The author's results based on random effect model showed that provision of fiscal incentives is not significantly affecting the inflow of aggregate FDI. Instead, with the removal of restrictions, FDI begins to flow. Another thing worth noting is that FDI flows from both developing and developed countries to particular host regions are based on different selective policies. Lessening of restrictions attract FDI from developed countries to host regions while provision of fiscal incentives and low tariff rates are in play behind the flow of FDI from developing countries to the host regions. Moreover, Bilateral

Investment Treaties (BITs) with the host economies and developed economies have significant effect on the FDI inflows to developing countries.

Janicki & Wunnava (2004) examined the bilateral FDI between the members of the European Union and eight Central and East European Candidate (CEEC) economies in transition which awaited accession into the European Union (EU). Using cross-sectional data, it was revealed that size of the host economy, host country risk, labour costs in host country, and openness to trade are the key determinants of FDI inflows to CEECs.

Quere et al. (2005) evaluated the role of quality of institutions on FDI. They used the data of a set of 52 countries for analysis. Their results indicated that public efficiency (tax systems, easiness to form a company, lack of corruption, transparency, contract law, security of property rights, efficiency of justice and prudential standard etc.) is a major determinant of inward FDI to developing countries. Busse & Hefeker (2005) examined the linkages between political risk, institutions and foreign direct investment inflows for a sample of 83 developing countries between 1984 and 2003. They found that factors like government stability, the absence of internal conflict and ethnic tensions, basic democratic rights and ensuring law and order are highly significant determinants of foreign investment inflows.

Asiedu (2005) examined the impact of factors such as natural resources, market size, government policies, political instability and the quality of the host country's institutions on FDI to Africa by using a panel data set of 22 countries over the period, 1984 to 2000. It was found that factors such as large local markets, natural resource endowments, good infrastructure, low inflation, efficient legal system and a good investment framework attracted FDI while corruption and political instability discouraged the inflow of FDI.

te Velde & Bezemer (2006) reviewed the association between regional integration and FDI inflows in developing countries. The authors estimated a model for the real stock of US and United Kingdom (UK) FDI in developing countries between 1980 and 2000. The authors found that the membership of a host economy in any regional integration as such, is not positively and significantly influences the FDI inflows to that particular host country. Instead, if a country with sufficient level of trade and investment provisions, is a member of any regional integration, is in a better position to attract more FDI inflows. Additionally, countries that have bigger economies or are geologically closer to larger countries within the regional grouping can anticipate a larger increase in foreign direct investment as a result of joining a regional trade agreement than those of countries that have smaller economies or are located on the periphery.

Xing (2006) argued that China's exchange rate policy played a critical role in its FDI boom. The empirical results revealed that the real exchange rate between the Chinese-Yuan and Japanese-Yen is one of the significant variables determining Japanese direct investment in China. The devaluation of the Yuan helped to significantly raise the inflows of direct investment from Japan.

Udo & Obiora (2006) analysed the determinants of FDI in the West African Monetary Zone (WAMZ) and investigated the cause and effect relationship between FDI and growth. They used a simultaneous-equation method on a panel of WAMZ countries over the period of 1980 to 2002 and found no evidence of a two way causal relationship between FDI flows and economic growth. However, determinants of FDI to WAMZ include high per capita income, better infrastructure and political stability.

Sahoo (2006) conducted a study on the trends, policy, impact and determinants of FDI in South Asia. The study showed an increasing trend of FDI in to South Asian countries. However, little share of FDI is going to other countries in South Asia except India. In India and Pakistan, FDI is more oriented on domestic market, while in Sri Lanka and Bangladesh, it focuses on export-oriented industries. The major determinants of FDI flows to South Asia were found as market size, growth of labour force, infrastructure index and trade openness. Mottaleb (2007) examined the determinants of FDI inflows to developing countries. A panel data set consisting of 60 low income and lower-middle income countries was employed in the study. Data has been estimated using random effect regression. It was concluded that large GDP, high growth rate of GDP, business friendly environment and modern communication facilities encourage FDI inflows to developing countries.

Dutta & Roy (2008) delineated financial development as a determinant of FDI inflows to an economy. However, the contribution of financial development can be based on the political situation of the recipient nation. It was found that higher political stability in the host economy will assist financial institutions to reap the benefits of FDI more effectively. Using a panel of 97 countries, they showed that the impact of financial development on FDI inflows becomes negative beyond a threshold level of financial development in the host country.

Wyk & Lal (2008) investigated the explanatory power of institutional and macro economic variables in determining FDI inflows to developing countries. It was found that levels of economic freedom facilitated inward FDI flow while increasing political risk dampened investment. Explanatory variables like market size, growth of GDP, lower

current account balance, appreciation of host country's currency, and lower inflation rate etc. also stimulated FDI inflows. Chidlow & Young (2008) examined the regional determinants of FDI inflows in Poland. By using a multinomial logit model incorporating the investor's specific characteristics, it was found that knowledge-seeking factors along with market and agglomeration factors, drove FDI to the Mazowieckie region (including Warsaw¹). Simultaneously, efficiency and geographical factors encouraged FDI to other regions in Poland.

Wahid et al. (2009) investigated the factors attracting FDI to host economies on the basis of a sample of 20 African countries over the period 1990-2005. The abundance of natural resources recorded to have a positive and significant effect on FDI inflows. Factors such as openness of the economy, size of the domestic market and stock of human capital also played a positive role in attracting FDI inflows. Political instability and labour cost played negative role in fetching FDI inflows.

Bellak & Leibrecht (2009) used 56 bilateral country relationships combining seven home countries from the EU and the US, and eight Central and East European host Countries (CEECs) of foreign direct investment (FDI) from 1995-2003 in a panel gravity-model setting to estimate the role of taxation as a determinant of FDI. The results showed that tax-lowering strategies of CEEC governments have an important impact on foreign firm's location decisions.

Mottaleb & Kalirajan (2010) identified the factors influencing FDI inflows to developing countries by using a panel data set of 68 low-income and lower-middle income developing countries. It was found that countries with larger GDP and high GDP growth

¹Capital of Poland

rate, higher proportion of international trade and with more business friendly environment are more successful in attracting FDI.

Walsh & Yu (2010) distinguished between FDI inflows to primary, secondary and tertiary sectors to analyse what factors bring FDI to those sectors in an economy. The study also focused on determining whether macro-economic and cross-country factors also play a role in cross-country differences in FDI inflows. Annual FDI data from 1985 to 2008 for 27 advanced and emerging market economies including India was used. It was found that FDI inflows in primary sector in particular economies have no strong linkages to either macroeconomic stability, level of development, or institutional quality. Decisions about FDI in mining and petroleum sectors are affected by the location of such resources, i.e. on the basis of the extent of transferability of both labour and equipment. FDI inflows in the secondary and tertiary sectors provide linkages to the macro economy of host countries. Even if FDI in both secondary and tertiary sector benefit from agglomeration or clustering effects, FDI in services is much more affected by macroeconomic conditions than FDI in manufacturing. Moreover, weaker real effective exchange rate fetches more FDI in the manufacturing sector of host economy; it reduces the FDI in tertiary sector. Tertiary FDI is higher in rapidly growing economies and those which are more open. More flexible labour markets and deeper financial markets attract more secondary FDI, while better infrastructure and a more independent judiciary attract more tertiary FDI.

Dhakal et al. (2010) examined the exchange rate uncertainty on FDI in East Asian countries such as China, Indonesia, Malaysia, the Philippines, South Korea, and Thailand using panel data. These countries continued to receive substantial volume of FDI

irrespective of their exchange rate volatilities. It was found that exchange rate volatility has a favorable effect on foreign direct investment in the sample countries. Khachoo & Khan (2012) attempted on identifying the factors determining FDI inflows to 32 developing countries using panel data from 1982 to 2008. Fully Modified Ordinary Least Squares (FMOLS) test was used for estimation. It was found that market size, total reserves, infrastructure and labour costs are the main determinants of FDI inflows to developing economies.

Lautier & Moreaub (2012) investigated the impact of domestic investment on FDI to developing countries. Cross country data from 68 countries over the period of 1984 to 2004 has been employed. The results showed that domestic investment has a strong influence on FDI inflows to the host-economy. Hussain & Kimuli (2012) explored the factors influenced FDI flows to developing countries with a panel data set of 57 low and lower-middle income countries during 2000 to 2009. Instrumental variable technique and also controlled country specific and time specific fixed effects were used. Market size was found as the most substantive determinant of FDI inflow to developing economies. Besides, stable macro-economic environment, integration with the global economy, availability of skilled labour force and developed financial sector etc. also found as stimulating FDI inflows to developing countries.

Liargovas & Skandalis (2012) examined the relevance of trade openness as a determinant of FDI inflows, using a sample of 36 developing economies [from Latin America, Asia, Africa, CIS (Commonwealth of Independent States) and Eastern Europe] for the period 1990–2008. The panel regression analysis revealed that in the long run, trade openness contributed positively to the inflow of FDI. Cleeve et al. (2015) examined the role of

human capital on FDI inflows to countries in sub-Saharan Africa by using panel data set for the period 1980 to 2012. They intended principally to assess whether the quality of labour subsisting in the host economy explains FDI inflows. It was found that human capital has a significant influence on FDI inflows.

O'Meara (2015) identified the main determinants of FDI on a cross-country basis. It was found that traditional variables like size and scale of economic activity in the host country are more prominent in explaining FDI inflows instead of the variables like economic freedom, tax incentives, human capital etc.

Hanafy (2015) analysed the determinants of inward FDI in Egypt by employing a panel dataset of 26 Egyptian governorates for the period from 1992 to 2008. The results showed that domestic private investment, well-functioning free zones, and labour abundance affected the advent of FDI inflows. Ablov (2015) examined the determinants of inward FDI to firms in Poland in a sectoral framework over a period of 10 years from 2003-12. It was revealed that the determinants of FDI inflows to Polish firms are economic potential of the region in which the firm operates, the road and rail road density of this particular region and the location of a firm: closer to European Union (EU) or non-EU countries and closer to seaside or to the capital city of Poland – Warsaw.

Ibrahim & Abdel-Gadir (2015) investigated the motives and determinants of FDI in Oman during 1980 to 2013. Co-integration and Vector Error Correction Model (VECM) approach were used to find out the short and long-run dynamics of FDI determinants. It was disclosed that FDI flows to Oman are positively influenced by market size and natural resources, and negatively by inflation rate and degree of openness. Prashar (2015) explored out the factors determined inflow of FDI to both India and China between 1980

and 2013 using linear regression analysis. It was found that for both India and China, market size is the common factor attracting FDI inflows. For China, particularly, its low wage rate fetches in foreign investors and for India, its novel policy reforms plays the key role in attracting FDI.

Yong et al.(2016) examined the determinants of FDI in the three regions of China (Eastern, Central and Western) using spatial panel analysis (period: 1994 to 2008). The empirical results revealed that the determinants of FDI were different among the three regions based on the motives of the investors and policy bias. It was found that the motive for FDI in the eastern region is mainly efficiency seeking while that to the central and western regions is market seeking. Dellis et al. (2017) investigated the role of economic structures as determinants of FDI inflows to advanced economies. It was found that quality of host country's economic structure and FDI inflows are empirically related. The results are found robust to various economic specifications and are confirmed when restricting the sample to euro area countries only.

Asongu et al. (2018) attempted on finding out the determinants of FDI inflows in fast growing BRICS (Brazil, Russia, India, China and South Africa) and MINT (Mexico, Indonesia, Nigeria and Turkey) countries using panel data analysis. Firstly, a pooled time series cross-sectional analysis using data from 2001 to 2011 was done to estimate and model the determinants of FDI for three samples: BRICS only, MINT only and BRICS and MINT combined. Then, a fixed effect model for the combination of BRICS and MINT was employed. Thus, it was found that market size, availability of infrastructure and trade openness play important role in attracting FDI to both BRICS and MINT.

However, they identified only an insignificant role of institutional quality and natural resources on FDI inflows.

Sabir et al. (2019) examined the influence of quality of institutions on FDI inflows by employing panel data consisting of low, lower-middle, upper-middle and high-income countries. The period of study is 1996 to 2016 and the analysis were made using system Generalized Method of Moments (GMM). The results showed that institutional quality is a factor which has positive impact on FDI in all group of countries. The extent of corruption, effectiveness of government, political stability, quality of regulatory framework, rule of law and voice and accountability for FDI inflows are greater in developed countries than in developing countries. Nevertheless, GDP per capita, agriculture value-added as a percentage of GDP, and inflation influence FDI inflows negatively in developed countries, while GDP per capita, trade openness, agriculture value-added as a percentage of GDP, and infrastructure have positive and statistically significant impact on FDI inflows in developing countries. Trade openness as a percentage of GDP and infrastructure positively affect FDI in developed countries. Institutional quality is a more important determinant of FDI in developed countries than in developing countries.

Hsu et al. (2019) studied whether the tax incentives had been a significant determinant of foreign investment decisions in China by using the provincial level panel data from 1998 to 2008 (before the reform activities in 2008). It was found that market size and geographic location significantly influenced FDI inflow into China but the tax incentive policies were not a prominent determinant.

In the Indian context, the following studies have been exercised to identify the various determinants of FDI.

Bajpai & Sachs (2000) attempted to identify the issues in the India's then FDI regime to understand why India remains an unattractive destination for FDI irrespective of the factors like country's large domestic market, low labour costs and a well working democracy. They identified nine specific reasons hindering FDI inflows to India as restrictive FDI regime, lack of clear cut and transparent sectoral policies for FDI, high tariff rates by international standards, lack of decision-making authority with the state governments etc.

Morris (2004) discussed the determinants of FDI over the regions of India and developed a framework drawn from the advantage concept of *Kindleberger* and from location theories rooted in regional science. Primarily, the author argued that except those industries which are strictly confined to locations due to their requirements of either natural resources or the need to be very close to markets, all others have headquartered in metropolitan cities in India. Thus, such regions attract bulk of FDI. Moreover, the quantum of FDI, the number of cases of FDI, the employment effects, and spillover effects are large for such regions. He provided empirical support for this hypothesis with a study of the intentions of foreign investment, and the distribution of investment projects in the arena of Gujarat, which has not such a metropolitan city unlike south India which has Bangalore, Hyderabad and Chennai. Moreover, in north, there is Delhi as a metro city, and for Maharashtra there is Mumbai. FDI to Gujarat was large enough when the state had grown rapidly in the first six years following the reform of 1991-92. After that period, there occurred a slowdown in the growth of the state and it has been a barrier to

the surge of FDI also as the kind of FDI that Gujarat could hope for was largely industry oriented. Likewise, regulatory uncertainty especially with regard to gas, but also electric power and more generally in the physical infrastructure sectors had hurt Gujarat more than other states. However, the author concluded that there are vast gains to be made by attracting FDI, especially in services, high tech, and skilled labour seeking industries. With FDI, the resulting operations will be more externally oriented, and investments will arise from competing firms.

Beena et al.(2004) delved deep in to the affairs of FDI in India by using the data obtained from 160 MNC affiliates in India. They tried to answer significant matters related to MNCs including the experience of MNCs invested in India, the relationship between their performance and experience with the operating environment, and the extent of spillovers in the form of transfer of technology and know-how. They found that, MNCs in India are almost or in general are satisfied with their own performance as regards MNCs' experience with respect to labour productivity, revenue growth and profit growth. A majority of the firms in both old economy sectors like machines and machine tools and new economy sectors like IT felt that their expectations with respect to these parameters of performance were largely met. Principally, neither the central nor the state and local governments were viewed as obstacles to carrying on business in India. On the other hand, the firms who couldn't meet their expectations experienced a considerable decline in the quality of executive management in India, and were largely dissatisfied with the extent of improvement in the reliability of utilities. Moreover, MNCs which are late entrants to Indian economy are less satisfied with their own performance, on average, than the early entrants. It has occurred because the growth of labour productivity, revenue

growth and profit growth of MNCs wouldn't have met with their beforehand *expectations* about the rapidly growing Indian economy. Besides, a majority of the firms making investment in India have relatively small Research and Development (R&D) budgets compared to their turnover and most of them do not render significant training to the employees in their Indian affiliates. This raises hesitations regarding the extent of transfer of cutting edge technology to India, and the extent of spillovers by way of enhancement of skills of the labour force.

Bajpai & Dasgupta (2004) undertook a comparative analysis of the FDI flowed from the multinational corporations (MNCs) into China and India between 1992 and 2001. The paper is more of a conceptual nature which tried to answer several conclusive questions like, 'What could be the possible reasons behind China's success in attracting FDI inflows?', has the Chinese FDI been said to take place at least partially, at India's expense?', can India possibly become an FDI destination as attractive as China?', who are the target groups of foreign investors in India?' etc. The authors have succeeded in bringing out reasonable explanation to all these questions. They found several areas and aspects including retail-trade sector, export-oriented manufacturing, the creation of sufficient number of special economic zones of quality and the proactive role of the state governments in aiding the FDI process in conjunction with the Central government and the private sector etc. with which it is possible for India to attract larger FDI inflows. By examining a large pool of both Indian and Chinese data, it was inferred that India falls short of China in all the above mentioned areas and aspects and the study recommended for a redesign in India's policies in each of these aspects.

Aggarwal (2005) attempted to investigate the sensitivity of foreign direct investment to labour markets across Indian states by having improvements to the conventional modelling framework related to the labour market. A Panel Corrected Standard Estimates Technique (PCSE) was employed for estimation and it was disclosed that rigid labour markets discouraged FDI inflows to India. Besides, export oriented FDI is more prone to labour market rigidity than domestic market seeking FDI. Menon & Sanyal (2005) analysed how labour conflict, credit constraints and indicators of state economy's health influence the location decisions of foreign firms in India. It was found that foreign investors tend to veer away from states that have high incidences of labour conflict, particularly as measured by the number of man-days lost due to work stoppages.

Siddharthan (2006) attempted to compare the regional differences in the FDI inflows to China and India. It was found that, FDI inflows in China and India have been confined to a few states or provinces. Besides, the determinants of regional distribution of FDI flows in China and India are very similar to the pattern of inter-country FDI flows. That is, FDI in these two countries flows to relatively developed regions and regions that are poor in physical, institutional and social infrastructure receive very little FDI. Sury (2008) identified the determinants of FDI to India by employing ordinary least squares regression on quarterly data from 1991 to 2003. It was found that FDI inflows to India did significantly determine by factors such as expected national income, tax rate, trade openness and labour cost.

Dutta & Sarma (2008) assessed the trends, challenges and prospects of FDI in India since 1991. The study is primarily descriptive with the usage of no specific estimation technique. However, the authors expected that ongoing liberalization measures and

developing infrastructure will give future impetus for the growth of FDI inflows to India. It was found that even if FDI to the country is on the increase, regional distribution in FDI is more inequitable. For securing prospects in FDI inflows, building of a transparent investment environment was suggested.

Lai & Sarkar (2011) measured the effect of labour cost on FDI in India and attempted to find out whether foreign firms pay higher wages than their domestic counterparts. Ordinary Least Square (OLS) regression was used and found that lower average wage in India attracts foreign investment. Moreover, foreign firms pay higher wages to employees than the domestic companies.

Mukherjee (2011) examined the major determinants of regional distribution of FDI in Indian states by employing fixed effect pooled least square method during the period of 2000-01 to 2010-11. It was revealed that market size, agglomeration effects, infrastructure, size of manufacturing and services base etc. have significant and positive effect on FDI inflows to particular states in India. The negative and significant relationship between FDI inflows and taxation and cost of labour was also found. However, the study couldn't establish a concrete relationship between quality of labour and FDI inflows.

Pradhan (2012) examined the determinants of FDI inflows to India by using panel data from 2001 to 2010. It was found that the principal determinants of FDI to India are power availability, domestic investment and profit. Improved profitability in states prompts foreign investors to invest in that particular state. Pillai & Rao (2013) identified the determinants of FDI inflows to India as transnational attributes (import, export, trade balance and FOREX reserve), stability, investor's confidence and institutional factors by

performing factor analysis and elasticity analysis of panel data. The quarter-on-quarter data from the year 2000 to the year 2010 were obtained for analysis. Kaur & Sharma (2013) explored out the various determinants of FDI inflows to India. It was found that factors such as openness, reserves, GDP and long-term debt have positive effect while inflation and exchange rate have negative effect on FDI inflows to India.

Chatterjee et al. (2013) strived on identifying the factors influencing wide-scale variation in FDI inflows to Indian states. A panel data set consisting of 16 Indian regions was structured for analysis. It was revealed that both physical and social infrastructure have no bearing on bringing FDI to various regions. Instead, interstate variations in FDI inflows to India occur owing to the variability in the level of profit made by existing enterprises. It was also found that, when higher profits in the existing firms attract more FDI, variability in profits reduces FDI flows.

Bickenbach et al. (2013) analysed the concentration of FDI in India at the district level based on FDI's project-specific location choices since the reform program in India in the early 1990s (1993-2004). Major types and sources of FDI were differentiated. It was found that there are a large number of districts that do not receive any FDI project and a very high share of FDI projects is located in a very small number of districts, principally in Mumbai, Chennai, Bangalore, Pune and Hyderabad. Moreover, the level of concentration of FDI projects at regional level is high with majority (in foreign ownership) and the concentration is low in the case of technical collaborations (minority in foreign ownership). Furthermore, the level of concentration also varies as regards the source (source countries) of FDI. It was also found that a rising share of Indian districts failed to participate in the boom of FDI projects in the post-reform era.

Sanghi & Patni (2014) identified regional disparity in FDI inflows to India. Large variance in the FDI inflows to various regions in India was observed. The positive impact of factors like market size and infrastructure on the FDI inflows to various Indian regions were disclosed. Mahalakshmi et al. (2015) found out the determinants of FDI inflows to India by using Auto Regressive Distributed Lag (ARDL) Model and innovation accounting of VAR system. It was found that FDI inflow to India is significantly influenced by both GDP and Real Effective Exchange Rate (REER).

Gupta (2017) checked the two way causality between FDI inflows and human capital across the states of India. The analysis using time series data for a period from 1975 to 2013 showed that improvement in human capital does not cause growth in FDI inflows and the growth in FDI inflows does not result growth in the human capital formation. Using a panel data set with time series length of 11 years (2000-2010), the author found that variations in the human capital base do not explain the differences in FDI inflows across states, instead, size of market, availability of cheap labour, and infrastructure affect distribution of FDI.

2.3 Influence of FDI Inflows on the Host Economies

Theoretical literature accords that FDI inflows effectuate multifarious benefits in host economies beyond the mere provision of capital. The primary role of FDI inflows in the host economy has been assimilated as bridging the gap between the desired and the actual level of capital stock. Apart from this, FDI subsumes better technology, management and marketing practices etc. which are capable of transforming the host economy more competitive through spillover effects. FDI is also presumed to affect the host economy

negatively in certain occasions. In view of these, the following section examines the empirical literature which assayed the role of FDI inflows to host economies.

Blomstrom & Wolff (1989) examined the influence of the operations of foreign-owned multinational firms on the productivity growth of Mexican manufacturing industries from 1965-1984. It was found that the extent of productivity of the locally owned firms in Mexico have converged on those of the foreign owned firms. The rate of productivity and their rate of catch-up to the multinationals increase when the degree of foreign ownership increases in a particular industry. The productivity gap between Mexico and US manufacturing has diminished between the mid-1950s and the mid-1980s. Further, the rate of productivity growth of Mexican industries and its rate of convergence to the United States are higher in industries with a greater presence of multinationals.

Blomstrom et al. (1992) examined whether rivalry in host country markets forces foreign multinationals to increase the extent of technology transfer to their foreign affiliates. It has been assumed that such technology flows should be interesting from the perspective of host country and its firms since such a rivalry may increase the potential for spillovers in the host country. By using data from Mexican manufacturing industry between 1970 and 1975, it was found that the existence of rivalry in the host economy markets will lead to increased technology imports to the foreign affiliates in the host country. To accommodate the technology imports of foreign affiliates, three alternative measures such as foreign affiliate's payments per employee for imported intellectual property rights, labour productivity levels of the foreign affiliates and the growth rate of labour productivity in the foreign affiliates have been used. A strong effect of the association between industrial rivalry in host economy and import of technology by foreign firms in

the consumer goods industries was found. The fact that foreign MNCs are sensitive to the local market environment when barriers to entry in the forms of complex technology or high capital requirements are comparatively low has also been observed.

Balasubramanyam et al. (1996) examined the role of FDI in the growth process of developing economies which have different trade policy regimes. By using cross section data of 46 developing countries, the hypothesis- advantageous influence of FDI is mightier in those economies which has an outward oriented trade policy than those countries whose policy regime is inward oriented- was tested. It was observed that world market oriented FDI is superior to purely local-market oriented FDI because the former is more in line with comparative cost advantages of host countries.

Blomstrom & Kokko (1998) reviewed the extent of spillover effects of the activities of the multinationals both on the home country and host country. The study is primarily of a conceptual nature. The authors opined that spillover effects are most likely to be happened in host countries where the operations of foreign multinationals may influence local firms in the MNCs own industry as well as firms in other industries. However, for this to be elucidated, the authors didn't get any comprehensive evidence of the exact nature or magnitude of these effects, although it is suggested that host country spillovers vary systematically between countries and industries. It was stated that the positive spillover effects from MNCs to the local firms in the host country may increase with the increase in their local capabilities. It was also stated that it is more difficult to identify the spillovers from MNCs to their home country and it is likely to depend on what activities these firms concentrate at home.

Borensztein et al. (1998) examined the impact of FDI on economic growth using cross-country data from industrial countries to 69 developing countries over two decades (1970-79 and 1980-89). An endogenous model, in which rate of technological progress as the main determinant of long-term growth of income, was developed. The most robust finding of the study is that the effect of FDI on economic growth is dependent on the level of human capital available in the host economy. Some evidences of crowding-in effect, that FDI is complementary to domestic investment were also found. The results suggested that FDI is an important vehicle for transfer of technology, which contributes relatively more to growth than domestic investment.

Aitken & Harrison (1999) observed that increase in foreign equity participation results in the enhancement in the productivity of only small recipient plants with less than 50 employees. The study was conducted using a panel data set of more than 4000 Venezuelan firms between 1976 and 1989. It was also found that increase in foreign ownership negatively affected the productivity of wholly domestically owned firms in the same industry. Overall, the evidences suggested that the net effect of foreign ownership on the domestic economy is quite small.

Agosin & Mayer (2000) addressed mainly the question of whether FDI inflows to host economies crowd in or crowd out domestic investment. By using a panel data set of 32 countries (from three developing regions as Asia, Latin America and Africa) over a period from 1970 to 1996, it was established that in Asia, crowding in is in operation and in Latin America, it is crowding out. In Africa, FDI has increased overall investment one to one during the same period. In the two sub periods of the study (i.e. from 1976 to 1985 and 1986 to 1996) the result varied only for Africa (crowding in occurred). However, it

was not assured whether FDI made any positive impact on domestic investment. It was suggested that simplistic policies towards FDI wouldn't be optimal always.

Berthélemy & Démurger (2000) investigated the relationship between FDI and economic growth in China. Their simultaneous- equation model based on a sample of 24 Chinese provinces disclosed that FDI played a fundamental role in the provincial economic growth in China between 1985 and 1996. Fosfuri et al. (2001) made a model where a multinational firm can use superior technology in a foreign subsidiary only after training a local worker. Technological spillovers from foreign direct investment arise when this worker is later hired by a local firm. Pecuniary spillovers arise when the foreign affiliate pays the trained worker a higher wage to prevent his or her moving to a local competitive firm. The conditions under which an MNE retains the trained worker and which she or he leaves to a local firm were also delineated in the study. The circumstances in which the MNE prefers exporting over investment in the host economy in order to prevent the drain of technology from it have also shown.

Krkoska (2001) addressed the question of how important is FDI in financing the capital formation in transition economies in central and eastern Europe in relation to other forms of enterprise financing like domestic and foreign credit, capital market financing and state subsidies. Variables such as gross fixed capital formation, retained earnings, domestic credit, state subsidies, capital market financing, FDI, foreign credit etc. were used for analysis. It was found that FDI, domestic credit and local capital markets are all important financing sources for capital formation, with FDI having a substantially greater impact than domestic credit and capital market financing, while such a relationship was not obvious in the case of state subsidies and foreign credit.

Blomström & Kokko (2002) carried out a conceptual analysis of the relationship between FDI and human capital. A more complex and non-linear relationship between FDI inflows and human capital formation was found in the host economies and several possible outcomes with the interaction of FDI and human capital in host economies was expected. It was also found that FDI inflows have the potential for knowledge spillovers to the local labour force. However, simultaneously, the host economy's level of human capital decides how much FDI should enter it and the absorptive capacity of the local firms (absorption of potential spillover benefits from FDI inflows) is also determined by the level of human capital prevailing in the host economy. Hence it was expected that host economies with relatively high levels of human capital will be attracting large amounts of technology intensive foreign MNCs and such MNCs will further contribute to the development of labour skills in the host economies. Concurrently, economies with weaker human capital conditions will be attracting lower amounts of FDI inflows, and such MNCs will be using simpler technologies which will contribute only marginally to the local learning and skill development.

Carkovic & Levine (2002) found that the exogenous component of FDI does not exert a robust, independent influence on growth by using the data from 72 countries. Initially, simple Ordinary Least Squares (OLS) regression was used over the 1960-95 period. Secondly, a dynamic panel procedure with data averaged over five year periods, between 1960 and 1995 was carried out. The study has primarily resolved the biases plagued past works on FDI and growth. Campos & Kinoshita (2002) tested the effect of FDI on growth in 25 Central and Eastern European and former Soviet Union transition countries

between 1990 and 1998. It was found that FDI has a positive and significant impact on economic growth in all these countries, in accordance with subsisting theories.

Misun & Tomsk (2002) attempted to examine whether FDI in countries such as Czech Republic, Hungary, and Poland crowds in or crowds out domestic investment. A model of total investment was introduced in the study which assumed foreign investment as an exogenous variable. It was found that between 1990 and 2000, FDI had a crowding-out effect on domestic investment in Poland. From 1990 to 2000 (in Hungary) and between 1993 and 2000 (in Czech Republic), a crowding-in effect of FDI was found. Hermes & Lensink (2003) contended that the extent of progress of financial system of host economies is conclusive for FDI to make positive impact on economic growth. That means, a more developed financial system contributes positively to the process of technological diffusion associated with FDI.

Basu et al. (2003) explored the two-way association between FDI and growth for a panel of 23 developing economies using a panel co-integration framework. The impact of liberalization on the dynamics of the FDI and GDP relationship was also examined. A bidirectional causality between GDP and FDI for economies which are more open was found. For comparatively closed economies, the long run causality is unidirectional which runs from GDP to FDI and it implies that growth and FDI are not mutually contributing under restrictive trade and investment regimes.

Alfaro (2003) showed that the benefits of FDI vary across sectors by examining the effect of FDI on growth in the primary, manufacturing and service sectors, using cross-country data including OECD economies between 1981 and 1999. It was found that the total FDI exerts an ambiguous effect on economic growth. FDI in the primary sector has a negative

effect while the effect is positive in the manufacturing sector. The evidence on the relationship between FDI and service sector is ambiguous.

Kim & Seo (2003) studied about the dynamic relationship between FDI inflows, economic growth and domestic investment in Korea between 1985 and 1999. Both vector auto-regression model and the innovations accounting techniques were employed and it was found that FDI's effect on economic growth is positive, but insignificant. It was also found that economic growth has statistically significant and highly persistent effects on the future level of FDI. Moreover, FDI showed strong dynamic endogeneity to domestic macroeconomic conditions. However, the authors didn't get any evidence which supports that FDI tends to crowd out domestic investment in Korea.

Bengoa & Robles (2003) explored the interplay between economic freedom, foreign direct investment (FDI) and economic growth using panel data analysis for a sample of 18 Latin American countries for 1970 - 1999. It was found that economic freedom in the host country exerts positive influence on FDI inflows. Furthermore, FDI is related positively with the economic growth in the host countries. However, the host country is required to develop sufficient base of human capital, economic stability and liberalized markets to get merits from FDI inflows.

Nunnenkamp & Spatz (2004) concluded that the positive growth effects of foreign direct investment are not guaranteed automatically to developing host economies, by analyzing the FDI stocks in major sectors and specific manufacturing industries in a large number of developing economies originating from the United States. Instead, the host economy and industry characteristics, as well as the interaction between such characteristics affect largely the growth impact of foreign direct investment in developing economies.

Alfaro et al. (2004) examined primarily whether countries with a developed financial system get more benefits from FDI. They employed cross-country data between 1975 and 1995. It showed that FDI alone has an ambiguous role in economic growth. To proxy the banking sector of countries, they incorporated four variables such as liquid liabilities of the financial system, commercial-central bank assets, private sector credit, and bank credit. For bringing the stock market in to picture, they used stock market liquidity and capitalization. Banking sector of 71 countries and stock market of 50 countries have been examined in accordance with the availability of data. They inferred that even if FDI can be attracted through specific policies, the local condition of host countries, especially the position of financial system, matters for getting the desired benefits from FDI. They emphasized that better local conditions not only attract FDI, but also help maximize the benefits from FDI.

Hansen & Rand (2004) analysed the Granger-causal relationship between foreign direct investment and GDP by taking a sample of 31 developing countries between 1970 and 2000. It was found that FDI has a lasting impact on the level of GDP when GDP has no long run impact on the FDI to GDP ratio. Thus, FDI causes economic growth. Choong et al. (2004) investigated the patterns of FDI and economic growth among selected developed and East Asian countries. In particular, the role of the level of development of the domestic financial sector in transferring the technological diffusion embodied in FDI inflows to the chosen countries was examined. The results proved that FDI inflows create positive technological spillovers in the host economy only when the domestic financial system has developed to a certain minimum extent.

Cheung & Lin (2004) found positive effects of FDI on the number of domestic patent applications in China using provincial data from 1995 to 2000. The finding is robust under pooled time series, cross-section data estimation and panel data analysis and for different types of patent applications. It was hypothesized that FDI can benefit innovation activity in the host country via spillover channels such as reverse engineering, skilled labour turnovers, demonstration effects, and supplier - customer relationships. Titarenko (2005) estimated the extent of influence of FDI on domestic investment in Latvia. The econometrics analysis of total investment model showed the evidence of crowding out-long term effect of FDI on domestic investment.

Le & Suruga (2005) studied the simultaneous impact of public expenditures and FDI on economic growth. A sample of 105 developing and developed countries for the period 1970-2001 was used. It was found that FDI, public capital and private investment play important roles in promoting economic growth while public non-capital expenditure has a negative impact on economic growth. Besides, excessive spending in public capital expenditure can hinder the beneficial effects of FDI.

Li & Liu (2005) investigated whether FDI inflows affect growth of economy by using a panel data set of 84 countries for the period ranging from 1970 to 1999. Both single equation and simultaneous equation system techniques were used. A significant endogenous relationship between FDI and economic growth was identified from the mid-1980s onwards. Besides, it was found that the interaction of FDI with human capital base in the host economy exerts strong positive influence on economic growth and host economies with technology gap get negative influence of FDI inflows on their economy.

Apergis et al. (2006), by using panel integration and co-integration tests for a dynamic heterogeneous panel of 30 countries (from all continents), examined the linkage between FDI inflows and domestic investment. It was found that there is a significant two way dynamic relationship between FDI and domestic investment. Velde (2006) examined the trends in the relationship between FDI and development in an historical context and the study is essentially in a conceptual nature. The author emphasized that the countries of the world have realized FDI as a factor contributing to their development efforts in the recent decades of the study.

Vo & Batten (2006) looked over the linkage between FDI and economic growth. Principally, it was examined whether the relationship between these two changes in different legal, educational, institutional and economic conditions. It was unearthed that FDI strongly and positively exerts influence on economic growth in countries with higher rate of education attainment, openness to international trade, and stock market development, and lower level of population growth and lower risk. Four variables were used to proxy FDI such as FDI inflows as a share of GDP, Gross FDI inflows as a share of GDP, stock of FDI inflows as a share of GDP, and gross stock of FDI as a share of GDP. It was found that countries should not only liberalize their economies towards cross border investment but also have to improve their social set ups like education, law, institutions etc. in order to get full advantage from FDI.

Herzer et al. (2006) challenged the widespread belief that FDI contributes to growth positively in developing countries. The limitations of the existing literature were addressed and re-examined the FDI-led growth hypothesis for 28 developing countries using co-integration techniques on a country-by-country basis. It was found that in

majority of the countries, FDI has no statistically significant long-run impact on growth. Positive long-run and short-run impact of FDI on growth was recorded only in very few cases.

Johnson (2006) modeled the capability of FDI inflows to affect host country economic growth. It was contended that FDI should have a positive effect on economic growth as a result of technology spillovers and physical capital inflows. By performing both cross-section and panel data analysis on a data set comprising 90 countries between 1980 and 1992, it was found that FDI inflows augment economic growth in developing countries; not in developed countries.

Vu et al. (2006) estimated the impact of FDI on growth using sectoral data for FDI inflows to China and Vietnam. It was found that for both the countries, FDI has statistically significant positive effects on economic growth operating directly and through labour productivity. It was also found that the effect of FDI is very different across economic sectors with majority of the beneficial impact is limited to manufacturing. Other sectors gain very little growth benefit from sector-specific FDI.

Aizenman & Noy (2006) examined the linkages between capital flows and trade with disaggregated measures of both by utilizing regression and a two-way feedback analyses. The authors obtained consistent results with the earlier findings that the feedback effects between trade and FDI are stronger in developing than in industrialized countries. It was also found that in the time of rapidly growing trade integration, countries cannot choose their capital account policies independently of their degree of openness to trade.

Khaliq & Noy (2007) analysed the direct effect of FDI on economic growth in different sectors in Indonesia with the use of a fixed effect estimation technology. Annual data

from 12 sectors during 1998 to 2006 was used. It was found that, at the aggregate level of the economy, FDI has some positive effects on growth. But at the sectoral level, the effects of FDI on economic growth vary. It means, while some sectors benefit positively from FDI, others derive negative impacts.

Tang et al. (2008) examined the causal link between FDI, domestic investment and economic growth in China for the period 1988-2003. Multivariate Vector Auto-regression (VAR) system with Error Correction Model (ECM) and the innovation accounting (Variance Decomposition and Impulse Response Function Analysis) techniques were employed for estimation. It was found that while there is a bi-directional causality between domestic investment and economic growth, there is only single-directional causality from FDI to domestic investment and to economic growth. Thus, in China, besides assisting to overcoming the shortage of domestic capital, FDI has also given impetus for economic growth by complementing domestic investment.

Noormamode (2008), by using a panel data set of 58 countries over a period of 1988 to 2004, attempted on analysing the causality between FDI and economic growth by controlling the influence of social and macroeconomic variables within a tri-variate framework. The author, however, didn't receive any clear cut evidence on the growth effects of FDI. Ndikumana & Verick (2008) analysed the two-way linkages between FDI and domestic investment in Sub-Saharan Africa. It was found that firstly, FDI crowds in domestic investment, and secondly, countries will get advantageous effects from measures aimed at improving the domestic investment climate.

Thilakaweera (2009) examined the long run relationship and causality between real per capita GDP, foreign direct investment (FDI) and the level of the infrastructure in Sri

Lanka over the period 1980 to 2011. The results demonstrated that there is a long-run relationship between real per capita GDP, foreign direct investment and the level of infrastructure. Besides, one way causality existed from infrastructure to FDI during the period. Wang (2009) studied the diverse effects of sector-level FDI inflows on host country's economic growth in 12 Asian economies over the period of 1987 to 1997. It was found that FDI in manufacturing sector has a noteworthy and constructive effect on economic growth while FDI inflows to non-manufacturing sectors do not have any role in economic growth.

Chee & Nair (2010) examined whether financial sector development is an important precondition for FDI to enhance economic growth in the Asia-Oceanic region. Panel data estimation methods like fixed effects and random effect have been used for analysing a sample of 44 Asia and Oceania countries for the period 1996-05. The empirical analysis showed that financial sector development enhances the contribution of FDI on economic growth in the region.

Anwar & Nguyen (2010) examined the link between FDI and economic growth in 61 provinces of Vietnam by using a panel data set ranging from 1996 to 2005. Their analysis utilizing a simultaneous equation framework disclosed that, by and large, there exists a bi-directional causality between FDI and economic growth. However, the influence of FDI on economic growth will be higher with the increase in the investment of resources in education sector and training, financial market development etc. Moreover, focus must also be paid in order to reduce the technological gap between foreign and domestic firms.

Ramirez (2010) investigated whether FDI flows had a positive and significant effect on Latin America's private investment spending over the 1980-2002 period. By employing

panel unit root and panel co-integration analysis, it was found that gross FDI, public investment spending, and real credit to the private sector have a positive and significant effect on private capital formation.

Wijeweera et al. (2010) estimated the relationship between FDI and the rate of growth of GDP using a stochastic frontier model and employing panel data covering 45 countries over the period 1997 to 2004. It was found that FDI inflows exert a positive impact on economic growth only in the presence of a highly skilled labour.

Barrios et al. (2011) questioned the validity of some basic assumptions in the previous studies about the spillovers from FDI through backward linkages using plant level data from Ireland between 1990 and 1998. These assumptions are (i) multinationals use domestically produced inputs in the same proportion as imported inputs, (ii) multinationals have the same input sourcing behavior as domestic firms, irrespective of their country of origin, (iii) the demand for locally produced inputs by multinationals is proportional to their share of locally produced output. Using the standard measures used in the literatures, the authors failed to find any spillovers through backward linkages. However, when substitute measures of backward linkages that relaxed all the above assumptions were used, evidences for positive FDI backward spillover effects in host countries were received.

Adhikary (2011) reviewed the association between FDI, trade openness, capital formation, and economic growth rates in Bangladesh between 1986 and 2008 (time series data). To reach at empirical results, the Johansen-Juselius procedure followed by VECM was used. A strong-unidirectional long-term causal flow from changes in FDI, trade openness and capital formation to the economic growth rates of Bangladesh was

identified. It was also found that the volume of FDI inflows and level of capital formation have significant positive effect on changes in real GDP in Bangladesh. Concurrently, the degree of trade openness has a negative, but diminishing effect on GDP growth rate.

Adeniyi et al. (2012) checked the causal linkage between FDI and economic growth in certain small open developing economies like Ivory Coast, Gambia, Ghana, Nigeria and Sierra Leone between 1970 and 2005 by applying Granger causality tests in a VEC setting. Three alternative measures for financial sector development such as total liquid liabilities, total banking sector credit and credit to the private sector were used. It was found that a progressed financial sector is needed for the FDI to record economic growth in Ghana, Gambia and Sierra Leone while in Nigeria, there is no evidence of any short- or long-run causal flow from FDI to growth.

El-Wassal (2012) examined the association between FDI and economic growth in a group of 16 Arab countries from 1970 to 2008. It was found that the impact of FDI on economic growth in Arab countries is limited, using a dynamic panel approach. It was also revealed that factors such as financial development, trade openness, human capital and infrastructure quality etc. are not significantly playing a role in improving Arab countries' capacity to reap growth benefits from FDI.

Al-Sadig (2013) observed the outcomes of FDI inflows on private investment in developing host countries. A panel data for 91 developing host countries over the period 1970-2000 was used and employed the system generalized method of moments for estimation. It was found that FDI stimulated private domestic investment which held up the 'crowd-in-hypothesis'. The analysis conducted after the grouping of countries on the

basis of level of income disclosed that the positive effects of FDI on private investment in low-income countries depend on the availability of human capital.

Dash & Parida (2013) examined the linkages between inward FDI, service trade (export and import) and economic output using co-integration and VECM causality test. These linkages were explored both at the aggregate and sectoral levels (manufacturing and services). Empirical findings from the study confirmed the long run association among these variables. Causality results indicated the presence of bi-directional causal relationship between FDI and economic output as well as between service exports and economic output. The results also brought out feedback relationship between service export and FDI, which reconfirmed the presence of complementary relationship between the two.

Sghaier & Abida (2013) checked the causal linkage between FDI, financial sector development in a panel of four countries in North Africa namely Tunisia, Morocco, Algeria and Egypt between 1980 and 2011. With the usage of Generalised Method of Moment (GMM) Panel data analysis, strong evidence of a positive association between FDI and economic growth was found. It was also found that a developed financial system in the host country is a prerequisite for FDI to contribute to economic growth.

Alfaro (2014) showed through a conceptual framework that FDI's positive impact on the host economy is not exogenous, but is influenced by certain local conditions prevailing in the host economy. It was delineated that complementarities such as competitive environment to ensure that market share is allocated to the most productive firms or developed financial markets to ensure that vertical supply relations develop into meaningful linkages- can act as "absorptive capacities" to facilitate the benefits from

FDI. The implication of the study is that FDI can play important role in economic growth but local conditions matter and can limit the extent to which benefits of FDI materialize.

Coniglio et al. (2014) analysed the relationship between foreign ownership and employment using firm-level data set from 19 Sub-Saharan African (SSA) countries. It was found that even if foreign firms are generally larger, the jobs they generate are relatively less skill intensive compared to those generated by domestic firms. Tang (2015) examined the effect of foreign capital flows on the economic growth of European Union (EU) from 1987 to 2012. It was found that the higher FDI and FPI received by European Monetary Union (EMU) have not contributed to growth.

Yusoff & Nuh (2015) in a study conducted to examine whether FDI and international trade have positively contributed to the economic growth in Thailand, found that both are stimulating growth in the country. Elkomy et al. (2015) investigated the role of income levels and political development in determining the magnitude of FDI - growth effects for a panel of 61 emerging and developing countries for the period from 1989 to 2013. It was found that the effects of FDI varying substantively. There is stronger growth effect of FDI in low income countries and weaker negative effects in upper-middle income countries. For more democratic countries, human capital is a more important driver of growth than FDI but this is the outcome of strongly positive interaction effects between FDI and human capital outweighing negative effects for human capital on its own. The study also provided support for the view that a critical threshold of human capital is required to generate beneficial spillover growth effects from inflows of FDI.

Goldar & Sharma (2015) examined the belief that FDI in the industrial firms in developing countries has a positive productivity enhancing effect on domestic firms. The

analysis has been done using an unbalanced panel data set consisting of 775 manufacturing companies between 2000-01 and 2011-12. The study considered growth, profitability and export intensity as performance indicators. However, the results didn't show any significant effect of FDI on growth and export performance of domestic firms. Nevertheless, they got a weak evidence that FDI tends to raise the profitability of Indian manufacturing firms after two or three years.

Pegkas (2015) carried out a study to analyze the relationship between FDI and economic growth and to estimate the effect of FDI on economic growth in the Euro-zone countries over the period of 2002 to 2012 by making use of panel data. It was revealed that there is a positive long-run co-integrating relationship between FDI stock and economic growth. Besides, it was also estimated that the stock of FDI is a significant factor that positively affects economic growth in the Euro-zone countries.

Azeroual (2016) analysed whether the impact of FDI from France and Spain on the Total Factor Productivity (TFP) in the manufacturing industrial sector in Morocco is different using GMM in dynamic panels for a subset of 22 branches of the manufacturing sector between 1985 and 2012. The results indicated that the impact of French FDI on the TFP is negative and significant in medium and high level technology industries. As regards Spanish FDI, the impact on TFP is positive and significant in all levels of manufacturing.

Masron & Hassan (2016) attempted to investigate the spillover effects of US FDI on Malaysian economy. By applying Seemingly Unrelated Regression (SUR) method, the study observed that there is no guarantee that FDI inflows into various sectors within manufacturing industry in Malaysia will generate positive externalities. Dritsakis & Stamatiou (2016) investigated the prominence of budget deficit and FDI on economic

growth in Baltic countries². A panel data set for all the three countries in the Baltic region from 1995 to 2012 was used. Panel unit root test, panel co-integration methods and panel causality test through the VECM were applied. Empirical findings disclosed the positive and significant long-run relationship between foreign direct investment and economic growth in Baltic countries. In contrast to that, a negative relationship between budget deficit and economic growth was found. Besides, the causality results showed that both in the short and long-run, there exists unidirectional causal relationship from foreign direct investment to economic growth as well as from budget deficit to economic growth. Results also indicated that the transition countries, which implement the privatization programs successfully, attract foreign direct investment faster which in turn promotes economic growth. Adams et al. (2016) analysed whether the inflow of foreign capital promotes domestic investment in 25 SSA countries. FDI and external debt were used as proxies for foreign capital flows and data was estimated using Pooled Mean Group (PMG) estimator over the period 1981-2010. It was found that FDI positively impacts while external debt affects domestic investment negatively in the long run.

Alfaro & Chauvin (2017) studied about the FDI, finance and economic development in host economies in a more conceptual nature. They reviewed the empirical literature by primarily addressing the question ‘How does FDI affect economic development of host countries and what is the role of local financial markets in mediating the potential benefits?’ They concluded that greater microeconomic benefits from FDI spillovers, positive linkages, and competitive pressures are more likely to accrue in economies with well-developed financial markets where local firms can respond to these opportunities and competitive threats via investments that increase their productivity.

²The countries those have shorelines along the Baltic Sea.

Rasiah et al. (2017) revisited the argument of causality relationship between net FDI inflows and GDP among the pioneering Association of Southeast Asian Nations (ASEAN-5³) members using data from 1970 till 2013 by using the FMOLS regressions and the VEC model. Their results showed that causality exists only with Thailand but the relationship is negative. In Thailand, growth in GDP makes FDI outflows, but not FDI inflows.

Carbonell & Werner (2018) analysed the influence of FDI on the economy of Spain and found that FDI didn't contribute anything positively to the growth of the economy of Spain during 1984 to 2010. They used estimation methods like OLS, Two-stage least squares etc. for analysis and used a wide range of variables including FDI inflows, nominal GDP, productive credit creation, bank lending etc.

Nilofer & Qayyum (2018) determined the role of three types of investment i.e. public, private and FDI in the growth of Pakistan economy with a special focus on the contribution of FDI in GDP growth of the Pakistan. Co-integration analysis of time series data was done. ARDL approach has been used to analyze the long run relationship between GDP growth, investment and government expenditure for Pakistan using data (from 1970 to 2015). The results indicated that while public and private investment and lending rate have a positive impact on growth, public consumption and FDI decelerated GDP growth.

In the realm of India, the following studies have been taken place regarding the influence of FDI inflows.

³Malaysia, Indonesia, Philippines, Singapore and Thailand.

Dua & Rashid (1998) examined the association between FDI and economic activity in India in the post liberalization period. Their Granger causality test and innovation accounting analysis provided the result that both the approved and actual FDI flows to the country responded to the level of industrial production. However, actual FDI flows did not Granger-cause industrial output. Chhibber & Majumdar (1999) investigated the data of 1001 private sector firms in India in the pre and post reform periods and observed that foreign ownership had no effect on a firm's performance in the pre reform period. Nevertheless, foreign ownership positively influenced firm performance in the post reform period, mainly after allowing foreign ownership in the domestic firms up to 51 per cent.

Sharma (2000) investigated the determinants of export performance in India in a simultaneous equation framework using time series data from 1970-98. Basically, the author sought whether FDI had been a key factor in boosting the export performance in India. The results suggested that demand for Indian export increased when its export prices fell in relation to world prices. Appreciation occurring in the rate of rupee adversely affected India's exports and export supply is positively related to the domestic relative price of exports. Higher domestic demand reduced export supply. Relationship between FDI and India's export is that, FDI plays no significant role in the variation in the volume of India's exports, though the coefficient of FDI on exports is positive.

Aggarwal (2001) analysed using panel data, the inter-firm determinants of export performance in the Indian manufacturing in the late 1990s with two hypothesis viz. in a liberalized regime, MNE affiliates perform markedly better than local firms in the export markets and MNE affiliates have greater comparative advantages in high-tech than in

low- and medium-tech industries. The study used Tobit model (censored regression model) estimation technique and it supported the first hypothesis. However, the author didn't get strong evidence to suggest that India is attracting efficiency-seeking outward oriented FDI. Even firms with higher foreign equity participation have not performed better than domestic firms. The results also showed that high-tech industries are not attracting efficiency seeking FDI as expected. The two major implications of the result are: one, the Indian economy is not fully integrated with the global economy and that the existing industrial and technological capabilities need reorientation to attract efficiency seeking FDI; two, India's competitive advantages still lie in low-tech sectors. There have not been dynamic changes in the export structure even after liberalization.

Chakraborty & Basu (2002) explored the two-way link between FDI and growth for India using a structural co-integration model with VECM. It was found that the causality runs more from GDP to FDI and not from FDI to GDP in India, India's liberalization regime has made some positive short run impact on the FDI flow and FDI in India is labour displacing.

Kathuria (2002) tested two hypotheses. The first one is whether liberalization has improved the productivity of local firms in India and the second one is, whether the spillovers from the technology transfer have increased in the liberal regime in India. For testing these, the author employed techniques from panel data and stochastic production frontier on 487 firms for the period from 1989-90 to 1996-97. Thus, it was found that the productivity of Indian industry, especially the foreign owned firms has improved after liberalization.

Banga (2003) highlighted the export-diversifying impact of FDI in India in the post liberalization period. The study utilized both industry level and firm level data between 1994-95 and 1999-00. For industry level analysis, a panel data set consisting of 74 disaggregated manufacturing industries was used. The results demonstrated that FDI has prominent effect on the export-intensity of industries in the non-traditional export sector and to a certain extent, led to diversification in India's exports. In the non-traditional export sector, however, only US FDI has a positive and significant effect on export-intensity while Japanese FDI has no significant influence. FDI has no impact on the export-intensity of the industry in the traditional export sector and when taking the aggregate manufacturing sector. A panel data set consisting of 1448 domestic firms has been used for firm level analysis in the study. It showed that U.S. firms have larger spillover effects on the exports of the domestic firms as compared to Japanese firms.

Pradhan et al. (2004) analyzed the role of FDI in two important labour market outcomes, in determining the wage rate and employment performance in Indian manufacturing. It was found that foreign firms have no adverse effects on the manufacturing employment in India and instead, they pay relatively higher to the workers. Kathuria (2004) examined the impact of increased FDI flows on the R&D investment of manufacturing firms in medium- and high tech industries in India. The study has a conjecture that increased FDI to India has brought down the quantity of R&D in the manufacturing firms in India. This was tested for two time periods, 1994–1996 (just after foreign entry regulations were relaxed) and 1999–2001 (after a second period of reforms in 1997). During 1994-1996, the inflow of FDI had a negative impact on R&D investment by Indian manufacturing firms, but no significant effect in 1999-2001.

Mathiyazhagan (2005) examined the long run association of Foreign Direct Investment (FDI) with the Gross Output (GO), Export (EX) and Labour Productivity (LPR) in the Indian economy at the sectoral level by using the annual data from 1990-91 to 2000-01. The results of the study demonstrated that flow of FDI has raised the output, labour productivity and export in some sectors but a better role of FDI at the sectoral level is still expected. There is no significant co-integrating relationship among the variables like FDI, GO, EX and LPR in core sectors of the economy.

Kumar & Aggarwal (2005) analysed the determinants of R&D behavior of Indian enterprises over the 1990s in the context of the reforms of 1991 and their impact on the R&D behavior of MNE affiliates and local enterprises. The analysis suggests that although average levels of spending have fallen, increased competition due to liberalization seems to have pushed local firms to rationalize their R&D activity and make it more efficient. Also, R&D spending seems to rise more than proportionally with firm size after a certain threshold level has been reached. The analysis brings out differences in the nature of R&D activity of MNE affiliates and local firms. Local firms direct their R&D activity primarily towards the assimilation of imported technology, and to providing a backup to their outward expansion via exports and FDI. MNE affiliates, on the other hand, focus on exploiting the advantages of India as an R&D platform for their parents.

Kamalakanthan & Laurenceson (2005) examined essentially the role of foreign capital in the income growth of both India and China by revisiting the Krugman's contention that foreign capital can hardly be considered an important income growth driver, when in most developing countries it only accounts for a fractional share of gross capital

formation. They explored out that foreign capital accounts only for a small size of the gross capital formation in both India and China.

Chakraborty & Nunnenkamp (2006) identified the growth effects of FDI in India by putting industry-specific FDI and output data in a panel co-integration substructure. They found that the growth effects of FDI differ widely across various sectors. They found a causal relationship between FDI stock and output in the manufacturing sector, while such a relationship is not in existence in the primary sector. Similarly, they found only some transient relationship between FDI and output in the service sector, to which most of the FDI flowed after reforms. They also found that, for the whole Indian economy, FDI and output are co-integrated in the long run. The impact of output growth in attracting FDI is greater than that of the power of FDI in fetching economic growth.

Nunnenkamp & Stracke (2007) analysed two major issues related to FDI and regional development in India in the post reform period. First, they analysed the location choice of foreign investors in India. Their evidences indicated that the concentration of FDI in a few relatively advanced regions in India may have prevented the effects FDI from spreading across the Indian economy. Secondly, they analysed whether the link between FDI and economic growth has become strong after reforms. It was found that various types of FDI have positively correlated with the growth of per-capita income across Indian states. However, it is only for richer states, FDI seemed to be associated with growth. It was concluded that FDI is likely to increase regional income disparity in India. Saji (2013) examined the causal relationship between FDI and economic growth in India under a framework of Johansen's Co-integration based on 21 years of data from the post reform period. The author found that there is a strong positive relation between FDI and

economic growth in India. Sundari (2014) investigated the causal nexus between FDI and economic growth in India by using Granger causality test with annual data from UNCTAD between 1995 and 2013. The author found a positive relationship from GDP to FDI.

Sahu & Solarin (2014) analysed the spillover effects from FDI using firm level panel data of Indian manufacturing firms between 2000-01 and 2009-10. The study used the IMF guideline of 10 percentages promoter's holdings to classify the manufacturing firms on the basis of foreign and domestic. They found a marginal and positive impact of FDI on productivity spillovers. Their findings show a significant impact of FDI on output growth. This indicates that any increase in foreign equity at the firm and sector level directly affects productivity.

Malik (2015), by hypothesizing that the incidence of technology spillovers from FDI is conditional upon the technology content of domestic firms and structure of foreign ownership in affiliates, found that there is occurrence of technology spillovers to Indian firms via backward linkages from foreign firms. The paper asserted that firms in high technology industries benefit more from technology spillovers compared to others. It also observed that minority-owned foreign firms are more prone to technology spillovers than majority-owned foreign firms. Nonetheless, it is observed that the majority-owned foreign firms benefit only firms in high technology industries.

Agarwal & Atri (2015) empirically analysed the influence of FDI flows on poverty in India for the period 1980-2011. For rendering more dimensions to India's performance, they also analysed the link between FDI flows and poverty for the South Asian Association for Regional Co-operation (SAARC) countries. The authors found that FDI

inflows in to India contributed to increase in poverty while FDI inflows became a cause for significant reduction in poverty in other SAARC countries. The authors got a contradictory result on Impact of FDI outflows on India compared to other SAARC countries. They got the result that FDI outflows contributed to significant reduction of poverty in India while it is not the case in the other SAARC countries.

Ghosh & Roy (2015) investigated the impact of FDI on firm-level labour demand in India. It is based on the hypothesis that FDI inflows and MNE participation during the post reforms period have serious implications on the labour market. This paper specifically estimated the impact of ownership, labour productivity and technology acquisition on firm level employment across industries after 2000. Their Hausman-Taylor estimation results demonstrated that foreign ownership plays no significant role in determining firm level labour demand in Indian manufacturing.

Pradeep et al. (2017) checked the direct and indirect spillover effects from research and development, exporting activities and FDI on the productivity of foreign and domestic manufacturing firms. Their empirical model utilizes data from 1000 Indian manufacturing firms during the period of 1994 and 2008 and they made use of GMM and system-GMM (sys-GMM) for analyzing their balanced panel. They found that foreign presence has a significant positive spillover effect on the productivity of Indian manufacturing firms when compared to alternative spillovers from R&D and export initiatives. They also found that spillovers may vary between FDI and non-FDI firms and with the technological advances of industries.

Sinha et al. (2018) examined the effect of FDI inflows on the growth of industrial sector between 2009 and 2015 in India by using a dynamic panel model with monthly data.

They formed a balanced panel for three basic industrial sectors, namely mining and quarrying, manufacturing and electricity over the entire period. They found that FDI significantly enhances production growth in Indian industries.

Malik (2018) examined the employment effects of FDI in India's manufacturing firms. The author has employed 54 three-digit industries from the Annual Survey of Industries (ASI) of India for the period from 2008-09 to 2015-16. An extended dynamic labour demand model through the System-Generalized Method of Moment developed by Blundell and Bond (1998) has been used for estimation. The author did not observe any considerable impact of FDI on employment in the manufacturing industries in India. Even after controlling for the nature of employees, FDI inflow is not found to have any significant effect on domestic demand for labour in Indian manufacturing industries. Thus, the author does not consider FDI as an important channel for employment generation in the manufacturing industries in India.

The following table (Table 2.1) shows the major findings gathered from the survey of literature.

Table 2.1
Major Findings from the Review of Literature

Sl No	Author/Authors	Major Findings	Country/Region
Category 1. Determinants of FDI Inflows to Countries/Regions across the Globe			
A. Host Economies other than India			
1	Schneider & Frey (1985)	High real per capita GNP and low balance of payment deficit in the host economies are the economic determinants of FDI inflows.	Cross-Country
2	Cassou (1997)	Home and host country corporate tax rates as well as their income tax rates determine FDI inflows.	Cross-Country
3	Noorbakhsh et al. (1999)	Human capital is a most important determinant of FDI inflows	Developing Countries
4	Fazekas (2000)	FDI is attracted to regions where unemployment is lower due to better educational levels	Hungary
5	Blomström&Kokko (2001)	Host economies with high levels of human capital will attract large technology intensive foreign MNCs and they will contribute to the development of labour skills in the host economies.	Cross-Country
6	Asiedu (2002)	Factors affecting FDI inflows to SSA countries are different from non-SSA countries to a small extent.	Sub-Saharan African (SSA) Countries and some non-SSA countries
7	Shotar (2002)	FDI is attracted by government spending and GDP.	Qatar
8	Banga (2003)	Fiscal incentives do not have impact on FDI, but removal of restrictions attracts FDI. Bilateral Investment Treaties (BITs) have significant effect on the FDI inflows to developing countries.	Developed and developing countries
9	Kandiero & Chitiga (2003)	FDI to GDP ratio responds well to increased openness in the whole economy and in the service sector in particular	African Countries
10	Janicki & Wunnava (2004)	Size of the host economy, host country risk, labour costs in host country, and openness to trade etc. are the key determinants of FDI inflows	Central and East European Candidate (CEEC) Economies
11	teVelde & Bezemer (2006)	Membership of a host economy as such in any regional integration will not augment FDI inflows. But if the host economy is equipped with some minimum level of trade and investment provision and is a member of any regional integration, brings FDI to that particular country.	Developing countries
12	Asiedu (2005)	Factors such as large local markets, natural resource endowments, good infrastructure etc. attract FDI.	African Countries
13	Quere et al. (2005)	Public efficiency is a major determinant of inward FDI.	Developing countries
14	Busse & Hefeker (2005)	Government stability, the absence of internal conflict and ethnic tensions, basic democratic rights etc. are highly significant in determining FDI inflows.	Developing countries
15	Xing (2006)	The devaluation in the Chinese Yuan played a key role in hiking FDI from Japan.	China

16	Udo & Obiora (2006)	High per capita income, better infrastructure and political stability determines FDI inflows.	West African Monetary Zone (WAMZ) Countries
17	Sahoo (2006)	Market size, labour force growth, infrastructure index and trade openness are determinants of FDI inflows.	South Asia
18	Mottaleb (2007)	Large GDP and high GDP growth rate, business friendly environment and modern communication facilities encourage FDI inflows.	Low income and lower-middle income countries
19	Wahid et al. (2009)	Abundance of natural resources, trade openness, size of market, human capital etc. played positive and significant role in attracting FDI inflows.	African Countries
20	Bellak & Leibrecht (2009)	Tax-lowering influenced foreign firm's location decisions.	Central and East European host countries (CEECs)
21	Dhakal et al. (2010)	Exchange rate volatility has a favorable effect on FDI inflows.	East Asian Countries
22	Khachoo & Khan (2012)	Market size, total reserves, infrastructure and labour costs are the main determinants of FDI inflows.	Developing countries
23	Hussain & Kimuli (2012)	Market size is the most important determinant.	Low income and lower-middle income countries
24	Lautier & Moreaub (2012)	Domestic investment is highly significant in attracting FDI inflows	Developing countries
25	Liargovas & Skandalis (2012)	Trade openness is a significant determinant of FDI inflows	Developing countries
26	Cleeve et al. (2015)	Human capital significantly influences FDI inflows	Sub-Saharan African (SSA) countries
27	O'Meara (2015)	Traditional variables like size and scale of economic activity in the host countries are more significant rather than the new variables like economic freedom, tax incentives, human capital etc.	Cross-country
28	Ibrahim & Abdel-Gadir (2015)	FDI flows in Oman are positively influenced by the market size and natural resources, and negatively by inflation rate and degree of openness.	Oman
29	Hanafy (2015)	Domestic private investment, well-functioning Free Zones, and labour abundance affected advent of FDI inflows.	Egypt
30	Prashar (2015)	Market size is the common factor which brings FDI inflows.	India and China
31	Yong et al. (2016)	The motive of FDI in the eastern region is efficiency seeking while that to the central and western regions is market seeking.	China
32	Asongu et al. (2018)	Market size, infrastructure availability and trade openness play an important role in attracting FDI	BRICS (Brazil, Russia, India, China and South Africa) and MINT (Mexico, Indonesia, Nigeria and Turkey) countries
33	Hsu et al. (2019)	Significant impact of market size and geographic location and insignificant impact of tax incentives on FDI inflows.	China

B. India Based Studies			
1	Bajpai& Sachs (2000)	Restrictive FDI regime, lack of clear cut and transparent sectoral policies for FDI, high tariff rates, lack of decision-making authority with the state governments etc. make India an unattractive destination of FDI.	India
2	Menon & Sanyal (2005)	Foreign investors tend to veer away from states that have high incidences of labour conflict.	India
3	Aggarwal (2005)	Rigid labour markets discouraged FDI inflows.	India
4	Sury (2008)	Expected national income, tax rate, trade openness and labour cost etc. significantly affected FDI inflows.	India
5	Dutta & Sarma (2008)	Ongoing liberalization and developing infrastructure will give future impetus for FDI inflows.	India
6	Lai & Sarkar (2011)	Low wage rates in India attract more FDI.	India
7	Mukherjee (2011)	Market size, agglomeration effects, infrastructure, size of manufacturing and services base have significant and positive effect on FDI inflows to particular states in India.	India
8	Pradhan (2012)	Power availability, domestic investment and profit attract FDI inflows.	India
9	Pillai & Rao (2013)	Transnational attributes (import, export, trade balance and FOREX reserve), stability, investor's confidence and institutional factors determine FDI inflows.	India
10	Kaur& Sharma (2013)	Openness, reserves, GDP and long-term debt have positive effect while inflation and exchange rate have negative effect on FDI inflows.	India
11	Chatterjee et al. (2013)	Both physical and social infrastructure has no bearing on bringing FDI to Indian states. Interstate variations in the FDI inflows in India occur mainly because of the variability in the level of profit made by the existing enterprises.	India
12	Bickenbach et al. (2013)	Increased regional concentration of FDI.	India
13	Sanghi&Patni (2014)	Market size and infrastructure positively influences FDI to various regions in India.	India
14	Mahalakshmi et al. (2015)	FDI inflow is affected by GDP and real effective exchange rate.	India
15	Gupta (2017)	Variations in the human capital base do not explain the differences in FDI inflows across states, instead, size of market, availability of cheap labour, and infrastructure affect FDI distribution.	India
Category 2. Role Played by FDI in Countries/Regions across the Globe			
A. Host Economies other than India			
1	Borensztein et al. (1998)	Effect of FDI on economic growth is dependent on the level of human capital available in the host economy.	Cross-country
2	Berthelemy & Demurger (2000)	FDI played a fundamental role in the provincial economic growth in China.	China
3	Krkoska (2001)	FDI, domestic credit and local capital markets are important financing sources for capital formation. FDI has a greater impact than domestic credit and capital market financing, while such a relation is not found for state subsidies and for foreign credit.	Cross-country
4	Campos & Kinoshita	FDI has positive impact on growth.	Transition Economies

	(2002)		
5	Carkovic & Levine (2002)	FDI does not exert a robust, independent influence on growth.	Cross-country
6	Misun & Tomsk (2002)	Crowding out effect of FDI in Poland and crowding in effect both in Czech Republic and Hungary.	Czech Republic, Hungary, and Poland
7	Hermes & Lensink (2003)	A more developed financial system contributes positively to the process of technological diffusion associated with FDI.	Cross-country
8	Basu et al. (2003)	Bidirectional causality between GDP and FDI for economies which are more open.	Developing countries
9	Alfaro et al. (2003)	The local condition of host countries, especially the position of financial system, matters for getting the desired benefits from FDI.	Cross-country
10	Alfaro (2003)	The total FDI exerts an ambiguous effect on economic growth. FDI in the primary sector has a negative effect while the effect is positive in the manufacturing sector. The evidence she got about the relationship between FDI and service sector is ambiguous.	Cross-country
11	Kim & Seo (2003)	FDI does not crowd out domestic investment.	Korea
12	Bengoa & Robles (2003)	FDI is positively associated with economic growth. However, the host country's domestic situation is to be improved in order to draw merits from FDI inflows.	Latin America
13	Nunnenkamp & Spatz (2004)	To derive the growth benefits from FDI inflows, the host country needs to have some basic characteristics.	Developing countries
14	Hansen & Rand (2004)	FDI causes economic growth.	Developing countries
15	Cheung & Lin (2004)	Found positive effects of FDI on the number of domestic patent applications.	China
16	Choong et al. (2004)	FDI inflows create positive technological spillovers in the host economy only when the domestic financial system has developed a certain minimum extent.	Developed and East Asian countries
17	Li & Liu (2005)	FDI positively and significantly influences economic growth.	Cross-country
18	Titarenko (2005)	FDI crowded out domestic investment.	Latvia
19	Apergis et al. (2006)	Significant two way dynamic relationship between FDI and domestic investment.	Cross-country
20	Vo & Batten (2006)	FDI strongly and positively exerts influence on economic growth in countries with higher rate of education attainment, openness to international trade, and stock market development, and lower level of population growth and lower risk.	Cross-country
21	Vu et al. (2006)	FDI has statistically significant positive effects on economic growth operating directly and through labour productivity.	China and Vietnam
22	Ndikumana & Verick (2008)	FDI crowds-in domestic investment.	Sub-Saharan African (SSA) Countries
23	Tang et al. (2008)	FDI influences economic growth by complementing domestic investment.	China
24	Wang (2009)	FDI in manufacturing sector alone has a significant and positive effect on economic growth.	Asian Countries
25	Chee & Nair (2010)	Financial sector development enhances the contribution of FDI on economic growth in the region.	Asia and Oceania countries
26	Anwar & Nguyen (2010)	Bi-directional causality between FDI and economic growth.	Vietnam

27	Ramirez (2010)	FDI has a positive and significant effect on private capital formation.	Latin America
28	Wijeweera et al. (2010)	FDI positively affects economic growth only if the host country has skilled labour force.	Cross-Country
29	Adhikary (2011)	A strong-unidirectional long-term causal flow from changes in FDI, trade openness and capital formation to the economic growth rates.	Bangladesh
30	El-Wassal (2012)	FDI is not significantly contributing to growth.	Arab Nations
31	Al-Sadig (2013)	FDI stimulated private domestic investment.	Developing countries
32	Goldar & Sharma (2015)	No significant effect of FDI on growth and export performance of domestic firms.	Developing countries
33	Yusoff & Nuh (2015)	FDI and international trade stimulate growth.	Thailand
34	Tang (2015)	FDI and FPI have not contributed to growth.	European Union
35	Pegkas (2015)	Stock of FDI significantly and positively affects economic growth.	Euro-zone
36	Adams et al. (2016)	FDI positively affects domestic investment.	Sub-Saharan African (SSA) Countries
B. India Based Studies			
1	Chhibber & Majumdar (1999)	Foreign ownership had no effect on a firm's performance in the pre reform period. Nevertheless, foreign ownership positively influenced firm performance in the post reform period, mainly after allowing foreign ownership in the domestic firms up to 51 per cent.	India
2	Sharma (2000)	Relationship between FDI and India's export is that, FDI plays no significant role in the variation in the volume of India's exports.	India
3	Chakraborty & Basu (2002)	The causality runs more from GDP to FDI and not from FDI to GDP in India, India's liberalization regime has made some positive short run impact on the FDI flow and FDI in India is labour displacing.	India
4	Mathiyazhagan (2005)	Flow of FDI has raised the output, labour productivity and export in some sectors but a better role of FDI at the sectoral level is still expected.	India
5	Chakraborty & Nunnenkamp (2006)	A causal relationship between FDI stock and output in the manufacturing sector, while such a relationship is not in existence in the primary sector.	India
6	Sahu & Solarin (2014)	Significant impact of FDI on output growth.	India
7	Malik (2015)	There is occurrence of technology spillovers to Indian firms via backward linkages from foreign firms.	India
8	Pradeep et al. (2017)	Foreign presence has a significant positive spillover effect on the productivity of manufacturing firms when compared to alternative spillovers from R&D and export initiatives.	India
9	Sinha et al. (2018)	FDI significantly enhances production in industries.	India
10	Malik (2018)	FDI is not an important channel for employment generation in the manufacturing industries.	India

2.4 Summary and Research Gap

The recent developments in the literature on FDI inflows in the whole world scenario (host economies) recounted several factors such as *human capital* (Noorbakhsh et al., 1999; Blomström & Kokko, 2001; Cleve et al., 2015;), *market size* (Asiedu, 2005; Sahoo, 2006; Khachoo & Khan, 2012; Hussain & Kimuli, 2012; Ibrahim & Abdel-Gadir, 2015; Prashar, 2015; Asongu et al., 2018), *infrastructure* (Asiedu, 2005; Udo & Obiora, 2006; Sahoo, 2006; Mottaleb, 2007; Khachoo & Khan, 2012; Hanafy, 2015; Asongu et al., 2018;), *openness to trade* (Kandiero & Chitiga, 2003; Janicki & Wunnava, 2004, Liargovas & Skandalis, 2012; Asongu et al., 2018), *endowment of natural resources* (Asiedu, 2005; Wahid et al., 2009; Ibrahim & Abdel-Gadir, 2015), *growth of host country economy* (Schneider & Frey, 1985; Shotar, 2002; Janicki & Wunnava, 2004; Udo & Obiora, 2006; Mottaleb, 2007; O'Meara, 2015;), *domestic investment* (Lautier & Moreaub, 2012; Hanafy, 2015), *signing on bilateral investment treaties* (Banga, 2003; Velde & Bezemer, 2004), *host country labour cost and growth of labour force* (Janicki & Wunnava, 2004; Sahoo, 2006; Khachoo & Khan, 2012; Hanafy, 2015), *host economy's political stability and risk element* (Janicki & Wunnava, 2004; Quere et al., 2005; Busse & Hefeker, 2005; Udo & Obiora, 2006), *tax regime* (Cassou, 1997; Bellak & Leibrecht, 2009), *exchange rate* (Xing, 2006; Dhakal et al., 2010) etc. as major determinants of FDI inflows.

In India, it was found that factors such as restrictive FDI regime, lack of clear cut and transparent sectoral policies for FDI, high tariff rates, lack of decision-making authority with the state governments etc. make India an unattractive destination of FDI (Bajpai & Sachs, 2000). Labour conflicts and rigid labour markets discouraged FDI inflows to India (Menon & Sanyal, 2005; Aggarwal, 2005). Notwithstanding, low wage rates in India attracted more FDI (Lai & Sarkar,

2011) and labour cost is a significant factor of determining FDI (Sury, 2008). Moreover, huge size of the domestic market (size of the domestic economy) worked as a factor attracting FDI to India (Mukherjee, 2011; Kaur & Sharma, 2013; Sanghi & Patni, 2014; Mahalakshmi et al., 2015). Infrastructure in India is also found to have significant impact on FDI inflows (Dutta & Sarma, 2008; Mukherjee, 2011). Nevertheless, Chatterjee et al. (2013) found that both physical and social infrastructure have no bearing on bringing FDI to Indian states. Instead, interstate variations in the FDI inflows in India occur mainly because of the variability in the level of profit made by the existing enterprises. Extent of Profitability subsisting in states is found a factor attracting FDI inflows to India also by Pradhan (2012). It was also revealed that FDI inflow to India is influenced by REER (Kaur & Sharma, 2013; Mahalakshmi et al., 2015).

From the enumeration of the influence and role of FDI inflows in the scenario of the whole world (host economies), the researcher derived mixed results. In certain studies, it has uncovered that FDI positively affects economic growth in host economies without the need of subsistence of any preconditions in the host country (Berthelemy & Demurger, 2000; Campos & Kinoshita, 2002; Hansen & Rand, 2004; Li & Liu, 2005; Vu et al., 2006; Anwar & Nguyen, 2010; Yusoff & Nuh, 2015; Pegkas, 2015). However, certain studies found that FDI has not contributed to economic growth in host economies (Carkovic & Levine, 2002; El-Wassal, 2012; Tang, 2015). Certain studies got ambiguous relationship between FDI and growth. For instance, Alfaro (2003) estimated that the total FDI exerts an ambiguous effect on economic growth. FDI in the primary sector has a negative effect while the effect is positive in the manufacturing sector. The evidence received about the relationship between FDI and service sector is also ambiguous. However, most of the studies emphasized that the subsistence of certain pre-conditions in the host economy is inevitable in order to reap the growth effects from FDI inflows. To cite examples, Borensztein

et al. (1998) established that effect of FDI on economic growth is dependent on the level of human capital available in the host economy. Alfaro et al. (2003) found that the local condition of host countries, especially the position of financial system, matters for getting the desired benefits from FDI. Bengoa & Robles (2003) estimated the necessity of improving the host country's domestic situation in order to draw merits from FDI inflows. Nunnenkamp & Spatz (2004) also held that better domestic condition is a prerequisite to get advantageous effects from FDI inflows. Vo & Batten (2006) made it clear that FDI strongly and positively exerts influence on economic growth in countries with higher rate of education attainment, openness to international trade, and stock market development, and lower level of population growth and lower risk. Chee & Nair (2010) also highlighted the prominence of financial sector development to enhance the contribution of FDI to economic growth. Wijeweera et al. (2010) estimated that FDI positively affects economic growth only if the host country has skilled labour force. FDI also has some crowding in and crowding out effect on domestic investment. Krkoska (2001) found out that FDI inflow is an important source for financing domestic capital formation. Misun & Tomsk (2002) found FDI's crowding out effect in Poland and crowding in effect both in Czech Republic and Hungary. Kim & Seo (2003) found that FDI does not crowd out domestic investment in Korea. (Ndikumana & Verick, 2008; Adams et al., 2016) found that FDI crowded in domestic investment in Sub-Saharan African countries. Tang et al. (2008) found that FDI influences economic growth by complementing domestic investment in China. Ramirez (2010) found that FDI has a positive and significant effect on private capital formation in Latin America. Al-Sadig (2013) found that FDI stimulated private domestic investment in developing countries. The relationship between FDI and various kinds of spillovers in host economy has also been empirically proved. For instance, Hermes & Lensink (2003) found that a more developed

financial system contributes positively to the process of technological diffusion associated with FDI in a cross-country framework. Cheung & Lin (2004) found the positive effects of FDI on the number of domestic patent applications in China.

In the context of India too, a good deal of empirical studies has been carried out to segregate the role of FDI. For instance, Chhibber & Majumdar (1999) found the effect of foreign ownership (positive) on domestic firm's performance only in the post reform period. Whereas, Sharma (2000) found that FDI played no role in the variation in the volume of India's exports. Chakraborty & Basu (2002) found out that the causality runs more from GDP to FDI rather than from FDI to GDP. Mathiyazhagan (2005) found that FDI has raised the output, labour productivity and export only in some sectors of the economy. Chakraborty & Nunnenkamp (2006) found a causal relationship between FDI stock and output in the manufacturing sector alone. Sahu & Solarin (2014) found a significant impact of FDI on output growth. Malik (2015) found that there is occurrence of technology spillovers to Indian firms via backward linkages from foreign firms. Pradeep et al. (2017) found that foreign presence has a significant positive spillover effect on the productivity of manufacturing firms when compared to alternative spillovers from R&D and export initiatives. Sinha et al. (2018) also found that FDI significantly enhances production in industries. Malik (2018) assessed that FDI is not an important channel for employment generation in the manufacturing industries.

Internationally, even if the inflow of FDI has increased much after the reform activities undertaken in many parts of the world, regional concentration and disparity in the distribution of FDI inflows is a matter of fact. Globally, developed countries attract a substantial volume of FDI similar to the scenario of developed regions within individual developing countries receive much of FDI. This predicament has been empirically studied by many scholars. For instance,

Siddharthan (2006) estimated that the determinants of regional distribution of FDI flows in China and India resembled to the pattern influencing inter-country FDI flows. In both China and India, substantial volume of FDI has flowed to relatively developed regions, while regions that were poor in physical, institutional and social infrastructure received very little FDI. In China, Eastern zone provinces with high per capita income, better socio-economic indicators, better infrastructure facilities in terms of electricity, road and rail network and higher international orientation in terms of their per capita international trade, received higher FDI flows. Similarly, in India, the states with high per capita income, high industrial output, and situated at the coasts attracted high levels of FDI. Moreover, the regions that received low FDI flows were also the regions that attracted lower domestic investment. In India, not many studies have been carried out regarding the inequality in the regional distribution of FDI inflows except a few studies conducted by (Nunnenkamp & Stracke, 2007; Mukherjee, 2011; Chatterjee et al., 2013). These studies focused on interregional variation in the FDI inflows to India by viewing the entire regions collectively and identified the same set of determinants for the entire regions. Though it was apparent that the trend and pattern of FDI inflow is quite different in these regions, no attempt has yet been carried out to classify these regions on any basis. Thus the researcher postulated the possibility of categorizing the entire regions on the basis of magnitude of FDI in the presumption that the determinants and role of FDI inflows in these regions couldn't be the same.

CHAPTER III

FOREIGN DIRECT INVESTMENT (FDI) POLICY

OF INDIA

3.1 Introduction

The survey of literature showed that the few studies conducted on the magnitudinal wise disparity in FDI inflows across India have not taken in to account the varied trend and pattern existing. These studies focused on interregional variation in the FDI inflows to India by viewing the entire regions collectively. The same set of determinants and role of FDI inflows were identified for the entire regions. Though it was apparent that the trend and pattern of FDI inflow is quite different in these regions, no attempt has yet been carried out to classify these regions on any basis. One of the reasons for adopting such weak research methods may be the ambiguity prevailing with regard to the concept, theory and policy on FDI. The present chapter, thus, intends to overview the concept of FDI and theoretical literature on it. FDI policy framework of India is evaluated.

3.2 Concept of Foreign Capital

Capital flows from outside the territory of a country can be classified into many types on the basis of several attributes. However, foreign capital is bifurcated into official flows and private flows by OECD and World Bank.

Official flows, i.e. Official Development Finance (ODF) include a) official grants b) concessional loans from either bilateral or multilateral sources c) non-concessional loans from either bilateral or multilateral sources.

Various forms of private external finance include FDI, project lending, Foreign Portfolio Investment (FPI), close-end equity funds, private non-guaranteed debt etc. However, this study focuses only on FDI and a brief review of FDI which encompasses its definition, classification, determinants etc. have been given in the following section.

3.2.1 Concept of FDI

FDI and FPI are two prominent modes of external finance. Under FDI, residents of one country (the source country) acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country (the host country). The terminology of FDI has been defined differently by various national and international organizations.

The World Trade Organization (WTO) defines FDI as follows: “FDI occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage the asset”. This *dimension of management* as stated in the definition distinguishes FDI from the Foreign Portfolio Investment (FPI).

The International Monetary Fund’s (IMF) Balance of Payments Manual, fifth edition (BPM5) defines FDI as a category of international investment that reflects the objective of a resident in one economy (the direct investor) obtaining a lasting interest in an enterprise resident in another economy (the direct investment enterprise). The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise, and a significant degree of influence by the investor on the management of the enterprise. A direct investment relationship is established when the direct investor has acquired ten percent or more of the ordinary shares or voting power of an enterprise abroad.

The United Nation's Conference on Trade and Development's (UNCTAD) World Investment Report (WIR, 2007) defines FDI as "an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise or foreign affiliate)".

According to the detailed benchmark definition of FDI: Fourth Edition [Paris, Organization for Economic Co-operation and Development (OECD), 2008], Direct investment is a category of cross-border investment made by a resident in one economy (the direct investor) with the objective of establishing a lasting interest in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor. The motivation of the direct investor is a strategic long-term relationship with the direct investment enterprise to ensure a significant degree of influence by the direct investor in the management of the direct investment enterprise. The "lasting interest" is evidenced when the direct investor owns at least ten percent of the voting power of the direct investment enterprise.

Thus, the element of 'control' and 'controlling interest' can be termed as the attribute that distinguishes FDI from FPI. A foreign portfolio investor does not go for control or lasting interest in a host country enterprise. Nevertheless, there is no consensus on what can be termed as controlling interest. A ten per cent shareholding in the host country enterprise is generally regarded as permitting the foreign firm to inflict a prominent influence on the key policies of the underlying project.

The following section describes the mode of FDI accounting in India.

3.2.2. FDI Accounts in India

The IMF's definition of FDI incorporates equity capital, reinvested earnings (retained earnings of FDI companies) and 'other direct investment capital' (short term and long term intra-company loans or intra-company debt transactions, trade and supplier credit, financial leasing, financial derivatives, debt securities and land and buildings). However, FDI statistics compiled by the RBI in the balance of payments prior to 2000 included only equity capital. This led to an underestimation of FDI inflows to India. Taking this in to account, the FDI statistics in India got revised to include reinvested earnings and other direct investment capital.

FDI is all about owning and controlling a foreign company in a foreign country. It is also said that, in return for the ownership advantage, the investor has to give back its specialized financial, technical or managerial resources to the host country. Thus, FDI is also told as contributing to the technological, marketing and managerial resource base of the domestic company. However, in practice, it is not followed in India to consider an investment as FDI, and here FDI usually confines to the investment of ten per cent or more to the ordinary shares or voting power in the resident entity.

Thus the practice is that, all investments from abroad meeting the sole criterion of ten percent investment, irrespective of whether they are conducted by financial investors or national investors committing investment in the domestic company through any of the foreign routes get accounted as FDI.

In reality, the practice of FDI accounting in India is more ineffective. At present, all investments by persons or entities resident outside India in the capital of Indian companies *other than those through the portfolio investment scheme* are treated as FDI

irrespective of the extent of shares held by them. RBI had made a clarification in this regard by saying that ‘while as per the international definition, for an investment to qualify as FDI the foreign investor needs to have a ten per cent or higher stake in a given company, in India this has not been strictly adhered to’. Regardless of the size of investment in a particular company, it is measured as FDI if the non-resident obtains shares in a company other than by means of purchase from the stock market, i.e., through initial public offerings (IPO) or through private arrangements.

In November 2017, the RBI came out with a diverse way of recognizing FDI when it issued the Foreign Exchange Management (Transfer or Issue of Security by a Person Resident outside India) Regulations, 2017.

The revised regulations defined FDI as an *“investment through capital instruments by a person resident outside India in an unlisted Indian company; or in ten per cent or more of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company.”*

Thus, in an unlisted company, a single dollar foreign investment is counted as FDI. This approach follows the recommendations of the Arvind Mayaram Committee (2014). Thus, it is obvious that, the definition is not taking in to account the attendant characteristics of FDI such as technology enhancing, marketing and managerial capability enhancing etc.

RBI defines Foreign portfolio Investment (FPI) as any investment made by a person resident outside India in capital instruments where such investment is (a) less than ten percent of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company or (b) less than ten percent of the paid up value of each series of capital instruments of a listed Indian company. FPI comes to India through the routes viz.

Foreign Institutional Investors (FIIs) including mutual funds, Global Depository Receipts (GDRs) and Foreign Currency Convertible Bonds (FCCBs).

In the present study, however, FDI alone is considered for analysis.

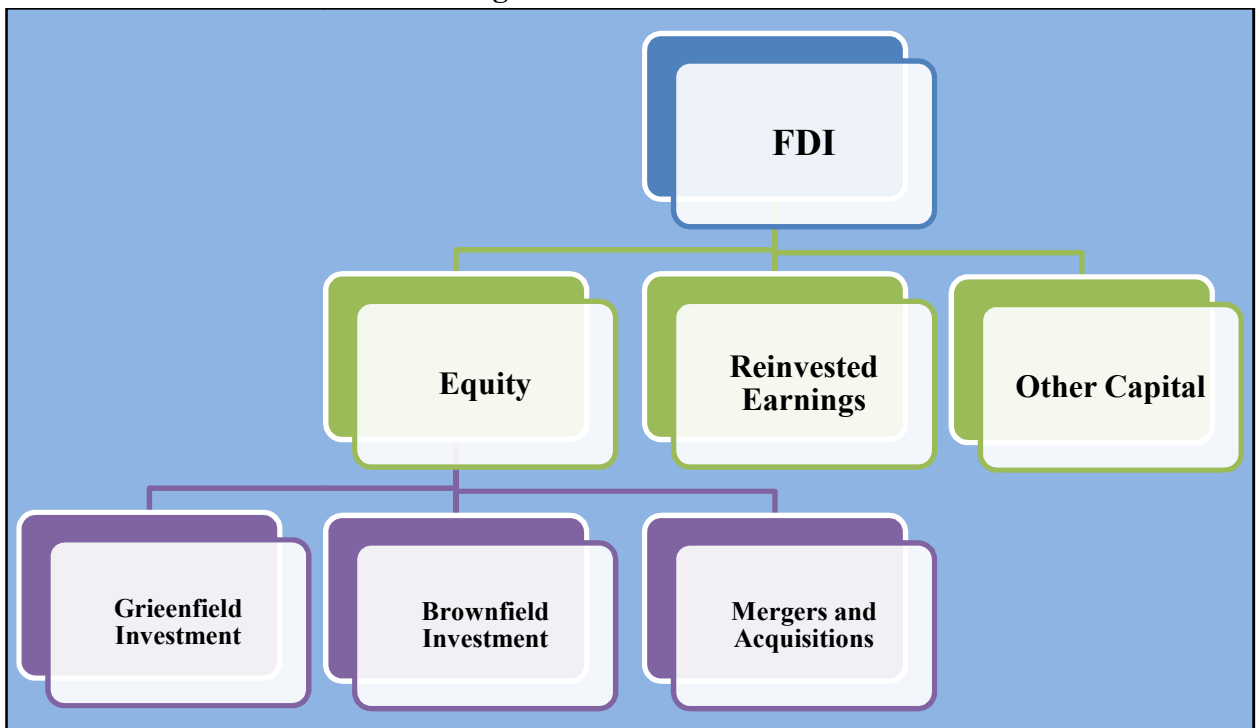
3.2.3 Classification of FDI

FDI is classified on many grounds. It is categorized on the basis of components, corporate forms, types of production activities etc.

3.2.3.1 Component wise Classification of FDI

Component wise, FDI can be categorized in to equity, reinvested earnings and other capital as shown in figure 3.1 below.

Figure 3.1
Categorization of FDI



FDI includes three components viz. equity, reinvested earnings and other capital (Figure 3.1). Equity capital is the value of the MNC's investment in shares of an enterprise in a

foreign country. An equity capital stake of ten per cent or more of the ordinary shares or voting power in an incorporated enterprise, or its equivalent in an unincorporated enterprise is generally considered as a threshold for the control of assets. Equity form of FDI is further sub divided in to three categories as green-field investment, brown-field investment and mergers and acquisitions. Reinvested earnings indicate the difference between the profit of a foreign company and its distributed dividend and thus represents undistributed dividend. Other capital constitutes intercompany debt transactions of foreign entities.

Under green-field investment, a company establishes operations in a foreign country by setting new facilities like sales office, manufacturing facilities etc from the ground up.

Under brown-field investment, a company makes investment in a foreign country in an existing facility to start its operations.

Mergers and acquisitions, or M&A for short, involves the process of combining two companies into one. The goal of combining two or more businesses is to try and achieve synergy - where the whole (new company) is greater than the sum of its parts (the former two separate entities).

3.2.3.2 Corporate Forms of FDI

MNCs are the types of firms which invest in a foreign country by taking in to account a good deal of factors related to the host country business environment and they go for different kinds of shareholding in a foreign country on the basis of their interests. If the foreign company has the ownership of the whole capital of the host economy entity, such an entity will be regarded as a branch or fully owned subsidiary of the foreign firm. The affiliate with principal shareholding of the foreign collaborator will be under the

dominance of the foreign partner and its dominance tends to decrease with decrease in the extent of shareholding. The corporate forms of FDI according to the extent of foreign shareholding have been given in the following table (Table 3.1).

Table 3.1
Corporate Forms of FDI

Extent of Foreign Shareholding	Corporate Forms of FDI
100 per cent	Fully owned subsidiary
> 50 per cent but < 100 per cent	Subsidiary or majority foreign owned
50 per cent	Co-owned company
> 25 per cent but < 50 per cent	Minority owned company
10 per cent to < 25 per cent	Associates

Source: Website of UNCTAD.

Table 3.1 articulates that if the foreign investor has cent per cent investment in a particular firm, it becomes the wholly owned subsidiary and with stake-holding level of 10 to 25 per cent, it is termed as an associate of the foreign investor.

3.2.3.3 Vertical, Horizontal and Conglomerate Forms of FDI

FDI can also be classified in to vertical and horizontal forms on the basis of the types of production activities they undertake. Caves (1982) explained horizontal FDI as establishing factory facilities in various countries for the purpose of making similar goods as they have been doing in other factory units. At the same time, vertical FDI is described as establishing plants in different countries to produce output that serves as an input in its other parent or subsidiary plants.

Besides, vertical FDI can be bifurcated in to downstream and upstream integration based on the flow of interrelated production process functions. In downstream vertical integration, foreign subsidiary performs an assembly function by using inputs supplied by the parent firm or other sister subsidiaries. Instead, in upstream vertical integration, the

foreign subsidiary's function is to produce and supply the necessary inputs to the parent firm or sister subsidiaries.

A third category is conglomerate FDI. Under this, companies or individuals make foreign investment in businesses in the host economy which are unrelated to their existing businesses in the home country. Here, since the foreign investors have no previous experience with the new businesses in the host economy, it often ends up as a joint venture with a foreign company already operating in the industry.

3.2.3.4 John. H. Dunning's Classification of FDI

Dunning (1993)'s taxonomy of FDI which is built on the OLI Paradigm (Dunning, 1977) is one of the most cited. This taxonomy is made up of four categories as follows.

3.2.3.4.1 Resource Seeking

Resource seeking MNEs invest abroad by seeking particular types of resources which are not available in their home country (natural resources or raw materials) or which are available at a lower cost (such as unskilled labor that is offered at a cheaper price with respect to the home country).

3.2.3.4.2 Market Seeking

Here MNEs invest abroad to exploit the possibilities of greater market dimensions. FDI may be inspired by following suppliers or customers that have built foreign production facilities, to adapt goods to local needs or tastes, and to save the cost of serving a market from distance.

3.2.3.4.3 Efficiency Seeking

Efficiency seeking FDI occurs in two instances. First one is, "to take advantage of differences in the availability and costs of traditional factor endowments in different

countries” and the second one is, “take advantage of the economies of scale and scope and of differences in consumer tastes and supply capabilities” Dunning (1993).

3.2.3.4.4 Strategic Asset Seeking FDI

Under this category, FDI is motivated to acquire and complement a new technological base rather than exploiting the existing assets. Here the motivation of the firm investing abroad is gaining access to knowledge or competences that are not inside the firm.

3.2.4 Factors Affecting Foreign Investment

Foreign investors consider a good deal of factors prior to make investment in a foreign country. The most important factors affecting FDI inflows across the globe have been given below.

3.2.4.1 Wage Rates

Countries with lower wages tempt foreign investors to shift labour oriented production functions to them. For instance, if the average wage in US is \$ 10 per hour and the same work is available in India at \$ 1 per hour, the foreign investor can substantially reduce his cost of production by shifting his production unit to India. Many western firms have made their investment in the clothing factories in the Indian subcontinent is to reduce the labour cost.

3.2.4.2 Labour Skills

Pharmaceuticals and electronics MNEs which require high skilled labour may shift their location to those countries which have a combination of low wages, high labour productivity and high labour skills. For instance, India has attracted a major portion of investment in call centers, because of a high portion of English speaking population available at a low wage level.

3.2.4.3 Tax Rates

Low corporate tax rates attract MNEs to certain countries. For example, Ireland has been successful in attracting a considerable volume of FDI because of its comparatively low corporate tax rates.

3.2.4.4 Transport and Infrastructure

Transport cost and the level of infrastructure development are two crucial factors which fetch FDI to host economies. Countries with access to the sea attract more FDI than landlocked countries because of the cost differences in shipping goods.

3.2.4.5 Size of Economy, Potential of the Economy for Growth and Economic Conditions

Size of economy and scope for the growth of economy are two important factors which fetch FDI to particular countries. Growing economies like India and China which have an emerging middle class population are likely to attract more and more FDI. Likewise, economic crisis sustaining in particular economies is also likely to curb foreign investors.

3.2.4.6 Exchange Rate

A weak exchange rate in the host country will attract FDI as investors can buy assets at comparatively lower cost. Nevertheless, high volatility in the exchange rate in the host country will reduce the volume of FDI.

3.2.4.7 Agglomeration Economies

Agglomeration economies or external economies of scale refer to the benefits from concentrating output and housing in particular areas. If an area specializes in the production of a certain type of good, all firms can benefit from various factors such as good supply networks, supply of trained workers, infrastructure built specifically for the

industry, good transport links. Such areas or countries with regions of agglomeration capability attract more FDI.

The following section gives an account of the theoretical framework on FDI.

3.3 Theoretical Framework on FDI

The development of FDI began literally after the Second World War with the emergence of the forces of globalization. Thus during the 1950s and 60s, Multi National Corporations (MNCs) and foreign investment received unprecedented significance. During the same period, FDI inflows from USA to European countries enhanced at an increased rate. Such a backdrop stimulated numerous researchers to evaluate the aspect of MNCs and the subsistence of international production. Subsequently, plenty of theories were articulated to explicate the overseas movement of capital. Originally, direct investment was an international capital movement only (Kindleberger, 1969). Earlier, prior to 1950, FDI was subsumed under portfolio investment. Correspondingly, it was assumed that the prime reason behind the overseas capital flows was interest rate differences. By virtue of this approach, capital was thought to be streamed to those regions with highest rate of return when there were no uncertainties or risks. Nevertheless, this circumstance didn't expound the elementary difference between portfolio and direct investment- i.e. direct investment involves the element of control. Thus, the prominent drawback of the theory of interest rate was that it didn't explain the element of control as an attendant attribute of direct investment. Hymer (1976) recounted that if interest rates are higher abroad, an investor will consider lending money abroad, but there is no logical necessity for that investor to control the enterprise to which he or she lends to the money.

During 1960s, it was sought to appropriately describe FDI. Moreover, realizing the augmenting role of FDI, academicians endeavored to integrate their works with the theories of FDI (Rayome & Baker, 1995). Thenceforth, theories began to emphasize on various factors which govern the overseas circulation of capital. Thus theories started to encompass factors like market imperfections, oligopolistic and monopolistic advantages etc to explain FDI. Some theories also established interrelationship between FDI and international trade. In compliance with the above observations, the following section examines the principal theories on FDI. The subsisting theoretical literature on FDI can be basically bifurcated in to; (1) Theories on the *Determinants of FDI to host economies* and (2) Theories on the *impact of FDI on the host economy*.

3.3.1 Determinants of FDI: Theoretical Approach

The theories on the determinants of FDI can be classified in to two as; (1) FDI theories based on perfect market and (2) FDI theories based on imperfect market.

3.3.1.1 FDI Theories Based on Perfect Market

In the earlier periods, theories on FDI were formulated in the assumption of perfect market. Perfect market is a hypothetical market characterized by a large number of buyers and sellers with possession of perfect knowledge about the market. MacDougall (1958) is regarded as one of the pioneers of FDI theory based on perfect market. Kemp (1964) contributed further to the perfect market assumptions on FDI. They presumed a two-country model where prices of capital equated to its marginal productivity. Moreover, both Kemp and MacDougall stated that when there takes place free capital movement from one country to another, the marginal productivity of capital tended to be

equalized between them. Following are the major theories on FDI assuming the prevalence of perfect market.

3.3.1.1.1 Theory of Differential Rate of Return

This theory is one of the first attempts to explain the cross-border capital flows. As per this theory, FDI occurs when investors move from one region with low return to another with high return and it will end up with equality in the real rate of return. This theory presumes risk neutrality, making the rate of return the only variable upon which the investment decision relies on. Risk neutrality here implies that the investor takes in to account domestic investment and FDI to be perfect substitutes. Until the 1960s, FDI was regarded to occur as a consequence of differences in rates of return on capital investment. Even if this presumption seemed to be consistent with the pattern of FDI flows occurred in the 1950s (many US MNEs gained high returns from their investments in Europe), the insight of the theory weakened a decade later when US investment in Europe continued to increase irrespective of the higher rates of returns obtained (Hufbauer, 1975). The embedded assumption of a single rate of return across industries, and the implication that bilateral FDI flows between two countries could not occur, also made the hypothesis theoretically unconvincing.

3.3.1.1.2 Theory of Portfolio Diversification

The theory of portfolio diversification sufficiently delineates the emergence of FDI, and it also explicates the necessity of examining the role of risk unlike the theory of differential rate of return. As per this theory, generally it is the habit of a firm to assess the expected returns and to choose ways for risk reduction at the time of undertaking investment activities. Return on investment differs from nation to nation and a firm tries to restrain

its risk by investing in more than one nation. Thus, here FDI becomes a channel for international portfolio diversification. This theory has been experimented in several countries by associating FDI with average returns and also the risks related to it. Another thing that could observe is that large firms with massive and widespread investment exhibited only small fluctuations in their profits. However, this theory also couldn't sufficiently explain foreign investment as it ignores the difference of propensity to invest across different industries. It also fails to explain why foreign investors increasingly focus on certain industries.

3.3.1.2 FDI Theories Based on Imperfect Market

Hymer was one of the pioneers who founded a systematic approach towards the study of FDI. Hymer (1976) expanded the 'Theory of Industrial Organization' [(in 1960, in his doctoral dissertation), Hymer's dissertation was subsequently published in book form in 1976]. His theory was one of the first works which outlined international production in the prevalence of imperfect market. The theory was supported by Lemfalussy (1961), Kindleberger (1969), Knickerbocker (1973), Caves (1974), Dunning (1974) and Cohen (1975). The following are the major theories on FDI under imperfect market.

3.3.1.2.1 Theory of Industrial Organization

The theory of industrial organization was developed by Hymer (1960, 1976). The substance of Hymer's theory is that foreign firms will need to rival with domestic firms which enjoy superiority in the form of culture, language, legal system and consumer's preference. Additionally, foreign firms will also have to confront with foreign exchange risk. Amidst these impediments, some form of market power held by foreign firms will lead to profitability in overseas investment. The sources of market power include patent-

protected superior technology, brand names, marketing and management skills, economies of scale and cheaper sources of finance (firm-specific advantages in Hymer's term and monopolistic advantages in Kindleberger's term). Followed by Hymer's hypotheses, it was regarded that technological predominance is the most momentous influence that it facilitates the introduction of new products with novel traits. Furthermore, the enhancement of knowledge base enables to build other traits such as marketing and improvement in production processes. Caves (1971) specified that one of the prominent features of this theory is, it explicated that the benefits are passed on effectually from one unit of a firm to another unit of that firm regardless of the fact that they are positioned in the same country or in different countries. Overseas investment delivers better volume of profit to firms, derived from the advantage of their market power in the imperfect market. This contention was favoured by some of the researchers. To cite one example, Graham and Krugman (1989) referred that in the earlier period, European firms were headed to invest in US owing to their technological advantages. Nevertheless, critics such as Robock & Simmonds (1983) argued that occupancy of firm specific advantages need not necessarily mean investment abroad as firms might very well exploit their advantages through exporting or licensing.

Nevertheless, it can't be regarded that Hymer's thesis did explain FDI fully as some failures occurred from his part to expound matters such as where and when FDI takes place. This has been overcome by Vernon's (1966) Product Life Cycle (PLC) theory, the eclectic approach by Dunning (1977, 1979 and 1988) and the internalization theory by Buckley and Casson (1976).

3.3.1.2.2 FDI Theory Based on Monopolistic Power

Its Kindleberger (1969) propounded the theory of FDI on the basis of monopolistic power by expanding the work of Hymer. The contention of Kindleberger was that the benefits enjoyed by MNCs will be helpful only in the subsistence of imperfect market. The attendant advantages with foreign firms are superior technology, managerial expertise, patents etc. and these advantages inspire them to invest in a foreign country for the purpose of fully exploiting those in lieu of dividing them with the potential competitors in the foreign market. The greater the chances of earning monopoly profits, the higher will be the encouragement among firms to invest directly. Though, Kindleberger gave a description of several kinds of benefits broadly enjoyed by a foreign firm over the host country firm, he didn't explain on which advantage a firm should focus on to succeed in the host economy. The contention of harvesting of monopolistic profit by the foreign firm in the host economy is also a matter of uncertainty since the firm can make use of its monopolistic advantages only if the policy atmosphere of host economy nods assent for it. Commonly, for the sake of national interest, the host government would not be allowing free entry of foreign firms to their country.

3.3.1.2.3 Theory of Internalization

Buckley & Casson (1976) explained FDI in another way stressing on intermediate inputs and technology. Thus, there occurred a shift in the focus of overseas investment theory from country-specific to industry and firm level determinants (Henisz, 2003). The theory of Buckley and Casson has been called as internalization theory because the emphasis of the theory was on the aspect of internalization with regards to the creation of MNCs. The theory has three hypotheses.

- a. Firms maximize profit under imperfect market conditions.
- b. when markets for intermediate products are imperfect, there is an incentive to bypass them by creating internal markets.
- c. Internalization of markets across the world leads to MNCs.

A new technology or process or inputs may be invented by a firm immersed in research and development. After invention, they may confront with the difficulty of transferring technology or sell the inputs to other unrelated firms because those other firms wouldn't be able to bear the high transaction costs. In such a circumstance, the firm will go for internalization with backward and forward integration, i.e. the output of one subsidiary can be used as an input in the production process of another, or technology developed by one subsidiary may be utilized in others. When this kind of internalization takes place overseas, it means FDI. Buckley & Casson (1976) distinguished five forms of market imperfection which leads to internalization. They are as follows:

- a. The co-ordination of resources requires a long time lag;
- b. The efficient exploitation of market power requires discriminatory pricing;
- c. A bilateral monopoly produces unstable bargaining situations;
- d. A buyer cannot correctly estimate the price of the goods on sale; and
- e. Government interventions in international markets create an incentive for transfer pricing.

Buckley & Casson had admitted the risk of host government intervention. However, they didn't take in to account the difference in the volume of this risk across various industries. To cite one example, industries such as power generation and telecom may

confront with greater risk of government intervention since it requires the balancing of private objectives with social objectives.

3.3.1.2.4 Oligopolistic Theory of FDI

Knickerbocker (1973) too developed a theory based on market imperfections. In the economic literature, it has been affirmed that there are two significant motives behind the selection of a particular country as an investment location.

- a. Firms seek enhanced access to the market of the host country.
- b. Foreign firms also want to utilize the comparatively abundant factors in that country.

Besides these factors affirmed by the economic literature, Knickerbocker identified a third factor which leads foreign firms to carry out investment activities in a host economy- i.e. foreign firms will move to a foreign country to suit its competitor's action (Head et al., 2002). Otherwise stated, firms express emulative behavior i.e. they attempt to follow the internalization practices of their competitors in order not to lose their strategic advantage. Knickerbocker contended that firms in the similar industrial sector tries to follow each other's location decision. The case is that, firms confront an uncertainty of cost of production in the host country to which they are currently exporting and they are likely to face a threat of being undercut by a competitor switching from exporting to FDI (establishing a manufacturing subsidiary) in the host country. Thus, if the firm emulates the rival, it can evade the risk of being underpriced (Altomonte & Pennings, 2003).

Nevertheless, the hypothesis of oligopolistic reaction by Knickerbocker posits true only during the subsistence of uncertainty about costs in the host country. i.e. only

oligopolistic firms which want to evade risk sufficiently is more probable to establish a unit in a host economy after its competitor (Head and others, 2002). During certainty, the incentive of a firm to invest overseas decreases with competitor's investment. Another drawback of the theory is that it does not explain what inspired the rival firm or the first firm to carry out FDI.

3.3.1.2.5 Eclectic Paradigm to FDI

One of the most persistent and comprehensive theories of FDI was developed by Dunning in 1970s (Read, 2007). In his trailblazing work, Dunning (1977 and 1979) consolidated the principal theories on FDI based on imperfect market conditions-the oligopolistic and internalization theories-and inserted a third dimension, in the form of location theory which expounds the opening of a foreign subsidiary by a firm. His location theory addresses prominent questions like; 1) Who produces? 2) What goods or services are being produced? 3) In which locations the production takes place? and 4) Why the foreign firm chooses overseas production? Various researchers gradually applied the location theory for understanding the factors influencing the location choice of MNC units. The factors identified include host economy policies, economic fundamentals, firm strategy and agglomeration economies.

Based on the above, Dunning(1993) recounted his theory, which is called as the *eclectic paradigm* or OLI paradigm. The proposition of Dunning was that a firm would undertake FDI only with the fulfillment of the three conditions as mentioned below:

- a. It should have ownership advantages vis-à-vis other firms (O)
- b. It is beneficial to internalize these advantages rather than to use the market to transfer them to foreign firms (I);

c. There are some location advantages in using a firm's ownership advantages in a foreign locale (L).

Ownership advantages are specific to firms. The ownership advantage enjoyed by firms over domestic and foreign competitors is in the form of both tangible and intangible assets. Such advantages result in the contraction in the production cost of the firm and permit it to rival with firms in the host country.

MNCs also consider the location advantages of various host economies before beginning their activities. After evaluating the location advantages in several countries, they choose a location that matches with their activities.

A firm can evade risks such as uncertainty, problems of control etc by avoiding market imperfections. Internalization makes a firm more profitable when the firm is not going to external markets to get its transactions done.

The prime attribute of the eclectic theory is that all the three conditions mentioned above must be fulfilled before the occurrence of FDI. Dunning (1980) mentioned that the "OLI triad of variables determining FDI and MNCs activities may be likened to a three-legged stool; each leg is supportive of the others, and the stool is only functional if the three legs are evenly balanced".

This implies that a firm with ownership and internalization advantages, but no location advantage is incurred by setting up a unit in a foreign country, will very likely choose to increase its production at home and export its product(s) abroad. In the same way, a firm having ownership and location advantages will find it more profitable to produce abroad than to produce domestically and export its product(s); however, if there are no

internalization gains then the firm will be better off licensing its ownership advantage to foreign firms (Nayak & Choudhury, 2014).

Thus, Dunning could consolidate several complementary theories and he identified a bunch of factors which influenced the activities of MNCs. Accordingly, his theory received broad acceptance than other theories based on imperfect market. However, critics mentioned that the theory includes too many variables and because of that reason, it has no operational practicality.

In order to overcome this shortcoming, Dunning brought forward the theory of Investment Development Cycle or Path (IDP).

3.3.1.3 FDI Theories Based on Strength of Currency

Aliber (1970) principally made an effort to explain FDI on the basis of strength of currency. He focused on the relative strength of various currencies to explain FDI. His postulation was that weaker currencies compared with stronger investing country currencies had a higher capacity to attract FDI in order to take advantage of differences in the market capitalization rate. He experimented with this presumption and confirmed the result with FDI in U.S, U.K and Canada. However, this theory was criticized on the ground that it does not give explanation for investment between two developed countries that have currencies of equal strength. Besides, the theory also fails to explain the investment goes from a developing country (Weaker currency) to a developed country (Stronger currency).

Most of the above described theories are based on a Western developed world perception. In this circumstance, it is to be noted that developed Asian countries like Japan has also contributed to the theoretical framework on FDI.

Kojima (1973, 1975 and 1985) put forward one of the first theories on FDI from Asian developed countries mainly concerned with the FDI outflow from Japan. He delineated that firms from Japan went for overseas investment mainly due to their inability to compete with the domestic firms in Japan. He argued that the more efficient local firms were pushing the less competent firms out of the local market. Consequently, the weaker firms are compelled to move overseas, especially to other developing countries. However, this hypothesis failed as it does not give description about the internationalization of competent domestic firms.

3.3.2 Impact of FDI on the Host Economy: Theoretical Approach

Regarding the impact of FDI on host economy, primarily there are two models viz. (1) The benevolent (benign) model of FDI and development and (2) The malign model of FDI and development.

3.3.2.1 The Benign Model of FDI and Development

As per this hypothesis, FDI is more useful for underdeveloped economies. FDI has the ability to break the vicious circle of poverty in developing economies by contributing to domestic savings and by giving more effective managerial, technological and marketing support to improve productivity (Cardoso and Dornbusch 1989). However, the gain in the national income from FDI relies on the size of the capital flows and the elasticity of the demand for capital. Moreover, technological and managerial inputs, transfers and spillovers to local firms, etc. from FDI may result in the upward shift of the host economy's production function. Thus, under competitive conditions (which the presence of foreign firms and FDI may enhance), FDI should raise efficiency, expand output and lead to higher economic growth in the host economy. This model has two assumptions.

First, the gap in savings and in foreign exchange determines the long terms growth at the macro level. Second, the additional supply of capital through FDI should lower the relative returns on capital while the additional demand for labour should bid up the wages of workers. In reality, these assumptions may not be valid to validate the argument of this model.

3.3.2.2 The Malign Model of FDI and Development

Being the alternative theory to the 'Benign model' the 'Malign model' claims that FDI can have negative effects on the economic growth of the host country. Advocates of this model argue that foreign companies in imperfectly competitive international industries will harm the economic growth of a host country with an imperfectly competitive domestic market. People of the developing countries used to suspiciously view FDI and it is just recently they turned to change their unfavorable attitude towards FDI. Initially, some studies, including that of Singer (1950) showed that foreign capital had negative impact on the growth of developing economies. The foreign firms made destructive impact on the host economy because they operated in industries where there substantial barriers to entry and increasing market concentration (Grieco, 1986). In such a case, the foreign firms lowered the domestic savings and investment by extracting rent.

3.4 Foreign Direct Investment (FDI) Policy in India

In India, the Policy on foreign direct investment, in point of fact is a comprehensive one which covers aspects like incentives and disincentives to the foreign investors, technology transfers, foreign trade, foreign currency and general industrial policy. On the eve of independence, government of India led by the British received a policy of accepting unconditional and unrestricted flow of foreign capital due to political

dependency. After independence, policy makers in India recognized the prominence of receiving foreign capital as a source of fund, and introduction of novel technology. The country distinguished FDI as a factor to deplete the dearth of capital and technology in its key sectors. The government's FDI policy after independence can be described as the one which evolved over time in tune with the requirements of process of development in different phases. Immediately after independence, the government started to frame its policies focusing on import substitution for improving the local capability in heavy industries including machinery manufacturing. The industrial policy resolution of India from 1948 to 1956 reflects the desire of the government to achieve self-sufficiency in industrial production. This strategy of import substitution and achieving self-sufficiency guided the country's industrial sector until mid-1980s and it resulted in Indian industrial sector having inferior technology. It didn't give the sector an exposure to sustain effectively in the vast world of competition, and finally led to low efficiency. With economic reforms in 1991, investment policies in India have been gradually liberalised, increasing the receptiveness of the economy to foreign investment flows. Therefore Indian foreign investment policy evolution is bifurcated as policy in Pre-Liberalisation Period and Post-Liberalisation Period.

Pre- liberalization period witnessed crucial shortage in the consumption of fixed capital. Consumption of fixed capital is decisive in the process of growth and development. Table 3.2 presents the statistical characteristics of major economic parameters in Indian economy. It shows the averages of growth for two periods i.e. before liberalization and after liberalization.

Table 3.2
Descriptive Statistics of Major Economic Parameters – Before and after Liberalization

	Population (Crore)	Consumption of Fixed Capital	GDP at Market Prices	Personal Disposable Income
Average	2.15 (1.75)	12.40 (14.33)	10.76 (13.85)	10.59 (13.53)
Minimum	1.67 (1.37)	-9.16 (7.57)	-5.42 (7.63)	-6.40 (5.88)
Maximum	2.47 (2.29)	28.82 (22.75)	21.71 (20.17)	23.58 (21.33)
Median	2.18 (1.81)	12.04 (14.92)	10.85 (14.81)	10.58 (14.25)
Std Dev	0.18 (0.28)	7.09 (3.32)	5.96 (3.32)	6.53 (3.84)
Skewness	-0.65 (0.12)	-0.67 (0.29)	-0.46 (-0.52)	-0.13 (0.08)

	Net Domestic Capital Formation	Net Domestic Saving	Per Capita NNP at Factor Cost (Rs)	Net National Disposable Income
Average	16.96 (17.55)	15.35 (17.62)	8.12 (12.03)	10.63 (13.97)
Minimum	-51.17 (-17.68)	-26.64 (-8.45)	-7.71 (5.04)	-5.34 (7.06)
Maximum	64.88 (51.79)	62.47 (36.12)	20.07 (16.80)	21.91 (19.20)
Median	14.81 (22.11)	13.43 (20.48)	8.06 (13.00)	10.64 (14.73)
Std Dev	22.92 (16.53)	18.72 (12.82)	6.16 (3.30)	5.98 (3.44)
Skewness	-0.08 (-0.24)	0.22 (-0.71)	-0.24 (-0.80)	-0.39 (-0.61)

Source: Author's compilation from the Handbook of Statistics on Indian Economy, various years, RBI.

Note: Figures denote averages of growth for the period of forty years i.e., 1951-52 to 1991-92. Figures in the parentheses show averages of growth for the period of ten years i.e., 1991-92 to 2010-11

The inadequate growth in the economic parameters such as GDP, Personal Disposable Income, Savings, Per Capita NNP and Net National Disposable Income also shows that the Indian economy before liberalization had continued downtrends. A brief account of these aspects is outlined in Appendices (Table 1). It necessitated the opening of Indian economy, especially through the upbringing of direct foreign investment.

3.4.1 Pre -Liberalization Era

The government was revamping its policy on FDI in each period, as a stimulus to the foreign exchange crisis prevailed during that particular period. It denotes the role of the underflow of balance of payment crisis in shaping the country's policy towards FDI. For instance, it was amongst the foreign exchange crisis in 1957-58, the government of India, for the first time, attempted on attenuating its policy towards FDI. As a result of that reformation, the country's foreign exchange position improved in the late sixties, the

government again began to restrict foreign investment inflows. During this circumstance, the government enacted Foreign Exchange Regulation Act (FERA) in 1973 and the Act played a crucial role in guiding and controlling foreign investment inflows.

By the early eighties, the second oil crisis emerged and India failed to augment its exports, which resulted in the deterioration of forex reserves in the country. The then government adopted a multi-pronged strategy for export promotion. As a part of that, TNCs were encouraged to undertake export-oriented manufacturing. In the eighties, the government thus had selective efforts to promote FDI, especially in high technology and export-oriented sectors. As a part of that, restrictions on large firms and FERA companies were minimized, and it indicated the formation of a more conducive environment for private investment including foreign investment inflows. The eighties were in a way, the precursors of the liberalization policy of the nineties.

Later in the early nineties, when the Indian economy slid in to serious balance of payment crisis, the then government was compelled to go for more comprehensive macro economic reforms with focus on liberalization and privatization aspects. During this period the policy on foreign investment of India was featured with transparency and openness. However in the pre-liberalization era FDI policy has been evolved principally through three phases as follows.

- a. Phase 1-*Cautions Welcome Policy* from independence to the emergence of crisis in the late sixties (1948-66).
- b. Phase II-*Selective and Restrictive Policy* from 1967 till the second oil crises in 1979.
- c. Phase III- *Partial Liberalization Policy* from 1980 to 1990 with progressive attenuation of regulations.

3.4.1.1 Phase – I: 1948 to 1966 – The period of Cautious Welcome Policy

India's industrial policy resolution in 1948 itself had distinguished the importance of foreign capital, particularly, the industrial techniques and management expertise that can be gathered from it, as central to the industrialization process in the country. However, for protecting national interest, the entry of foreign capital during those days had to be carefully regulated. The policy during those days was major interest in ownership and effective control would remain in the hands of Indians even if there were privileges for special cases.

In April 1949, the then Prime Minister Shri. Jawaharlal Nehru proclaimed that foreign investors would be given non-discriminatory treatment inside the country. Firms with foreign investment would be treated at par with Indian firms. Free remittance of profits, dividends, interest and repatriation of capital etc was assured for foreign investors. If any of the foreign firms were nationalized, they were offered reasonable compensation. Foreign investors approached India in the mid 1950s principally with technical collaborations. During that period, industrialization was progressing in India. However, India had to face a foreign exchange crisis in 1958 and it entirely changed the nature of foreign investment in India in two ways: (1) Foreign investors began to have equity participation more frequently in the Indian firms (2) Instead of royalties and fees for technical collaborations, the foreign investors started to have equity participation in the Indian firms. Indian entrepreneurs were allowed to take provisional license for securing part or all of the foreign exchange by way of foreign investment after 1958. The licensing procedure was streamlined to avoid delays in the approvals of foreign collaborations. India government signed double taxation avoidance agreements with countries like West

Germany, France, Finland, USA, Pakistan, Ceylon, Sweden, Norway, Denmark, Japan etc. In May 1966, the government took a decision that unlimited investments by Non Resident Indians (NRIs) would be allowed in public limited industrial firms in India. In private limited industrial concerns with a minimum issued and paid up capital of Rs. 10 lakhs, their investment would be allowed up to 49 percent. In special cases, it would be increased to 51 per cent or even more, provided resident Indian participation would go up to 49 per cent within a period of, say five years. But they would not be allowed to invest in proprietorship or partnership and dividends would not be allowed to be repatriated.

3.4.1.2 Phase – II: 1967 to 79 – The Period of Selective and Restrictive Policy

Policy of India on FDI can be evaluated as moderately liberal till the mid 1960s. However, in the late 1960s, with the enactment of the Monopolies and Restrictive Trade Practices Act (MRTP) in 1969, the industrial policy regime in India became highly restrictive. The government received such a restrictive policy in the mid 1960s because of the progress occurred in the technical capacity of domestic industry on one hand and the large scale outflows of foreign exchange from India in the form of dividends, profits, royalties and technical fees by foreign investors on the other hand. The Act demanded that all firms with a capital base of over 20 million Rupees to be classified as MRTP firms and were allowed to enter only in selected industries and that too was on a case by case basis. Besides industrial licensing, all additional investment proposals by these MRTP firms necessitated separate permission from the department of company affairs.

The industrial licensing policy of 1970 confined the role of large business houses and foreign companies to the core, heavy and export oriented sectors (Palit, 2009). The government had such a restrictive attitude towards foreign investment for the reason that

they wanted to protect the growing Indian industries from the threat of foreign and private investment. There was a presumption that the sophisticated products from foreign investors may challenge the Indian products and industry.

In 1973, the new Foreign Exchange Regulation Act (FERA) came into force, requiring all foreign companies operating in India to register under Indian corporate legislation with up to 40 percent equity (Sahoo, 2006). The Industrial Policy Statement of 1973, inter alia, identified high-priority industries where investment from large industrial houses and foreign companies would be permitted (Statement on Industrial Policy, 1991).

The Industrial Policy Resolution (IPR) of 1973 limited foreign participation to export-oriented industries that were strategically important for long term growth prospects of the country.

Amongst the raising concerns about the foreign exchange cost of repatriated profits and dividend, the government introduced a new clause in FERA in 1973 that required firms to dilute their foreign equity holdings to 40 per cent if they wanted to be treated as Indian companies (Athreye and Kapur 2001). It was the FERA which provided the regulatory framework for the commercial and manufacturing activities of the branches of foreign companies in India and Indian joint stock companies with foreign equity participation of over 40 per cent. The Act insisted a list of industries where such firms with high equity participation would be allowed to operate and all new investments by such firms necessitated separate approval from the department of company affairs. Besides, there were more restrictions on technology imports. Technology acquisitions were allowed mostly through licensing rather than through financial collaborations.

For bringing investment from NRIs, the government granted permission for NRIs and Persons of Indian Origins (PIOs) to invest in the equity capital of permitted industries, i.e. up to a maximum of 20 per cent of new issues of capital of new Industries.

3.4.1.3 Phase – III: 1980-90 – The Period of Partial Liberalization

The decade of eighties witnessed partial liberalization in the FDI policy of India. During this decade, policy makers began to perceive FDI as a source for earning foreign exchange rather than it being a supplement to local industries. '*Hindu rate of Growth*' was the term used to describe the pathetic socio-economic performance of India in the past thirty years. Low productivity, inefficiency of local industries etc. which country had during those periods were presumed to be the outcome of too much protection rendered to Indian industrial sector from foreign markets. Such protectionist policies of the Indian government resulted in the inefficiencies of the industrial sector of the country compared to those other developing countries which were having liberal FDI policies.

The major reform occurred as part of liberalization was the abolition of restrictions imposed on industries by FERA. The public sector was freed from a number of constraints and was provided greater autonomy. Services sector such as real estate, telecommunications and banking sector was opened to foreign direct investors. In 1988, all industries, except 26 industries specified in the negative list, were exempted from licensing. The exemption was, however, subject to investment and location limitations. The automotive industry, cement, cotton spinning, food processing and polyester filament yarn industries witnessed modernization and expanded scales of production during 1980 (Industrial Policy, 1980). Promotion of competition in the domestic market, technological up-gradation and modernization etc. were emphasized in the industrial policy statement

of 1980. The industrial policy motivated foreign investment in complicated-technology areas. Limitations under FERA on foreign equity to 100 percent export oriented units were liberalized. However, prior approval of government was required on all foreign investments in India and repatriation of capital. Foreign majority holdings for foreign exchange were rarely allowed under Foreign Exchange Regulation Act. As a result environment for foreign investment in India remained largely hostile.

3.4.2 Post - Liberalization Era

FDI policy in the post-liberalization era has been classified in to two as (a) 1991 to 2000: The Period of Liberalization and Open Door Policy and (b) from 2000 and onwards: Further Liberalization in the FDI Regime.

3.4.2.1 Phase IV – 1991 to 2000: The Period of Liberalization and Open Door Policy

It was in July 1991, India initiated its full-fledged economic reform activities. Policy makers brought drastic change and liberalization in the country's FDI policy regime also in order to increase the inflow of foreign investment. The industrial policy statement of 1991 emphasized on the complete exploitation of the foreign investment opportunities. For bringing FDI to high priority industries which demanded large investments and advanced technology, the government took decision to allow foreign equity holding up to 51 per cent in such industries (Statement on Industrial Policy, 1991). This group of industries was the 'Appendix I Industries' and were areas in which FERA companies had already allowed foreign investment on a discretionary basis. FDI equity was allowed up to 51 per cent for the reason that it will allow foreign firms to amalgamate profits and losses from such a company in to those of the parent company for tax purposes. Technology import was also put under the automatic route subject to conditions on

royalty (< 5% domestic, < 8% export) and lump sum payment (< Rs. 1 crore) (Virmani, 2001).

One of the sea changes brought in by the FDI reforms in 1991 was the two-way approval process for FDI. First was the automatic approval route. Under this route, the proposed manufacturing or industrial activity does not require an industrial license. Initially, the limit on foreign investment was 51 per cent. For bringing investment under the automatic route, it needed to formally inform RBI. However, the condition has been removed and the firms are required to inform RBI about foreign investment only after the issue of shares to the foreign firm. The top limit for foreign equity investment under automatic approval route was augmented from 51 to 74 per cent of the equity capital (100 per cent in case of NRIs) in select industries in January 1997. The list of industries to which investment can be brought down under automatic route was also expanded. It was proclaimed further in the budget speech of 1999-2000, that the range of automatic approval route would be further expanded. If the foreign investors wanted to enter other industries or secure higher per cent of foreign equity for themselves, they had to go through a formal process of case by case approval by the government with the Foreign Investment Promotion Board (FIPB) playing the main role (Rao, Murthy and Ranganathan, 1999). The FIPB was set up in the early 1990s, as the nodal and single window agency for all matters relating to FDI, with a view to promote FDI into India, (i) by undertaking investment promotion activities, (ii) facilitating foreign investment, (iii) purposeful negotiation/discussion with potential investors, (iv) early clearance of proposals, and (v) reviewing policy and putting in place appropriate institutional

arrangements, transparent rules and procedures and guidelines for investment promotion and approvals.

Besides FIPB, there are several other bodies also like Secretariat of Industrial Assistance (SIA) and Foreign Investment Implementation Authority (FIIA).

SIA, Ministry of Commerce & Industry, offers a single window service for entrepreneurial help, investor facilitation, accepting and processing all applications, assisting entrepreneurs and investors in setting up projects (including liaison with other organizations and state governments) and in monitoring the implementation of projects.

FIIA provides a pro-active one stop after service care to foreign investors by helping them obtain necessary approvals, sort out operational problems and meet with various government agencies to find solution to their problems (Sahoo, 2006).

Additional liberalization measures during the period included: (i) FERA amended to abolish the general ceiling of 40 per cent on foreign ownership in FDI projects. (ii) The ban existed on the use of foreign brand names in the domestic markets was removed. (iii) The dividend balancing condition was withdrawn for all foreign investment approvals except for 22 industries in the consumer goods sector (iv) export obligations were relaxed (v) The terms of technology and royalty agreements were liberalized and ; (vi) The sectors reserved for the SSI were opened up for foreign investments up to 24 per cent of equity ownership. In 1997, automatic route approval was expanded to 111 high priority sectors with various equity ownership limits between 50 per cent and 100 per cent, OECD, (2009).

3.4.2.2 Phase V – From 2000 and onwards: Further Liberalization in the FDI Regime

The fourth phase of the FDI policy, between 2000 till date, has been reflecting the intention of increasing globalization of the country. The year 2000 and onwards have been depicted as a separate phase in the FDI policy regime because, the FDI policy framework did undergo for sea changes during the year. It was in this year, majority of the sectors were placed under the automatic route, except a few. The dividend balancing condition was also removed during the same year. In several sectors, the threshold limit for equity holding elevated progressively. Foreign investment sector of NBFCs was brought under automatic route. The insurance and defence sectors were opened up to a cap of 26%. The cap for telecom services was increased from 49% to 74%. FDI was permitted up to 51% in single brand retail. A sea-change happened in 2009 with regard to the differentiation between ‘ownership’ and ‘control’. It was with the purpose of calculating the total foreign investment-direct and indirect-in an Indian company. Indian companies having FDI, owned and controlled by Indian residents were permitted downstream investments without government approval. Restrictions on disbursement of royalty were eliminated.

The liberalization efforts in the FDI regime continued in the year 2010 also. For ensuring transparency, all existing regulations on FDI were consolidated in to a single document. Downstream investment through internal accruals was specifically permitted (Discussion Paper, DIPP, 2011). *DIPP's* Circular 1 of 2011 allowed issue of shares against non-cash considerations (*in respect of import of capital goods/ machinery/ equipment and pre-operative/ pre-incorporation expenses*) and also provided flexibility in fixing pricing of

convertible instruments through a formula, rather than upfront fixation. The requirement of Government approval for establishment of new joint ventures in the 'same field' was also done away with. As a result, non-resident companies were allowed to have 100 per cent owned subsidiaries in India. Government allowed FDI, in Limited Liability Partnerships (*DIPP's Press Note 1 of 2011*). It may be observed that the overall effect of liberalization is favourably reflected in the economic parameters of economy. A brief account of the parameters is shown in Appendices (Table 2).

The major policy changes occurred in the FDI regime from 1991 to 2018 has been summarized in the following table:

Table 3.3
A Round-up of FDI Policy from 1991 to 2018

Sl No	Period	Policy Change
1	1990-1991	<ul style="list-style-type: none"> • During this year, up to 51 per cent of foreign equity holding under automatic route was allowed in 34 high priority sectors (Mostly in manufacturing sectors and in a few service sectors)
2	1992-1993	<ul style="list-style-type: none"> • FDI was allowed in the mining sector.
3	1993-1994	<ul style="list-style-type: none"> • Permission for repatriating profits and capital was given to foreign investors and NRIs.
4	1997-1998	<ul style="list-style-type: none"> • Non-Resident Indians (NRI) and Overseas Corporate Bodies (OCB) were given automatic approval for equity in priority industries. • FDI policy regime in mining was further liberalized in January 1997. Foreign equity holding of up to 50 per cent was allowed under automatic route in mining projects and the equity participation was raised to 74 per cent in the service sectors related to mining.
5	1998-1999	<ul style="list-style-type: none"> • FEMA was introduced instead of FERA which revealed the change in the government attitude towards FDI.
6	1999-2000	<ul style="list-style-type: none"> • Foreign Investment Implementation Authority (FIIA) was founded with the purpose of establishing a single point interface between foreign investors and the government machinery, including state authorities. This body was also empowered to give comprehensive approvals.

7	2000-2001	<ul style="list-style-type: none"> • In the year 2000, a paradigm shift occurred, wherein, except for a negative list, all the remaining activities were placed under the automatic route. • There came the abolishment of the dividend balancing condition on consumer goods. • The NBFC Sector was placed on the automatic route.
8	2005-2006	<ul style="list-style-type: none"> • In March 2005, the government announced a revised FDI policy. As a part of that, decision was taken to allow foreign equity participation up to 100 per cent under automatic route in townships, housing, built-up infrastructure and construction development projects. • The Special Economic Zone (SEZ) Act also came in to force in 2005, which enabled a good deal of construction and township development. • The cap for telecom services was increased from 49% to 74%. • FDI was allowed up to 51% in single brand retail.
9	2009-2010	<ul style="list-style-type: none"> • FDI regime in various sectors like commodity exchanges, credit information and aircraft maintenance were liberalized. • Cent per cent FDI was allowed in Maintenance, Repair and Overhauling (MRO). • Cent per cent FDI was allowed in the sector of mining of Titanium bearing minerals. • Hike in the ceiling of FDI in the public sector oil refineries. • Foreign investors were exempted from minimum capitalization and a three year lock-in period.
10	2011-2018 February	<ul style="list-style-type: none"> • In 2011, FDI was allowed in Limited Liability Partnerships (LLPs). • India allowed full foreign ownership in parts of the agriculture sector, namely in the development and production of seeds and planting material, animal husbandry, pisciculture, aquaculture under controlled conditions and services related to agribusiness and related sectors • In the defence sector, foreign investment beyond 49 per cent has been permitted through government approval route. • Permitted FDI up to 100 per cent under automatic route in the sector of manufacturing of medical devices without any distinction of green-field or brown-field. • 74% FDI under automatic route has been permitted in brown-field pharmaceuticals. FDI beyond 74% is allowed through government approval route.

		<ul style="list-style-type: none"> • Foreign equity caps in the activities of non-Scheduled air transport service etc have been increased from 74% to 100% under the automatic route. 100% FDI under automatic route has been allowed in brown-field airport projects. FDI limit for scheduled air transport services etc. raised to 100%, with FDI up to 49% permitted under automatic route and FDI beyond 49% through Government approval. Foreign investment in <i>Air India</i> has been allowed up to 49%. • 100% FDI is permitted under the automatic route in Limited Liability Partnerships (LLPs) through the automatic route. • 100% FDI under automatic route has been permitted in Single Brand Retail Trading (SBRT). • Foreign investment in the private sector banking raised to 74 per cent. • Foreign investment in the insurance sector elevated from 26 per cent to 49 per cent under automatic route. • Raised the cap of foreign investment to 100 per cent under automatic route in several sectors and activities under rail infrastructure. • 100% FDI under automatic route is permitted in marketplace model of e-commerce. • Drastic changes in the FDI policy regime in sectors like broadcasting ,construction, plantation, manufacturing, trading, power exchanges, artificial satellites, white label ATM operations, food product retail trading, asset reconstruction companies, private security agencies, animal husbandry etc.
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Major changes accommodated in the FDI policy with regard to sectors such as defence industries, railway infrastructure, construction development, civil aviation, trading, pharmaceuticals, medical devices, broadcasting, insurance, pension and other financial services, ATMs, asset reconstruction companies, credit information companies, stock exchanges, plantations, Central Public Sector Enterprises (CPSEs), private security agencies and animal husbandry, from August 2014 to January 2018 (Table 3.4).

Table 3.4
Major Modifications/Announcements (India's FDI Policy since August 2014)

Sector	Policy Changes
Defence Industries	<ol style="list-style-type: none"> Aug 2014: While raising the general cap to 49 per cent, it was stated that the combined share of FII, FPI, NRI, FVCI and QFI investment cannot exceed 24 per cent (portfolio investors). However, the portfolio investment was allowed through the automatic route. Nov 2015: The sub-limit of 24 per cent for portfolio investments within the 49 per cent foreign investment in defence industries was removed. Jun 2016: The cap on FDI was completely removed. Investments up to 49 per cent can avail the automatic route. Govt. can permit shares beyond 49 per cent wherever it is likely to result in access to 'modern technology or for other reasons'
Railway Infrastructure	Aug 2014: FDI policy for railway infrastructure was relaxed -- construction, operation and maintenance of high speed trains, freight and passenger terminals and rolling stock, including train sets, and locomotives/coaches: 100 per cent FDI through the automatic route.
Construction Development	<ol style="list-style-type: none"> Dec 2014: Relaxed the policy applicable to the sector. <ul style="list-style-type: none"> Development of serviced plots: minimum land area of 10 hectares removed. Construction-development projects: minimum floor area 20,000 square meters. Earlier, minimum built-up area 50,000 square meters. Minimum inflow \$5 million (earlier \$10 million) for both wholly-owned subsidiaries and joint ventures. Investor will be permitted to exit on completion of the project or after development of trunk infrastructure. The government may permit repatriation of FDI or transfer of stake from one non-resident investor to another before completion of the project. Earlier there was a lock-in of three years, with provision to exit with prior government approval. Nov 2015: Minimum floor area and investment requirements were removed. <ul style="list-style-type: none"> Transfer of stake from one non-resident investor to another would neither be subject to lock-in period requirement nor would specific government approval be needed.
Civil Aviation, Ground Handling and Satellites	<ol style="list-style-type: none"> Nov 2015: The limit of 74 per cent was abolished for non-scheduled air transport service. <ul style="list-style-type: none"> Ground Handling Services: 74 per cent cap and the requirement of approval for FDI beyond 49 per cent was removed. Satellites establishment and operation: 100 per cent through approval route. Earlier the limit was 74 per cent. Jun 2016: <ul style="list-style-type: none"> Scheduled/Regional Air Transport Service: FDI limit was raised from 49 per cent to 100 per cent (automatic up to 49 per cent and

	<p>approval route beyond 49 per cent).</p> <ul style="list-style-type: none"> Existing airport projects, 100 per cent automatic. Earlier automatic up to 74 per cent and approval route beyond 74 per cent. <p>3. Jan 2018: Foreign investment was permitted in Air India Ltd.</p>
Trading	<ol style="list-style-type: none"> Nov 2015: 30 per cent sourcing norm could be relaxed in case of Single Brand Retail Trading for trading of products having ‘state-of-art’ and ‘cutting-edge’ technology and where local sourcing is not possible. <ul style="list-style-type: none"> Unlike earlier, Single Brand Retail Trading (SBRT) FDI companies can undertake retail trading through e-commerce also. New provision permitting 100 per cent FDI in Duty Free Shops through automatic route introduced. Mar 2016: Share of a single vendor cannot exceed 25 per cent of the sales effected through market place based e-commerce entity. Influencing of sale prices was prohibited. Jun 2016: Sourcing norms will not be applicable up to three years from commencement of the business for undertaking SBRT of products having state-of-art and ‘cutting-edge’ technology and where local sourcing is not possible. <ul style="list-style-type: none"> 100 per cent FDI under approval route is allowed for trading, including through e-commerce, in respect of food products manufactured and/or produced in India. Jan 2018: 100 per cent FDI allowed in SBRT through the automatic route.
Pharmaceuticals	Jun 2016: Limit for automatic approval in case of brown-field investment was raised from 49 per cent to 74 per cent.
Medical Devices	Jan 2015: Carving out of medical devices and freeing it from the requirement of government approval in case of brown-field investments.
Broadcasting Sector	<ol style="list-style-type: none"> Nov 2015: FDI limits applicable to the sector were relaxed substantially. <ul style="list-style-type: none"> For Teleports, DTH, Cable Networks, Mobile TV and Head-in-the Sky Broadcasting Service, the cap of 74 per cent removed: up to 49 per cent FDI through automatic route and beyond 74 per cent through approval route. For Cable Networks the limit was raised from 49 per cent to 100 per cent: automatic up to 49 per cent and approval route beyond 49 per cent. Jun 2016: Teleports, DTH, Cable Networks, Mobile TV, Head-in-the Sky Broadcasting Service, Cable Networks: 100 per cent FDI through the automatic route (earlier up to 49 per cent through automatic route and approval route beyond 49 per cent).

Insurance, Pension Sector and other Financial Services	<ol style="list-style-type: none"> 1. Mar 2015: FDI limit was raised from 26 per cent to 49 per cent: automatic up to 26 per cent and approval route for foreign share exceeding 26 per cent. <ul style="list-style-type: none"> • Limit is composite for FDI, FPI (FII/QFI), NRI, FVCI and Depository Receipts. 2. Apr 2015: Pension sector opened to FDI. Applicable conditions same as for insurance. 3. Mar 2016: Foreign investment allowed in the insurance and pension sectors through the automatic route up to 49 per cent. 4. Oct 2016: 100 per cent FDI was allowed through the automatic route in 'other financial services'.
ATMs	Oct 2015: FDI up to 100 per cent was allowed in White Label ATMs (WLAs) through the automatic route.
Asset Reconstruction Companies	May 2016: 100 per cent FDI was allowed through the automatic route.
Credit Information Companies	Nov 2015: The 74 per cent cap on FDI was removed.
Stock Exchanges	<ol style="list-style-type: none"> 1. Jul 2016: Cabinet accorded approval for raising the limit of FDI in Stock Exchanges from five per cent to 15 per cent. 2. Feb 2017: FDI up to 49 per cent in infrastructure companies in Securities Markets.
Plantations	Nov 2015: 100 per cent FDI through Automatic Route was allowed in Tea, Coffee, Rubber, Cardamom, Palm Oil tree and Olive Oil tree plantations. Earlier 100 per cent FDI had been allowed in Tea plantations though the approval route.
Animal Husbandry	Jun 2016: The requirement of 'under controlled conditions' was removed.
Private Security Agencies	Jun 2016: FDI Limit was raised from 49 per cent to 74 per cent - approval route for FDI between 49 per cent and 74 per cent; earlier up to 49 per cent under approval route.
Definition	<p>Jun 2015: Definition of <i>NRI</i> was expanded to include 'Overseas Citizen of India' in addition to 'Persons of Indian Origin' cardholders.</p> <ul style="list-style-type: none"> • Further, NRI investments were decided to be deemed as domestic investment at par with the investments by residents.
Central Public Sector Enterprises (CPSEs)	<p>Feb 2016: Budget Speech contained the following.</p> <ol style="list-style-type: none"> (i) The existing 24 per cent limit for investment by FPIs in Central Public Sector Enterprises, other than Banks, listed in stock exchanges, will be increased to 49 per cent. (ii) Effective implementation of Bilateral Investment Treaties (BITs) signed by India with other countries will be ensured with a Centre State Investment Agreement in order to ensure the fulfillment of the obligations of the State Governments under these Treaties.

Source: 'India's Recent Inward Foreign Direct Investment: an Assessment', Rao & Dhar (2018)

3.5 Abolition of Foreign Investment Promotion Board (FIPB)

In February 2017, the then Minister for Finance Sri. Arun Jaitley in his budget speech, proposed for the exclusion of FIPB, which was constituted in the early 1990s. The Finance Minister in his Budget speech stated that over 90 per cent of total FDI inflows are through the automatic route and the country has now reached on a stage where FIPB can be weeded out. After he declared to dismiss FIPB, the union cabinet approved his proclamation. With the discharge of FIPB, applications for foreign investment are now considered by the concerned ministerial departments.

FIPB was formulated as a part of the restrictive attitude of the country towards foreign investment in the wake of economic liberalization. Throughout these years after economic liberalization, India has been recognizing the significance of more liberalization in the zone of foreign investment. Whenever the country recognized that it is imperative to free the sectors, it had not shown any languor to do so. Up to the year 2000, this Board had an influential role in approving foreign investments as more than 88 per cent of the foreign investment came through the government route during this period. This has been delineated in the following table (Table 3.5).

Table 3.5
FDI through Various Routes (1991-00, US \$ Million)

Year(Jan-Dec)	FIPB & SIA Route	RBI's Automatic Route
1991(Aug-Dec)	78	0
1992	188	18
1993	340	79
1994	511	116
1995	1264	169
1996	1677	180
1997	2824	242
1998	2086	155
1999	1474	181
2000	1474	395
Total	11916	1535
Per cent	88.58	11.41

Source: FIPB Review, 2009.

Table 3.5 outlines the quantity of FDI received both under automatic route and government route for the period 1991-2000. During this period, economic liberalization was in its infancy stage. The working paper of DIPP (2011) has clearly stated that up to 2000, India had not significantly liberalized its sectors for foreign investment, and allowed most of the investments to come through government route. The data in the table validates this statement, as it is perceptible that around 89 per cent of the FDI had come via government route during that period. It also signifies the prominent role played by FIPB during that phase. The following table (Table 3.6) shows the rout-wise FDI received between 2001 and 2008.

Table 3.6
FDI Received Through Various Routes (2001-08, US \$ Million)

Year(Jan-Dec)	FIPB&SIA Route	RBI's Automatic Route
2001	2142	720
2002	1450	813
2003	934	509
2004	1055	1179
2005	1136	1558
2006	1534	7121
2007	2586	8889
2008	3209	23651
Total	14046	44440
Per cent	24.06	75.98

Source: FIPB Review, 2009.

The data on FDI (Table 3.6) is a factual mirror image of the policy frame that we had on FDI during those days. It signifies the paradigm shift occurred in the FDI policy regime in the year 2000, with which several sectors were placed under automatic route. As a result, more than 75 per cent of the foreign investment started to come up via automatic route and FIPB had to consider only the remaining 24 per cent. Thus, the role of FIPB began to shrink from that phase onwards. FIPB (2014) stated that more than 85 per cent of the foreign investment comes through automatic route now a day. This statement in the review connotes the insignificance of maintaining such an exclusive board for FDI approvals. Thus, the dismissal of the board can be perceived as an aftermath of the policy of inclusive liberalization of the country. Moreover, FIPB had more or less accomplished the objectives for which it had been formed in the wake of liberalization. A complete picture of the route - wise inflow of FDI in to India from 2000 to 2018 is provided in the next chapter (Chapter IV, Table 4.12).

The evaluation of the FDI policy of India after the period of independence shows that, *'Policy framework of FDI is apt with regard to the economic conditions of India'*.

However region centric reforms are to be incorporated in the policy.

3.6 Conclusion

This chapter reviewed three prominent aspects related to FDI; the concept, theory and policy framework of India. The concept of FDI is internationally established as the resident in one economy (the direct investor) obtaining a lasting interest in an enterprise resident in another economy (the direct investment enterprise). The practice of FDI accounting in India and internationally, is to be made more precise in order to accommodate the attendant traits of FDI such as the transformation of technology, marketing and managerial capabilities to the host country enterprise. The subsisting theoretical framework suffers from the drawback that it tries only to articulate the behavior of first world multinationals. The theoretical framework shall be enriched to narrate the foreign investment behavior of third world multi nationals also. Finally, the evaluation of policy framework showed that the landmark changes brought in the FDI policy have significantly improved the important macroeconomic parameters.

CHAPTER IV

TREND AND PATTERN OF FDI IN INDIA SINCE ECONOMIC REFORMS

4. 1 Introduction

FDI takes place when a resident in one economy obtains a lasting interest in an enterprise resident in another economy. Thus, the process stabilizes the distribution of capital across boundaries. Accordingly, nations formulate essential policies to optimize the benefits and evade the risk associated with this overseas flow of capital. The policy framework in India ultimately aims at the right and equitable distribution of FDI. In this chapter, the trend, pattern and composition of FDI inflows to India since the adoption of new economic policy in 1991 are evaluated. An attempt has also been made to predict the monthly inflow of FDI to India using the econometric tool of ARIMA.

4. 2 Trend of World FDI

This section of the chapter gives a description of the overall trend of world FDI inflows. World FDI inflows fell down by 23 per cent in 2017 and it was in sharp contrast to other macro-economic variables like GDP, trade etc. which had substantial improvement in 2017. Global FDI inflows witnessed such a sharp contraction mainly due to the decrease in the value of net cross-border Mergers and Acquisitions (M&As) to \$694 billion from \$887 billion in 2016 [World Investment Report (WIR), UNCTAD, 2018]. The value of announced green-field investment, which indicates the future trend of FDI, also fell down substantially by 14 per cent. FDI inflows to developed and transition economies dropped down sharply in 2017, while the inflows

to developing economies stood more or less stable. Thus, developing economies could absorb 47 per cent of the total FDI in 2017, compared to the 36 per cent in 2016. The negative trend in the world FDI inflows occurred due to the play of many factors. One factor is the asset-light¹ form of overseas operations which becomes a reason for structural shift in FDI patterns. The significant fall in the rates of return over the past five years was another major cause. The global rate of return on inward FDI got reduced to 6.7 per cent in 2017. The following table (Table 4.1) presents the data on reducing rate of return on global FDI.

Table 4.1
Rates of Return on Inward FDI

Region	Inward FDI Rates of Return, 2012-2017 (Per cent)						Per cent
	1	2	3	4	5	6	Decline (6-1)
	2012	2013	2014	2015	2016	2017	
World	8.1	7.8	7.9	6.8	7	6.7	1.4
Developed economies	6.7	6.3	6.6	5.7	6.2	5.7	1
Developing economies	10	9.8	9.5	8.5	8.1	8	2
Transition economies	14.4	13.9	14.6	10.2	11.1	11.8	2.6
Asia	10.5	10.8	10.6	9.9	9.5	9.1	1.4
East and South-East Asia	11.5	11.8	11.7	11	10.3	10.1	1.4
South Asia	7.2	6.7	6.1	5.5	6.4	5.7	1.5
West Asia	5.5	5.4	4.9	4.6	4.6	3.4	2.1

Source: World Investment Report, 2018.

Note: Per cent decline in rates of return is shown for the period 2012-2017.

Table 4.1 presents the diminishing rate of return on FDI in different categories of economies for the past five years from 2012 to 2017. Accordingly, the rate of return on global FDI diminished by 1.4 per cent within a span of five years (from 2012 to 2017). Such a reduction in the rate of return on FDI within the same period is visible for various groups of economies with variations. The reduction in the rate of return on

¹Asset light model is a business model where a business owns relatively fewer capital assets compared to the value of its operations.

FDI has gone higher in transition economies. For them, the reduction is 2.6 per cent between 2012 and 2017. The reduction is least for developed economies (one per cent). In the following table (Table 4.2), the trend of world FDI inflows has been presented. It is composed of the trend of FDI inflows to developing economies, developed economies and transition economies.

Table 4.2
Trend of World FDI

Period	<i>Developing Economies</i>		<i>Transition Economies</i>		<i>Developed Economies</i>		<i>Whole World</i>	
	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow
1983-87	17.26	-	NA	-	59.93	-	77.19	-
1988-92	37.67	118.21	NA	-	138.55	131.19	176.22	128.29
1993-97	125.67	233.59	4.82	-	206.88	49.32	337.37	91.45
1998-02	200.99	59.93	7.71	59.85	688.93	233.01	897.63	166.06
2003-07	342.78	70.54	44.71	480.24	710.42	3.12	1097.91	22.31
2008-12	596.51	74.02	77.51	73.36	761.69	7.22	1435.72	30.77
2013-17	683.74	14.62	57.43	-25.91	855.35	12.30	1596.51	11.20
Average Growth (%)	-	95.15	-	146.89	-	72.69	-	75.01

Source: Computed on data from the online datacenter of UNCTAD

Note: NA-Not Available

Table 4.2 shows the dramatic changes occurred in the volume of FDI inflows to developing economies, transition economies, developed economies and total world between 1983-87 and 2013-17. Here, five-year average FDI inflows (average of FDI inflows of five years) to each category of economy along with per cent growth in each five year have been shown.

The whole world average FDI inflows were US \$ 77.19 billion in 1983-87 and it elevated to US \$ 1596.51 billion by 2013-17. Thus, world FDI inflows (five year average) hiked by 20 times between 1983-87 and 2013-17. As per Table 4. 2, the total world FDI inflows have been subdivided in to three as FDI inflows to developing economies, transition economies and developed economies. Regarding developing economies, average FDI inflows during 1983-87 was US \$17.26 billion and it got elevated to US \$ 683.74 billion during 2013-17. An increase of over 38 times occurred. FDI inflows to transition economies got lifted up to US \$57.43 billion in 2013-17 from US \$ 4.82 billion in 1993-97. An increase of around 11 times occurred. In developed economies, FDI inflows enhanced from US \$ 59.93 billion in 1983-87 to US \$855.35 billion in 2013-17. Here, a hike of over 13 times occurred. The following table (Table 4.3) shows the composition of individual FDI inflows in the total world FDI inflows for all categories of economies between 1983-87 and 2013-17.

Table 4.3
Per cent Composition in the World FDI

Period	% of the Total World FDI Inflows (5 Years' Average)		
	Developing Economies	Transition Economies	Developed Economies
1983-87	22.37	NA	77.63
1988-92	21.38	NA	78.62
1993-97	37.25	1.43	61.32
1998-02	22.39	0.86	76.75
2003-07	31.22	4.07	64.71
2008-12	41.55	5.40	53.05
2013-17	42.83	3.60	53.58

Source: Computed on data from the online datacenter of UNCTAD Note: NA-Not Available

Table 4.3 shows FDI inflows to developing economies (per cent in world FDI inflows) were steadily increasing from 1983-87 to 2013-17. Simultaneously, the per cent of FDI to developed economies decreased continuously. An overall increase of 20.46 per cent took place in the volume of FDI inflows to developing countries between 1983-87 and 2013-17. Thus, in 2013-17, FDI inflows (five-year average) to developing economies constituted 42.83 per cent of the total world FDI and that can be perceived as a prominent change ensued due to the marked shift occurred in the hostile attitude of developing countries towards FDI and as a result, they began to widely liberalize their restrictive policy regime to welcome foreign investors. For attracting foreign investors, they started to formulate strategies stressing on competitiveness, privatization and outward orientation. However, the FDI inflows (five-year average) to developed economies reduced by 24.05 per cent between 1983-87 and 2013-17. Thus, it is going to happen within the near future that developing economies will get ahead of developed economies in fetching major share of FDI inflows.

In the case of transition economies, there occurred only a slight increase of 2.17 per cent in FDI inflows between 1993-97 and 2013-17. Transition economies are in the process of shifting from a planned economy to a free-market economy and it is expected that soon they will turn out to be major FDI hubs. The following section gives a brief account of the FDI scenario in developing economies.

4.2.1 Trend of FDI in Developing Economies

In 2017, FDI inflows to developing countries stood more or less stable. Thus developing countries received 47 per cent of the total world FDI inflows in 2017, against the 36 per cent they got in 2016. At the same time, the share of developed economies in the world FDI inflows diminished to 50 per cent. In 2017, half of the top

10 recipient countries of world FDI were developing economies including China, Brazil, India, Indonesia and Mexico. These facts prove that the strength of developing economies including India is increasing and they will soon turn out to be major industrial giants in the world. The table (Table 4.4) presents the data on mounting foreign investment in all categories of developing economies.

Table 4.4
FDI Inflows to Developing Economies of the World

Period	<i>Developing Economies: Africa</i>		<i>Developing Economies: America</i>		<i>Developing Economies: Asia</i>		<i>Developing Economies: Oceania</i>	
	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow
1983-87	1.97	-	4.9	-	10.27	-	NA	NA
1988-92	3.58	81.54	10.63	116.84	23.21	126.12	NA	NA
1993-97	6.85	91.38	36.17	240.26	82.4	255	NA	NA
1998-02	13.25	93.32	73.72	103.83	113.79	38.09	NA	NA
2003-07	30.22	128.1	76.29	3.48	235.54	107	NA	NA
2008-12	52.01	72.09	156	104.48	386.07	63.91	2.42	NA
2013-17	50.96	-2.01	162.1	3.91	468.59	21.37	2.08	-14.37
Average Growth (%)	-	77.4	-	95.46	-	101.91	-	-14.37

Source: Computed on data from the online datacenter of UNCTAD

Note: NA-Not Available

Table 4.4 shows that FDI inflow is on the increase in all kinds of developing economies except Oceania. In Oceania, the available data is limited and it is difficult to reach a conclusion with it. In Africa, FDI inflows (five-year average) were US \$ 1.97 billion in 1983-87 and it hiked to US \$ 50.396 billion by 2013-17. An increase of around *25 times* occurred.

In America, FDI inflows were US \$ 4.9 billion in 1983-87 and it reached US \$ 162.1 billion by 2013-17. An increase of *32 times* occurred. In Asia, FDI inflows were US \$ 10.27 billion in 1983-87 and reached US \$ 468.59 billion by 2013-17. A raise of around *45 times* occurred.

However, growth rate of FDI inflows is the lowest in all categories of developing economies in the current five year period; i.e., in 2013-17. In Africa and Oceania, it is negative (minus 2.01 per cent and minus 14.37 per cent respectively). In America, it is 3.91 per cent, an all time low rate of growth after the lowest rate of 3.48 per cent in 2003-07. The rate of growth is comparatively better in Asia (21.37 per cent). However, it is the all time low rate in Asia since 1983-87. This low rate of growth in FDI inflows (to all categories of developing economies in 2013-17) can be attributed to a bunch of factors including the reduction in the rate of return on investment in almost all parts of the world. The average growth per cent (average of all the five-year periods) is highest (101.91 per cent) in Asia.

The following table (Table 4.5) presents the details of per cent composition of FDI inflows in total world FDI inflows for all kinds of developing economies. For this calculation also, the five year average FDI inflows have been considered.

Table 4.5
Per cent Composition in World FDI

Period	<i>Developing Economies: Per cent of the Total World FDI Inflows (5 Years' Average)</i>			
	<i>Africa</i>	<i>America</i>	<i>Asia</i>	<i>Oceania</i>
1983-87	2.55	6.35	13.30	NA
1988-92	2.03	6.03	13.17	NA
1993-97	2.03	10.72	24.42	NA
1998-02	1.48	8.21	12.68	NA
2003-07	2.75	6.95	21.45	NA
2008-12	3.62	10.87	26.89	0.17
2013-17	3.19	10.15	29.35	0.13

Source: Computed on data from the online datacenter of UNCTAD

Note: NA-Not Available

According to Table 4.5, FDI Inflows (5 Year's Average) to Africa in total world FDI can be seen increasing at a diminishing rate while that to both America and Asia are increasing at an increasing rate. In 2013-17, FDI Inflows (5 Year's Average) to America composed 10.15 per cent of the total world FDI inflows and that of Asia was 29.35 per cent. For Africa, it was lower (3.19 per cent). Thus, the total FDI Inflows (5 Year's Average) to all categories of developing economies in the total FDI inflows constituted 42.83 per cent in 2013-17.

The following table (Table 4.6) presents the details of volume of FDI Inflows (5 Year's Average) to developing economies in Asia from 1983-87 to 2013-17.

Table 4.6
FDI to Developing Economies in Asia

Period	<i>Developing Economies: Eastern Asia</i>		<i>Developing Economies: Southern Asia</i>		<i>Developing Economies: South- Eastern Asia</i>		<i>Developing Economies: Western Asia</i>	
	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow	Five Year Average FDI Inflow (US \$ Bn)	Five Year % Change in the FDI Inflow
1983-87	4.63	-	0.10	-	3.15	-	2.38	-
1988-92	10.58	128.24	0.44	339.73	10.80	242.22	1.40	-41.07
1993-97	49.43	367.30	2.98	582.15	26.91	149.29	3.07	119.48
1998-02	81.47	64.81	5.87	96.86	22.41	-16.74	4.03	31.26
2003-07	120.44	47.83	19.32	229.04	50.77	126.60	45.01	1015.62
2008-12	199.73	65.84	42.14	118.08	80.38	58.31	63.82	41.81
2013-17	266.16	33.26	46.89	11.29	124.05	54.33	31.49	-50.67
Average Growth (%)	-	117.88	-	229.52	-	102.33	-	186.07

Source: Computed on data from the online datacenter of UNCTAD

Table 4.6 shows that developing economies in Eastern Asia attracted significant volume of FDI inflows in 2013-17. In the period, they received FDI worth US \$ 266.16 billion, while Southern Asia received FDI worth US \$ 46.98 billion. Between 1983-87 and 2013-17, FDI to Eastern Asia raised by more than 56 times. Southern Asia has also made substantive achievement in attracting FDI; from a mere US \$ 0.1 billion in 1983-87, it hiked to US \$ 46.89 billion in 2013-17. Eastern Asian countries like Japan, China, Hong Kong province of China, South Korea etc. are major receivers of FDI. In Southern Asia, India is the principal host country.

In South-east Asia, FDI inflows were US \$ 3.15 billion in 1983-87 and it surged up to US \$124.05 billion by 2013-17. An increase of 38.38 times occurred. By 2017, South-east Asian countries which include Indonesia, Singapore, Malaysia, Philippines etc. have become major host countries. However, Western Asia, which consists of 19 countries including Arab nations, has not converted as a major destination of FDI as it could fetch in FDI worth US \$ 31.49 billion only in 2013-17. The following table (Table 4.7) shows the per cent of FDI in developing economies in Asia as a part of world FDI.

Table 4.7
Per cent of Total World FDI Inflows (5 Year's Average)

Period	<i>Developing Economies: Eastern Asia</i>	<i>Developing Economies: Southern Asia</i>	<i>Developing Economies: South-Eastern Asia</i>	<i>Developing Economies: Western Asia</i>
1983-87	6.00	0.13	4.08	3.08
1988-92	6.00	0.25	6.13	0.79
1993-97	14.65	0.88	7.98	0.91
1998-02	9.08	0.65	2.50	0.45
2003-07	10.97	1.76	4.62	4.10
2008-12	13.91	2.94	5.60	4.45
2013-17	16.67	2.94	7.77	1.97

Source: Computed from the Online Datacenter of UNCTAD

Table 4.7 shows FDI inflows to various regions in Asia as per cent of the total world FDI from 1983-87 to 2013-17. 16.67 per cent of total world FDI inflows came to Eastern Asia in 2013-17. To South-East Asia, 7.77 per cent of the total world FDI arrived. Factors like trade and investment liberalization, rapidly growing local market, extent of economic development, low inflation and stringent Intellectual Property Rights (IPR) make the developing nations from Eastern and South-East Asia more captivating to foreign investment.

In 2013-17, Southern Asia could receive only 2.94 per cent of world FDI inflows which was 0.13 per cent in 1983-87; and only a moderate increase took place. The picture is similar in Western Asia. They could attract only 1.97 per cent of total FDI inflows in 2013-17, which reflected the increasing geo-political risks in the western part of Asia.

The following section of the chapter discusses about the trend of FDI inflows to India, being a prominent developing economy in Southern Asia.

4.3 Trend of FDI Inflows in India since 1990

In India, the government's measures of liberalization since July 1991 have resulted in considerable increase in FDI inflows to the country which made the growth strategy of the country gradually more dependent on foreign capital. However, though increased considerably, FDI inflows have fluctuated over the years and are not so high when considered as a proportion to GDP. The following table (Table 4.8) shows the yearly FDI inflows to India from 1990 to 2017.

Table 4.8
FDI Inflows to India Since 1990

<i>India</i>							
Year	FDI Inflows (US \$ Bn)	Growth Rate (%)	FDI Inflows as % of World FDI Inflows	FDI Inflows as % of FDI Inflows to Developing Economies	FDI Inflows as % of FDI Inflows to Developing South Asian Economies	FDI to GDP	FDI to GFCF
1990	0.24	-6.11	0.12	0.69	-	0.07	0.29
1991	0.075	-68.35	0.05	0.19	16.78	0.03	0.11
1992	0.25	236.00	0.15	0.47	33.40	0.09	0.36
1993	0.53	111.11	0.24	0.70	39.28	0.19	0.83
1994	0.97	83.08	0.38	0.95	49.95	0.30	1.27
1995	2.15	120.84	0.63	1.83	76.38	0.60	2.32
1996	2.53	17.39	0.65	1.72	74.70	0.64	2.60
1997	3.62	43.33	0.75	1.95	66.85	0.87	3.44
1998	2.63	-27.25	0.38	1.50	67.06	0.62	2.47
1999	2.17	-17.66	0.20	1.00	66.72	0.47	1.84
2000	3.59	65.50	0.26	1.55	73.73	0.77	3.15
2001	5.48	52.67	0.71	2.54	81.18	1.13	4.21
2002	5.63	2.78	0.95	3.39	53.26	1.09	4.31
2003	4.32	-23.24	0.78	2.22	51.59	0.71	2.71
2004	5.78	33.71	0.83	2.21	53.18	0.81	2.65
2005	7.62	31.91	0.80	2.30	53.74	0.93	2.84
2006	20.33	166.71	1.45	5.04	71.10	2.16	6.44
2007	25.35	24.71	1.34	4.85	73.28	2.08	5.82
2008	47.10	85.81	3.17	8.15	83.22	3.93	11.32
2009	35.63	-24.35	3.02	7.73	83.89	2.66	7.82
2010	27.42	-23.06	2.00	4.36	78.53	1.64	4.92
2011	36.19	32.00	2.31	5.45	81.64	1.99	5.79
2012	24.20	-33.14	1.54	3.71	74.76	1.32	3.96
2013	28.20	16.55	1.98	4.35	79.22	1.52	4.85
2014	34.58	22.63	2.58	5.05	83.45	1.70	5.64
2015	44.06	27.42	2.29	5.92	86.10	2.09	7.29
2016	44.48	0.95	2.38	6.64	82.07	1.94	6.88
2017	39.92	-10.26	2.79	5.95	76.69	1.51	5.26
Average	16.25	-	1.24	3.30	68.68	1.21	3.98
Standard Deviation	16.69	-	-	-	-	-	-
Standard Deviation/Mean	102.71	-	-	-	-	-	-
AAGR	-	33.63	-	-	-	-	-
CAGR	20.04	-	-	-	-	-	-

Source: Computed from the Online Datacenters of both UNCTAD and World Bank

In 1990, FDI flows to India went lower by 6.11 per cent (Table 4.8). World FDI inflows grew by 4 per cent in the year. The growth in the number of cross-border mergers and acquisitions was the principal reason behind the growth in the global FDI in the year. Cross-border mergers and acquisitions grew abundant because of the technological and competitive forces. In 1990, FDI to India consisted of a meager 0.12 per cent of the total world FDI and 0.69 per cent of total developing economy's FDI. India's ratios of FDI to GDP and FDI to GFCF were quite lower (0.07 per cent and 0.29 per cent respectively). These indicate the very lower quantity of FDI inflows received by India in the beginning of 90s.

In India, during the period, the affairs of the economy were not cheerful. The trade deficit of the country elevated from Rs. 12, 400 crore in 1989-1990 to Rs. 16, 900 crore in 1990-91. The Current Account Deficit (CAD) enlarged from Rs. 11,350 crore in 1989-90 to Rs. 17,350 crore in 1990-91. The CAD to GDP ratio elevated from 2.3 per cent in 1989-90 to 3.1 per cent in 1990-91. Moreover, the fiscal deficit to GDP ratio was more than seven per cent during the two years 1989-90 and 1990-91. The foreign exchange reserves, which supposed to cover import costs for two years (1989-1991), were just sufficient to cover close to two and half months of imports. The average rate of inflation was 7.5 per cent in 1989-90, which went up to ten per cent in 1990-91. In 1991-92, it crossed 13 per cent. The GDP growth rate which was 6.5 per cent in 1989-90, came down to 5.5 per cent in 1990-91. The Balance of Payment crisis also affected the performance of industrial sector. The average industrial growth rate was eight per cent in the second half of 1980s. In 1989-90, it was 8.6 per cent and in 1990-91 it was 8.2 per cent.

India's foreign exchange reserves stood at Rs. 5,277 crore on 31 December 1989, which declined to Rs. 2,152 crore by the end of December 1990. Between May and

July 1991, these reserves ranged between Rs. 2,500 crore to 3,300 crore. All these paved the way for low FDI in India in the years 1990 and 1991.

After a fall of two consecutive years, FDI to India recorded an unprecedented growth of 236 per cent in 1992. By 1992, India had taken several conclusive decisions in its external sector regulations like, movement to partial convertibility of the rupee (current account), adoption of export-import policy involving a phased-in reduction of both tariffs and quotas etc.

In 1993 also, FDI to India grew high by 111.11 per cent. During the year, the world FDI inflows grew at a lower rate of 35.1 per cent. In 1993 also, India adopted certain decisive policy actions as a part of its external sector reforms. It includes, allowing of full ownership to foreign investors, which were previously restricted for them, adoption of the national treatment principle, opening up of financial sector partially for FDI, made Rupee fully convertible (Current Account) etc.

In 1994, FDI to India grew by 83.08 per cent. In the same year, world FDI inflows grew by 15.81 per cent. In India, FDI approvals rose dramatically from \$165 million in 1990-1991 to \$4 billion in 1993-1994, although actual inflows were still under \$1 billion a year. In 1994, the country opened both its telecom and mining industry towards FDI.

In 1995, FDI inflow to the country reached another summit. The growth rate in the year was 120.84 per cent while that of the world FDI was 33.96 per cent. FDI inflows to South Asia doubled in the year mainly due to the exceptional hike in the inflows to India. It was in this year, the country opened up its cable television network sector towards FDI. All these reform measures in the country had improved the confidence of foreign investors. As a result, the country's annual FDI inflows got elevated from \$ 155 million in 1991, to \$ 947 million in 1994. It shows an increase by more than 5

times within three years. The reforms also could shape the sectoral distribution of the country's inward FDI. 33 per cent of the inward FDI approvals in India went to the infrastructure sector (including oil, power, transport, hotels and tourism) of the country between 1991 and 1995. 27 per cent of the foreign investment was in the infrastructure sector which constituted of, electronics, chemicals and machinery (WIR, 1995).

In 1996, FDI inflows to India grew by 17.39 per cent, while the whole world FDI enhanced by 13.85 per cent. Flows to South Asia enhanced to \$ 3.5 billion, which reflected, principally a raise in the inflows to India. It was the first time, in India, FDI exceeded FPI, in the country's recent time. By 1996, India had become an attractive destination for investment to the newly industrializing economies in Asia. By the year, investment from the Republic of Korea had outstripped that from US and UK.

In 1997, India's FDI inflows grew by 43.33 per cent and the world FDI grew by 23.83 per cent. In 1997, FDI inflows to South Asia hiked to a record level of \$ 4.4 billion against the \$ 3.3 billion worth inflows in 1996.

After an increase for six consecutive years (1992-97), FDI inflows to India fell by 27.25 per cent in 1998. Nevertheless, global FDI rose by 43.44 per cent during the year. India couldn't sustain the high inflows in FDI it had in its recent past. The Asian crisis played a role in the reduction in FDI inflows during that year. Measures to encourage private investment and foreign participation in the domestic economy were strengthened in 1998 in India. By 1998, the Indian software industry got uplifted due to the investment made by foreign firms. Texas Instruments (TI) in 1986 established its first wholly owned export-oriented subsidiary in the country. In 1989, Hewlett-Packard (HP) set up a 100 per cent owned subsidiary in Bangalore. In 1990-1991 India did away with the quantitative restrictions on imports of intermediate and capital

goods for software exports, which gave further boost to the industry. The TI and HP investments rendered help to the Indian software industry at a crucial stage of its development. Thus, the export competitiveness of Indian software industry got well established.

In 1999, FDI flows to India went lower by 17.66 per cent. Simultaneously, the world FDI grew by 55.83 per cent. FDI flows to South Asia reduced by 13 per cent in 1999, mainly due to a decline in the inflows to India. This reduction in the inflows to South Asia was \$ 1.7 billion lower than the peak level of 1997(\$ 4.9 billion). In 2000, FDI inflows to India grew by 65.5 per cent. In the year, the growth in world FDI was 26.22 per cent. However, inflows to South Asia fell by one per cent.

In 2001, FDI to India grew by 52.66 per cent. The world FDI flows went lower by 43.12 per cent. FDI inflows to South Asia saw an increase of 32 per cent in 2001 and it became \$ 4 billion. Among this, FDI worth \$ 3.4 billion went to India, the region's highest recipient. India could achieve that much FDI in the year due to its continued liberalization measures. On the other hand, inflow to the other countries in the region, diminished significantly, after the September 11 event (Terrorist Attack in US).

In 2002, FDI flows to India elevated by 2.77 per cent. Global FDI fell down by -23.66 per cent in the year, amidst weak performance of the global economy. Lower corporate profitability, falling stock market valuations etc. were the major reasons. Slowdown in the pace of corporate restructuring in some industries and the winding down of privatization in some countries also played behind the reduction of global FDI. In South Asia, in 2002, FDI inflows became \$4.6 billion, from the \$ 4 billion of the previous year. FDI flows to India rose in the year, mainly due to the country's market potential, improved economic performance, growing competence of IT industries, and the impetus of its liberalization efforts.

In 2003 FDI to India went lower by 23.24 per cent and there occurred a decrease of 6.64 per cent in the world FDI. South Asia received \$ 6.1 billion FDI, which was \$4.5 billion in 2002.

In 2004, global FDI grew only by two per cent, while India had 33.71 per cent of growth. South Asia also had a significant growth rate in its inflows (31 per cent). A rise in the quantity of FDI flow to India was the result of its improved economic performance and open investment climate. Cross-border M&As to India rose in 2004 as the telecommunications, business process outsourcing and pharmaceutical industries saw an increase in large deals.

FDI flows to India grew by 31.91 per cent in 2005, while world FDI increased by 29 per cent. FDI to South Asia increased by 34 per cent. Most economies in South Asia got enough volume of FDI in 2005. Improved economic and policy conditions helped for the upswing of FDI inflows to India. In 2005, India's GDP growth rate exceeded 8 per cent and the country's stock market grew by 36 per cent.

In 2006, there happened a record hike in the FDI inflow to India; a hike of 166.7 per cent. It is the highest since the peak of (236 per cent) in 1992. In 2006, global FDI grew by 38 per cent. FDI inflows to developed countries grew by 45 per cent and that to developing countries grew by 21 per cent. However, FDI to transition economies got a record growth of 68 per cent. FDI inflows to South Asia elevated by 126 per cent, mainly due to an exorbitant increase in the FDI inflows to India in 2006. FDI to India outpoured that much in 2006, because of the subsistence of the country's rapidly growing economy. Such an economic state could boost up the investor confidence in the country. Similarly, the sustained growth in income has also made the country a favourable destination for market seeking FDI. Due to this record hike in FDI inflows in 2006, there occurred a quantum leap in the volume of other variables like; FDI to

India as part of World FDI (1.45 per cent), FDI to India as part of Developing Economy's FDI (5.04 per cent), FDI to India as part of developing South Asian Economy's FDI (71.1 per cent), FDI Inflows to India's GDP (2.16 per cent) and FDI Inflows to India's GFCF (6.44 per cent).

In 2007, FDI to India grew by 24.7 per cent, while that of the world was 34.9 per cent. Global FDI reached at its record height in 2007. The previous record height of global FDI was in 2000, and in 2007, it exceeded that too. High economic growth in many parts of the world was the principal reason behind such a record height of the global FDI in 2007. In the late 2007, the financial and credit risks began to affect many economies. However, the profits of parent firms went on increasing. Such firms provided funds to their subordinates, and it reduced the risk of decreased availability of loans from financial institutions due to *sub-prime credit crisis*. In foreign affiliates, higher profits, amounting to over \$1,100 billion in 2007, contributed to higher reinvested earnings, which accounted for about 30 per cent of total FDI flows in 2007. Soaring growth in the cross-border M&A activity was another feature of FDI in 2007, globally. High corporate profits encouraged Trans-National Corporations (TNCs) to go for further mergers and acquisitions. Another reason behind mergers was the pressure of competition for corporates. It forced them to strengthen their competitiveness by acquiring foreign firms. Moreover, debt financing for M&As was almost favourable. In 2007, FDI inflows to South Asia, hiked by 19 per cent, due to an increase in the FDI to both India and Pakistan. Better growth of economy, progressive investment environment and further opening up of the telecommunications, retail and other industries made a 24.7 per cent increase in FDI inflows to India in 2007. Extensive FDI occurred in automobiles, telecommunications, real estate and other service industries. Some large scale investments by TNCs like

Vodafone, Oracle, Holcim and Matsushita did happen in India, which caused a boost in the country's FDI in 2007. Moreover, Government of India (GoI) enabled single brand retail window in 2006 through which foreign investors could hold 51 per cent equity ownership. It also elevated FDI to India in 2007.

In 2008, FDI to India grew by 85.8 per cent. It was the year of great recession for the whole global economy. Thus along with other dominant macro-economic variables, FDI too began to collapse in the year, globally. From 2003-2007, global FDI grew undisturbed. But global FDI inflows fell by 14 per cent in 2008 to \$1,697 billion, from a record height of \$1,979 billion in 2007. Cross-border M&As are the main path for FDI in developed economies. But, in 2008, lowering corporate profits and shrinking stock prices brought down the value and scope of cross-border M&As. Falling demand for goods and services made the companies to curtail their investment plans both through cross-border M&As and green-field investment. As a consequence of the crisis, FDI began to originally fall in developed economies (29 per cent). In the beginning, FDI flows to developing countries and to the transition economies of South-East Europe (SEE) and the Commonwealth of Independent States (CIS) continued to increase, by 17 per cent and 26 per cent respectively. However, in late 2008 and early 2009, the latter two groups of countries also started to feel the impact of the crisis on their inflows. In 2008, in India, matters had not gone worse as the country had high rate of growth in its economy. That's why the country experienced a rise in its FDI inflows over that of the previous year. In 2008, South Asia had 49 per cent growth in its FDI inflows. It was higher than that of other regions in the continent.

In 2009, FDI inflows to India went lower by 24.34 per cent as the country started to experience the effect of global economic recession from 2009 onwards. The world

FDI flows decreased by 20.6 per cent. In 2009, FDI to developing countries decreased by 20 per cent and that to transition economies fell by 47 per cent. The fall in FDI to developed economies was not that much, but 16.7 per cent. A global decline occurred in foreign investment because of the weak economic performance in many parts of the world. Reduced financial capabilities of the TNCs were another reason. Following the 2008 decline, FDI flows to developed countries further contracted by 44 per cent in 2009. Falling profits resulted in lower reinvested earnings and intra-company loans, weighed on FDI flows to developed countries. A fall in leveraged buyout transactions did dampen cross-border M&As. Developing and transition economies which showed immunity towards the global turmoil in 2008 were not spared in 2009 but did better than developed countries.

In 2010 too, FDI to India decreased by 23 per cent. However, the world FDI increased slightly in 2010 and the pattern of growth of FDI across the globe was uneven. A decline occurred in the FDI inflows to developed and transition economies, while that to developing countries recovered powerfully. In India, FDI came down in 2010 mainly because of the macro-economic concerns such as high current account deficit and inflation. Delays occurred in the approval of large FDI projects also resulted in the reduction in FDI inflows to India in 2010.

In contrast to this, inflows to Bangladesh increased by nearly 30 per cent to \$913 million; the country is becoming a major low-cost production location in South Asia.

In 2011, growth rate of India's FDI inflows was 31.99 per cent. Global FDI enhanced by 16 per cent during the year. It reflected the higher profits of TNCs and high economic growth in developing countries. The rise in FDI was widespread and the rise experienced in the entire economic groups-developed, developing and transition. But the reasons were differing. In developing and transition economies, there

happened a rise of 12 per cent in their FDI inflows principally due to the elevation in green-field investments. In the year, FDI to developed countries rose by 21 per cent, due to an increase in the cross border M&As. In 2011, FDI inflows to South Asia got elevated by 23 per cent, due to the surging of FDI flows to India, which is the major recipient in the region. FDI outflows from South Asia also got elevated. Outflows from India, the dominant source of FDI from the region, increased from \$13.2 billion in 2010 to \$14.8 billion in 2011.

In 2012, Indian FDI again diminished by 33.14 per cent; a significant pitfall. In the year, global FDI flows also fell down by 18 per cent. The sharp decline in the FDI was in contrary to the positive growth made by other significant macro-economic variables like world GDP, trade and growth of employment. This huge fall in the FDI inflows didn't affect developing countries, but affected the developed world. In 2012, FDI inflows to South Asia fell down by 24 per cent due to the decline in cross-border M&As and green-field investments. FDI outflows from the region also shrank by 29 per cent due to the contraction in the value of M&As by Indian companies. However, India lasted as the dominant recipient of FDI in South Asia in 2012. But, the country's economy underwent for the slowest growth in a decade in 2012. In India, highest rate of inflation experienced, which increased the risks for both domestic and foreign investors. It affected investor's confidence and FDI inflows to India declined significantly.

In 2013, India had a growth of 16.54 per cent in its FDI, while global FDI flows grew only by 9 per cent. There transpired some uncertainty in the international investments in the year. FDI inflows to all major economic groups increased during the year. BRICS could fetch one fifth of the global FDI flows. FDI inflows to South Asia rose by 10 per cent. Simultaneously, outflows from the region collapsed by nearly three

fourths in 2013. WIR (2013) approved that enhanced connectivity of South Asia with other parts of Asia has helped to improve the FDI flows to the region. However, macroeconomic uncertainties persisted in India. In India, in 2013, the value of green-field projects by TNCs declined both in manufacturing and services. M&As from USA and UK to India increased principally, while that from Japan decreased in 2013. In 2014, India got a growth of 22.63 per cent in its FDI inflows, when global FDI flows experienced a reduction of 16 per cent. Global FDI reduced by a large quantum for the reason that the world economy had fragility, investors had policy uncertainty and geo-political risks were high. New investments during this period were offset by some large divestments. The decline in FDI was not in consistent with the growth in GDP, trade, GFCF, and employment. WIR (2015) evaluated India's growth (in FDI) of more than 22 per cent among the global economic turbulences in 2014, as significant. FDI from different parts of the world boosted the automotive industry in India. During this period, India's manufacturing sector gained strength. In 2014, FDI outflows from South Asia, originated mainly from India. It rose fivefold and reached \$ 10 billion. These factors of India's FDI indicated the country's improved economic performance during the year. WIR (2015) mentioned that the 'Make in India' initiative started in India in 2014, also has helped to boost the quantity of FDI to India.

In 2015, FDI flows to India grew at a comparatively higher rate of 27.41 per cent. Not only Indian FDI, but also the global FDI grew notably. The global FDI grew by 38 per cent, and this rate is the highest since the global economic and financial crisis of 2008 and 2009. A surge in cross-border mergers and acquisitions (M&As) to \$ 721 billion, from \$ 432 billion in 2014 was the prominent reason behind this upraise in FDI flows globally. This rise in global FDI in 2015 was not in consistent with the direction of

other macroeconomic variables. Global macroeconomic environment experienced, slowing growth and lowering commodity prices in 2015. However, it is to be noted that, the productive impact for the surged FDI was less, since many of the M&As were corporate reconfigurations, including tax inversions. Such reconfigurations can make high movements in the country's balance of payments records, but little change in the actual MNE operations. This trend of cross-border M&As was evident in US and Europe, in 2015. There aroused a concern on MNCs curtailing their productive investments. In 2015, capital expenditure by 5000 large MNEs diminished further (11 per cent) after having recorded a decline of 5 per cent in 2014. These trends of declining capital expenditure, to some extent are an expression of the weak global macro-economic environment. The volume of world trade in goods and services, couldn't keep pace with the global GDP. It grew only by 2.6 per cent against the 7.2 per cent average growth recorded between 2000 and 2007 (before the crisis).

In 2016, FDI flows to India recorded a mild rate of growth of around one per cent, while global FDI flows registered a fall of two per cent. Intra-company loans fell down at the global level. But equity investments surged up due to an 18 per cent increase in the value of cross border M&As at the global level. That was because of the progressive activities took place in developed economies. In 2016, flows to developed economies got elevated by five per cent over that of the previous year. Thus, their share in global FDI flows grew to 59 per cent, and it is regarded as highest after the peak level in 2007. On the contrary, developing countries became the losers. Inflows to this region descended by 14 per cent, which is a sizeable rate. Weak commodity prices and slowing growth of economy in this economic group were the major reasons behind this fall. In developing Asia too, the decline was of huge impact. Decline in this region was 15 per cent. Here, every region experienced decline alike

in 2016, except South Asia. Stable flows to India and rising flows to Pakistan were the causes for the steady status of this region. In India, foreign MNEs are relying on cross border M&As to enter the rapidly expanding Indian market. Similarly, new liberalization efforts continuing bring improvement to the investment climate in India. For example, India brought in a new e-form called the 'Simplified Proforma for Incorporating Company Electronically (SPICe)' to speed up and restructure the method of corporate establishment. Moreover, India raised the foreign ownership ceiling in Indian stock exchanges, depositories, banking and insurance companies and commodity derivative exchanges. In June 2016, the country also introduced another comprehensive FDI liberalization strategy, raising sectoral caps in different industries, bringing more activities under the automatic route. But, tax related concerns caused hindrance to some foreign investors.

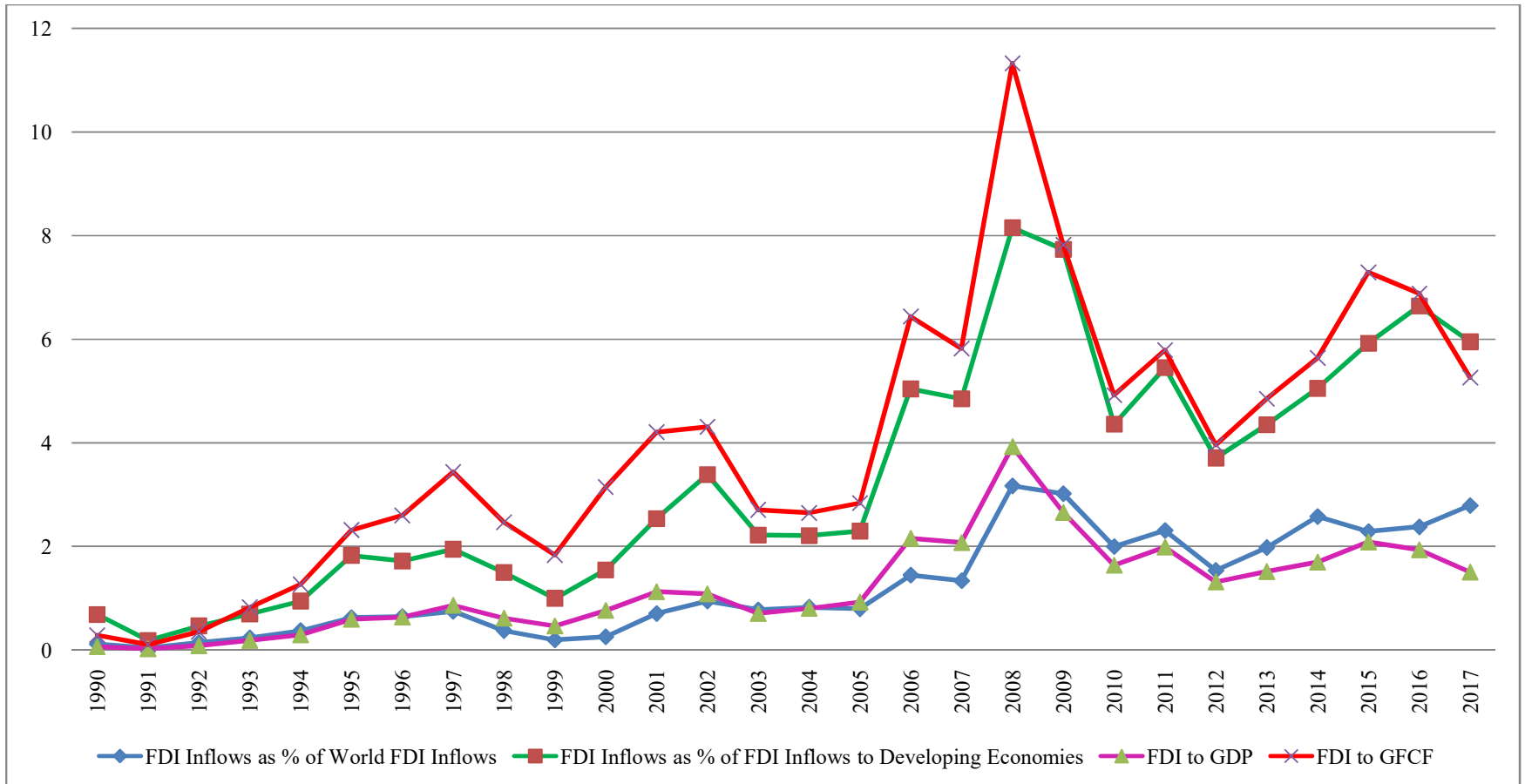
All major economies in Asia (Such as China, Vietnam, Singapore and Hong Kong) registered decrease in FDI inflows in 2016. In west Asia, weak oil prices and political uncertainties were the major barriers hindered FDI inflows.

In 2017, the inward FDI to India went lower by 10.26 per cent, showing the failure to attract FDI due to multidimensional aspects. However, the case was not isolated. The same happened for the whole world FDI. World FDI couldn't repeat its outstanding rate of growth it had in 2015, in the following years. The global FDI flows itself declined sharply by 23 per cent in 2017 to \$ 1.43 trillion from \$ 1.87 trillion of 2016. This decline in the global FDI in 2017 can be viewed incompatible with the growth of other macroeconomic variables such as GDP and trade, for the reason that they had worthwhile improvement in 2017. The notable reason behind this decline of world FDI was the contraction occurred in the value of cross border Mergers and Acquisitions (M&As). The decline in FDI was further affected by the shrinking in the

number of announced green-field projects. The global trend in 2017 was that FDI flows to developed and transition economies fell sharply while developing regions retained their position in attracting FDI. The decline of FDI in 2017 is a sizeable one and part of a long-term negative cycle. The negative cycle present all over the globe is resultant of a series of factors. One reason is the asset-light model of overseas operations. It is capable of changing the entire pattern of FDI. Another reason is the globally reducing rate of return on FDI.

However India was one among the top five FDI destinations in 2017 along with China, Hong Kong, Singapore, and Indonesia. These five countries together absorbed around four-fifths of the total FDI flowed to Asia. It is noteworthy that, in 2017, FDI inflows to South Asia contracted by four per cent to \$ 52 billion, on account of a fall in the inflows to India. However, cross-border M&A sales in India hiked from \$8 billion to \$23 billion. It occurred in extractive and technology related industries. Petrol Complex Pte Ltd (Singapore), owned by Rosneftegaz (Russian Federation), acquired a 49 per cent stake of Essar Oil Ltd, the second largest privately owned Indian oil company, for \$13 billion. An investor group including eBay (United States), Microsoft Corporation (United States) and Tencent Holdings (China) acquired a stake in Flipkart. In South Asia, India is the principal source of FDI outflows. Thus, in 2017, outflows from India, more than doubled. India's state owned ONGC has been actively investing in foreign assets in recent years. The following figure (figure 4.1) shows the FDI scenario in India.

Figure 4.1
FDI Scenario in India from 1990 to 2017



Source: Computed from the Online Datacenters of both UNCTAD and World Bank

Figure 4.1 shows FDI to India as a part of world FDI, India's FDI as a per cent of developing economy's FDI, FDI to GDP and FDI to GFCF ratios. FDI flows to India witnessed quantum jumps in the years 1992, 1993, 1994, 1995, 2000, 2001, 2006 and in 2008. In 2006 FDI inflows to India reached above one per cent of the world FDI inflows for the first time. In the same year, FDI inflows to India reached above two per cent of the country's GDP, above six per cent of the country's GFCF and above five per cent of FDI inflows to developing economies. In 2008, FDI inflows to India reached above three per cent of the world FDI for the first time. In the same year, the FDI to GDP ratio of the country neared four per cent and FDI to GFCF ratio amounted 11 per cent. In 2008, FDI inflows to the country constituted more than eight per cent of the total FDI inflows to developing countries. In 2015, FDI inflows to India exceeded 85 per cent of the FDI inflows to developing economies in South Asia. Thus, on the grounds of these reasons, all the above said years can be presumed as the milestones in the FDI scenario in India. Table 4.8 also shows the statistical characteristics of 'FDI flows to India'. During a span of 28 years from 1990 to 2017, FDI to India grew at an Annual Average Growth Rate (AAGR) of 33.63 per cent and Compound Annual Growth Rate (CAGR) of 20.04 per cent. Both measures indicate the advent of additional flows of FDI to India at an increasing rate in future. In the following section, the monthly inflow of FDI to India has been predicted using ARIMA.

4.4 Monthly Inflow of FDI to India

In this section, ARIMA has been used to predict the monthly inflow of FDI equity to India. ARIMA stands for Autoregressive Integrated Moving Average models. Univariate (single vector) ARIMA is a forecasting technique that projects the future values of a series based entirely on its own inertia. Its main application is in the area

of short term forecasting requiring at least 40 historical data points. Sometimes called Box-Jenkins (after the original authors), ARIMA is usually superior to exponential smoothing techniques when the data is reasonably long and the correlation between past observations is stable.

Here, the researcher has performed automatic ARIMA forecasting with 166 observations. Monthly data of FDI equity inflows ranging from April 2005 to January 2019 has been used as historical data for performing ARIMA. The data has been collected from the various quarterly fact sheets on FDI published by DIPP (from 2005 to 2019).

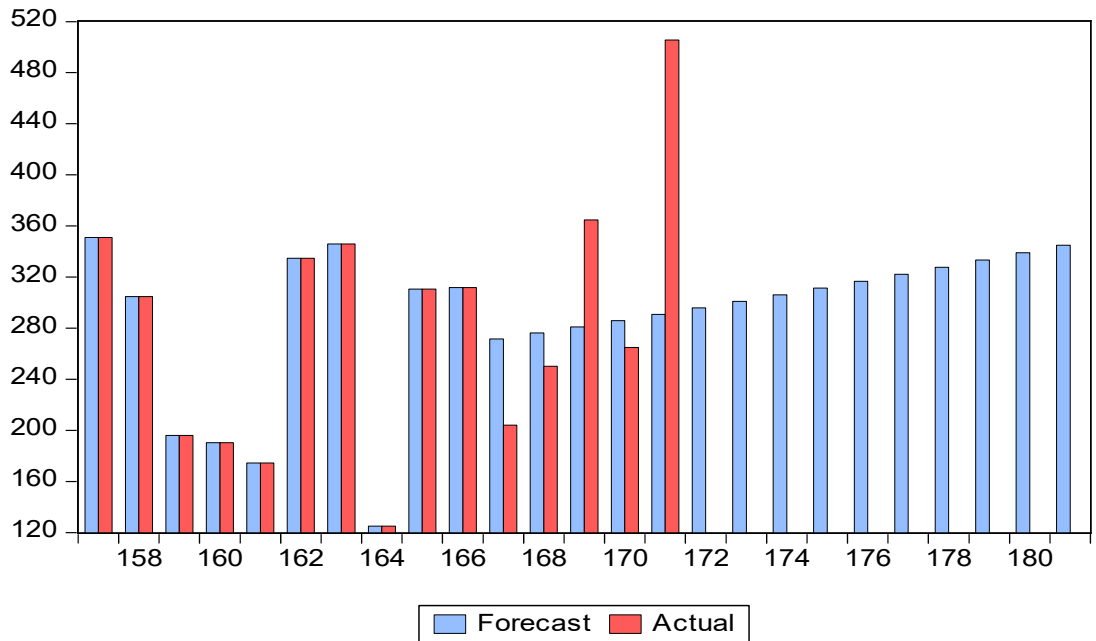
Table 4.9
Automatic ARIMA

Automatic ARIMA Forecasting
<i>Selected dependent variable: DLOG(FDI)</i>
Sample: 1 166
<i>Forecast length: 15</i>
Number of estimated ARMA models: 25
Number of non-converged estimations: 0
<i>Selected ARMA model: (0,1)</i>
<i>AIC value: 1.38577096373</i>

Table 4.9 shows the details of ARIMA. According to the table, the dependent variable chosen is DLOG (FDI), which means the first differenced natural logarithm value of FDI. Similarly the ‘forecast length: 15’ shows that FDI equity inflows for 15 months have been predicted (from February 2019 to April 2020). Here, the number of estimated ARIMA models is 25: that means, 25 ARIMA models have been analyzed and from that, the model with the lowest Akaike Information Criteria (AIC) value (1.38577096373) has been selected. Thus, here the selected model is ARMA: (0, 1).

That means, this model has the lowest AIC value. Below, the forecast graph (Figure 4.2) has been shown.

Figure 4.2
Forecast Graph
Actual and Forecast



Source: Author's Compilation

In Figure 4.2, the X-axis shows the number allotted for respective months and Y-axis shows the volume of FDI equity inflows in billion rupees. The figure depicts the actual and forecasted values from month 157 (April-2018) onwards. The actual values have been marked in red while the forecasted figures appear in blue in the graph. Since the researcher has not gone for predicting the FDI inflows from April-2018 onwards, the actual and forecasted values appear equal from April 2018 and up to the month-166 in figure 4.2. Month-166 is January 2019. Thereafter, variations can be seen in the graph in the actual and forecasted values. The following table (Table 4.10) clarifies the forecast of FDI equity inflows using ARIMA.

Table 4.10
Predicted Inflows of FDI

Year	Number Allotted to Months (No. of Observations)	Month	FDI Equity Inflows (Rs Billion)	
			Actual	Predicted
2019	167	February	204.04	271.57
	168	March	250.19	276.25
	169	April	364.63	281.01
	170	May	264.81	285.85
	171	June	505.67	290.78
	172	July	NA	295.79
	173	August	NA	300.88
	174	September	NA	306.07
	175	October	NA	311.34
	176	November	NA	316.71
	177	December	NA	322.16
2020	178	January	NA	327.71
	179	February	NA	333.36
	180	March	NA	339.10
	181	April	NA	344.95

Source: Author's Compilation
Note: NA-Not Available

According to Table 4.10, FDI equity inflows to India from February 2019 (Month-167) and up to April 2020 (Month-181) have been predicted using automatic ARIMA. Even if DIPP has published monthly data on FDI inflows up to June 2019 (Month-171) in their quarterly FDI fact sheets, in this context, data up to January 2019 (Month-166) alone has been considered (as historic data or sample for ARIMA) to have prediction. This is for facilitating the comparison of actual data (from month 167 onwards and up to month 171) with the predicted one. A comparison of the actual and predicted data from month 167 to month 171 makes it clear that FDI equity inflows have more or less accurately forecasted with the help of the automatic ARIMA forecasting technique. This forecast of the volume of FDI equity inflows to India with ARIMA has significant implication, that it can be crucial in multifarious aspects related to the framing of a number of policies for the entire Indian economy.

Here, the discussion associated with the trend of FDI inflows in India comes to an end and the researcher accords with the hypothesis that the *'Inflow of FDI in India is being rightly directed during the post reform period'*.

4.5 Pattern of FDI Inflows to India

Pattern of the distribution of FDI to a particular economy means the source, destination, nature and direction of FDI inflows. Here, the researcher has examined the pattern of FDI inflows to India in the post liberalization period, principally from the year 2000. The following section gives a brief account of the component wise FDI inflows to India.

4.5.1 Component-wise FDI Inflows to India

Principally, there are three components in the FDI inflows to India as equity, reinvested earnings and other capital. Equity is the foreign direct investor's purchase of shares of an enterprise in a country other than its own. According to RBI, the foreign investment compliant instruments are equity shares, share warrants, debentures and preference shares. Equity shares are those issued in accordance with the provisions of the Companies Act, 2013 and will include partly paid equity shares issued on or after July 8, 2014. Share warrants issued on or after July 8, 2014 will be considered. Debentures should be fully, mandatorily and compulsorily convertible. Preference shares should also be fully, mandatorily and compulsorily convertible.

The second component, reinvested earnings are the direct investors' share of earnings from direct investments that are not distributed to owners.

Finally, other capital includes the debt transactions between parent and subsidiaries or branches of FDI enterprises. The following table (4.11) gives a brief account of the component-wise FDI inflows to India from 2000-01 to 2017-18.

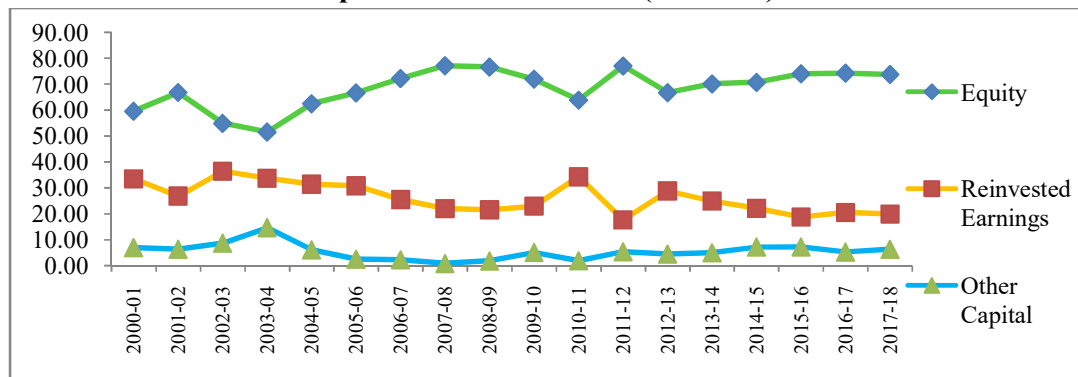
Table 4.11
Components of FDI Inflows to India (US \$ Million)

SL NO	Financial Year	Equity (a)				Reinvested Earnings (b)	Growth %	Other Capital (c)	Growth %	Total FDI Inflows (a + b + c)	Per cent in Total FDI Inflows		
		FIPB Route/RBI's Automatic Route/Acquisition Route	Growth %	Equity Capital of Unincorporated Bodies	Growth %						Equity	Reinvested Earnings	Other Capital
1	2000-01	2339	0	61	0	1,350	0	279	0	4,029	59.57	33.51	6.92
2	2001-02	3904	66.9	191	213.1	1,645	21.85	390	39.78	6,130	66.80	26.84	6.36
3	2002-03	2574	-34.1	190	-0.52	1,833	11.43	438	12.31	5,035	54.90	36.41	8.70
4	2003-04	2197	-14.6	32	-83.2	1,460	-20.35	633	44.52	4,322	51.57	33.78	14.65
5	2004-05	3250	47.93	528	1550	1,904	30.41	369	-41.71	6,051	62.44	31.47	6.10
6	2005-06	5540	70.46	435	-17.6	2,760	44.96	226	-38.75	8,961	66.68	30.80	2.52
7	2006-07	15585	181.3	896	106	5,828	111.16	517	128.76	22,826	72.20	25.53	2.26
8	2007-08	24573	57.67	2291	155.7	7,679	31.76	300	-41.97	34,843	77.10	22.04	0.86
9	2008-09	31364	27.64	702	-69.4	9,030	17.59	777	159	41,873	76.58	21.57	1.86
10	2009-10	25606	-18.4	1540	119.4	8,668	-4.01	1,931	148.52	37,745	71.92	22.96	5.12
11	2010-11	21376	-16.5	874	-43.2	11,939	37.74	658	-65.92	34,847	63.85	34.26	1.89
12	2011-12	34833	62.95	1022	16.93	8,206	-31.27	2,495	279.18	46,556	77.01	17.63	5.36
13	2012-13	21825	-37.3	1059	3.62	9,880	20.4	1,534	-38.52	34,298	66.72	28.81	4.47
14	2013-14	24299	11.34	975	-7.93	8,978	-9.13	1,794	16.95	36,046	70.12	24.91	4.98
15	2014-15	30933	27.3	978	0.308	9,988	11.25	3,249	81.1	45,148	70.68	22.12	7.20
16	2015-16	40001	29.31	1111	13.6	10,413	4.26	4,034	24.16	55,559	74.00	18.74	7.26
17	2016-17	43478	8.69	1223	10.08	12,343	18.53	3,176	-21.27	60,220	74.23	20.50	5.27
18	2017-18	44857	3.17	816	-33.3	12,370	0.22	3,920	23.43	61,963	73.71	19.96	6.33
Total (US \$ Mn)		378534	-	14924	-	126,274	-	26,720	-	546,452	72	23.1	4.9
CAGR (%)		18.98	-	16.48	-	13.92	-	16.82	-	17.44	-	-	-
AAGR (%)		-	26.32	-	107.42	-	16.49	-	39.42	-	-	-	-

Source: Quarterly Fact Sheet of DIPP on FDI, March 2018.

Table 4.11 shows that there are three ways to receive FDI equity capital; FIPB route, RBI's automatic route and acquisition route. However, the FIPB route has been cancelled in 2017 and instead, FDI is received by the concerned ministerial departments. The total FDI inflows received through all the routes (FIPB Route/RBI's Automatic Route/Acquisition Route) amounted to US \$ 378534 million. FDI inflows through these routes grew at a CAGR of 18.98 per cent and AAGR of 26.32 per cent between 2000-01 and 2017-18. A total of US \$ 14924 million of FDI inflows has been received as the capital of unincorporated bodies² between 2000-01 and 2017-18. This component of FDI inflows grew at a CAGR of 16.48 per cent and AAGR of 107.42 per cent during the period. The second component of FDI inflows, i.e. reinvested earnings amounted to a total of US \$ 126,274 million and it grew at a CAGR of 13.92 per cent and AAGR of 16.49 per cent between 2000-01 and 2017-18. The final component, other capital accounted for US \$ 26720 million and it grew at a CAGR of 16.82 per cent. The total FDI inflow, which is the sum of equity, reinvested earnings and other capital grew at a CAGR of 17.44 per cent between the period. The following figure (Figure 4.3) depicts the component-wise FDI inflows to India.

Figure 4.3
Components of FDI Inflows (Per Cent)



Source: Quarterly Fact Sheet of DIPP on FDI, Various Issues

²Unincorporated bodies are those enterprises like project office, branch office, liaison office etc. established by foreign investors, which are not incorporated in India unlike the subsidiaries and associates of foreign firms.

Figure 4.3 shows that FDI comes to India substantially in the form of equity and the volume of equity component is slightly increasing whereas that of reinvested earning is decreasing mildly. Meanwhile, the volume of 'other capital' component remained more or less stable between 2000-01 and 2017-18, with a segregated hike in 2003-04. Thus, in total FDI inflows from 2000-01 to 2017-18, equity component contained 72 per cent, reinvested earnings encompassed 23.1 per cent and other capital included 4.9 per cent.

4.5.2 Route-wise FDI Inflows to India

The routes of FDI inflows to India include government approval route, automatic route, route of inflows through acquisition of existing shares and RBI's various NRI schemes.

To carry out investment activities under government route, prior approval from the government of India is needed. Proposal for conducting investment through government route are examined by concerned administrative ministries or departments.

To proceed investment activities through automatic route, no prior approval from the government is required. However, the investors are necessitated to notify the concerned RBI regional office within 30 days of receipt of inward remittances and file the required documents with that office within 30 days of issue of shares to foreign investors.

Acquisition of existing shares route is also another important way to carry out foreign investment in India. The following table (Table 4.12) shows FDI came to India through all the routes during 2000 to 2018.

Table 4.12
Route-wise FDI Inflows to India

Calendar Year	Route-wise FDI Inflows to India (Rs Billion)									
	1	Growth Rate (%)	2	Growth Rate (%)	3	Growth Rate (%)	4	Growth Rate (%)	Cumulative Total (1 to 4)	Growth Rate (%)
	Government Approval Route (FIPB/SIA)		Automatic Route		Inflows Through Acquisition of Existing Shares Route		RBI's Various NRI Schemes			
2000	63.43 (60.75)	-	16.98 (16.26)	-	20.52 (19.65)	-	3.49 (3.34)	-	104.41	-
2001	96.39 (59.98)	51.96	32.41 (20.17)	90.93	29.62 (18.43)	44.35	2.29 (1.42)	-34.27	160.71	53.92
2002	69.58 (43.13)	- 27.81	39.03 (24.19)	20.42	52.62 (32.61)	77.65	0.11 (0.07)	-95.16	161.34	0.39
2003	42.96 (44.92)	- 38.26	23.4 (24.47)	-40.05	29.28 (30.61)	-44.35	-	-	95.64	-40.72
2004	48.52 (32.83)	12.94	54.22 (36.68)	131.71	45.08 (30.50)	53.93	-	-	147.81	54.55
2005	49.67 (25.77)	2.38	68.74 (35.67)	26.78	74.29 (38.55)	64.81	-	-	192.71	30.37
2006	69.68 (13.84)	40.29	321.76(63.90)	368.06	112.13 (22.27)	50.93	-	-	503.57	161.32
2007	107.87 (16.47)	54.8	361 (55.12)	12.2	186.08 (28.41)	65.94	-	-	654.95	30.06
2008	135.59 (8.50)	25.69	1004.68 (62.98)	178.3	455.03 (28.52)	144.54	-	-	1595.3	143.58
2009	229.72 (17.54)	69.42	919.85 (70.23)	-8.44	160.23 (12.23)	-64.79	-	-	1309.8	-17.9
2010	115.97 (12.08)	- 49.52	655.52 (68.27)	-28.74	188.66 (19.65)	17.74	-	-	960.15	-26.69
2011	134.78 (8.43)	16.23	878.22 (54.91)	33.97	586.35 (36.66)	210.79	-	-	1599.35	66.57
2012	159.56 (13.12)	18.38	845.29 (69.52)	-3.75	211.07 (17.36)	-64	-	-	1215.92	-23.97
2013	78.66	-50.7	744.18	-11.96	471.99 (36.45)	123.62	-	-	1294.83	6.49

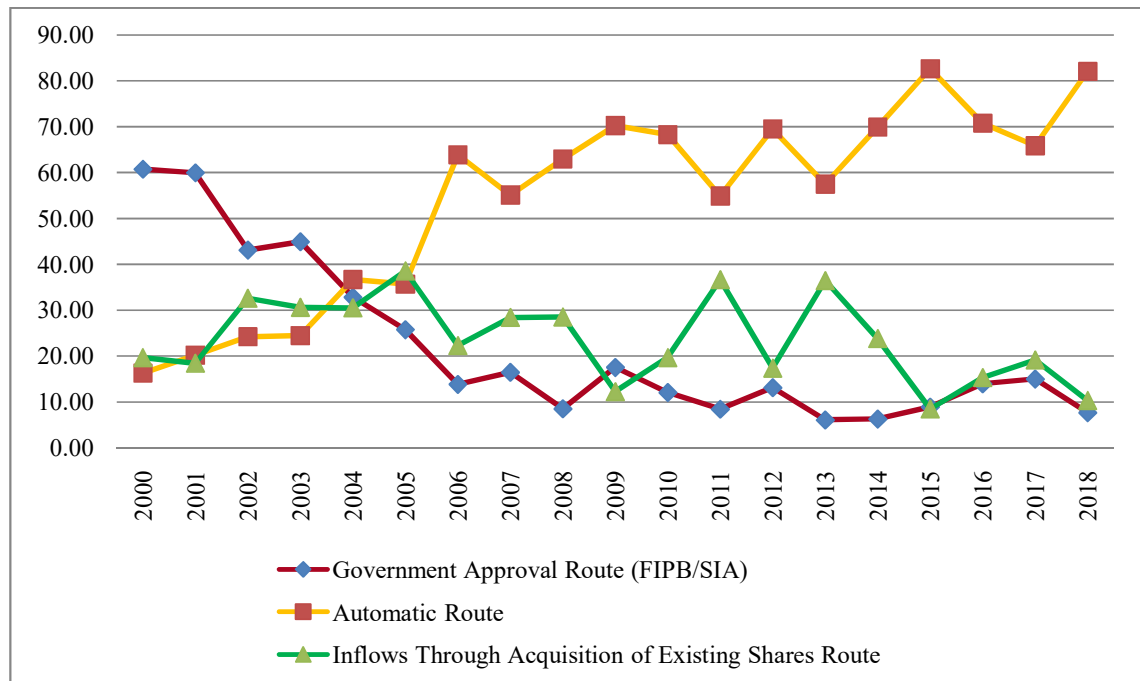
	(6.07)		(57.47)							
2014	109.98 (6.27)	39.82	1226.01(6 9.93)	64.75	417.14 (23.79)	-11.62	-	-	1753.13	35.4
2015	218.33 (8.91)	98.52	2025.56 (82.63)	65.22	207.48 (8.46)	-50.26	-	-	2451.36	39.83
2016	434.9 (13.96)	99.2	2205.21 (70.76)	8.87	476.34 (15.28)	129.58	-	-	3116.44	27.13
2017	424.54 (15.01)	-2.38	1862.02 (65.85)	-15.56	541.12 (19.14)	13.6	-	-	2827.68	-9.27
2018	223 (7.67)	- 47.47	2384.63 (82.03)	28.07	299.32 (10.30)	-44.68	-	-	2906.95	2.8
Total	2813.11 (12.20)	-	15668.7 (67.97)	-	4564.34 (19.80)	-	5.89 (0.03)		23052.1	
AAG R	-	17.42	-	51.15	-	39.88	-	-64.71	-	29.66
CAG R	7.23	-	31.61	-	16.06	-	-	-	20.3	-

Source: FDI Newsletter (Erstwhile SIA Newsletter), April 2019

Note: Figures in the parentheses show per cent to total.

Table 4.12 shows that the total FDI came to India through government route amounted to Rs 2813.11 billion between 2000 and 2018. It turns out to be barely 12.2 per cent of the total FDI inflows. During the period, FDI inflows through government route grew at a very lower CAGR of 7.23 per cent and lower AAGR of 17.42 per cent. At the same time, FDI came through automatic route amounted to Rs 15668.7 billion and it turned out to be a major portion of the total FDI inflows (67.97 per cent). FDI inflows through the acquisition of existing shares route contained 19.8 per cent and inflows through RBI's various NRI schemes consisted 0.03 per cent of the total FDI. FDI through automatic route grew at high CAGR and AAGR of 31.65 per cent and 51.15 per cent respectively between 2000 and 2018. FDI through acquisition of existing shares route grew at moderate CAGR and AAGR of 16.06 per cent and 39.88 per cent during the period. The following figure (Figure 4.4) shows the route-wise FDI inflows came to India from 2000 to 2018.

Figure 4.4
Route-wise FDI Flows to India



Source: FDI Newsletter (Erstwhile SIA Newsletter) Various Issues, DIPP. Figures in per cent

Figure 4.4 shows that FDI flows to India has been surging up through the automatic route since 2000 and inbound of FDI through government approval route is diminishing substantially. In 2000, 60.75 per cent of FDI had come to India through government approval route and it got dismantled to 7.67 per cent in 2018, which stresses the losing significance of the government route in the advent of FDI to India. Right now, only a few sectors are opened to foreign investment under government route. They are public sector banking, broadcasting content services, core investment company, digital media, food products retail trading, mining of titanium bearing ores, multi-brand retail trading, sector of print media and satellite establishment and operation. FDI to all other sectors are either fully or partially allowed under automatic route and the FDI regime in India is approaching full-fledged liberalization. FDI inflows through automatic route reduced considerably by 2018 because of the phased liberalization policy measures undertaken by the government. At the same time, FDI inflows through the automatic route heightened from 16.26 per cent in 2000 to 82.03 per cent in 2018 at a CAGR of 31.61 per cent. Inflows through acquisition of existing shares also show a tendency to decline over time. The following section describes the source countries of FDI inflows to India.

4.5.3 Source Countries of FDI to India

India receives high and low volume of FDI from 163 countries across the world which includes many countries from the African continent too. The following table (Table 4.13) presents the details of top ten countries which fetched FDI to India from April 2000 to December 2017.

Table 4.13
Top Ten Countries Brought FDI to India

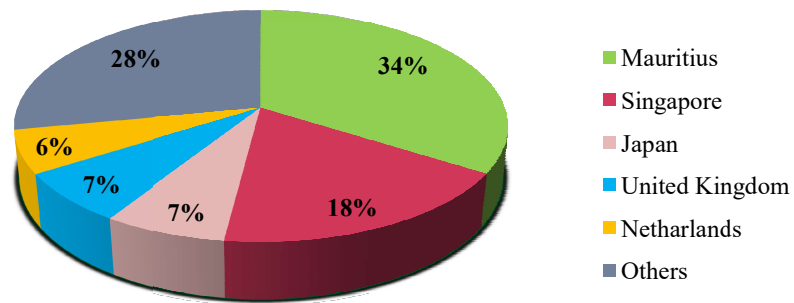
Rank	Country	From April 2000 to Oct 2008	Rank	Country	From April 2000 to Oct 2011	Rank	Country	From April 2000 to Oct 2014	Rank	Country	From April 2000 to Dec 2017
1	Mauritius	44	1	Mauritius	41	1	Mauritius	36	1	Mauritius	34
2	Singapore	8	2	Singapore	10	2	Singapore	12	2	Singapore	17
3	USA	8	3	USA	7	3	UK	9	3	Japan	7
4	UK	7	4	UK	6	4	Japan	7	4	UK	7
5	Netherlands	5	5	Japan	5	5	Netherlands	6	5	Netherlands	6
6	Japan	3	6	Netherlands	4	6	USA	6	6	USA	6
7	Germany	3	7	Cyprus	4	7	Cyprus	3	7	Germany	3
8	Cyprus	2	8	Germany	3	8	Germany	3	8	Cyprus	3
9	France	1	9	France	2	9	France	2	9	France	2
10	UAE	1	10	UAE	1	10	Switzerland	1	10	UAE	1
	Total	82			83			85			86

Source: DIPP's Quarterly Factsheet on FDI, Various Issues Note: From April 2000 to Dec 2017

Table 4.13 shows that Mauritius brought the highest share of FDI to India from April 2000 to December 2017. It accounted for 34 per cent. The highest volume of FDI from such a small island can be attributed to the double taxation treaty that India has signed with Mauritius and also to the fact that most US investment into India is being routed through Mauritius.

Followed by Mauritius, Singapore ranked second and it brought 17 per cent of FDI to India. The volume of FDI to India brought by developed and relatively large countries like Japan, UK, Netherlands, USA, Germany etc. fall behind the volume of FDI brought by small countries like Mauritius and Singapore. However, when taking a closer look at the per cent of FDI inflows brought by each country in the top 10 category from April 2000 onwards, immense variation is visible. From April 2000 to October 2008, the share of Mauritius was 44 per cent and it got cut down to 41 per cent by October 2011. Again, the country's share got lessened to 36 per cent by 2014 and to 34 per cent by December 2017. It insinuates the reducing significance of Mauritius route in the inflow of FDI to India. Simultaneously, it is worth noting that the share of Singapore has reached 17 per cent by 2017 December, which was a meager eight per cent in October 2008. It gives a hint that, within a short span of time, Singapore will become the most important route for FDI inflows to India by surpassing Mauritius. By 2017, the share of FDI inflows from USA shrank to six per cent and that of Japan increased to 7 per cent. UK and Netherlands are also emerging as two important source countries of FDI flows to India. By December 2017, countries Viz. Germany, Cyprus, France and UAE also aroused as prominent source countries and nine per cent of FDI inflows have come to India from these source countries. The following figure (figure 4.5) shows the volume of FDI came to India from various source countries from April 2000 to March 2018.

Figure 4.5
FDI Equity to India from Source Countries



Source: FDI Annual Issue of DIPP, 2017. Note: From April 2000 to March 2018

Figure 4.5 shows that Mauritius has brought 34 per cent of FDI by March 2018. Besides, the top five countries including Mauritius, Singapore, Japan, United Kingdom and Netherlands have brought in a total share of 72 per cent of FDI to India from April 2000 to March 2018. All the remaining source countries could bring only 28 per cent of FDI to India during the period.

4.5.4 Sectors Attracting FDI to India

At present, India has been attracting FDI to 63 various sectors. The following table (Table 4.14) shows the volume of FDI brought in by top ten sectors to India periodically from April 2000 to December 2017.

Table 4.14
Top Ten Sectors Brought FDI to India

Rank	Sector	From April 2000 to Oct 2008	Rank	Sector	From April 2000 to Oct 2011	Rank	Sector	From April 2000 to Oct 2014	Rank	Sector	From April 2000 to Dec 2017
1	Services Sector	22	1	Services Sector	20	1	Services Sector	18	1	Services Sector	17
2	Computer Software and Hardware	12	2	Telecommunications	8	2	Construction Development: Townships, Housing, Built-Up Infrastructure	10	2	Telecommunications	8
3	Telecommunications	8	3	Computer software and Hardware	7	3	Telecommunications	7	3	Computer software and Hardware	8
4	Construction Activities	6	4	Housing and Real Estate	7	4	Computer software and Hardware	6	4	Construction Development: Townships, Housing, Built-Up Infrastructure	7
5	Housing and Real Estate	6	5	Construction Activities	6	5	Drugs and Pharmaceuticals	5	5	Automobile Industry	5
6	Automobile Industry	4	6	Power	5	6	Automobile Industry	5	6	Trading	4
7	Power	4	7	Automobile Industry	4	7	Chemicals (Other Than Fertilizers)	4	7	Drugs and Pharmaceuticals	4
8	Metallurgical Industries	3	8	Metallurgical Industries	4	8	Power	4	8	Chemicals (Other Than Fertilizers)	4
9	Petroleum and Natural Gas	3	9	Drugs and Pharmaceuticals	3	9	Metallurgical Industries	4	9	Power	4
10	Chemicals (Other Than Fertilizers)	2	10	Petroleum and Natural Gas	2	10	Hotel and Tourism	3	10	Construction Activities (Infrastructure)	3
Total		70			66			66			61

Source: DIPP's Quarterly Factsheet on FDI, Various Issues Note: From April 2000 to Dec 2017

Table 4.14 principally shows that there has happened a significant change in the structural composition of FDI inflows to India since 2000. This can be ascribed to reasons including liberalization of policy regime and the timely changes occurred in sectoral policies. FDI policy concerned to each sector has undergone for significant shift since the outset of liberalization. A number of sectors, which were inaccessible to foreigners before were left open to them to suit the necessity of time and also, the ceiling limit of many others were raised. The trend shown in the table is not random, but it shows the concrete dominance of certain sectors which have emerged as strategic after 2000.

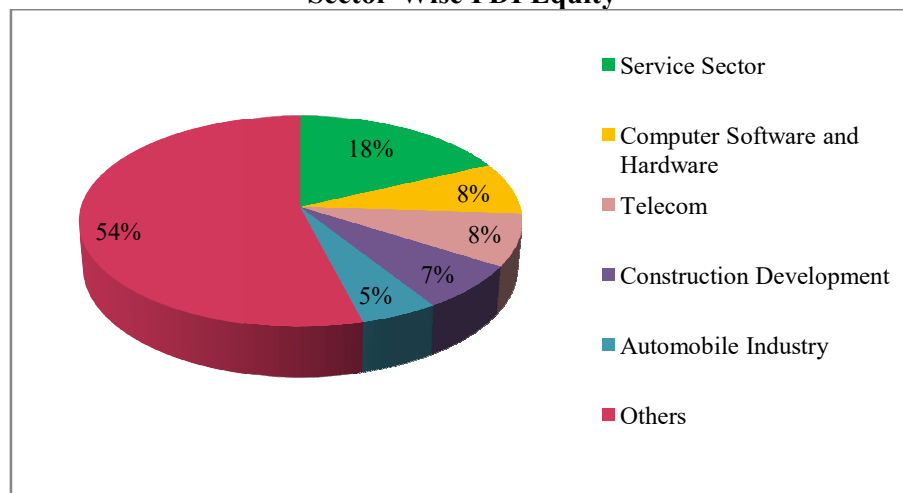
It may be observed that service sector has attracted more volume of FDI inflows (17 per cent) by December 2017. However, from April 2000 to October 2008, it had attracted 22 per cent of FDI inflows and it got shortened to 20 per cent by October 2011 and to 18 per cent by October 2014. Thus, it appears that the share of FDI inflows to service sector, though the foremost contributor to the GDP of India, is getting lessened over time. Since the onset of liberalization, the country experienced a high jump in the inflows of FDI in service sector because of the tremendous growth potential it possesses. Importance for FDI in service sector has been surged due to a number of reasons. Pattern of economic development all over the world, policy changes, technological advancement and the strategies of both services and industrial transnational companies contributed to the growth of service sector. However, the major reasons for the growth of FDI in service sector can be summarized as follows:

During the decades of 1970s and 1980s, total demand for services has grown, because of the rise in real income in the developed countries. Technological advancement resulted in a hike in the demand for intermediate services. During the period, many services also underwent for profound qualitative changes. Similarly, the

technological, information and knowledge component of most services had also increased. New uses have emerged for accounting as a tool for management information and control; Changes also have occurred in financial services. Transportation and tourism sectors have exploded with opportunities. All over the world, service sector attracts major share of FDI. Thus in India too, service sector became the major recipient of FDI inflows.

By 2017, both telecom sector and computer sector attracted other major shares of FDI (eight per cent each). It can be attributed to the revolutionary and multifarious changes happened in both the sectors of telecom and computer since 2000. Construction and automobile industries also have come in the first fifth positions in terms of attracting FDI flows. The other five sectors including trading, drugs and pharmaceuticals, chemicals, power and infrastructure sectors together brought out 19 per cent of FDI. The following figure (Figure 4.6) shows the sector-wise FDI equity distribution in India from April 2000 to March 2018.

Figure 4.6
Sector-Wise FDI Equity



Source: FDI Annual Issue of DIPP, 2017.
Note: Cumulative from April, 2000 to March, 2018

Figure 4.6 shows that the top five sectors together received 46 per cent of FDI inflows while other sectors received the remaining 54 per cent. The following section

addresses the attributes of FDI received by the top ten sectors between January 2000 and December 2017.

4.5.4.1 FDI Synopsis on Top Ten Sectors

From April 2000 to December 2017, the top ten sectors received FDI inflows in India are service, telecommunications, computer software and hardware, construction, automobile, trading, drugs and pharmaceuticals, chemicals, power and infrastructure.

A description of each sector with respect to FDI inflows have been given below.

4.5.4.1.1 Service Sector

Largest share of FDI has come to service sector (17.39 per cent) by December 2017.

The sector contributes highest share to India's GDP and to India's exports. It also provides highest number of employment opportunities in India. Thus, the service sector is playing a central role in the growth of Indian economy. The following table (Table 4.15) shows the various subsectors of service to which FDI has come during January 2000 to December 2017.

Table 4.15
FDI Equity to Service Sector

Subsectors	Per cent Share in Total FDI
Financial	5.93
Non-financial services/Business services	4.99
Insurance	2.58
Banking Services	1.39
Outsourcing	0.51
Courier	0.26
Research and Development	0.25
Commodity Exchange	0.12
Technical testing and analysis	0.08
Other Services	1.28
Total	17.39

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017

Table 4.15 shows that among service sector, major share of FDI has come to financial service segment. The reason for the surge in FDI inflows in to financial service

segment can be ascribed to the more liberalized FDI policy regime. In sectors like insurance and pension, up to 49 per cent of FDI is permitted under automatic route. In public sector banking, up to 20 per cent FDI is permitted under government route. However, in private sector banking, FDI up to 49 per cent is permitted under automatic route. Thus, to conclude, the doors of investment in the service sector in India is widely opened to foreign investors from the comprehension that the sector is the key driver of India's economic growth. The following table (Table 4.16) presents the details of the top ten FDI equity received by the service sector.

Table 4.16
Top Ten FDI Equity to Service Sector

Sl No	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Keyman Financial Services Private Limited	Mauritius	B.K. Media Mauritius Pvt. Ltd	New Delhi	Financial leasing	75 (16.67)
2	Cairn (I) Ltd	United Kingdom	Cairn UK Holding	Not Available	Business Services Not Elsewhere Classified	66.63 (14.81)
3	Triguna Hospitality Ventures (India) Pvt	Singapore	APHV India Invest co. Pvt Ltd	New Delhi	Activities of holding companies	56.70 (12.60)
4	Triguna Hospitality Ventures (India) Pvt	Singapore	AAPC Singapore Pte Ltd	New Delhi	Activities of holding companies	50.41 (11.20)
5	Empower Research Knowledge Services Pvt	Singapore	Headstrong Consulting (Singapore) Pte Ltd	Hyderabad	Market research and public opinion polling	45.28 (10.06)
6	India Debt Management Ltd	Mauritius	Mauritius Debt Management Ltd	Mumbai	Commercial Loan Company's Activities	38 (8.44)
7	Reckitt Benckiser Investments India Pvt	Singapore	Reckitt Benckiser (Singapore) Pte Ltd	New Delhi	Other Financial Services	32.75 (7.28)
8	ABB LTD	Switzerland	ABB ASEA Brown Boveri Ltd	Region not indicated	Automation Technologies	30.63 (6.81)
9	Reliance Life Insurance Company Ltd	Japan	Nippon Life Insurance Company	Region not indicated	Life Insurance, Health Insurance & Annuity Business	27.62 (6.14)
10	Indusind Bank Ltd	U.S.A	Various	Mumbai	Monetary intermediation of commercial banks, saving banks, postal savings bank and discount houses	27.33 (6.07)
Total						450 (100)

Source: FDI Annual Issue of DIPP, 2017

Note: From Jan 2000 to Dec 2017. Note: Figures in the parentheses show per cent to total.

Table 4.16 shows that Mauritius based B.K Media private limited has carried out biggest investment in the service sector in India. All the top ten companies together have made an investment of Rs. 450 billion in the sector during January 2000 to December 2017.

4.5.4.1.2 Telecommunication Sector

Telecom sector attracted second biggest FDI (8.16 per cent) after service sector. India's telecom market is the world's second largest. Indian telecom industry has substantial growth over the decade of 2009-2018 principally because of the affordable tariffs, wider availability, roll out of Mobile Number Portability (MNP), expanding 3G and 4G coverage, evolving consumption patterns of subscribers and a conducive regulatory environment. The good deal of FDI flowed to the sector after 2000 also can be ascribed as a reason for the magnificent growth of the sector. The following table (Table 4.17) gives an account of the volume of FDI flowed to the sector.

Table 4.17
FDI Equity to Telecom Sector

Sub Sectors	FDI Equity (Rs Bn)	Per cent
Telecommunications	314.31	1.70
Radio Paging	0.273	0.00
Cellular Mobiles/Basic Telephone Services	411.66	2.22
Other (Telecom)	968.14	4.24
Total	1,694.38	8.16

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017

Table 4.17 shows that from January 2000 to December 2017, a total of 8.16 per cent of FDI has flowed to various sub sectors of telecom. The FDI policy framework in India regarding the telecom industry has been more permissive in recent years. Up to 49 per cent of FDI in the sector is allowed under automatic route, and beyond it, FDI can be committed through government route. Further measures of liberalization in FDI policy can be expected soon in the telecom sector as the sector has turned out to

be a substantial contributor to India's GDP. The following table (Table 4.18) shows the biggest FDI deals happened in telecom sector.

Table 4.18
Top Ten FDI Equity to Telecom Sector

Sl No	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Tata Teleservices Ltd	Japan	NTT Docomo Inc	Mumbai	Activities of maintaining and operating paging, cellular and other telecommunication networks	97.97 (16.78)
2	Vodafone India Ltd	Mauritius	Euro Pacific Securities Limited	Mumbai	Activities of other wireless telecommunications activities	93.30 (15.98)
3	Vodafone India	Mauritius	Prime Metals Ltd	Region Not Indicated	Telephone Communications	89.00 (15.25)
4	Idea Cellular Ltd	Mauritius	TMI Mauritius Ltd	Ahmedabad	Telephone Communication Services	72.94 (12.50)
5	Bharti Airtel Ltd	Singapore	Three Pillars Singapore Pte Ltd	New Delhi	Telephone Communication Services	67.96 (11.64)
6	Vodafone India Ltd	Mauritius	Prime Metals Limited	Mumbai	Activities of other wireless telecommunications activities	51.14 (8.76)
7	Vodafone India Ltd	Mauritius	Mobilevest	Mumbai	Activities of other wireless telecommunications activities	39.20 (6.72)
8	Vodafone India Ltd	Mauritius	Vodafone Telecommunications(India)Limited	Mumbai	Activities of other wireless telecommunications activities	38.01 (6.51)
9	Vodafone India Ltd	Mauritius	Transcrystal Limited	Mumbai	wireless telecommunications activities	34.18 (5.86)
10	Bhaik Infotel P. Ltd.	Mauritius	Vodafone Mauritius Ltd	New Delhi	Telephone Communication Services	32.68 (5.60)
Total						583.69 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.18 describes the top ten FDI deals occurred in the sector from January 2000 to December 2017. It makes clear that India based telecom corporates like Idea, Airtel etc. have received huge amount of FDI routed through Mauritius. The top ten FDI deals together amounted to Rs. 583.69 billion between January 2000 and December 2017. Mauritius based companies conducted more investment in the Indian telecom sector.

4.5.4.1.3 Computer Software and Hardware

Indian Information Technology and Information Technology enabled Service (IT & ITeS) companies have set up over 1,000 global delivery centers in about 80 countries across the world. India is the leading off-shoring destination for IT companies in the world. The IT and BPM industry is the largest contributor to the total exports of the country. Moreover, India is evolving as the center for ‘digital skills’. India is transforming into a digital economy with over 450 million plus internet subscribers; only second to China. Indian IT industry has more than 17,000 firms, of which over 1,000 are large firms with over 50 delivery locations in India. The country's cost competitiveness in providing IT services, which is approximately three to four times more cost-effective than US, continues to be its unique selling proposition in the global sourcing market. Thus, in short, Indian IT industry offers fruitful business opportunities to the foreign investors. Computer software has 7.90 per cent share of FDI in total FDI equity to IT sector. Computer hardware has 0.13 per cent and others have 0.06 per cent.

Computer software and hardware industry in India has attracted 8.09 per cent of FDI from Jan 2000 to Dec 2017. The door to make foreign investment in the IT and BPM (Business Process Management) has been fully opened as 100 per cent FDI is permitted in the sector under automatic route. The following table (Table 4.19) shows

the top ten biggest FDI deals occurred in the sector from January 2000 to December 2017.

Table 4.19
Top Ten FDI Equity to IT Sector

SI No	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (RsBn)
1	Accenture Solutions Private Limited	Mauritius	Accenture Services Mauritius Ltd	Mumbai	Writing , Modifying, Testing of Computer Program To Meet The Needs Of A Particular Client Excluding Web-Page	53.61 (15.23)
2	One 97 Communications Limited	Cayman Islands	SVF India Holdings (Cayman) Ltd	New Delhi	Other Information Service Activities	51.70 (14.69)
3	I Fliex Solutions Ltd	Mauritius	Oracle Global(Mauritius) Ltd	Region Not Indicated	Software Development	48.06 (13.65)
4	Jasper Infotech Pvt Ltd	Singapore	Starfish I Pte Ltd.	New Delhi	Other Information Technology And Computer Service Activities	36.13 (10.27)
5	Flipkart Internet Pvt Ltd	Singapore	Flipkart Marketplace Private Limited	Bangalore	Other Information Technology And Computer Service Activities	32.66 (9.28)
6	Optum Global Solutions (India) Private Ltd	Netherlands	Optum Global Solutions International BV	Hyderabad	Other Data Processing, Hosting And Related Activities	29.29 (8.32)
7	Cisco Systems India Private Limited	Netherlands	Cisco Systems Management BV	Bangalore	Other Information Technology And Computer Service Activities	27.43 (7.79)
8	ANI Technologies Pvt Ltd	Hong Kong	Copper Technology Pvt Ltd	Bangalore	Other Information Technology And Computer Service Activities	25.80 (7.33)
9	I Flex Solutions Ltd	Mauritius	Oracle Global Mauritius Ltd	Region Not Indicated	IT to Financial Service Industry	25.79 (7.33)
10	Tata Consultancy Services Ltd	NRI	Group of Non Resident	Mumbai	Internet Services/Information	21.49 (6.11)
Total						351.96 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.19 shows that Mauritius based ‘Accenture Services Ltd’ has made the biggest investment in the Indian software industry. The top ten companies together have made an investment worth Rs. 351.96 billion in the software industry in India.

4.5.4.1.4 Construction Development

Construction industry is exuberant in India due to the hiked demand from real estate and infrastructure projects. India’s construction industry is expected to expand at an AAGR of 6.6 per cent between 2019 and 2028. Besides, the share of urban population will be reached 50 per cent of the total by 2050. The current urban infrastructure is inadequate to meet the demand of prevailing urban population. Thus, there arises a need for renovation of urban areas in existing cities and the buildup of new, inclusive smart cities to meet the demands of increasing population and migration from rural to urban areas. In future, cities of India will demand smart real estate and urban infrastructure. Hence, in order to cater to those needs, at present it is required that the urban local bodies (ULBs) should enter into partnership agreements with foreign players, either through joint ventures, private sector partners or through other models.

6.69 per cent of FDI has come to India’s construction sector from January 2000 to December 2017. In fact, India has a very open policy mindset to attract FDI in the construction sector. FDI Policy of India allows 100 per cent foreign investment in the construction sector (Townships, Housing, Built-Up Infrastructure and Construction Development Projects) under automatic route. This sort of benevolent policy outlook has played the central role in augmenting FDI inflows to the sector. The following table (Table 4.20) shows the top ten FDI deals occurred in the sector from January 2000 to December 2017.

Table 4.20
Top Ten FDI Equity to Construction Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	DLF Assets Ltd	Singapore	DAL Singapore Investments Pvt Ltd	New Delhi	Construction	17.95 (14.17)
2	W.S. Electric Ltd	The Bermudas	Schroder Credit Renaissance Fund Ltd	Chennai	Construction and Maintenance	17.81 (14.06)
3	Essar Technology Park BKC P. Ltd.	Mauritius	Essar Business Parks Ltd.	Mumbai	Developing and Subdividing Real Estate Into Lots	17.80 (14.05)
4	DLF Assets Ltd.	Mauritius	De Shaw Composite Investment	New Delhi	Construction	16.21 (12.80)
5	Housing Development & Infrastructure Ltd	Mauritius	Various Investors	Mumbai	Purchase, Sale Letting And Operating of Real Estate Residential and Non-Residential Buildings	11.10 (8.76)
6	Emaar MGF Land P. LTD.	Netherlands	Horizon India B.V.	New Delhi	Construction of Residential Buildings	11.10 (8.76)
7	Mackstar Marketing Pvt. Ltd.	Mauritius	D E Shaw Composite Investments Mauritius	Mumbai	Real Estate Activities	9.53 (7.52)
8	Manyata Promoters Pvt Ltd	Mauritius	BRE / Mauritius Investments	Region Not Indicated	Construction & Maintenance of Building	8.60 (6.79)
9	Emaar MGF Land Pvt Ltd	Mauritius	Emaar Holdings II	New Delhi	Construction of Residential Buildings Including Additions and Alterations in the Existing Ones.	8.30 (6.55)
10	DLF Assets P. Ltd.	Mauritius	New Opportunities I Ltd. Plc	New Delhi	Construction	8.28 (6.54)
Total						126.68 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

According to Table 4.20, in the construction sector, Singapore based DAL Singapore Investments Pvt Ltd has made the biggest investment of Rs 17.95 billion. It can also be noted that majority of the investments have been reported at the RBI's regional office in New Delhi, as Delhi is the major hub of real estate relative to other regions.

4.5.4.1.5 Automobile Industry

The Indian automobile industry occupied the fourth position in the world with sales increasing 9.5 per cent year-on-year to 4.02 million units (excluding two wheelers) in 2017. The country was the seventh largest manufacturer of commercial vehicles in 2018. The country's automobile sector is dominated by two wheeler segment due to the growth of middle class and young generation. The companies, both MNCs and domestic, are increasingly interested in exploring the vast rural markets in the country. Moreover, India is a prominent auto exporter also. A total of 5.05 per cent of FDI inflows have come from January 2000 to December 2016 to the various segments in the automobile sector. Cent per cent FDI is allowed both in the automobile sector and auto component sector under automatic route. The following table (Table 4.21) gives an account of the top ten FDI deals occurred in the automobile segment in India since January 2000 and up to December 2017.

Table 4.21
Top Ten FDI Equity to Automobile Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Suzuki Motor Gujarat Private Limited	Japan	Suzuki Motor Corporation	Ahmedabad	Manufacture of Passenger Cars	31.00 (16.51)
2	Ford India Limited	U.S.A	Ford Motor Company	Chennai	Manufacture of Motor Cars & Other Motor Vehicles	26.67 (14.21)
3	Suzuki Motor Gujarat Private Limited	Japan	Suzuki Motor Corporation	Ahmedabad	Manufacture of Passenger Cars	26.00 (13.85)
4	Daimler India Commercial Vehicles Private Ltd	Germany	Daimler AG	Chennai	Manufacture of Goods Vehicles, Manufacture of Special Purpose Heavy Motor	20.76 (11.06)
5	Daimler India Commercial Vehicles Pvt Lt	Germany	Daimler AG	Chennai	Manufacture of Commercial Vehicles Such as Vans, Lorries	14.86 (7.92)
6	Renault Nissan Automotive India Pvt Ltd	Japan	Nissan Motors Company	Chennai	Manufacture of Transport Equipment & Parts	14.77 (7.87)
7	Ford India Limited	U.S.A	Ford International Services Ltd	Chennai	Manufacture of Motor Cars & Other Motor Vehicles	14.43 (7.69)
8	General Motors India Pvt Ltd	China	SAIC General Motors Investment Ltd	Ahmedabad	Manufacture of Passenger Cars	14.23 (7.58)
9	Honda Siel Cars India Ltd	Japan	Asian Honda Motor Co Ltd	New Delhi	Manufacture of Motor Cars	13.00 (6.93)
10	Honda Siel Cars India Ltd	Japan	Honda Motor Co Ltd	New Delhi	Manufacture of Motor Cars	12.00 (6.39)
Total						187.72 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.21 shows that Japan based Suzuki Motor Corporation has committed the highest amount of investment to the automobile sector in India. The list also signifies that majority of the highest investments have gone to Chennai between January 2000 to December 2017. These substantial flows of foreign investment have played a substantive role in transforming Chennai a major automobile hub in India. It is noteworthy that Tamil Nadu accounts for 21 per cent of the total auto exports from India.

4.5.4.1.6 Trading

India has a vast trading segment too. The following table (Table 4.22) presents the volume of FDI came to each sector of trading in India from January 2000 to December 2017.

Table 4.22
FDI Equity to Trading Sector

Sub Sectors	Per cent in Total FDI
Trading (For Exports)	0.07
Trading (Wholesale Cash & Carry)	3.99
E-Commerce	0.01
Trading(Misc)	0.41
Total	4.48

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017

Table 4.22 shows that 4.48 per cent of FDI has come to the trading sector of India from January 2000 to December 2017. In all these sectors of trading, government has adopted liberal policy mindset to attract foreign investment. In cash and carry whole sale trading, duty free shops and E-commerce activities, cent per cent FDI is allowed under automatic route. The following table (Table 4.23) shows the ten biggest FDI deals in the trading sector.

Table 4.23
Top Ten FDI Equities to Trading Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Corporate Holdings Private Limited	Bangalore	Wholesale of other Electronic Equipments and Parts	29 (15.86)
2	Flipkart India Private Limited	Singapore	Flipkart Private Limited	Bangalore	Wholesale Trade in Household Equipment, Appliances	24.24 (13.25)
3	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Corporate Holdings Private Limited	Bangalore	Wholesale of other Electronic Equipments and Parts	20.10 (10.99)
4	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Asia Pacific Resources Private Limited	Bangalore	Wholesale of other Electronic Equipments and Parts	19.80 (10.83)
5	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Asia Pacific Resources Private Limited	Bangalore	Wholesale of other Electronic Equipments and Parts	16.96 (9.27)
6	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Corporate Holdings Private Limited	Bangalore	Wholesale of other Electronic Equipments and Parts	16.80 (9.19)
7	Insitel Services Pvt Ltd	Singapore	SSA Fund (Singapore) Pte. Limited	New Delhi	Wholesale of Telephone, Mobile Phone and Communications Equipment and Parts	14.75 (8.06)
8	Insitel Services Pvt Ltd	Singapore	SSA Fund (Singapore) Pte. Ltd.	New Delhi	Wholesale of Telephone, Mobile Phone and Communications Equipment and Parts	14.15 (7.74)
9	Insitel Services Pvt Ltd	Singapore	SSA Fund (Singapore) Pte Ltd	New Delhi	Wholesale of Telephone, Mobile Phone and Communications Equipment and Parts	13.60 (7.44)
10	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Asia Pacific Resources Pvt Ltd	Bangalore	Wholesale of other Electronic Equipments and Parts	13.50 (7.38)
Total						182.89 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.23 shows that Singapore based Amazon Corporate Holdings Private Limited has made the biggest investment in the trading sector in India. The top ten trading companies together have made an investment of Rs 182.89 billion. It may also be observed that, most of the biggest foreign investments in trading have gone to Bangalore as the region is the center of whole sale trading of various items in India.

4.5.4.1.7 Drugs and Pharmaceuticals

By volume, India is the third largest pharmaceutical industry in the globe. India could contribute to the global pharmaceutical scenario by ensuring high quality, affordable and accessible medicines around the world. Moreover, India is a captivating destination for generic R&D and manufacturing of pharmaceuticals due to its strong capabilities across the value chain. There are over 10,500 manufacturing units and 3,000 pharma companies in India. Over 60,000 generic brands exist across 60 therapeutic categories. Thus, having a vast and progressing pharmaceutical sector, India offers more and more lucrative business opportunities to foreign investors.

From January 2000 to December 2017, a total of 4.24 per cent of FDI has flowed to the pharmaceutical sector in India. The FDI policy framework in the pharma sector also has been very open-minded as there is provision for 100 per cent foreign investment in the sector under automatic route in green-field projects; whereas in brown-field projects, FDI is allowed up to 74 per cent under automatic route. The following table (Table 4.24) shows the top ten FDI deals occurred in the pharma sector.

Table 4.24
Top Ten FDI Equity to Pharma Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Abbott Healthcare Pvt Ltd	United Kingdom	Abbott Asia Holdings Ltd	Mumbai	Manufacture of Allopathic Pharmaceuticals	107.64 (23.71)
2	Ranbaxy Laboratories Ltd.	Japan	Daiichi Sankyo Co. Ltd.	Region Not Indicated	Manufacture of Chemicals Used in Pharmaceuticals	68.19 (15.02)
3	Ranbaxy Laboratories Ltd.	Japan	Daiichi Sankyo Co. Ltd.	Region Not Indicated	Manufacture of Chemicals Used in Pharmaceuticals	60.37 (13.30)
4	Glaxosmithkline Consumer Healthcare Ltd	Singapore	Glaxosmithkline Pvt Ltd	Region Not Indicated	Manufacture of Healthcare Products	48.05 (10.58)
5	Ranbaxy Laboratories Ltd.	Japan	Daiichi Sankyo Co. Ltd.	Region Not Indicated	Manufacture of Chemicals Used in Pharmaceuticals	35.39 (7.79)
6	Ranbaxy Laboratories Ltd.	Japan	Daiichi Sankyo Co. Ltd.	Region Not Indicated	Manufacture of Chemicals Used in Pharmaceuticals	34.09 (7.51)
7	Claris Injectables Limited	Singapore	Baxter Pharmaceutical (Asia) Pte Limited	Region Not Indicated	Manufacture of Allopathic Pharmaceuticals	26.87 (5.92)
8	Abbott Healthcare Pvt Ltd	United Kingdom	Abbot Asia Holdings Ltd	Mumbai	Manufacture of Allopathic Pharmaceuticals	26.54 (5.84)
9	Mylan Laboratories Ltd	Netherlands	Mylan Group B.V	Hyderabad	Manufacture of Medicinal Substances	24.77 (5.45)
10	Abbott Healthcare Pvt Ltd	United Kingdom	Abbott Asia Holdings Limited	Mumbai	Manufacture of Allopathic Pharmaceuticals	22.18 (4.88)
Total						454.08 (100)

Source: FDI Annual Issue of DIPP, 2017.

Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.24 shows that the UK based Abbott Asia Holding Ltd has committed the highest amount of investment to the Indian pharma sector. The top 10 foreign pharma companies have invested Rs 454.08 billion in the Indian pharma sector from January 2000 to December 2017.

4.5.4.1.8 Chemicals (other than Fertilizers)

The Chemical industry in India caters to the needs of many industries, including textiles, paper, paints, soap and detergents, pharmaceuticals, agrochemicals etc. India's chemical industry occupies the sixth rank in the world and fourth rank in Asia in terms of size. Thus, raising volume of foreign investment will transform the industry more prolific as it will be renovated with added technological advantages. From January 2000 to December 2017, 3.93 per cent of FDI has come to the chemical sector. In fact, the FDI policy in the chemical sector in India has also been very liberal as there is provision for 100 per cent FDI under automatic route. The following table (Table 4.25) shows the top ten FDI deals occurred in the chemical sector.

Table 4.25
Top Ten FDI Equity to Chemical Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Reliance Industries Ltd	United Kingdom	BP Exploration (Alpha) Limited	Region Not Indicated	Manufacture of Other Plastics in Primary Forms	147.68 (43.48)
2	Reliance Industries Ltd	United Kingdom	BP Exploration (Alpha) Limited	Region Not Indicated	Manufacture of Basic Organic Chemicals	88.01 (25.91)
3	UPL Limited	Singapore	Not Available	Ahmedabad	Manufacture of Insecticides, Rodenticides, Fungicides, Herbicides	32.70 (9.63)
4	Essar Oil Limited	Mauritius	Oil Bidco Mauritius Limited	Region Not Indicated	Production of Liquid and Gaseous Fuels, Illuminating Oils, Lubricating Oils or Greases or other Products from Crude Petroleum or Bituminous Minerals	22.80 (6.71)
5	Signode India Limited	United Kingdom	Strapex Holdings Ltd	Hyderabad	Manufacture of other Plastic Products	12.40 (3.65)
6	Micro Inks Ltd	Germany	MHM Holding GMBH	Region Not Indicated	Manufacture of Printing Inks, Resins, Enamels Adhesives	8.48 (2.50)
7	Shell India Markets Private Ltd	Netherlands	Shell Gas B.V	Chennai	Production of Liquid and Gaseous Fuels, Illuminating Oils, Lubricating Oils or Greases or other Products	8.47 (2.49)
8	Shell India Markets Private Ltd	Netherlands	Shell Gas B.V	Chennai	Production of Liquid and Gaseous Fuels, Illuminating Oils, Lubricating Oils or Greases or other Products	6.73 (1.98)
9	Sintex Industris Ltd	Mauritius	Not Available	Ahmedabad	Manufacture of other Plastics Products	6.37 (1.88)
10	Godrej Industries Ltd	NRI	Various FIIs	Mumbai	Manufacture of Chemical Elements & Compounds Doped for Use in Electronics (Includes Chemical Element)	6.03 (1.78)
Total						339.67 (100)

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total.

Table 4.25 shows that top ten FDI deals fetched in investment worth Rs 339.67 billion to the chemical sector. More FDI to the chemical sector has come from United Kingdom.

4.5.4.1.9 Power Sector

Power, which is a most conclusive element of infrastructure, plays a critical role in the growth and welfare of nations. India has a most distinct power sector. India's sources of generating power range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste. The country is facing crucial demand for electricity now a days and it is about to rise considerably in the coming years. Thus in order to stimulate the power sector to meet the rising demand, the country perceives FDI as one of the viable route. From January 2000 to December 2017, 3.53 per cent of total FDI has come to the power sector. The FDI policy in the sector has been very liberal; at present, in thermal power and renewable energy sectors, cent per cent FDI is allowed under automatic route. In the coal and Lignite sector also, 100 per cent FDI is allowed under automatic route. The following table (Table 4.26) shows the top ten FDI deals occurred in the power sector of India.

Table 4.26
Top Ten FDI Equity to Power Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Dabhol Power Company Ltd	Mauritius	Not Available	Mumbai	Not Available	21.6 (14.73)
2	GMR Energy	Mauritius	Power And Energy International	Mumbai	Electric Power Generation by Non-coal Based Thermal (Diesel, Gas)	19.99 (13.64)
3	M/S Meenakshi Energy Pvt Ltd	Netherlands	Engie Global Developments B.V.	Hyderabad	Electric Power Generation by Coal Based Thermal Power Plants	18.25 (12.45)
4	Reliance Utilities Ltd	Not Available	Royal Bank of Scotland Plc	Region Not Indicated	Generation and Supply of Power	13.2 (9.00)
5	Essar Wind Power Pvt Ltd	Mauritius	Essar Power Holdings Ltd.	Mumbai	Electricity Generation, Transmission & Distribution	12.99 (8.86)
6	Pipavav Energy Pvt Ltd	Mauritius	Videocon Mauritius Energy Ltd.	Mumbai	Electric Power Generation by Coal Based Thermal Power Plants	12.71 (8.67)
7	Essar Power Ltd	Mauritius	Essar Power Hazira Holdings Ltd	Region Not Indicated	Electric Power Generation by Non-coal Based Thermal (Diesel, Gas)	12.62 (8.61)
8	Luminous Power Technologies Ltd	Singapore	Schender Electric South East Asia Ltd	Region Not Indicated	Manufacturing of Power Backup Systems	12.17 (8.30)
9	Adani Power Ltd.	UAE	Various NRIs	Ahmedabad	Generation & Transmission of Electric Energy	11.82 (8.06)
10	Moserbaer Projects Pvt Ltd	Mauritius	Capital Partners (Mauritius)V-C Ltd	New Delhi	Generation and Transmission of Electric Energy Produced in Hydroelectric Power Plants	11.25 (7.67)
Total						146.59 (100)

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017. Figures in the parentheses show per cent to total

Table 4.26 shows that Mumbai based Dabhol Power Company Ltd has received the highest investment in the power sector of India. The highest ten foreign investment together brought in Rs 146.59 billion to the power sector of India between January 2000 and December 2017.

4.5.4.1.10 Construction (Infrastructure) Sector

The construction (Infrastructure) sector has been categorized in to three as roads and highways, warehouses and other sectors. Among these, FDI came to the warehouse sector is comparatively low. The following table (Table 4.27) gives an account of the top ten FDI deals came to the construction sector from January 2000 to December 2017.

Table 4.27
Top Ten FDI Equity to Infrastructure Sector

Rank	Indian Company	Country	Foreign Collaborator	RBI Regional Office	Item of Manufacture	FDI Inflows (Rs Bn)
1	Serene Senior Living	U.S.A	Signature India LLC	Chennai	Other Specialized construction activities	150 (49.30)
2	DLF Cyber City Developers Limited	Singapore	RECO Diamond Private Limited	Region Not Indicated	Construction of buildings carried out on Own account Basis or on a fee or Contract Basis	56.7 (18.64)
3	DLF Cyber City Developers Limited	Singapore	RECO Diamond Private Limited	Region Not Indicated	Construction of buildings carried out on own account basis or on a fee or contract basis	24.32 (7.99)
4	Larsen & Toubro Ltd	Mauritius	Various Investors	Mumbai	Construction and maintenance of roads, railways, bridges, tunnels, pipelines, ropeways, ports, harbor	16.9 (5.55)
5	DLF Midtown Private Limited	Singapore	RECO MOTI Pvt Ltd	New Delhi	Construction of buildings carried out on own account basis or on a fee or contract basis	13.44 (4.42)
6	VAI Metals Technologies Pvt Ltd	Germany	Siemens VAI Metals Technologies GMBH	Mumbai	Other specialized construction activities	10.28 (3.38)
7	PRL Developers Pvt Ltd	Mauritius	Foglight Investment Ltd	Mumbai	Construction of buildings carried out on own account basis or on a fee or contract basis	10 (3.29)
8	DLF Cyber City Developers Limited	Singapore	RECO Diamond Private Limited	Region Not Indicated	Construction of buildings carried out on own account basis or on a fee or contract basis	8.04 (2.64)
9	GMR Infrastructure Ltd.	Mauritius	Dunearn Investments	Bangalore	Construction and maintenance of motorways, streets, roads, other vehicular and pedestrian ways, highways	7.89 (2.59)
10	Instakart Services Private Limited	Singapore	Klick2shop Logistics Services International	Bangalore	Warehousing non-refrigerated	6.66 (2.19)
Total						304.24 (100)

Source: FDI Annual Issue of DIPP, 2017. Note: From Jan 2000 to Dec 2017

Table 4.27 shows that US based Signature India LLC has brought the highest investment to the infrastructure sector of India. The highest ten foreign investment together brought in Rs 304.24 billion to the infrastructure sector of India between January 2000 and December 2017.

The evaluations reveal that, '*The inflow of FDI is not judiciously distributed across sectors and regions*'. India needs more FDI in its thrust sectors such as agricultural value addition, infrastructure development, warehousing and storage etc.

4.6 Conclusion

This chapter examined two principal aspects; the *trend* and *pattern* of FDI inflows to India. The trend in inflow of FDI to India shows that it is being rightly directed during the post reform period. The pattern of FDI inflows to India demonstrates that the inflow of FDI is not rightly distributed across sectors and regions. A small number of sectors including service and telecom attract the majority of FDI. Route wise, automatic route has become the dominant route for receiving FDI. Mauritius brings the substantial share of FDI to India and component-wise, equity form of FDI is the prime constituent.

CHAPTER V

REGIONS WITH HIGH INFLOW OF FDI (RHIF) IN INDIA

5.1 Introduction

The liberalization regime in the country, initiated in the beginning of 1990s, brought remarkable transformation in the structure of FDI in India. The influential liberalization policy played a key role, along with other factors, in enhancing the FDI inflow to India to \$ 236.69 million in the year 2000, from a meager inflow worth \$ 75 million in 1991. The liberalization strategy also had a hand in elevating the country's FDI stock of mere \$ 1731.81 million in 1991 to a record altitude of \$ 16338.95 million in 2000.

This chapter intends to analyze the determinants and role of FDI inflows in India at the macro level i.e. at the regional level. This lends a hand in understanding the dynamics of region-specific variation in the determinants and role of FDI inflows to the country and renders scope for initiating relevant policies. Apart from recording aggregate FDI inflows coming to the country, it is computed on region-wise also. Thus 17 regions in India receive FDI as specified by the quarterly fact sheets on FDI by the Department of Industrial Policy and Promotion (DIPP). The following table (Table 5.1) presents the details of the 17 regions which received FDI inflows in India from April 2000 to March 2016.

Table 5.1
Distribution of FDI Inflows across India

Rank	Region	State/UT included in Regions	Percent of FDI Received	Classification on the Basis of FDI Volume
1	Mumbai	1. Maharashtra 2. Dadra and Nagar Haveli 3. Daman and Diu	29	Regions with High Inflow of FDI (RHIF) Total Inflow of FDI = 74 Per cent
2	New Delhi	1. NCT of Delhi 2. Some parts of Uttar Pradesh and Haryana	22	
3	Chennai	1. Tamil Nadu 2. Pondicherry	7	
4	Bangalore	Karnataka	7	
5	Ahmedabad	Gujarat	5	
6	Hyderabad	Andhra Pradesh	4	
7	Kolkata	1. West Bengal 2. Sikkim 3. Andaman & Nicobar	1	
8	Chandigarh	1. UT of Chandigarh 2. Punjab 3. Haryana 4. Himachal Pradesh	0.5	
9	Jaipur	Rajasthan	0.5	
10	Kochi	1. Kerala 2. Lakshadweep	0.5	
11	Bhopal	1. Madhya Pradesh 2. Chhattisgarh	0.5	
12	Panaji	Goa	0.3	
13	Kanpur	1. Uttar Pradesh 2. Utharakhand	0.2	Regions with Low Inflow of FDI (RLIF) Total Inflow of FDI = 0.36 Per cent
14	Bhubaneshwar	Odisha	0.1	
15	Guwahati	1. Assam 2. Arunachal Pradesh 3. Manipur 4. Meghalaya 5. Mizoram 6. Nagaland 7. Tripura.	0.03	
16	Patna	1. Bihar 2. Jharkhand	0.03	
17	Jammu	Jammu and Kashmir	0	
18	Region not Indicated	Nil	23	

Source: Quarterly Fact Sheet on FDI, Department of Industrial Policy and Promotion (DIPP), March 2016

Note: The per cents of FDI inflow is from April 2000 to March 2016.

As shown in Table 5.1, the various regions which receive FDI inflows are, Mumbai, Delhi, Bangalore, Chennai, Ahmedabad, Hyderabad, Kolkata, Kochi, Jaipur, Chandigarh, Bhopal, Panaji, Kanpur, Bhubaneswar, Patna, Guwahati and Jammu and Kashmir. FDI coming to these regions are recorded in the RBI regional offices functioning there. To some regions, two or more states and UTs are attached for the purpose of recording FDI inflows as if Mumbai region includes not only the state of Maharashtra, but also the UTs of Dadra and Nagar Haveli and Daman and Diu.

In this study, the regions have been categorized in to high and low FDI Regions on the basis of the volume of FDI received by them during April 2000 to March 2016. Accordingly, the regions of Mumbai, Delhi, Bangalore, Chennai, Ahmedabad and Hyderabad are in the first six positions respectively in terms of their receipt of FDI and they are termed as ‘Regions with High Inflow of FDI (RHIF)’. Likewise, the regions of Kanpur, Bhubaneswar, Patna and Guwahati are described as ‘Regions with Low Inflow of FDI (RLIF)’. The regions like Kolkata, Kochi, Chandigarh, Bhopal, Jaipur and Goa which received moderate FDI inflows during the period, have not been considered for analysis in this study.

DIPP’s FDI factsheet in March 2016 discloses that 74 per cent of the total FDI inflows came to India has gone to RHIF, while the RLIF could receive only 0.36 per cent. These facts direct towards the aspect of wide regional disparity prevailing in the distribution of FDI within the territory of India as mentioned by Mukherjee (2011) and Chatterjee et al. (2013). Despite of the huge volume of FDI came to India so far as a part of its open policy mindset, a principal portion of the country’s regions lying untapped by foreign investment, and such circumstances have caused imbalance in the country’s economic

growth. The disparity in the regional distribution of FDI inflows within the country forms the basis of our study as it gave us insight to appraise suitably the magnitude of FDI inflows came to each region. A review of former attempts revealed that there is a gap exists as no studies have carried out so far to explain the FDI inflows to RHIF and RLIF. Instead, every author has put the inter-regional FDI in a single framework or everyone has attempted examining the FDI received by each region through a single viewpoint . Thus, in this work, the reseracher builds distinct models to explain the FDI inflows brought by RHIF and RLIF. The present chapter, focuses on the determinants of FDI inflows to RHIF and the role of FDI in RHIF, while the distribution of FDI inflows in RLIF has been described in the following chapter.

5.2 Brief Economic Profile of RHIF

RHIF includes six regions as mentioned above which encompasses five states and four UTs. All the five states included in RHIF are more advanced than other 24 Indian states in terms of almost all economic, industrial and social criteria. RHIF is also significant in terms of the geographical area they encompass, which is more than 30 per cent or around one third of the total. The per cent of population they accommodate is more than one third of the total.

However, the conditions in the UTs (except Delhi) which come under RHIF (Dadra and Nagar Haveli, Daman and Diu and Pondicherry) are quite backward. The following table (Table 5.2) gives a brief summary of the economy (described in terms of GSDP) of RHIF.

Table 5.2
GSDP (At Factor Cost and in Constant Prices) of RHIF

Particulars	Mumbai			Delhi	Bangalore	Chennai		Hyderabad	Ahmedabad	All India	Total of RHIF
	Maharashtra	Daman and Diu	Dadra and Nagar Haveli	Delhi	Karnataka	Tamil Nadu	Pondicherry	Andhra Pradesh	Gujarat		
Gross State Domestic Product (GSDP)											
a. Mean (Rs Bn)	7883.91	NA	NA	1956.52	2903.96	4234.78	121.06	2243.77	3995.37	-	-
b. Median (Rs Bn)	7756.097	NA	NA	1902.76	2827.84	4332.38	113.57	2212.85	3920.58	-	-
c. Standard Deviation (Rs Bn)	1507.939	NA	NA	406.56	485.19	843.34	31.07	387.5238	904.8	-	-
d. Standard Deviation/Mean (%)	19.13	NA	NA	20.78	16.71	19.91	25.67	17.27	22.65	17.73	-
e. AAGR (%)	7.08	NA	NA	8.55	6.34	7.61	9.99	6.48	8.79	6.96	-
f. CAGR (%)	7.05	NA	NA	8.52	6.31	7.57	9.94	6.45	7.77	6.95	-
e. Per cents to the GDP of India (Average)	15.16	NA	NA	1.48	5.6	8.11	0.23	4.32	7.63	-	42.53

Source: Calculated on the Basis of Data from Handbook of Statistics on Indian States by RBI, 2018.

Note: Each Average Figure Belongs to the period 2007-08 and 2015-16, NA: Not Available

Table 5.2 shows that Maharashtra gave of the highest share to India's GDP (15.16 per cent on average) between 2007-08 and 2015-16. Also, the state's GSDP dilated at a higher CAGR of 7.05 per cent (India- 6.95 per cent) during the period. Delhi's GSDP counted up to 1.48 per cent of the GDP of India (average). However, it enlarged at a higher CAGR of 8.52 per cent between 2007-08 and 2015-16. Apparently, Tamil Nadu also has a substantial share in the total GDP; GSDP of the state amounted to 8.11 per cent and enhanced at a higher CAGR of 7.57 per cent between 2007-08 and 2015-16. The GSDP of Puducherry accounted for a very low fraction (0.23 per cent) of the total; but it surged up at a higher CAGR of 9.94 per cent. Karnataka's GSDP amounted to a moderate portion (5.6 per cent) and it enhanced at a lesser CAGR of 6.31 per cent. In Andhra Pradesh, GSDP accounted for relatively lower share (4.32 per cent) of the total GDP and its expansion was also at a lesser CAGR of 6.45 per cent. Finally, in Gujarat, GSDP amounted to relatively higher portion (7.63 per cent) of total GDP and it augmented at a higher CAGR of 7.77 per cent between 2007-08 and 2015-16.

A review of Table 5.2 infuses adequate evidences of the economic position of RHIF. It is apparent that the GSDP of every state in RHIF, except Karnataka and Andhra Pradesh, has grown at a higher CAGR in excess of that of the country between 2007-08 and 2015-16. It hints that most of the regions under RHIF show dynamic potential to expand and flourish in the short run. Furthermore, it may be observed that RHIF contributes more than 40 per cent to the GDP of the country (average) and simultaneously attracts around 74 per cent of FDI inflows. Against such a backdrop, it is imperative to analyze the FDI inflows to these regions in extenso by constituting a conglomeration namely RHIF. The following section presents the traits of FDI inflows to RHIF during 2007-08 and 2015-16.

5.3 Trend and Pattern of FDI inflows in RHIF

FDI is indispensable for India by virtue of the multifarious advantageous effects it renders to the industrial and economic growth in host economies beyond the mere provision of capital. Equally, to RHIF also, FDI inflows are inevitable and in effect, FDI has been actively playing behind the industrial and economic prosperity of RHIF since 2000. Thus from a short span of time between April 2000 and March 2016, Mumbai alone received FDI worth Rs 4157.53 billion. During the period, the six regions within RHIF together received FDI worth Rs 11035.44 billion, which makes it imperative to narrate the FDI synopsis on RHIF during the period. Here only FDI inflows have been considered. The following table (Table 5.3) presents the details of FDI inflows to RHIF.

Table 5.3
Annual FDI Inflows to RHIF- Statistics

Particulars	Mumbai	Delhi	Chennai	Bangalore	Ahmedabad	Hyderabad	India
Average FDI Inflows (Rs Bn)	421.14	331.28	119.1367	109.69	71	59.75	1489
Median	405.97	374.03	77.57	72.35	52.82	57.1	1428
Standard Deviation	131.05	237.91	93.96	77.87	43	21.42	510.16
Standard Deviation/Mean (%)	31.12	71.81	78.87	71	60.56	35.85	34.25
CAGR (%)	5.59	25.88	40.17	19.75	9.29	12.88	13.01
AAGR (%)	17.62	93.49	66.91	29.53	27.98	20.65	17.76
FDI inflows (% of Region's GSDP-Average)	5.53	15.93	2.53	3.57	1.73	2.62	2.83
FDI inflows (% of Region's GFCF-Average)	90.44	33.19 (Times)	48.41	50	13.26	32.65	4.87

Source: Computed on the Data from the Quarterly Factsheet of DIPP, Various Issues.

Note: All average figures belong to the period of 2007-08 and 2015-16.

According to Table 5.3, FDI inflows to Mumbai expanded at a CAGR of 5.59 per cent between 2007-08 and 2015-16. Ratios of FDI to GSDP and FDI to GFCF (average) accounted for 5.53 per cent (India – 2.83 per cent) and 90.44 per cent (India – 4.87 per

cent) respectively. Additional attributes of FDI to Mumbai have been provided in the following section. Table 5.4 presents the details of the top five countries which brought FDI to Mumbai.

Table 5.4
Top Five Countries Brought FDI to Mumbai

Rank	Country	FDI Inflows(Rs Bn)	Per cent Composition
1	Mauritius	2129.26	39.8
2	Singapore	636.75	11.6
3	United Kingdom	413.43	8.15
4	Japan	353.98	6.11
5	Netherlands	320.72	5.82
Total		3854.14	71.48

Source: FDI synopsis on RBI's regional office – Mumbai (Published by DIPP, 2016)

- Note: 1. Brought FDI equity to RBI'S Mumbai regional office- from January 2000 to December 2016.
2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

According to Table 5.4, Mauritius brought the highest amount of FDI to Mumbai (Similar in the case of India). It accounted for 39.8 per cent of the total FDI inflows brought in by all foreign countries to the region between January 2000 and December 2016. Likewise, Singapore ranked second after Mauritius in fetching FDI to Mumbai. The following table (Table 5.5) presents the details of top five sectors attracted FDI flows to Mumbai between January 2000 and December 2016.

Table 5.5
Top Five Sectors Brought FDI to Mumbai¹

Rank	Sector	FDI inflows (Rs Bn)	Per cent Composition
1	Service Sector ²	1291.02	25.39
2	Telecommunications	499.63	8.28
3	Construction Development ³	337.71	7.14
4	Computer Software & Hardware	308.38	5.55
5	Metallurgical Industries	284.80	5.5
Total		2721.54	51.86

Source: FDI synopsis on RBI's regional office – Mumbai (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI'S Mumbai regional office- From January 2000 to December 2016.

2. R&D, Courier, Tech, Testing and Analysis. 3. Townships, Housing, Built-Up Infrastructure and Construction Development Projects. 4. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

From January 2000 to December 2016, FDI worth Rs 5334.11 billion has flowed to the various sectors of Mumbai, which includes the state of Maharashtra and UTs of Dadra and Nagar Haveli, and Daman and Diu. In accordance with Table 5.5, in Mumbai, service sector received highest FDI (25.39 per cent). Service sector encompasses segments like financial, banking service, insurance, non-financial service or business service, outsourcing, research and development, courier, technical testing and analysis, commodity exchange etc. The financial service sector of Maharashtra is well founded and structured. The state's capital, Mumbai is also known as the financial capital of India. The city accommodates bulk of the headquarters of large corporates and financial institutions in the country. In addition, major stock exchanges, commodity exchanges and capital markets of India are situated in Mumbai. Mumbai is home to three stock exchanges [Bombay Stock Exchange (BSE), National Stock Exchange (NSE) and Metropolitan Stock Exchange (MSE)] and three commodity exchanges [Indian Commodity Exchange (ICEX), Multi Commodity Exchange (MCX), National

Commodity and Derivatives Exchange (NCDEX)]. The state is home to several big financial houses including the apex bank of India. Apart from RBI, the state accommodates big banking institutions like State Bank of India (SBI), Bank of India (BoI), Union Bank of India (UBI), Bank of Maharashtra, Central Bank of India, Dena Bank, Yes Bank, Deutsche Bank India, Citibank of India, Housing Development Finance Corporation (HDFC) Bank, Industrial Development Bank of India (IDBI) and Industrial Credit and Investment Corporation of India (ICICI) bank.

Subsequently, the region's telecom sector attracted biggest amount of FDI. The top five sectors including service, telecom, construction, computer hardware and software, and metallurgical industries in the region together gathered 51.86 per cent of FDI. The following table (Table 5.6) shows the biggest ten FDI inflows came to Mumbai from January 2000 to December 2016.

Table 5.6
Top Ten FDI Equities to Mumbai

Rank	Indian Company	Home Country	Foreign Collaborator	Item of Manufacture	FDI Inflows (Rs Bn)
1	Blue Ridge Hotels Pvt Ltd	Mauritius	Blue Ridge Holdings Limited	Hotels	154.88 (23.82)
2	Abbott Healthcare Pvt Ltd	United States	Abbott Asia Holdings Ltd	Allopathic Pharmaceutical	107.64 (16.55)
3	Tata Teleservices Ltd	Japan	NTT Do Como Inc	Telecommunication Networks	97.97 (15.07)
4	Cairn (I) Ltd.	UK	Cairn UK Holding	Business services not elsewhere classified	66.63 (10.25)
5	JSW Steel Ltd	Japan	JFE Steel Corporation	Basic Iron and Steel	48.01 (7.38)
6	JSW Steel Ltd	Japan	JFE Steel Corporation	Semi-Finished Iron & Steel	48.01 (7.38)
7	India Debt Management Ltd	Mauritius	Mauritius Debt Management Ltd	Commercial Loan Activities	38 (5.84)
8	Etisalat DB Telecom P. Ltd	Mauritius	Etisalat Mauritius Ltd.	Communication	32.28 (4.96)
9	AAA & Sons Enterprises P Ltd	Mauritius	Emerging Markets Investments and Trading	Wind Mills	29.51 (4.54)
10	INDUSIND Bank Ltd.	U.S.A	Various	Monetary Intermediation	27.33 (4.20)
Total					650.26 (100)

Source: FDI synopsis on RBI's regional office – Mumbai (Published by DIPP, 2016)

Note: From January 2000 to December 2016. Figures in the parentheses show per cent to total.

Mauritius based Blue Ridge Holdings Limited made the top most investment in Mumbai during January 2000 to December 2016 (Table 5.6). Behind it, the UK based Abbott Asia Holdings Ltd carried out the largest investment in the allopathic pharmaceutical sector of the region. Abbott India Ltd is one of the largest MNC pharmaceutical companies operating in India. It is a subsidiary of Abbott Laboratories of United States. Thirdly, the Japan based NTT Do Como made an investment worth Rs 97.97 in the Indian company of Tata Teleservices Ltd. Thus, seven more Mumbai based companies attracted highest amounts of FDI. The biggest ten foreign investments in Mumbai together amounted to Rs 650.26 billion. The following section describes the FDI scenario in Delhi.

After Mumbai, the National Capital Territory (NCT) of Delhi gathered highest FDI inflows. From April 2000 to December 2016, it brought in around 22 per cent of FDI inflows which surged up at a higher CAGR of 25.88 per cent (India – 13.01 per cent) between 2007-08 and 2015-16. Ratio of FDI to GSDP accounted for 15.93 per cent, which is higher compared to that of other regions in RHIF as well as that of whole India (2.83 per cent). The ratio of FDI to GFCF accounted for 3.19 times, which is exorbitant for the region since it has comparatively lower volume of gross fixed capital formation. The following section describes the further attributes of FDI to Delhi from January 2000 to December 2016. Table 5.7 shows the top five countries brought FDI to Delhi.

Table 5.7
Top Five Countries Brought FDI to Delhi

Rank	Country	FDI inflows(Rs Bn)	Per cent Composition
1	Mauritius	1146.85	33.62
2	Singapore	1050.57	26.44
3	Japan	274.39	7.61
4	Netherlands	262.60	6.97
5	USA	177.69	4.93
Total		2912.10	79.57

Source: FDI synopsis on RBI's regional office – Delhi (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI'S Delhi regional office- January 2000 to December 2016.

2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

Table 5.7 shows that Mauritius has brought highest volume of FDI to Delhi (Rs 1146.85 billion and 33.62 per cent). It may be observed that during the equivalent period, Mumbai received around 39.8 per cent of FDI through Mauritius route while it is 33.62 per cent to Delhi. Contrast to this, while Singapore brought just 11.6 per cent of FDI to Mumbai, Delhi received 26.44 per cent of FDI from it. The top five countries including Mauritius, Singapore, Japan, Netherlands and USA together brought in 79.57 per cent of FDI to Delhi. The following table (Table 5.8) shows the top five sectors fetched FDI to Delhi.

Table 5.8
Top Five Sectors Brought FDI to Delhi¹

Rank	Sector	FDI Inflows(Rs Bn)	Per cent Composition
1	Services Sector ²	630.02	16.98
2	Construction Development ³	394.22	12.42
3	Telecommunications	367.37	10.88
4	Trading	338.77	8.24
5	Computer Software & Hardware	324.57	8.12
Total		2054.93	56.64

Source: FDI synopsis on RBI's regional office – Delhi (Published by DIPP, 2016)

Note :1. Brought FDI equity to RBI'S Delhi regional office-January 2000 to December 2016.

2. Service sector includes Financial, Banking, Insurance, Non-Financial or Business, Outsourcing, R&D, Courier, Tech, Testing and Analysis.

3. Townships, Housing, Built-Up Infrastructure and Construction Development Projects.

4. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

According to Table 5.8, highest volume of FDI has come to the service sector of Delhi (Rs 630.02 billion and 16.98 per cent) and it testifies the subsistence of a well progressing service sector in Delhi. The region is home to large number of commercial banks and financial services institutions.

Afterwards, biggest volume of FDI came up in the construction sector in Delhi (Rs 394.22 billion and 12.42 per cent). Construction and real estate sector in Delhi is one which offers rewarding opportunities and it attracts investors from India and abroad alike. In November 2015, Government of India announced reduction in FDI norms in real estate and construction sector in order to boost the affordability in housing sector. Thus, any project under construction, irrespective of the size will have access to FDI. The following table (Table 5.9) shows the ten biggest FDI deals occurred in Delhi from January 2000 to December 2016.

Table 5.9
Top Ten FDI Equities to Delhi

Sl. No	Indian Company	Home Country	Foreign Collaborator	Item of Manufacture	FDI Inflows (Rs Bn)
1	Keyman Financial Service	Mauritius	B.K Media	Financial Leasing	75 (17.97)
2	Bharti Airtel	Singapore	Three Pillars Ltd	Communication	67.96 (16.28)
3	Triguna Hospitality	Singapore	APHV India	Activities of holding companies	56.70 (13.59)
4	Triguna Hospitality	Singapore	AAPC Singapore	Activities of holding companies	50.41 (12.08)
5	JASPER Infotech	Singapore	Starfish Pvt Ltd	IT	36.13 (8.66)
6	Receitt Benckiser India	Singapore	Receitt Benckiser Singapore	Financial Services	32.75 (7.85)
7	Bhaik Infotel	Mauritius	Vodafone Mauritius	Communication	32.68 (7.83)
8	Bharati Infotel	Mauritius	Vodafone Mauritius	Non-operating financial holding companies	26.32 (6.31)
9	NHPC	Indonesia	NA*	Energy	19.79 (4.74)
10	GE India Pvt Ltd	Singapore	GE Pacific Pvt Ltd	Electrical Equipment	19.63 (4.70)
Total					417.36 (100)

Source: FDI synopsis on RBI's regional office – Delhi (Published by DIPP)

Note: From January 2000 to December 2016. *Not Available. Figures in the parentheses show per cent to total.

According to Table 5.9, Mauritius based B.K Media made the biggest investment in Delhi (Rs 75 billion). Its Indian collaborator is Keyman financial services. The all ten biggest foreign investment deals together brought in Rs 417.36 billion to Delhi in its various sectors within December 2016. The following section explicates the FDI scenario in Chennai.

Chennai attracted the third largest volume of FDI (Rs 1185.47 billion and 7 per cent) in India (from April 2000 to March 2016). Between 2007-08 and 2015-16, its FDI inflows grew at a high CAGR (40.17 per cent, India – 13.01 per cent). The ratio of FDI to GSDP is 2.53 per cent on average (India – 2.83 per cent). FDI to GFCF of the region accounted for 48.41 per cent (India – 4.87 per cent). Table 5.10 showed below, presents the details of the top five countries brought in FDI to Chennai.

Table 5.10
Top Five Countries Brought FDI to Chennai

Rank	Country	FDI inflows(Rs Bn)	Per cent
1	USA	267.59	19.08
2	Mauritius	222.64	19.08
3	Singapore	193.86	15.99
4	Japan	114.58	8.92
5	Netherlands	107.76	8.2
Total		906.43	71.27

Source: FDI synopsis on RBI's regional office – Chennai (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI's Chennai regional office- January 2000 to December 2016

2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

USA brought the highest amount of FDI to Chennai (Table 5.10). It is followed by Mauritius with FDI worth Rs 222.64 billion. However, the top five countries together have brought in foreign investment worth Rs 906.43 billion to Chennai. The following table (Table 5.11) presents the top five sectors attracted FDI in Chennai between January 2000 and December 2016.

Table 5.11
Top Five Sectors Brought FDI to Chennai

Rank	Sector	FDI inflows(Rs Bn)	Per cent
1	Automobile Industry	261.83	20.27
2	Services Sector*	147.88	11.51
3	Construction (Infrastructure) Activities	161.96	10.76
4	Construction Development: Townships, Housing, Built-Up Infrastructure And Construction-Development Projects	83.45	7.57
5	Computer Software & Hardware	65.53	5.99
Total		720.64	56.1

Source: FDI synopsis on RBI's regional office – Chennai (Published by DIPP, 2016)

Note: *Service sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only. Brought FDI equity to RBI'S Chennai regional office-January 2000 to December 2016.

Automobile sector brought in the highest amount of FDI to Chennai between January 2000 and December 2016 (Table 5.11). It manifests the productive and rewarding automobile industry concentrated on the region of Chennai and its surroundings. Tamil Nadu accounts for about 21 per cent of the auto-exports from India. It is also the export hub of passenger vehicles, accounting for around 70 per cent of India's overall exports. Tamil Nadu is the largest tyre manufacturing state in India and home to over 80 auto-component manufacturers.

Large volume of FDI has also come to the region's service sector (Rs 147.88 billion and 11.51 per cent). This marks the existence of a strong and progressed service sector in the region. Chennai is a key financial centre in southern India with a strong presence of major Indian financial institutions and foreign banks. For instance, Scope is a wholly owned subsidiary of Standard Chartered Bank, UK, and is based in Chennai, with operations in shared service centres. The World Bank commenced its BPO operations at Chennai in 2001. Many of the high-value-added back office activities of the bank are now based in Chennai instead of Washington. The following table (Table 5.12) presents the

details of the top ten FDI deals occurred in the region from January 2000 to December 2016.

Table 5.12
Top Ten FDI Equities to Chennai

Sl. No	Indian Company	Home Country	Foreign Collaborator	Item of Manufacture	FDI Inflows (Rs Bn)
1	Serene Senior Living (Covai SR Care Cons)	U.S.A	Signature India LLC	Other specialized construction activities	150.00 (49.79)
2	Ford India Limited	U.S.A	Ford Motor Company	Manufacture of Motor Cars & Other Motor Vehicles	26.67 (8.85)
3	Daimler India Commercial Vehicles Pvt Ltd	Germany	Daimler AG	Manufacture of Motor Vehicles for The Transport of Goods, Manufacture of Special Purpose Heavy Motor Vehicles	20.76 (6.89)
4	W. S. Electric Ltd	The Bermudas	Schroder Credit Renaissance Fund Ltd	Construction And Maintenance Not Elsewhere Classified.	17.81 (5.91)
5	Shriram Financial Ventures Chennai Pvt Ltd	Mauritius	Sanlam Emerging Markets (Mauritius) Ltd	Non-Operating Financial Holding Companies	15.40 (5.11)
6	Daimler India Commercial Vehicles Pvt Ltd	Germany	Daimler AG	Manufacture of commercial vehicles such as vans, lorries, over-the-road tractors for semitrailers etc	14.86 (4.93)
7	Renault Nissan Automotive India Pvt Ltd	Japan	Nissan Motors Company	Manufacture of Transport Equipment & Parts	14.77 (4.90)
8	Ford India Limited	U.S.A	Ford International Services Ltd	Manufacture Of Motor Cars & Other Motor Vehicles	14.43 (4.79)
9	LPCUBE Systems (I) P. Ltd.	Singapore	Vidhya Jayaraman	Data-processing Software Development And Computer Consultancy Services	14.06 (4.67)
10	Aircel Ltd	Mauritius	Global Communication Services Holdings Ld	Telephone Communication Services.	12.51 (4.15)
Total					301.27 (100)

Source: FDI synopsis on RBI's regional office – Chennai (Published by DIPP, 2016) Note: From January 2000 to December 2016. Figures in the parentheses show per cent to total.

Table 5.12 shows that most of the companies made investment in the automobile segment in Chennai. The region received FDI worth Rs 301.27 billion from all the ten biggest deals up to December 2016. The following section shows the details of foreign investment in Bangalore.

Fourth highest volume of FDI in RHIF (Rs 1089.12 billion and seven per cent) came to Bangalore between April 2000 and March 2016. Its FDI inflows grew at a higher CAGR of 19.75 per cent (India – 13.01 per cent) between 2007-08 and 2015-16. FDI to GSDP of the region accounted for 3.57 per cent (India – 2.83 per cent). Likewise, FDI to GFCF amounted to 50 per cent (India – 4.87 per cent). Table 5.13 presents the details of the top five countries brought in FDI to Bangalore from January 2000 to December 2016.

Table 5.13
Top Five Countries Brought FDI to Bangalore

Rank	Country	FDI inflows (Rs Bn)	Per cent
1	Mauritius	335.98	29.75
2	Singapore	338.92	24.78
3	USA	88.82	8.11
4	Netherlands	81.99	6.82
5	Japan	59.18	4.69
Total		904.89	74.15

Source: FDI synopsis on RBI's regional office – Bangalore (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI's Bangalore regional office- January 2000 to December 2016.

2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

Mauritius brought the highest FDI inflow to Bangalore (Table 5.13). The second highest volume of FDI to the region has brought in by Singapore. Up to December 2016, the top five countries together have brought in 74.15 per cents of FDI to the region. The following table (Table 5.14) shows the top five sectors attracted FDI in Bangalore from January 2000 to December 2016.

Table 5.14
Top Five Sectors Brought FDI to Bangalore

Rank	Sector	FDI inflows (Rs Bn)	Per cent
1	Computer Software & Hardware	204.70	16.46
2	Trading	204.13	15.3
3	Service Sector ¹	157.44	13.16
4	Construction Development: Townships, Housing, Built-Up Infrastructure And Construction- Development Projects	83.60	8.24
5	Hospital & Diagnostic Centres	38.13	3.25
Total		687.99	56.41

Source: FDI synopsis on RBI's regional office – Bangalore (Published by DIPP, 2016)

Note: 1. Service sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis.

2. Brought FDI equity to RBI'S Bangalore regional office-January 2000 to December 2016.

3. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's Automatic route only.

Computer sector brought the highest FDI to Bangalore (Table 5.14). By 2016 December, the sector brought in FDI worth Rs 204.7 billion. This sector, especially IT, is a well progressed one in Karnataka. The state is known as the IT hub of India and home to the world's fourth largest technological cluster. The state has over 3500 IT companies that contributing more than \$ 32 billion in export and employing over one million direct and three million indirect professionals. Nearly 80 per cent of the Fortune 500 companies have their outsourcing operations in Bangalore, the state's capital. The state of Karnataka has the presence of largest IT firms like Capgemini, Mindtree, Oracle, SONY, TCS, Texas Instruments, Wipro etc.

Trading sector in Bangalore brought in the second largest volume of FDI (Rs 204.13 billion and 15.3 per cent). The region has a vast and advancing trading sector. The top five sectors (Computer Software & Hardware, Trading, Service Sector, Construction Development and hospital sector) together brought 56.41 per cent of FDI to Bangalore

within December 2016. The following table (Table 5.15) shows the top ten FDI deals in Bangalore.

Table 5.15
Top Ten FDI Equities to Bangalore

Sl. No	Indian Company	Home Country	Foreign Collaborator	Item of Manufacture	FDI inflows (Rs Bn)
1	Flipkart Internet Pvt Ltd	Singapore	Flipkart Marketplace Private Limited	Other information technology and computer service activities Not Elsewhere Classified (N.E.C)	32.66 (18.00)
2	Flipkart India Private Limited	Singapore	Flipkart Private Limited	Wholesale Trade in Household Equipment, Appliances N.E.C.	24.24 (13.36)
3	United Spirits Ltd	Netherlands	Relay B.V.	Distilling, Rectifying & Blending Of Spirits, Ethyl Alcohol Production From Fermented Materials	20.93 (11.53)
4	Amazon Seller Services Pvt. Ltd	Singapore	Amazon Asia Pacific Resources Private Ltd	Wholesale of other electronic equipments and parts thereof	19.80 (10.91)
5	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Asia Pacific Resources Private Ltd	Wholesale of other electronic equipments and parts thereof	16.96 (9.35)
6	Flipkart Internet Pvt Ltd	Singapore	Flipkart Marketplace Private Limited	Other information service activities N.E.C.	16.32 (8.99)
7	Amazon Seller Services Pvt. Ltd.	Singapore	Amazon Asia Pacific Resources Pvt Ltd	Wholesale of other electronic equipments and parts thereof	13.50 (7.44)
8	Flipkart India Private Limited	Singapore	Flipkart Limited	Other non-specialized wholesale trade N.E.C.	12.67 (6.98)
9	Amazon Seller Services Pvt. Ltd	Singapore	Amazon Asia Pacific Resources Private Ltd	Wholesale of other electronic equipments and parts thereof.	12.37 (6.82)
10	GMR Infrastructure Ltd	U.S.A	26 Various FIIs	Miscellaneous	12 (6.61)
Total					181.45 (100)

Source: FDI synopsis on RBI's regional office – Bangalore (Published by DIPP, 2016) Note: From January 2000 to December 2016. Figures in the parentheses show per cent to total.

Flipkart Marketplace Private Limited, a Singapore based firm, has brought the highest FDI to Bangalore (Table 5.15). The all ten firms together have brought FDI worth Rs 181.45 billion to Bangalore by 2016 December. The following section gives a brief account of the FDI inflows to Ahmedabad.

In RHIF, Ahmedabad ranked fifth in bringing FDI (Rs 684.64 billion and five per cent) from March 2000 to April 2016. Its FDI inflows expanded at a relatively lower CAGR of 9.29 (India- 13.01 per cent) during 2007-08 and 2015-16. FDI to GSDP ratio of the region, on average amounted to 1.73 per cent (India- 2.83 per cent). Likewise, FDI to GFCF is (13.26 per cent) for the region (India- 4.87 per cent). The following section discusses the further features of FDI inflows to Ahmedabad. Table 5.16 presents the details of the top five countries brought FDI to the region.

Table 5.16
Top Five countries Brought FDI to Ahmedabad

Rank	Country	FDI inflows(Rs Bn)	Per cent Composition
1	Mauritius	371.06	43.39
2	USA	79.26	10.14
3	Singapore	66.22	8.49
4	Japan	83.51	7.99
5	China	67.54	6.65
Total		667.58	76.66

Source: FDI synopsis on RBI's regional office –Ahmedabad (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI's Ahmedabad regional office- January 2000 to December 2016.

2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

Mauritius brought in highest volume of FDI to Ahmedabad (Table 5.16). Other countries include USA, Singapore, Japan and China and these top five countries together fetched in FDI worth Rs 667.58 billion to Ahmedabad.

The following table (Table 5.17) shows the details of the top five sectors brought in FDI to Ahmedabad.

Table 5.17
Top Five Sectors Brought FDI to Ahmedabad

Rank	Sector	FDI inflows (Rs Bn)	Per cent Composition
1	Automobile Industry	155.66	15.96
2	Telecommunications	82.01	10.98
3	Cement And Gypsum Products	113.72	10.76
4	Power	82.51	10.25
5	Metallurgical Industries	46.47	6.29
Total		480.37	54.24

Source: FDI synopsis on RBI's regional office –Ahmedabad (Published by DIPP, 2016)

Note: 1. Brought FDI equity to RBI'S Ahmedabad regional office- January 2000 to December 2016.

2. Amount includes the inflows received through FIPB/SIA route, acquisition of existing shares & RBI's automatic route only.

Automobile industry has brought the largest FDI to Ahmedabad (Table 5.17). Gujarat has a vast and versatile automobile industry. The state contributes nine per cent to India's transport equipment output. It has established auto-clusters in regions like Sanand, Halol and Rajkot. Auto component clusters like AMW Auto, Bridgestone, Lear Corporation, Mahle, Schaeffler, Tata Precision Industries, Tenneco etc. lie spread over in the states of Madhya Pradesh and Gujarat. Other sectors in the top five include telecom, cement, power and metallurgical industries and all these five sectors together fetched FDI of 54.24 per cent to Ahmedabad from January 2000 to December 2016. The following table (Table 5.18) shows the details of the top five FDI deals occurred in Ahmedabad.

Table 5.18
Top Ten FDI Equities to Ahmedabad

Ran k	Indian Company	Home Country	Foreign Collaborator	Item of Manufacture	FDI Inflows (Rs Bn)
1	Ambuja Cements Ltd	Mauritius	Holdering Investments Ltd	Cement Manufacturing	110.84 (35.69)
2	Idea Cellular Ltd	Mauritius	TMI Mauritius Ltd	Telecom service	72.94 (23.49)
3	Suzuki Motor Gujarat Pvt Ltd	Japan	Suzuki Motor Corporation	Passenger Cars Manufacturing	31 (9.98)
4	Suzuki Motor Gujarat Pvt Ltd	Japan	Suzuki Motor Corporation	Passenger Cars Manufacturing	26 (8.37)
5	Essar Steel Ltd	USA	Essar Logistics Holding Ltd	Steel Manufacturing	19.03 (6.13)
6	General Motors India Pvt Ltd	China	SAIC General Motors Ltd	Passenger Cars Manufacturing	14.23 (4.58)
7	Adani Power Ltd	UAE	<i>Various Investors not else Classified</i>	Electric Energy-Generation and Transmission	11.81 (3.80)
8	RidhiSidhi Corn Processing Pvt Ltd	France	Roquette	Manufacturing Food Products	8.49 (2.73)
9	Reliance Ports and Terminals Ltd	Singapore	Biometrix Marketing Pvt Ltd	Business services not elsewhere classified	8.3 (2.67)
10	Welspun Corp Ltd	Cyprus	Granele Ltd	Metal products	7.88 (2.54)
Total					310.52 (100)

Source: FDI synopsis on RBI's regional office – Ahmedabad (Published by DIPP, 2016) Note: From January 2000 to December 2016. Figures in the parentheses show per cent to total.

Indian company Ambuja Cements Ltd gathered the highest FDI in Ahmedabad (Table 5.18). The top ten investors together fetched FDI worth Rs 310.52 billion to Ahmedabad between January 2000 and December 2016. The following section gives a description of the FDI scenario in Hyderabad.

According to Table 5.3, FDI inflows to Hyderabad grew at a lower CAGR of 12.88 per cent (India – 13.01 per cent) between 2007-08 and 2015-16. On average, FDI to GSDP amounted to 2.62 per cent and FDI to GFCF accounted for 32.65 per cent in the region.

An assessment of the characteristics of FDI to RHIF shows that regions including Bangalore, Delhi and Chennai have higher CAGR in FDI inflows than the country. It may also be observed that, FDI to GDP ratio in Mumbai, Delhi and Bangalore has come up higher per cent (5.53 per cent 15.93 per cent, and 3.57 per cent respectively). Additionally, FDI to GFCF ratio is also higher in these three regions. It leads to the conclusion that, the three regions such as Mumbai, Delhi and Bangalore stand forth of the other three regions in RHIF and they are likely to secure elevated quantity of FDI in the long run.

The evaluation made above, about the trend and pattern of FDI inflows to RHIF, shows that, *Inflow of FDI is being rightly directed and judiciously distributed in Regions with High Inflow of FDI (RHIF).*

5.4 Determinants of FDI Inflows to RHIF

It is evident from Table 5.1 that enhanced FDI inflows to India have been accompanied by strong regional concentration. Accordingly, this facet of enhanced regional concentration headed the researcher to delve into the region-specific determinants of FDI

inflows. Thus, this section of the chapter explicates the specific determinants of FDI inflows to RHIF.

Domestic savings encompasses the savings of household sector, private corporate sector and public sector and is an important macroeconomic variable capable of inflicting influence on other variables including FDI inflows. Theoretical literature conforms that it is from reduced domestic savings, need for foreign capital arises. The inadequacy in domestic savings is followed by lowered investment and capital formation in the host economy and foreign capital flows to such economies supplement the shortfall in domestic savings. However, domestic savings as a determinant of FDI inflows is still a point of contention as mixed results have been obtained on it. Katircioglu & Naraliyeva (2006) didn't obtain a long-run equilibrium relationship between FDI and domestic savings in Khazakstan. However, in Turkey, Taşpınar (2011) found that FDI is output and savings driven. In Bangladesh, Salahuddin et al. (2010) found a bi-directional causal relationship between FDI inflows and gross domestic savings. Thus, the researcher came to postulate that domestic savings have a bearing on FDI inflows to RHIF. Domestic savings is proxied by deposits of scheduled commercial banks in RHIF.

An investment is an asset or item acquired with the goal of generating income or appreciation in income (purchase of goods that are not consumed today but are used in the future to create wealth). Theoretical literature conforms that domestic investment is inevitable to have economic progress in developing nations. It has also proved empirically that domestic investment is an important determinant of bringing FDI inflows to particular countries. The role of domestic investment in captivating foreign investment was disclosed in the studies of Lautier & Moreaub (2012) and Hanafy (2015). Thus it is

hypothesized that the level of domestic investment explains FDI inflows to RHIF. The factor is proxied by 'gross fixed capital formation'.

Deficit financing has been using by the government of India and state governments for acquiring funds to finance economic development. When the government cannot raise enough financial resources through taxation, it finances its development expenditure through (a) by running down its cash balances with RBI (b) borrowing from RBI and (c) borrowing from the market. Fiscal deficit is the most common form of deficit financing of both the state and central governments in India. Thus, the fiscal deficit, which is the difference between total expenditure and revenue receipts and non-debt type capital receipts, becomes the most appropriate variable to represent the deficit financing of RHIF. To some economists like John Maynard Keynes, fiscal deficit is a positive economic event in the sense that it will help the nations to climb out of recession. But to some conservative economists, fiscal deficit is a feature to be avoided by the governments in favour of a balanced budget policy. Many theories exist describing the validity of fiscal deficit. In this arena, Baniak et al. (2005) found that increased variability in factors like budget deficit, trade deficit, balance of payment deficit etc. result in a decrease in the expected FDI inflows to transition economies. Gondor & Nistor (2012) found that fiscal policy determines FDI inflows in six countries in European Union. In the context of India and some select Asian countries like China, Singapore, Indonesia Thailand, Republic of Korea, Philippines, and Malaysia, Bhasin (2014) found that fiscal policy variables turned out to be insignificant determinants of FDI inflows. However, here the researcher postulated that deficit financing in host regions, especially in

developing economies significantly influences FDI inflows. Thus, 'Gross Fiscal Deficit' in RHIF has been selected to proxy the deficit financing.

Net State Domestic Product (NSDP) is another most significant macro economic variable capable of influencing FDI inflows; such a postulation has been drawn from the notion that size of the host economy influences FDI flows. NSDP is a variable standing close to GSDP as NSDP is obtained after deducting depreciation from GSDP. Even if NSDP is not taken as such as a variable in studies as determinant of FDI inflows, GSDP has appeared many times either to represent market size or growth in economic output. Mottaleb (2007) found that large GDP and high GDP growth rate affect FDI inflows to lower income and lower-middle income countries. Mukherjee (2011) in her study about regional inequality in FDI inflows to India, has taken per capita NSDP to proxy market size. Thus here, total NSDP at factor cost and in constant prices has been taken to proxy 'size of the host economy'. The following section describes the model used to assess the determinants of FDI inflows to RHIF.

5.4.1 Model

$$FDIINFLOW = \alpha + \beta_1 DPSTSCB + \beta_2 FSCLDFCT + \beta_3 NSDP + \beta_4 GFCF$$

Where, FDIINFLOW stands for FDI inflows, DPSTSCB stands for deposits of scheduled commercial banks, FSCLDFCT stands for gross fiscal deficit, NSDP stands for net state domestic product and GFCF stands for gross fixed capital formation.

5.4.2 Results

The following table (Table 5.19) presents the statistical characteristics of explanatory variables.

Table 5.19
Statistical Characteristics of Explanatory Variables

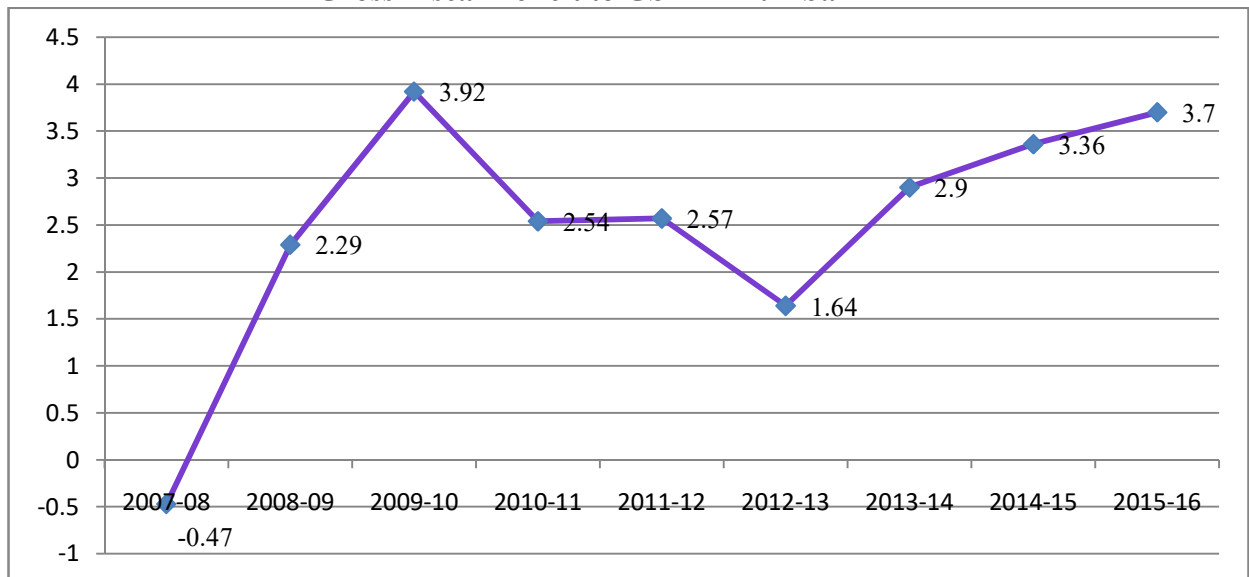
Broad Factor Specification	Particulars	Mumbai	Delhi	Bangalore	Chennai	Ahmedabad	Hyderabad	India	Total of RHIF
1. Deficit Financing	Explanatory Variable : Gross Fiscal Deficit (FSCLDFCT)								
	Average (Rs Bn)	206.34	18.26	142.91	194.31	158.86	172.4	-	-
	Median (Rs Bn)	199.7	22.8	123	173.6	151.5	154	-	-
	Standard Deviation (Rs Bn)	118.84	16.54	50.75	89.6	52.02	65.32	-	-
	Standard Deviation/Mean (%)	57.6	90.59	35.51	46.11	32.75	37.89	30.9	-
	AAGR (%)	95	79.88	19.63	34.28	27.25	14.39	27.57	-
% of Fiscal Deficit to GSDP (Average)	2.49	1.04	4.44	3.88	3.59	7.14	8	-	
2. Domestic Investment	Explanatory Variable: Gross Fixed Capital Formation (GFCF)								
	Average (Rs Bn)	494.1	9.94	236.05	270.9	557.63	191.04	-	-
	Median (Rs Bn)	519.7	9.04	232.03	278.52	520.94	184.53	-	-
	Standard Deviation (Rs Bn)	123.27	3.26	52.36	78.32	254.25	49.08	-	-
	Standard Deviation/Mean (%)	24.95	32.79	22.19	28.91	45.59	25.69	22.89	-
	AAGR (%)	9.77	11.56	10.08	22.13	18.82	9.42	10.96	-
CAGR (%)	8.66	6.96	6.94	7.62	17.47	5.59	10.32	-	
GFCF as % of GSDP of States (Average)	6.23	0.51	8.29	6.34	13.36	8.74	5.78	-	
3. Domestic Savings	Explanatory Variable: Deposits of Schedule Commercial Banks (DPSTSCB)								
	Average (Rs Bn)	15761.44	6940.56	4269.78	4035.33	3205.67	2802.33	-	-
	Median (Rs Bn)	15299	6841	4101	4066	3031	2493	-	-
	Standard Deviation	4927.58	1773.21	1697.17	1414.75	1304.29	939.42	-	-
	Standard Deviation/Mean (%)	32.21	25.92	41.38	34.79	43.03	37.68	36.72	-
	AAGR (%)	12.5	10.78	16.25	14.88	16.78	6.3	14.55	-
CAGR (%)	12.3	10.72	16.19	14.79	16.71	2.06	14.5	-	
Deposits as % of GSDP of States (Average)	195.62	351.36	142.21	90.66	77.27	126.38	117.69	-	
4. Size of the Host Economy	Explanatory Variable: Net State Domestic Product(NSDP)								
	Average NSDP (Rs Bn)	7073.05	1855.37	2539.47	3853.11	3403.8	1972.22	-	-
	Median	6959.04	1807.22	2480.4	3966.82	3368.86	1915.54	-	-
	SD	1334.86	386.71	386.55	740.28	779.44	321.64	-	-
	Standard Deviation/Mean (%)	18.87	20.84	15.22	19.21	22.9	16.31	16.86	-
	CAGR (%)	6.92	8.51	5.79	6.33	8.88	6.2	6.64	-
AAGR (%)	6.88	8.49	5.75	7.28	8.84	6.16	6.65	-	
% of NSDP in that of all states (Average)	15.45	4.04	5.58	8.41	7.39	4.33	-	45.2	

Source: Compiled from *The handbook of statistics on Indian states*, RBI, 2018. Note: All average figures belong to the period of 2007-08 to 2015-16.

As shown in table 5.19, there are four explanatory variables in the model Viz. gross fiscal deficit, gross fixed capital formation, deposits of scheduled commercial banks and net State domestic product. The following part gives an account of the fiscal deficit in RHIF. In Mumbai, gross fiscal deficit expanded at a higher AAGR of 95 per cent (India – 27.57 per cent). The following figure (Figure 5.1) shows the ratio of fiscal deficit to GSDP in Mumbai from 2007-08 to 2015-16.

Figure 5.1

Gross Fiscal Deficit to GSDP- Mumbai

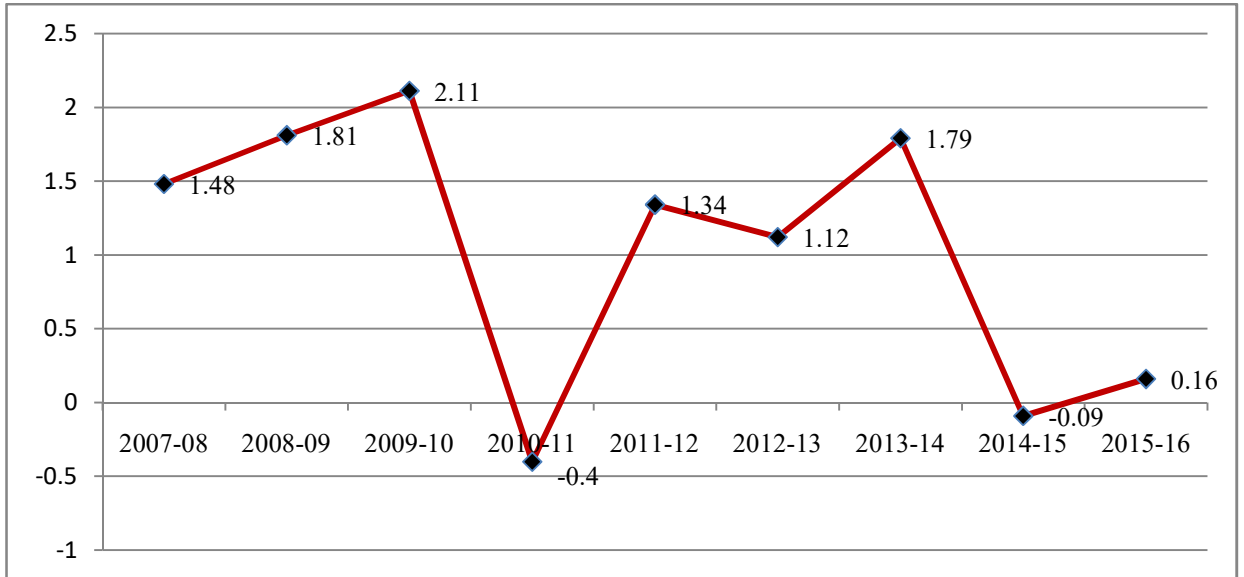


Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues*

Figure 5.1 shows the mounting ratio in Mumbai between 2007-08 and 2015-16. By 2015-16, fiscal deficit reached 3.7 per cent of GSDP in Mumbai after crossing the limit of three per cent insisted by the Fiscal Responsibility and Budget Management Act (FRBM).

The gross fiscal deficit of Delhi also expanded at a higher AAGR of 79.88 per cent (India -27.57 per cent). The figure below (Figure 5.2) shows the ratio of fiscal deficit to GSDP in Delhi from 2007-08 to 2015-16.

Figure 5.2
Gross Fiscal Deficit to GSDP - Delhi

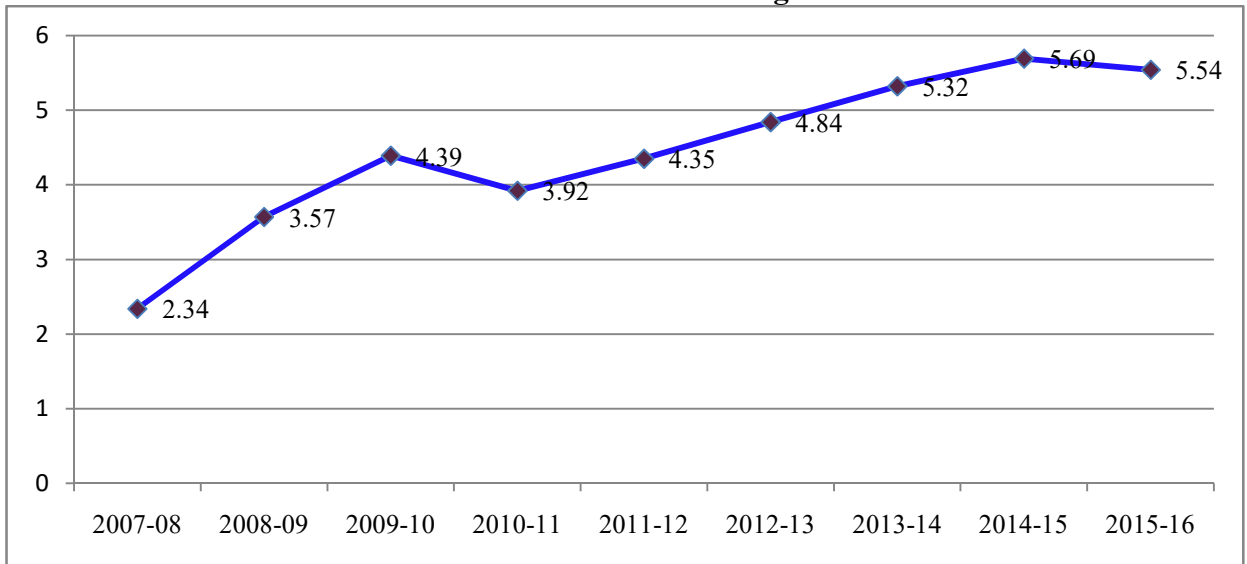


Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues.

According to Figure 6.2, the ratio seems low in Delhi. In 2007-08, the ratio was 1.48 per cent and it got diminished to 0.16 per cent by 2015-16.

Gross fiscal deficit of Bangalore expanded at an AAGR of 19.63 per cent (India -27.57 per cent). The following figure (Figure 5.3) exhibits the fiscal deficit to GSDP ratio of Bangalore from 2007-08 to 2015-16.

Figure 5.3
Gross Fiscal Deficit to GSDP- Bangalore

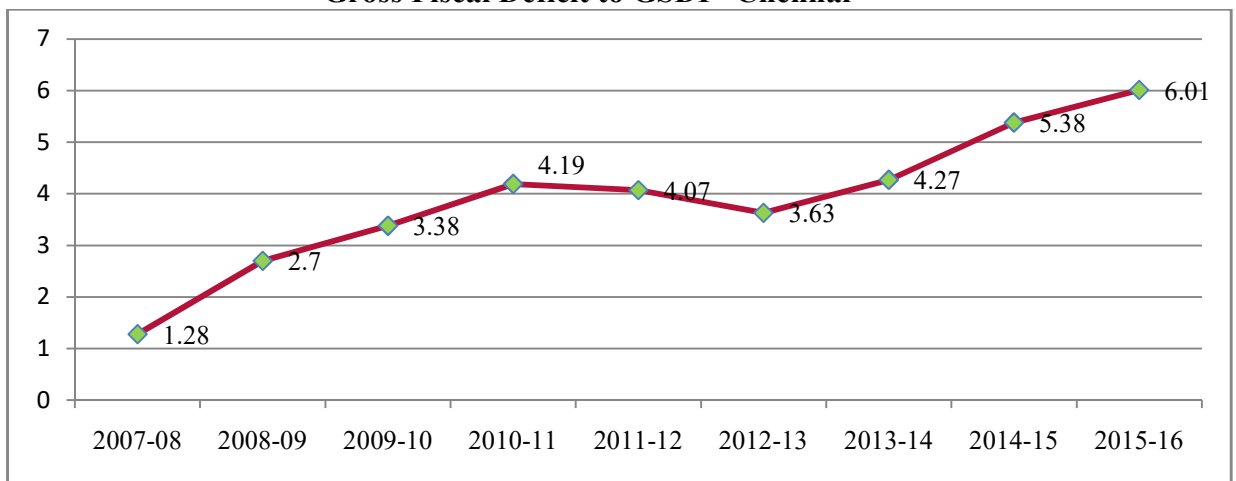


Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues.*

Figure 5.3 shows the steady increase in the ratio between 2007-08 and 2015-16. By 2015-16, the ratio became 5.54 per cent from the 2.34 per cent in 2007-08.

The gross fiscal deficit of Chennai expanded at an AAGR of 34.28 per cent (India – 27.57 per cent). Figure 5.4 shows the gross fiscal deficit to GSDP ratio of the region, from 2007-08 to 2015-16.

Figure 5.4
Gross Fiscal Deficit to GSDP -Chennai

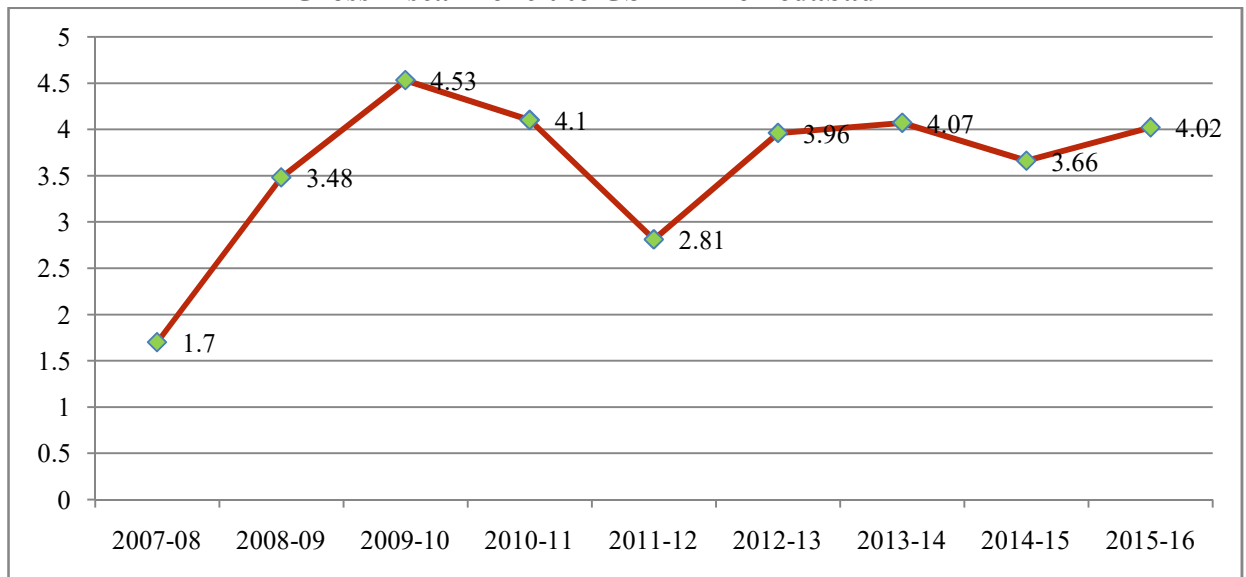


Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues.*

Figure 5.4 shows the stable increase in the ratio in Chennai which increased from 1.28 per cents to 6.01 per cent from 2007-08 to 2015-16.

The fiscal deficit of Ahmedabad expanded at an AAGR of 27.25 per cent (India - 27.57 per cent) between 2007-08 and 2015-16. The figure below shows (Figure 5.5) the gross fiscal deficit to GSDP ratio from 2007-08 to 2015-16.

Figure 5.5
Gross Fiscal Deficit to GSDP-Ahmedabad

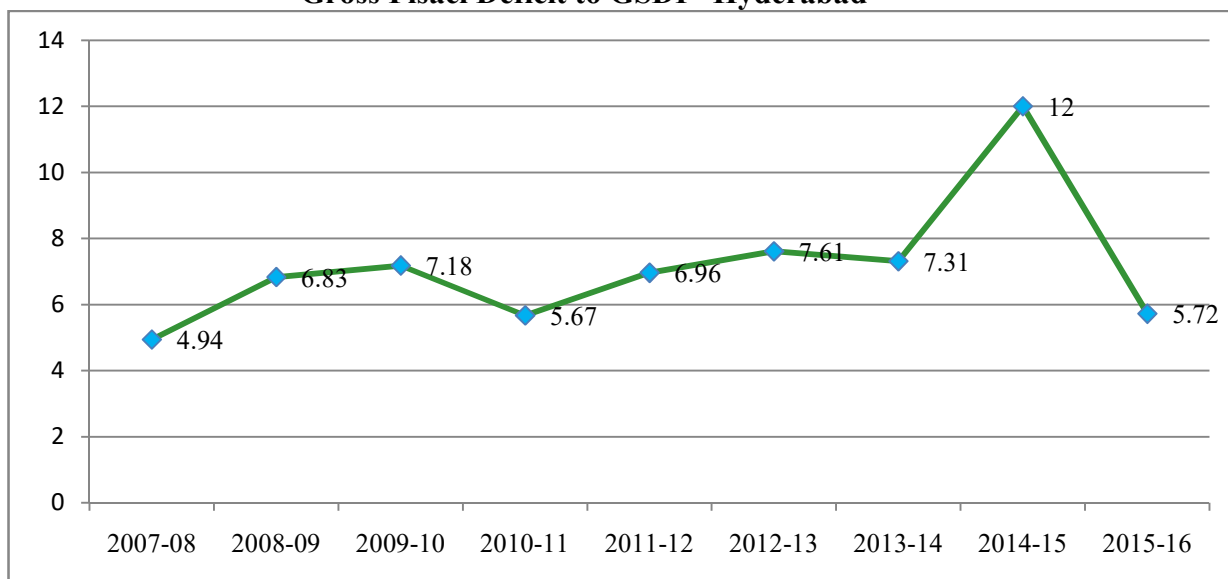


Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues.

Figure 5.5 shows the moderate increase in the ratio of Ahmedabad between 2007-08 and 2015-16. From a 1.7 per cent in 2007-08, it increased to 4.02 per cent in 2015-16.

The gross fiscal deficit of Hyderabad expanded at an AAGR of 14.39 per cent (India - 27.57 per cent) between 2007-08 and 2015-16. The figure below (Figure 5.6) shows the Hyderabad's gross fiscal deficit to GSDP from 2007-08 to 2015-16.

Figure 5.6
Gross Fiscal Deficit to GSDP -Hyderabad



Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues.

Figure 5.6 depicts the extra-ordinarily higher ratio of fiscal deficit to GSDP in Hyderabad. Though it had increased to 12 per cent in 2014-15, it fell down to 5.72 per cent by the next year.

All things considered, it seems reasonable to epitomize that gross fiscal deficit to GSDP ratio is on the increase in all regions under RHIF except Delhi. Increasing fiscal deficit can adversely affect the growth of economies. Higher fiscal deficit forces governments to cut back in spending on relevant sectors like health, education and infrastructure. It may hinder the growth of human and physical capital, which is capable of making a long-term impact on economic growth. In India, Mohanty (2012) found a negative and significant relationship between fiscal deficit and economic growth in the long run. In Vietnam, Tung (2018) found that fiscal deficit had harmful effects on economic growth in both short and long run. It was assessed that fiscal deficit can hurt not only the gross output but also private investments, foreign direct investments, and net exports. The following

section gives a brief account of the second explanatory variable, that is, gross fixed capital formation in RHIF.

GFCF of Mumbai expanded at a CAGR of 8.66 per cent between 2007-08 and 2015-16 (India – 10.32 per cent). GFCF to GSDP ratio of Mumbai amounted to 6.23 per cent on average (5.78 per cent for India). GFCF of Delhi elevated at a lower CAGR of 6.96 per cent (India – 10.96). In Delhi, the ratio of GFCF to GSDP accounted for mere 0.51 per cent for the reason that the volume of GFCF is comparatively low in Delhi. GFCF of Bangalore augmented at a CAGR of 6.94 per cent (India – 10.32 per cent) between 2007-08 and 2015-16. On average, the region's GFCF to GSDP ratio amounted to 8.29 per cent (India – 5.78 per cent). GFCF of Chennai expanded at a CAGR of 7.62 per cent (India – 10.32 per cent). During the period, the GFCF to GSDP ratio accounted for 6.34 per cent (India – 5.78 per cent). GFCF of Ahmedabad progressed at a CAGR of 17.47 per cent (India – 10.32 per cent). The ratio of GFCF to GSDP amounted to 13.36 per cent on average (India – 5.78 per cent). GFCF of Hyderabad grew at a CAGR of 5.59 per cent (India – 10.32 per cent). GFCF to GSDP ratio, on average amounted to 8.74 per cent (India – 5.78 per cent).

An assessment of the data on the gross fixed capital formation discloses the status of domestic investment in RHIF. GFCF of only the region of Ahmedabad has grown at a higher CAGR (17.47 per cent) than that of India. However, all the regions coming under RHIF except Delhi have the ratio (GFCF to GSDP) higher than that of India, which bespeak about the increasing intensity of domestic investment in RHIF. The following section discusses the third explanatory variable – deposits of scheduled commercial banks.

Deposits in Mumbai expanded at a lower CAGR of 12.3 per cent (India – 12.5 per cent) between 2007-08 and 2015-16. The ratio of deposits to GSDP accounted for 195.62 per cent on average (for India, it is 117.9 per cent). The deposits of Delhi grew at a CAGR of 10.72 per cent (India – 14.5 per cent). The ratio of Deposits to GSDP composed of 351.36 per cent. The deposits of Bangalore progressed at a CAGR of 16.19 per cent (India – 14.5 per cent). The ratio of deposits to GSDP accounted for 142.21 per cent on average. The bank deposits of Chennai expanded at a CAGR of 14.79 per cent (India – 14.5 per cent) between 2007-08 and 2015-16. The average ratio of deposits to GSDP amounted to 90.66 per cent.

The assessment of deposits mobilized by scheduled commercial banks exposed the status of domestic savings in RHIF. Deposits mobilized have grown at a higher CAGR than that of India in Bangalore, Chennai and Ahmedabad between 2007-08 and 2015-16. In the same way, the deposit to GSDP ratio is high in RHIF than the ratio of the country excluding Chennai and Ahmedabad. These particulars betoken about the higher expanse of savings amassed by RHIF through effectual financial intermediation. The following part outlines the details of the net state domestic product in RHIF.

NSDP in Mumbai progressed at a CAGR of 6.88 per cent (India – 6.64 per cent). On average, the NSDP of Mumbai accounted for 15.45 per cent of the total NSDP of India and the region has contributed highest to both the NSDP and GSDP of India. The NSDP of Delhi expanded at a higher CAGR of 8.49 per cent (India – 6.64 per cent). The region's NSDP, on average, amounted to 4.04 per cent to the total GSDP of India. The NSDP of Bangalore progressed at a CAGR of 5.75 per cent between 2007-08 and 2015-16 (India – 6.64 per cent). On average, the region's NSDP amounted to 5.58 per cent of

the total NSDP of India. The NSDP of Chennai grew at a CAGR of 6.33 per cent (India – 6.64 per cent). On average, the NSDP of the region accounted for 8.41 per cent of the NSDP of India. The NSDP of Ahmedabad progressed at a higher CAGR of 8.84 (India – to 6.64 per cent). The region’s NSDP, on average, accounted for 7.39 per cent of all India NSDP between 2007-08 and 2015-16. Finally, the NSDP of Hyderabad expanded at a CAGR of 6.2 per cent (India- 6.64 per cent) between 2007-08 and 2015-16. On average, the region’s NSDP amounted to 4.33 per cent of all India NSDP.

As can be seen, RHIF has contributed more than 45 per cent (average) to the total NSDP of India between 2007-08 and 2015-16, which alludes the voluminousness of the economy of RHIF. Moreover, CAGR of NSDP is higher than that of the nation in three regions under RHIF viz. Mumbai, Delhi and Ahmedabad. It leads to the interpretation that the economy of RHIF is expanding at a substantial rate.

The discussion about the explanatory and dependent variables has come to a closure here.

The following part shows the correlation between the variables in the model.

5.4.3 Correlation Matrix

Computation of correlation forms the basis of an analysis as it specifies the nature of relationship between the variables. Table 5.20 presents the correlation results.

Table 5.20
Correlation Matrix
Dependent Variable: FDI INFLOW

Variables	FDIINFLOW	DPSTSCB	FSCLDFCT	NSDP	GFCF
FDIINFLOW	1				
DPSTSCB	0.8	1			
FSCLDFCT	-0.35	-0.12	1		
NSDP	0.44	0.64	0.2	1	
GFCF	-0.23	-0.00	0.49	0.66	1

Correlation matrix (Table 5.20) presents the variant extents of relationship existing between the dependent and explanatory variables. The coefficient between FDI inflows (FDIINFLOW) and deposits of scheduled commercial banks (DPSTSCB) is positive (+0.8). It evinces the strong and positive relationship subsisting between the two variables. Secondly, the coefficient of correlation between fiscal deficit (FSCLDFCT) and FDI inflows is negative (-0.35). It connotes the weak negative association in extant between the two variables. Thirdly, the coefficient of correlation obtained between Net State Domestic Product (NSDP) and FDI inflows is positive (+0.44), which denotes the weak positive relationship between the two variables. Eventually, the negative (-0.23) coefficient of correlation obtained between Gross Fixed Capital Formation (GFCF) and FDI inflows explicates the weak negative association between the two.

The next section discusses the regression results.

5.4.4 Regression Results

Regression, which is an important statistical measure to predict or estimate the value of dependent variable based on the known values of the independent variables, has been used here as the tool for estimation. Thus by performing pooled OLS regression analysis, the following results obtained.

Table 5.21
Regression Results on Determinants of FDI Inflows
Dependent variable: FDI Inflows

Explanatory Variables	Coefficient	t-ratio	p-value
const	-7.38	-3.04	0.0037
DEPOSTSCB	0.62	3.31	0.0017
GFCF	-0.33	-3.12	0.0030
FSCLDFCT	-0.054	-1.93	0.0586
NSDP	0.95	2.65	0.0108
R-squared			0.76
Adjusted R-squared			0.74
F (4, 49) Figure in parenthesis shows			38.55
p value			(0.000)
No of Observations			54

Note: Period of observation is 9 years starting from 2007-08 to 2015-16. Table shows Pooled OLS Regression results. Independent variables are lagged by 1 year to avoid endogeneity problem.

The regression results (Table 5.21) show that all the explanatory variables are significantly associated to the dependent variable 'FDI inflows'. With respect to deposits of scheduled commercial banks (DEPOSTSCB), the coefficient is positive (0.62) and significant at one per cent level which explicates that FDI inflows to RHIF is significantly and positively affected by domestic savings. It specifies that there is a uni-directional association between domestic savings in RHIF and FDI inflows. An improvement in domestic savings enhances FDI inflows to RHIF. The result obtained is inconsistent with the literature which says that FDI inflows rise with a decline in domestic savings. Asiedu (2002) brought forth that FDI has become an increasingly important source of investment capital for many low-income nations with scarce domestic savings.

Secondly, the regression coefficient obtained for Gross Fixed Capital Formation (GFCF) is negative (-0.33), but significant at one per cent. GFCF stands for the level of domestic investment in RHIF. Thus, the level of domestic investment in RHIF also transforms an

explanatory variable of FDI inflows. However, the extant relationship between level of domestic investment and FDI inflows in RHIF is inverse since the coefficient is negative. Thus, it can be interpreted that with a decrease in the level of domestic investment in RHIF, FDI inflows elevate. The result is discordant with the findings of Lautier & Moreaub (2012). They found that domestic investment is a strong catalyst for FDI in developing economies.

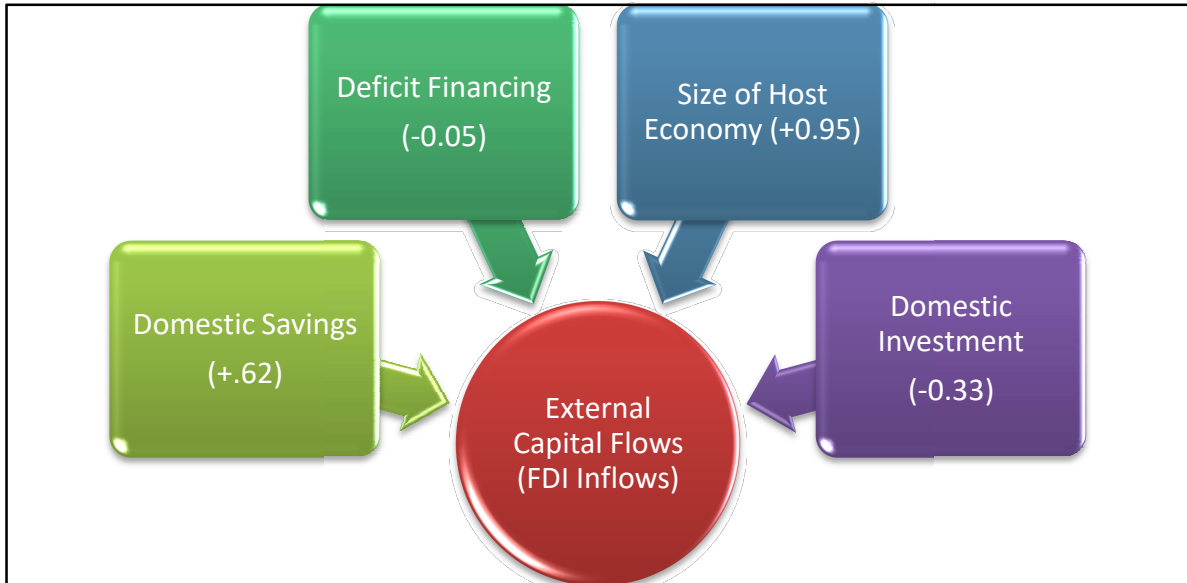
Thirdly, with respect to gross fiscal deficit (FSCLDFCT) also, the coefficient of regression is negative (0.054), but significant at ten per cent. It connotes that gross fiscal deficit is also a determinant of FDI inflows to RHIF, but the relationship between the variables is negative. It assumes that FDI inflows to RHIF increase with decrease in the extent of deficit financing in RHIF. Scoeman et al.(2000) concluded that the increase in deficit/GDP ratio during the eighties and beginning of the nineties, have impacted negatively on FDI inflows to South Africa. Thus the result obtained in this context in relation to deficit financing and FDI inflows in RHIF can be construed as in coherent with this finding.

Finally, the regression coefficient between Net State Domestic Product (NSDP) and FDI inflows in RHIF is positive (0.95) and significant at five per cent level, which denotes that the size of the economy of RHIF is also a significant determinant of FDI inflows. The results show that an expansion in the size of the host economy leads to increase in FDI inflows to RHIF.

The regression results show that, *'The FDI in RHIF is explainable by domestic savings, domestic investment, size of host economy and deficit financing'*.

The empirical findings have been conceptualized as follows:

Figure 5.7
The Conceptual Model



Source: Compiled by the researcher

The conceptual model (figure 5.7) clearly demonstrates that factors such as domestic savings, domestic investment, size of the host economy and deficit financing significantly influence the external capital flows in the form of FDI inflows to RHIF. While the impact of both domestic savings and size of the economy is positive, domestic investment and deficit financing exert negative impact on FDI inflows to RHIF.

5.5 Role of FDI in RHIF

This part of the chapter is dealt with the role played by FDI in RHIF. As said in the first section, the region has received FDI worth Rs 11035.44 billion of FDI between April 2000 and December 2016, which is definite to make a substantive influence in the industrial and economic sectors of RHIF. Role of FDI in RHIF is analysed with panel data ranging from 2007-08 to 2015-16. The following table (Table 5.22) shows explanatory variables.

Table 5.22
Explanatory Variables

SI No	Factor Specification	Explanatory Variables
1	External Capital Flow	FDI Inflows (FDIINFLOW)
2	Industrial Output	GSDP in the Industrial Sector (GSDPINDUSTRY)
3	Domestic Savings	Deposits of Scheduled Commercial Banks (DEPOSITSCB)

Impact of external capital flows (as represented by FDI inflows) on the growth of economies (size of the economy) has been a subject of study for long. The study conducted by Borensztein et al. (1998) is an exemplifying one in this regard. Their results suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. Adhikary (2011) found that the volume of FDI inflows and level of capital formation have significant positive effect on changes in real GDP in Bangladesh. In the context of India, however, Sahoo & Mathiyazhagan (2003) disclosed that export plays a comparatively better role in the growth of the Indian economy than FDI. From this perspective, it is hypothesized that *FDI inflow* to RHIF is an important variable that has a significant bearing on the variability in the size of the economy.

Domestic saving is an important macroeconomic variable capable of exerting influence on the size of the economy. Thus, in a study conducted in Iran, Najarzadeh et al (2014) found the positive and significant impact of savings on economic growth. In the context of India, Jangili (2011) found that higher savings and investment lead to higher economic growth. Inspired from this, ‘domestic savings’ is also contemplated to have an impact on

the size of the economy in RHIF. The factor of domestic savings has been represented by deposits of the scheduled commercial banks’.

Industrial output derived by an economy is also proved both theoretically and empirically as contributing to economic growth or enhancing the size of the domestic economy. In a study done in Senegal, Ndiaya & Lv (2018) found that increase in industrial output leads to an increase in economic growth. Thus it is postulated that industrial output represented by ‘GSDP in the Industrial Sector’ has an effect on the variation in the size of economy in RHIF.

The following part elucidates the empirical findings.

5.5.1 Model

$$NSDP = \alpha + \beta_1 DPSTSCB + \beta_2 FDIINFLOW + \beta_3 GSDPINDUSTRY$$

Where, NSDP stands for net State domestic product, DPSTSCB stands for deposits of scheduled commercial banks, FDIINFLOW stands for FDI inflows, GSDPINDUSTRY stands for gross domestic product in the industrial sector.

5.5.2 Results

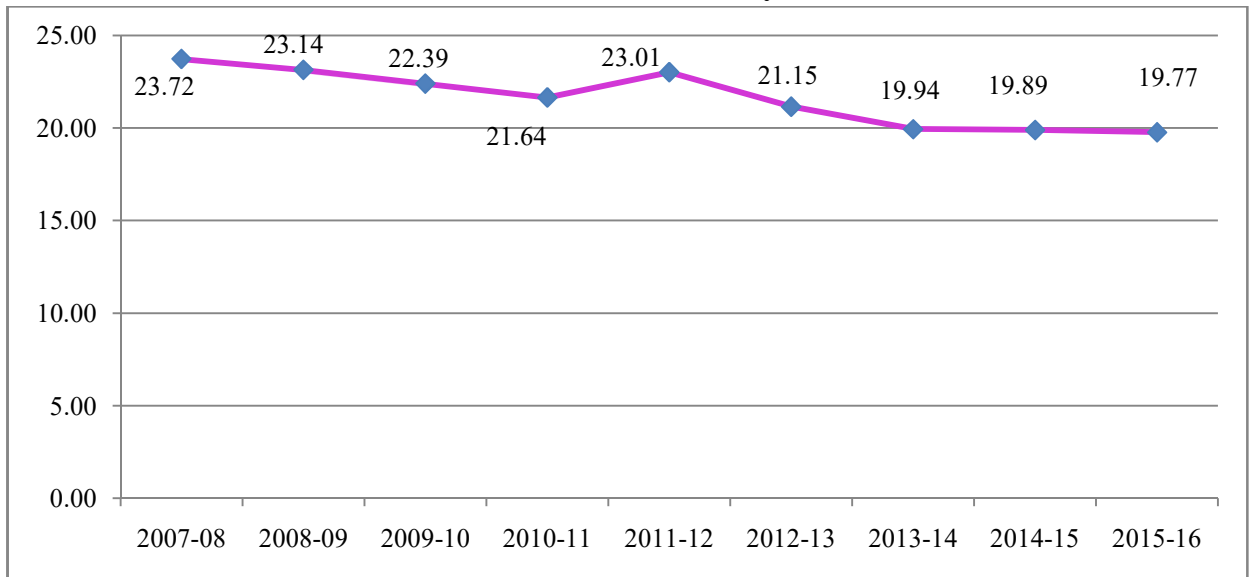
The following table (Table 5.23) presents the statistical characteristics of explanatory variable. The table contains the statistical characteristics of ‘industrial GSDP’ alone. In fact, as mentioned in Table 5.22, there are two more explanatory variables in the model Viz. FDI inflows and deposits of scheduled commercial banks, about which, the researcher has made a discussion in the previous part of this chapter (5.4 Determinants of FDI Inflows to RHIF). Thus, here, the researcher describes the attributes of only one explanatory variable, that is, GSDP in the industrial sector in RHIF.

Table 5.23
Statistical Characteristics of Explanatory Variable

Broad Factor Specification	Particulars	Hyderabad	Delhi	Ahmedabad	Bangalore	Mumbai	Chennai
Industrial Output	Explanatory Variable: GSDP in the Industrial Sector						
	Average (Rs Bn)	482	221.37	1621.47	816.63	2354.55	1283.88
	Median (Rs Bn)	486.90	219.79	1574.58	827.95	2280.02	1369.59
	Standard Deviation (Per cents)	55.70	8.56	370.98	77.80	395.01	210.44
	Standard Deviation/Mean (%)	11.56	3.87	22.88	9.53	16.78	16.39
	AAGR (%)	4.35	0.47	9.58	3.86	5.98	6.20
	CAGR (%)	4.2	0.35	9.4	3.79	5.88	5.94
	% of GSDP Industry in total GSDP of regions (Average)	21.63	11.77	40.61	28.44	30	29.85

Industrial GSDP in Hyderabad expanded at a CAGR of 4.2 per cent between 2007-08 and 2015-16 (Table 5.23). The following figure (figure 5.8) shows the ratio of industrial GSDP to total GSDP in Hyderabad during 2007-08 to 2015-16.

Figure 5.8
Industrial GSDP to Total GSDP - Hyderabad

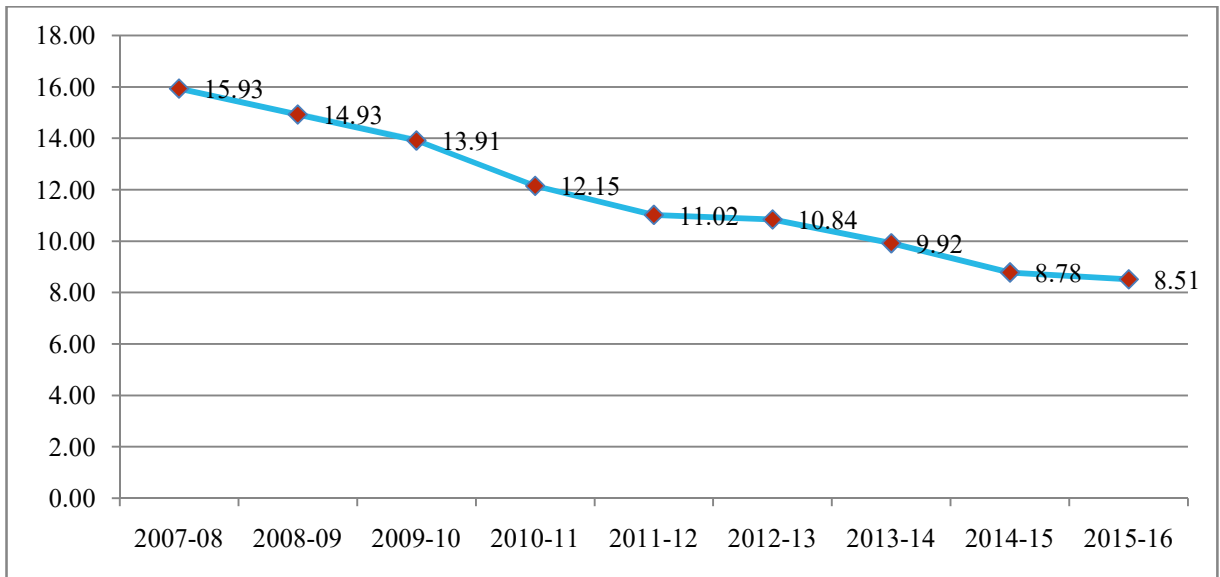


Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues

Figure 5.8 shows that the ratio had been diminishing in Hyderabad. The ratio was 23.72 per cent in 2007-08, and by 2015-16, it got diminished to 19.77 per cent. It shows the intensity of structural shift happening in the economy through which a major share of GSDP is being contributed by the service sector.

In Delhi, GSDP in industrial sector grew at a lower CAGR of 0.35 per cent between 2007-08 and 2015-16. The figure below (Figure 5.9) shows the ratio of industrial GSDP to total GSDP in the region.

Figure 5.9
Industrial GSDP to Total GSDP - Delhi

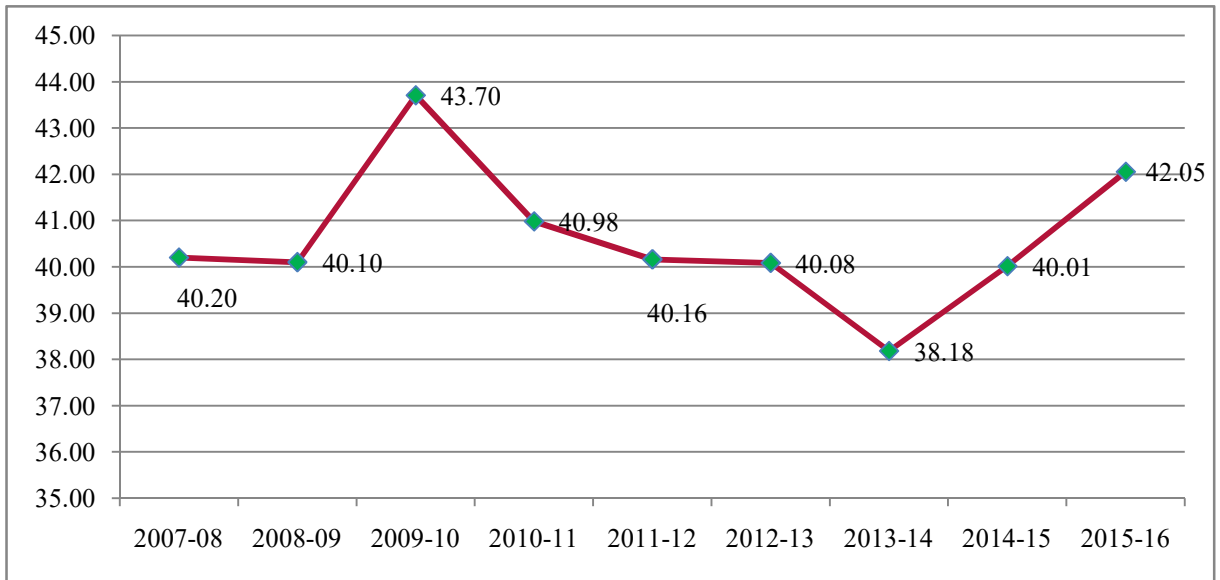


Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues*.

Figure 5.9 presents the consistent diminution in the ratio of Delhi from 2007-08 to 2015-16. In 2007-08, the ratio was 15.93 per cent and by 2015-16, it got diminished to 8.51 per cent, testifying the structural shift progressively operating in the economy.

Industrial GSDP of Ahmedabad enlarged at a CAGR of 9.4 per cent between 2007-08 and 2015-16. The following figure (figure 5.10) shows the ratio of industrial GSDP to total GSDP of Ahmedabad.

Figure 5.10
Industrial GSDP to Total GSDP - Ahmedabad

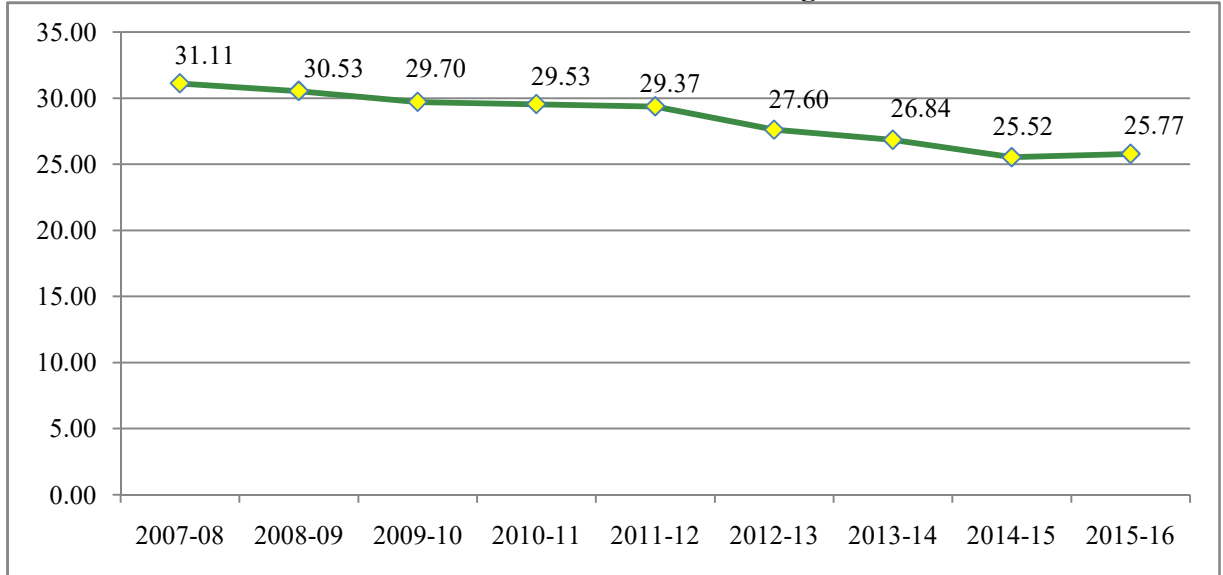


Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues.

Figure 5.10 shows that the ratio had been growing moderately in Ahmedabad from 2007-08 to 2015-16. In 2009-10, the ratio had improved to 43.7 per cent and got diminished by next year itself. However, by 2015-16, it reached 42.05 per cent.

Industrial GSDP of Bangalore grew at a CAGR of 3.79 per cent between 2007-08 and 2015-16. The following chart (Figure 5.11) shows the trend of the ratio of industrial GSDP to total GSDP in Bangalore.

Figure 5.11
Industrial GSDP to Total GSDP - Bangalore



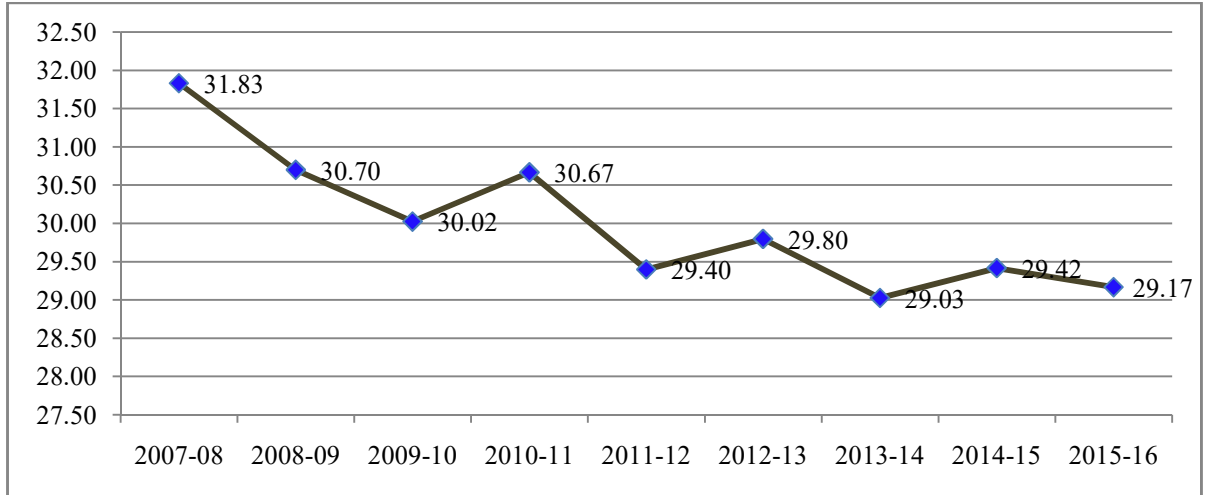
Source: Compiled from *The handbook of statistics on Indian states*, RBI, Various Issues.

Figure 5.11 illustrates that the ratio in Bangalore had been diminishing mildly over years.

From 31.11 per cent in 2007-08, it became 25.77 per cent in 2015-16.

Industrial GSDP of Mumbai expanded at a CAGR of 5.88 per cent between 2007-08 and 2015-16. The below given figure (Figure 5.12) depicts the trend of the ratio of industrial GSDP to total GSDP in Mumbai.

Figure 5.12
Industrial GSDP to Total GSDP- Mumbai

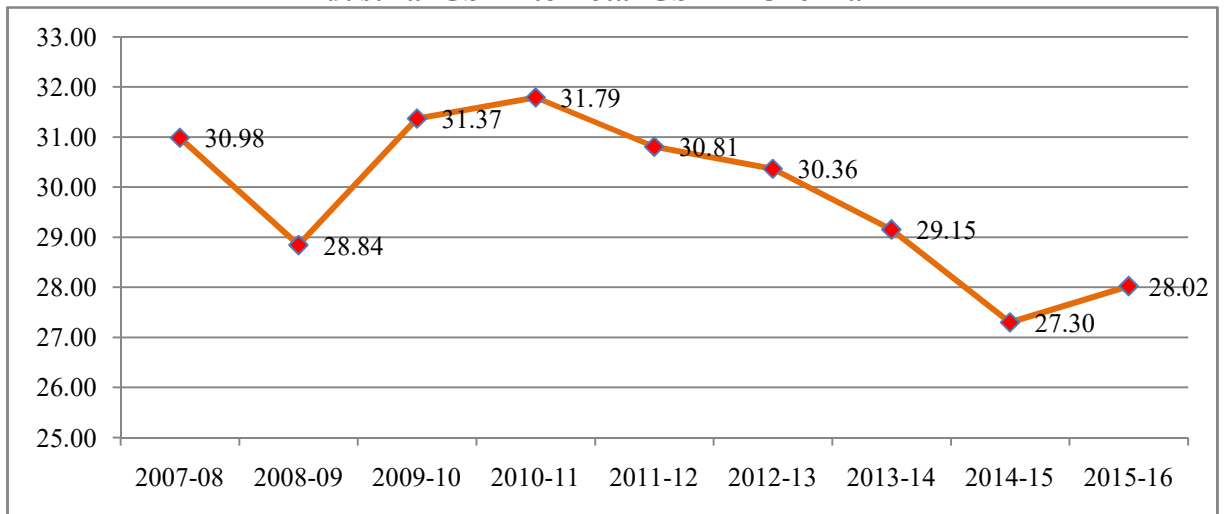


Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues.*

Figure 5.12 shows the minimal decrease occurred in the ratio in Mumbai from 31.83 per cent in 2007-08 to 29.17 per cent in 2015-16.

The industrial GSDP of Chennai expanded at a CAGR of 5.94 between 2007-08 and 2015-16. The below depicted figure (Figure 5.13) shows the trend of Industrial GSDP to total GSDP in Chennai.

Figure 5.13
Industrial GSDP to Total GSDP –Chennai



Source: Compiled from *The handbook of statistics on Indian states, RBI, Various Issues.*

Figure 5.13 shows that the ratio had been mildly diminishing in Chennai; it reduced to 28.02 per cent in 2015-16 from 30.98 per cent in 2007-08.

The analysis unveiled that the per cent of industrial GSDP in total GSDP is relatively low in each region under RHIF except Ahmedabad. Furthermore, the CAGR of industrial GSDP between 2007-08 and 2015-16 is also insignificant in all the regions except Ahmedabad. It betokens the magnitude of structural shift taking place in these economies by means of the contribution of a preponderant share by the service sector to the total GSDP.

5.5.3 Correlation Matrix

The following correlation matrix (Table 5.24) shows the extent of relationship among the variables in the model.

Table 5.24
Correlation Matrix

	DEPOSITSCB	NSDP	FDIINFLOW	GSDPINDUSTRY
DEPOSITSCB	1			
NSDP	0.84	1		
FDIINFLOW	0.71	0.49	1	
GSDPINDUSTRY	0.64	0.93	0.27	1

The correlation matrix shows (Table 5.24) that the association among all the explanatory variables [Deposits of scheduled commercial banks (DPSTSCB), FDI inflows (FDIINFLOW), GSDP in the industrial sector (GSDPINDUSTRY)] and the dependent variable ‘Net State Domestic Product (NSDP) is positive. The correlation coefficient between ‘net state domestic product’ and ‘Deposits of scheduled commercial banks’ is + 0.84. It specifies the strong positive relationship subsisting between the two variables. The correlation coefficient between ‘net state domestic product’ and ‘FDI inflows’ is +

0.49. It signifies the weak positive relationship in extant between the two variables. Finally, the coefficient of correlation between ‘net State domestic product’ and ‘GSDP industry’ is +0.93. It implies that there persists a very strong positive association between the two variables.

5.5.4 Regression Results

Net State Domestic Product (NSDP) at Factor Cost in constant prices (base year-2011-12) is the dependent variable chosen. Random-effects (GLS) Regression method is used.

Table 5.25
Regression on Role of FDI Inflows
Dependent Variable: NSDP

Explanatory Variables	Coefficient	z	p-value
const	4.1	7.249	<0.0001
FDIINFLOW	0.039	1.900	0.0575
GSDPINDUSTRY	0.47	9.836	<0.0001
DEPOSITSCB	0.25	7.735	<0.0001

Mean dependent var	14.92	S.D. dependent var	0.49
Sum squared resid	0.47	S.E. of regression	0.096
Log-likelihood	51.29	Akaike criterion	-94.57
Schwarz criterion	-86.62	Hannan-Quinn	-91.51
rho	0.54	Durbin-Watson	0.821

Note: Period of observation (Time-series length) is 9 years starting from 2007-08 to 2015-16. No. of observations is 54. No. of cross sections is 6. Table shows Random-effects (GLS) Regression results. Independent variables are lagged by 1 year to avoid endogeneity problem.

The regression results depicted in Table 5.25 makes it obvious that there persists significant association among the dependent variable and all the explanatory variables .

Concerning ‘FDI inflows’, the regression coefficient is positive and significant at ten per cent level, which connotes that with an increase in FDI inflows, the net state domestic product which embodies ‘size of the economy’ in RHIF increases. The result is coherent

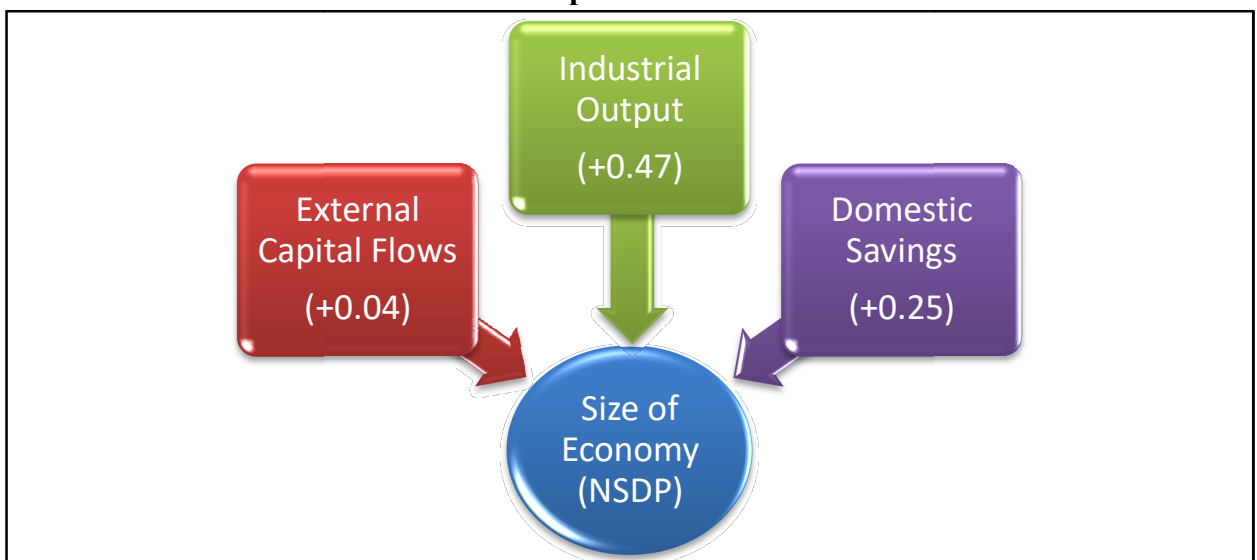
with the existing empirical literature which is comparable with the result found by Campos & Kinoshita (2002) and Johnson (2006).

The coefficient of ‘GSDP in the industrial sector’ is also positive and significant at one per cent level which denotes that NSDP of RHIF enhances with increase in the extent of industrial output. The result is consistent with the empirical findings of Ellahi (2011) and Medyawati & Yunanto (2011).

In the same way, the coefficient is positive and significant at one per cent with regard to ‘deposits of scheduled commercial bank’, which specifies the positive interrelationship between the explanatory and dependent variables. That is, progress in the accumulation of domestic savings in RHIF leads to growth in its NSDP. The result is consistent with the subsisting empirical literature as if found by Odhiambo (2009) and Turan & Gjergji (2014). Thus, the analysis shows that, *‘FDI, along with domestic savings and industrial output contribute towards the size of the economy in RHIF’*.

From the findings, the following conceptual model is formed.

Figure 5.14
The Conceptual Model



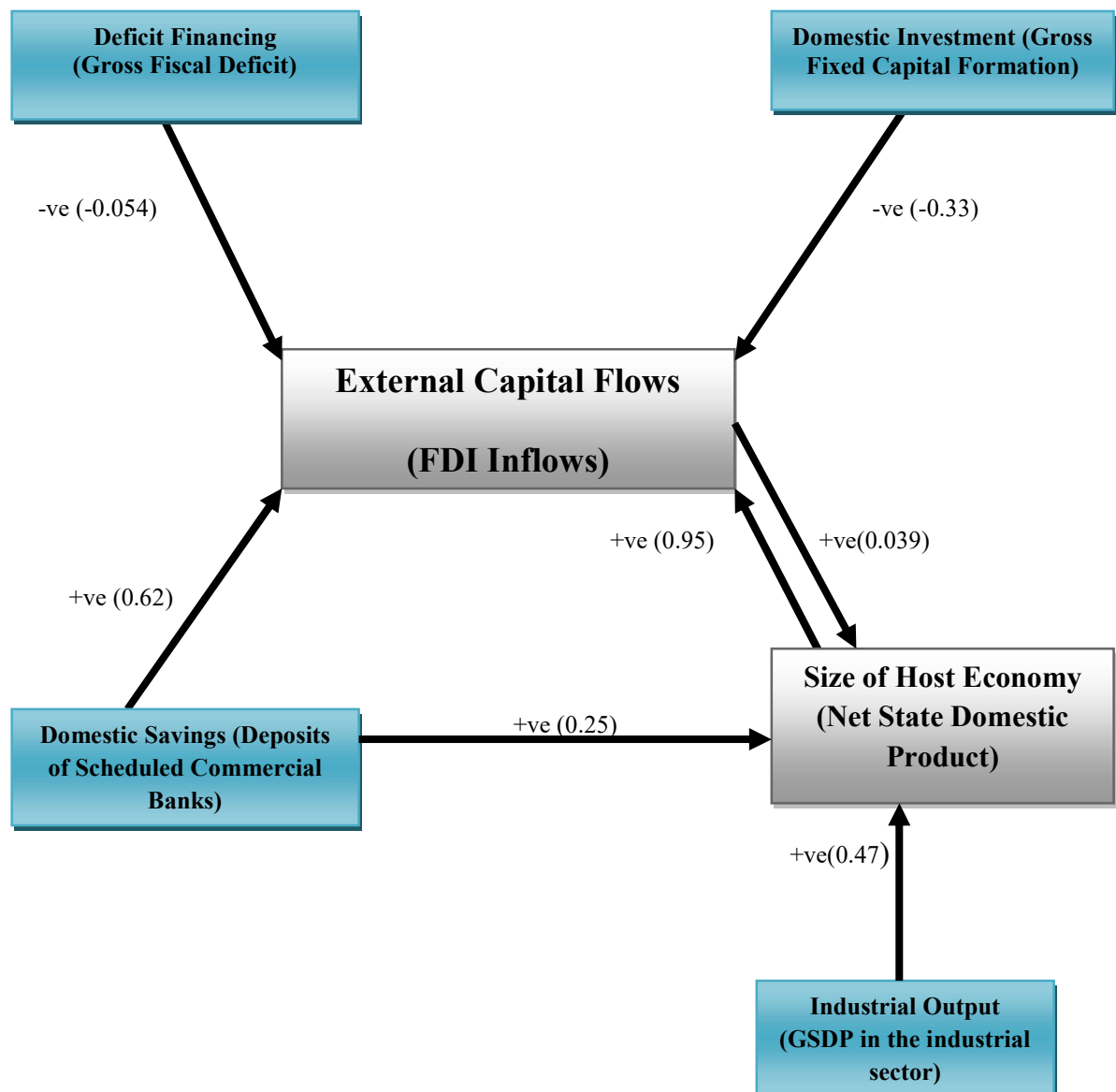
Source: Compiled by the researcher

It is apparent from the conceptual model (figure 5.14) that FDI inflows, domestic savings and industrial output contribute significantly and positively to the size of the economy of RHIF.

5.6 The Overall Conceptual Model

The empirical findings on the determinants and role of FDI inflows in RHIF together can be conceptualized as follows;

Figure 5.15
The Aggregate Conceptual Model



A bi-directional relationship between FDI inflows and size of the host economy can be observed from the overall model (Figure 5.15). It suggests that while FDI inflow is a reason for the augment of size of the economy, size of the economy paves the way for elevating FDI inflows in RHIF.

5.7 Conclusion

In the present chapter, analysis has been made under three different heads Viz. trend and pattern of FDI inflows to RHIF, determinants of FDI inflows in RHIF and role of FDI inflows in RHIF. Analysis of the trend and pattern of FDI inflows in RHIF showed that FDI has been rightly directed and judiciously distributed. The major determinants of FDI inflows in RHIF have been identified as deficit financing, domestic investment, domestic savings and size of host economy. Afterwards, it has been found that, external capital flows in the form of FDI inflows, along with domestic savings and industrial output, contribute to the size of host economy in RHIF.

CHAPTER VI

REGIONS WITH LOW INFLOW OF FDI (RLIF) IN INDIA

6.1 Introduction

Chapter V gave an account of the determinants and role of FDI in RHIF. The current chapter attempts to examine the determinants of FDI inflows to Regions with Low Inflow of FDI (RLIF) in India during 2007-08 to 2015-16. RLIF encompasses four regions such as Kanpur, Bhubaneswar, Patna and Guwahati. Each region except Bhubaneswar contains two or more states or UTs in it. A concise description on the states or UTs included in RLIF has given in the previous chapter (Chapter V). The usage of the terminology (RLIF) is in conformity with the quarterly FDI fact sheet of Department of Industrial Policy and Promotion (DIPP) as of March 2016. In the fact sheet, among a total of 17 FDI regions in India, these four regions (Kanpur, Bhubaneswar, Patna and Guwahati) ranked 13th, 14th, 15th and 16th respectively in regards to the acceptance of FDI inflows with aggregate FDI of mere *0.36 per cent* (from April 2000 to March 2016). In the fact sheet, the region of Jammu which includes the state of Jammu and Kashmir was marked as the final one (17th). However, the researcher excluded Jammu from the terminology of RLIF on the grounds that the accumulated per cent of FDI inflows in the region from April 2000 to March 2016 is zero [(FDI worth 0.37 billion rupees), FDI fact sheet of DIPP, March 2016].

A study based on an assortment in the form of Regions with Low Inflow of FDI (RLIF) and Regions with High Inflow of FDI (RHIF) (study on the basis of magnitude of FDI inflows) is first in India even so a few studies have come out on the inter-regional variations in FDI inflows to India over different periods of time. The following part outlines the basic characteristics of the economy of RLIF.

6.2 Brief Economic Profile of RLIF

This section sets forth the economic profile of RLIF. The economy of RLIF is somewhat backward with lower annual GDP growth rate in most of the states. The following table (Table 6.1) provides a summary of the economic status of RLIF measured by GSDP at factor cost and in constant prices.

Table 6.1
GSDP (At Factor Cost and in Constant Prices) of RLIF

Indicator	Particulars	Kanpur		Bhubaneswar	Guwahati							Patna		All India	Total of RLIF
		Uttar Pradesh	Utharakhand	Odisha	Assam	Arunachal Pradesh	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Bihar	Jharkhand		
Economic Indicator	Gross State Domestic Product (GSDP)														
	a. Mean (Rs Bn)	4189.7	602.42	1285.76	783.73	55.78	74.84	116.08	51.94	99.47	161.36	1448.30	956.33		
	b. Median (Rs Bn)	4184.04	608.8	1301.13	768.44	54.22	73.27	117.15	49.79	100.24	154.28	1435.60	935.10		
	c. Standard Deviation (Rs Bn)	677.49	148.06	165.61	131.8937	10.98	12.03	26.09	14.32	17.91	39.62	364.20	211.27		
	d. Standard Deviation/ Mean (%)	16.17	24.58	12.88	16.83	19.69	16.08	22.48	27.58	18.01	24.55	25.15	22.09	17.73	
	e. AAGR (%)	6.22	9.86	4.98	6.56	8.5	5.97	8.89	11.35	6.44	9.59	9.54	7.92	6.96	
	f. CAGR (%)	5.51	8.66	4.39	5.8	7.31	5.26	7.84	9.82	5.68	8.47	8.37	6.92	6.95	
	e. Per Cent to the GDP of India (Average)	8.08	1.15	2.49	1.51	0.107	0.14	0.22	0.098	0.191	0.307	2.75	1.83		18.88

Source: Calculated on the Basis of Data from Handbook of Statistics on Indian States, RBI, 2018.

Note: Each Average Figure Belongs to the period 2007-08 and 2015-16

Kanpur is comprised of two states viz. Utharakhand and Uttar Pradesh. UP is the most populous state in India which accommodates about 200 million people. The economy of the state is largely driven by agriculture. According to Table 6.1, the state's GSDP grew at a CAGR of 5.51 per cent between 2007-08 and 2015-16 (India - 6.95 per cent). The state's GSDP, on average, amounted to 8.08 per cent of the total GDP of India during the period. Uttarakhand is one of the fastest growing states in India, due to the massive growth in capital investments arising from conducive industrial policy and generous tax benefits. According to Table 6.1, the GSDP of Utharakhand grew at a high CAGR of 8.66 per cent between 2007-08 and 2015-16. The state's GSDP accounted for 1.15 per cent of the total GDP of India on average.

Bhubaneswar includes the state of Odisha alone. The state has a developing economy. Table 6.1 says that the GSDP of the state expanded at a CAGR of 4.39 per cent between 2007-08 and 2015-16. The state's GSDP on average amounted to 2.49 per cent of the total GDP of India.

Guwahati consists of seven states such as Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. Arunachal Pradesh is the largest state among the seven states located in north-east India. Its GSDP grew at a CAGR of 7.31 per cent between 2007-08 and 2015-16. The state's GSDP, on average constituted 0.107 per cent of the total GDP of India. Assam's GSDP expanded at a CAGR of 5.8 per cent between 2007-08 and 2015-16. The state's GSDP, on average amounted to 1.51 per cent of the GDP of India between 2007-08 and 2015-16. Manipur's GSDP enlarged at a CAGR of 5.27 per cent between 2007-08 and 2015-16. The GSDP of the state accounted for 0.14 per cent of the GSDP of India on average during 2007-08 and 2015-16.

Meghalaya's GSDP grew at a CAGR of 7.84 per cent between 2007-08 and 2015-16. The state's GSDP, on average amounted to 0.22 per cent of the GDP of India. Mizoram's GSDP progressed at a CAGR of 9.82 per cent between 2007-08 and 2015-16 which signifies the high rate of growth taking place in the economy of Mizoram. On average, the state's GSDP accounted for 0.098 per cent during 2007-08 and 2015-16. Nagaland's GSDP grew at a CAGR of 5.68 per cent between 2007-08 and 2015-16. The state's GSDP, accounted for 0.191 per cent of the total GDP of India on average between 2007-08 and 2015-16. Finally, Tripura's GSDP can also be seen as advanced at a high CAGR of 8.47 per cent between 2007-08 and 2015-16. Tripura's GSDP amounted to 0.307 per cent on average between 2007-08 and 2015-16.

Patna consists of Bihar and Jharkhand. Bihar is one of the strongest agricultural states. The percentage of population employed in agricultural production in Bihar is around 80 per cent, which is much higher than the national average. The state's GSDP progressed at a high CAGR of 8.37 per cent between 2007-08 and 2015-16. Its GSDP amounted to 2.75 per cent of the total GSDP of India during 2007-08 and 2015-16. Jharkhand's GSDP grew at a CAGR of 6.92 per cent between 2007-08 and 2015-16 (India- 6.95 per cent). The state's GSDP, amounted to 1.83 per cent of the total GDP of India on average during 2007-08 to 2015-16.

All things considered, it can be summed up that the entire states (12 states) in RLIF did contribute, on average, around 19 per cent only to the total GDP of the country between 2007-08 and 2015-16. Nevertheless, in Utharakhand, Arunachal Pradesh, Meghalaya, Mizoram, Tripura and Bihar, CAGR has exceeded that of All India. It accentuates that these economies have elevated capability to be reinforced in the long run and their

contribution to the total GDP of the country will also be substantively increased. It may also be observed that CAGR is highest for Mizoram (9.82 per cent) among these five states. It enunciates that the quite small economy of Mizoram (contributes only 0.098 per cent to the total GDP), will grow up unparallel in the long run. It is also worth noting that CAGR in other states in RLIF [(Uttar Pradesh, Assam, Manipur, Nagaland and Jharkhand), excluding Odisha] also were not insignificant as they all amounted above five per cent. Thus, it could be envisaged that the economy of RLIF is getting revamped and they will in no time turn out to contribute more than 25 per cent to the total GDP of India. In such an instance, regardless of the lower inflow of FDI to RLIF for the time being, it is inevitable to examine the determinants of FDI inflows to the region primarily with the intention of checking the prospects of a long-run enhancement in the quality and quantity of FDI inflows.

6.3 Trend of FDI in RLIF

RLIF received merely 0.36 per cent (Rs 59.51 billion) of FDI from April 2000 to March 2016. Although FDI has emerged as one of the most vital sources of capital on the eve of liberalization in India, it is a cumbersome state that a significant segment of the country inclusive of RLIF is incapable to attract FDI in reasonable volume and quality. Mukherjee (2011) mentioned that it is essential to derive maximum benefit from the FDI flows and ensure that the rising FDI flows do not lead to an increase in regional inequality. But, with the trifling volume of FDI received by RLIF in a span of 17 years, what else has been created other than regional inequality? The research evidences of Nunnenkamp & Stracke (2007) indicated that the concentration of FDI in a few relatively advanced regions has prevented FDI effects from spreading across the Indian economy.

Nunnenkamp & Mukim (2010) concluded that the concentration of FDI in a few locations could fuel regional divergence in post-reform India since the foreign investors prefer to invest in a few locations featured with the presence of other foreign investors, industrial diversity and better infrastructure. Thus, here the determinants of FDI inflows to RLIF have been checked in detail so as to facilitate policy formulation which may in turn attract FDI to RLIF in adequate quantity and quality. The following table (Table 6.2) presents a summary of the features of FDI inflows to RLIF from 2007-08 and 2015-16.

Table 6.2
FDI Inflows to RLIF- Statistics

Particulars	Kanpur	Patna	Bhubaneswar	Guwahati	India
Average FDI Inflows (Rs Bn)	3.23	0.596	1.81	0.45	1489
Median	2.27	0.25	0.68	0.29	1428
Standard Deviation	2.66	0.90	2.20	0.53	510.16
Standard Deviation/Mean (%)	82.22	150.25	100.6	118.49	34.25
CAGR (%)	57.37	61.19 (With 5 Years)	2.19	25.62	13.01
AAGR (%)	49.49	150.35	202.06	309.57	17.76
FDI inflows (% of GSDP-Average)	0.06	0.02	0.145	0.036	2.83
FDI inflows (% of GFCF-Average)	1.52	0.47	0.78	2.53	4.87

Source: Computed on the Data from the Quarterly Factsheet of DIPP, Various Issues.

Note: All average figures belong to the period of 2007-08 and 2015-16.

Table 6.2 shows that FDI inflows to Kanpur grew at a CAGR of 57.37 per cent (India - 13.01 per cent). The higher CAGR in Kanpur is indicative of the probable increase in FDI inflows in the long run. However, on average, FDI inflows accounted for only a mild per cent of both the GSDP (0.06 per cent) and GFCF (1.52 per cent) of Kanpur, between 2007-08 and 2015-16. Kanpur includes the states of Uttar Pradesh and Utharakhand. Both the states offer conducive business and investment opportunities. The key sectors in Uttar Pradesh (UP) encompasses auto-components, biotechnology, food processing, IT and

Electronic System Design and Manufacturing (ESDM), leather, chemicals and petrochemicals, cement and tourism. UP accommodates large group of suppliers in the auto-component sector. These suppliers are located mostly in the regions of Noida and Ghaziabad. In July 2016, Ford India made an announcement that it is going to extend the retail distribution of Ford genuine parts in UP. The state has an augmenting biotech sector also. In the sector, the state has over 3000 highly qualified scientists functioning in drug research labs. The state capital Lucknow is also known as the biotech capital of the state. The food processing sector of the state is also highly growing since UP is the largest producer of food grains in India. In 2015-16, the state's food grain output amounted to about 18 per cent of the total food grain output of the country. To buoyant the production of food grains, the state has nine agro-climatic zones. The state is also a leader in milk production and produces around 21 per cent of the total milk output of the country. The Information Technology (IT) sector of the state also has been achieving substantial growth. In the IT and ESDM (Electronic System Design and Manufacturing) sector, there are over 25 Special Economic Zones (SEZs) and over 25 IT parks in the state. The state is featured with the presence of an IT city in Lucknow and IT parks in Meerut, Agra, Gorakhpur and Kanpur. Besides, the state occupies the fourth position in the exports of software in India. Furthermore, the state is dominating the production of leather, chemicals, cement etc. It has an augmenting tourism sector also. In summary, it can be noted that the state of UP is offering favourable and lucrative business environment for all types of investors including FDI.

Utharakhand has key sectors such as agro-based industries, IT and IT enabled services, pharmaceuticals and aromatic plants, and tourism. Under the Agri Export Zones (AEZs)

scheme of the government, four AEZs in various parts of the states have been declared. The state has a vigorous IT sector that the export of IT products from Utharakhand expanded at a CAGR of 7.4 per cent between 2009 and 2015. In the pharma sector, the state has three principal pharmaceutical clusters comprising of 300 units and the sector has the proficiency to produce an entire spectrum of pharmaceutical products. Thus, the state is offering wide opportunities to foreign investors also to make bulk investment in all these sectors.

The following section describes the attributes of FDI in the region of Patna.

FDI inflows to Patna grew at a CAGR of 61.19 (with five years) per cent [India - 13.01 per cent (with eight years)] between 2007-08 and 2015-16. However, the ratios (average) of FDI to GSDP (0.02 per cent) and FDI to GFCF (0.47 per cent) are meager comparatively. Even if, the higher CAGR in FDI inflows to the region indicates the high potential of the region's economy to attract more FDI inflows in future to its key sectors; in Bihar (food processing and dairy, textile and leather, renewable energy and tourism) and Jharkhand (textile, apparel and foot wear, mining, food and feed processing, mining, automobile and auto-components, energy, health sector, tourism, IT, ITeS and BPO).

Bihar, which is fundamentally an agrarian economy, renders enough space for FDI in agricultural sector. Bringing more FDI in the sector will make the segment of agricultural value addition in Bihar more vast and profitable. The state has a vibrant textile industry which is largely labour intensive and it provides employment to over one lakh weavers. In the textile sector, the state has a unique product namely Tasar silk which is capable of fetching premium prices. In 2015-16, the state produced around 72.2 tonnes of raw silk. The state also produces 2.5 million bovine hides and five million bovine skins annually.

The state renders enough opportunities in the renewable energy and tourism sectors. Bringing renovation and modernization to the state's textile industry with the help of foreign investment will result in the transformation of the entire economy of Bihar.

Jharkhand has also several significant industrial sectors. It is also a leading state in the production of silk and Tasar silk in India. Around 62 per cent of the total Tasar silk in India is produced by Jharkhand and its Tasar silk produce is getting exported to foreign countries such as US, Europe and East Asian countries. The state is a rich source of various minerals and has a progressed mining industry. It is so rich in mineral wealth that it accounts for around 40 per cent of the total mineral deposits in the country. Around 25 per cent of India's steel is getting produced from Jharkhand. Thus the state offers investment opportunities in various segments of mining such as manufacturing of exploration equipment, mining exploration vehicles, processing and refining equipments and transportation vehicles. The state has several other key sectors such as tourism, automobile components, energy, IT etc which give stage for big business ventures through FDI.

The following section gives an account of the aspects of FDI in Bhubaneswar.

FDI inflows to Bhubaneswar [Mean (Rs 1.81 billion) Median (Rs 0.68 billion) Standard Deviation to Mean ratio (100.6 per cent, India - 34.25 per cent) AAGR (202.06 per cent, India -17.76 per cent)] grew at a CAGR of 2.19 per cent (India - 13.01 per cent) between 2007-08 and 2015-16. Though CAGR is quite lower, the region has higher AAGR implying the advent of more FDI inflows in future. FDI to GSDP ratio accounted 0.145 per cent on average and FDI to GFCF ratio amounted to 0.78 per cent between 2007-08 and 2015-16 in the region. The region, which includes the state of Odisha, has several

key sectors like chemicals, plastics and petro-chemicals, food processing, ancillary and downstream industries in metals, and tourism etc to which large amount of FDI can be brought in. The state has a growing food processing industry and is a leading producer of a variety of horticulture crops in India. The state has a progressing fisheries industry also since it has a long coastline of 485 kilometers. It is the second largest producer of Tiger Shrimps in the country. The state constitutes ten agro-climatic zones. It has eight major soil types which favours the growth of several major crops. Regarding the ancillary and downstream industries in metals, the state has 99 per cent of India's Chromite deposits, 51 per cent of iron ore deposits and 39 per cent of bauxite deposits. The state has several investment regions which make use of this large metal deposit base in the state like Kalinganagar National Investment and Manufacturing Zone (KNIMZ) and Downstream Aluminium Park (DAP) at Angul set up by the state government and along with the private parks like Gopalpur industrial park founded by Tata Steel. The state's tourism and chemical industries are also well progressed.

The following part describes the FDI scenario in Guwahati.

FDI inflows to Guwahati [Mean (Rs 0.45 billion) Median (Rs 0.29 billion) Standard Deviation to Mean ratio (118.49 per cent, India - 34.25 per cent), AAGR (309.57 per cent, India - 17.76 per cent)] grew at a CAGR of 25.62 per cent while that of India is 13.01 per cent between 2007-08 and 2015-16. FDI to GSDP ratio accounted for 0.036 per cent (average) and the FDI to GFCF ratio (average) amounted to 2.53 per cent for the region between 2007-08 and 2015-16. Guwahati, which comprises of all the seven sisters of north-east of India, is attractive for foreign investors to make bulk investment owing to the existence of industrial segments as mentioned below.

The state of Assam has several key sectors such as pharmaceuticals and medical equipments, plastics and petrochemicals, power, river transport and port township, IT, textile handloom and handicrafts, tourism, hospitality and wellness and agri-horticulture and food processing. In the pharma sector, the state has progressed infrastructure like pharma hub at Balipara and biotech park at Guwahati. Besides, the state has the presence of more than 952 species of medicinal plants. The state has a developed petrochemical industry that it produces almost 15 per cent of India's crude oil. Digboi in Assam is the oldest petroleum refinery in Asia and the crude oil produced in the north east is treated in four refineries in Assam including Digboi. Moreover, the state accounts for almost 50 per cent of the country's onshore production of natural gas. With huge reserves of crude oil and natural gas and the same being available at ideal prices, the state of Assam is an attractive destination for energy, oil and gas based industries. The state provides lucrative opportunities to invest in all other sectors mentioned above.

In Arunachal Pradesh, the key sectors are power, agriculture and forest based industries, textile and handicrafts and tourism. Arunachal Pradesh has major agro and forest based industries in tea, fruit, non-timber plywood and cane. In textile segment, production of raw silk in the state stood at 37 metric tonnes in 2015-16, compared to 12 metric tonnes in 2014-15. The state provides advantageous and appropriate opportunities for conducting investment in its tourism and power sectors as well.

In Manipur, the key sectors are agriculture and allied activities, horticulture, sericulture and bamboo producing industries. Concerning the sericulture industry, Manipur produces four special varieties of silk such as Mulberry, Eri, Muga and Oak Tasar. As regards the

Bamboo industry, Manipur is one of India's largest bamboo producing states and a principal contributor to the country's bamboo industry.

In Meghalaya, the key industries are hydroelectric power, agriculture and horticulture, minerals and tourism and hospitality. Regarding the agriculture sector in Meghalaya the state's turmeric, grown in Jiantia hills, is considered best in the world. Concerning the mineral industry, the state has rich resource base of coal, limestone, uranium and granite.

In Mizoram, the key sectors are bamboo-based industries, fisheries and textiles and handlooms. Bamboo resources occupy around 30 per cent of the geographical area of Mizoram and offers profitable business opportunities. Regarding the fisheries sector in Mizoram, the state has around 24000 hector area of potential fish farming.

In Nagaland, the industries of key importance are agriculture and allied activities, apiculture, mining and sericulture. Regarding the sector of apiculture, the state has the capability to produce 15000 metric tonnes of honey and 100 metric tonnes of wax which generates \$ 100 million annually.

In Tripura, bamboo, tourism, IT and rubber are the major industrial segments. Tripura is the second largest natural rubber producing state in India after Kerala.

Thus, it can be perceived that Guwahati which encompasses all the states in north-east for the purpose of accounting of FDI inflows, offers appropriate and remunerative industrial and business opportunities in multifaceted segments. Thus, a large amount of FDI can be attracted in the near future to the Guwahati region with proper policy enactment.

The discussion shows that, *'Inflow of FDI is being rightly directed in Regions with Low Inflow of FDI (RLIF)'*.

6.4 Determinants of FDI Inflows to RLIF

This section examines the determinants of FDI inflows to RLIF. The process of savings and investment in capitalist and mixed economic set ups is more or less centered on financial intermediation, which transforms financial intermediaries the focal point of economic growth. Financial intermediaries are the specialized institutions which borrow from consumers or savers and lend to the firms on the other end who needs resources for investment. Thus financial intermediaries play a vital role in the accumulation of domestic investment. Being an influential macro-economic activity, the extent of financial intermediation or financial sector development would have a bearing on FDI inflows coming to an economy. The studies of Hyun & Kim (2007) and Kaur et al.(2013) validate this statement. Thus, the researcher came to postulate that financial intermediation is a significant determinant of FDI inflows to RLIF. The factor is proxied by ‘credits given by scheduled commercial banks’.

Capital expenditure means government spending on goods and services with the purpose of creating future benefits such as infrastructure investments in transport, health, research and development etc. (creation of capital assets for public). Timely capital expenditures by government are inevitable to have proper basic facilities in economies. Through public expenditure, the government influences directly or indirectly production, consumption and distribution of the nation, helping towards the economic and social wellbeing of the society. Othman et al. (2018) observed that government expenditure significantly promotes FDI inflows in to developing economies from a panel data analysis of 24 developing countries. Turnovsky (1996) explicated the influence of tax-financed public expenditures on the productivity of the existing stock of capital in two ways. First, public

expenditures directly enhance the productivity of private capital by improving production conditions. Second, these expenditures “also reduce the costs associated with investment and thereby facilitate the accumulation of the flow of new [private] capital.” Taken together, these two effects imply that higher public expenditures increase the marginal efficiency of private capital. Following this notion, Nourzad et al (2014) contended that the same complementarity of public expenditure to domestic private investment should also hold for FDI. Receiving insights from these, the researcher hypothesized that creation of capital assets by government has a bearing on inflows of FDI to RLIF, and the factor is proxied by ‘government capital expenditure’.

Theoretically it has been proved that investments move to regions with strong industrial and manufacturing outputs. Manufacturing output and linkages are vital for an economy since it makes up a large percentage of a country’s GDP. Being an important macro-economic variable, the level of manufacturing output is surmised to have an influential role on bringing FDI inflows to host economies. Thus, ‘manufacturing output’ has been hypothesized as one of the determinants of FDI inflows to RLIF and ‘GSDP in the manufacturing sector’ has been used to proxy it. The section provided below depicts the model.

6.4.1 Model

$$FDIINFLOW = \alpha + \beta 1 CREDITSCB + \beta 2 GCE + \beta 3 GSDPMNFG$$

Where, FDIINFLOW stands for FDI inflows, CREDITSCB stands for Credits Given by Scheduled Commercial Banks, GCE stands for government capital expenditure, GSDPMNFG stands for gross state domestic product in the manufacturing sector.

6.4.2 Results

The following table (Table 6.3) presents the statistical characteristics of explanatory variables.

Table 6.3
Statistical Characteristics of Explanatory Variables

Broad Factor Specification	Particulars	Kanpur	Bhubaneswar	Patna	Guwahati	India	Total of RLIF
1. Financial Intermediation	Explanatory Variable : Credits Given by Scheduled Commercial Banks (CREDITSCB)						
	Average (Rs Bn)	2231.11	586.78	762.67	383.11		
	Median (Rs Bn)	2098	588	712	369		
	Standard Deviation (Rs Bn)	937.50	192.96	329.85	146.32		
	Standard Deviation/Mean (%)	42.02	32.89	43.25	38.19	37.52	
	AAGR (%)	17.13	13.99	17.91	15.64	15.32	
	CAGR (%)	17.06	13.83	17.84	15.61	15.25	
	% of Bank Credits to GSDP (Average)	44.76	44.92	30.46	27.66		
% of Bank Credits in the Total Bank Credits of India (Average)	4.53	1.23	1.54	0.79		8.09	
2. Capital Asset Creation by Government	Explanatory Variable: Government Capital Expenditure (GCE)						
	Average (Rs Bn)	456.73	93.24	230.07	140.24		
	Median (Rs Bn)	343.8	74.4	187.5	129.2		
	Standard Deviation (Rs Bn)	251.09	50.06	115.31	62.52		
	Standard Deviation/Mean (%)	54.98	53.69	50.12	44.58	39.64	
	AAGR (%)	20.82	19.35	19.36	20	16.2	
	CAGR (%)	19.31	18.53	18.08	17.93	15.64	
	GCE as % of Aggregate Expenditure of States (Average)	23.76	19.39	23.28	19.81		
GCE as % of Total CE of India (Average)	14.37	2.92	7.32	4.54		29.15	
3. Manufacturing Output	Explanatory Variable: Gross State Domestic Product in the Manufacturing Sector at Factor Cost and in Constant Prices (GSDPMNFG)						
	Average (Rs Bn)	692.74	175.92	261.30	80.85		
	Median (Rs Bn)	716.25	179.30	257.5	80.64		

				4			
	Standard Deviation	86.75	9.12	36.44	14.05		
	Standard Deviation/Mean (%)	12.52	5.18	13.94	17.38		
	AAGR (%)	4.63	2.21	3.09	6.49		
	CAGR (%)	4.39	1.87	2.17	6.29		
	GSDP Manufacturing as Per Cent of Total GSDP of States (Average)	14.6	13.94	11.26	6.04		

Table 6.3 shows that the four regions in RLIF together disbursed only 8.09 per cent of the total credit. Among these, Kanpur dispensed the highest volume (4.53 per cent). The disbursement of bank credit in the region grew at a CAGR of 17.06 per cent between 2007-08 and 2015-16 (India- 15.25 per cent). The average 'credits to GSDP ratio' amounted to 44.76 per cent. In Bhubaneswar, the disbursement of bank credit grew at a CAGR of 13.83 per cent (India- 15.25 per cent) between 2007-08 and 2015-16. The credit disbursed by the region as per cent of the total credit (average) amounted to 1.23 per cent. The average 'credits to GSDP ratio' in Bhubaneswar accounted for 44.92 per cent. Patna's bank credit grew at a CAGR of 17.84 per cent (India- 15.25 per cent) between 2007-08 and 2015-16. The bank credits as a per cent of All India credit accounted for 1.54 per cent and the ratio of credits to GSDP amounted to 30.46 per cent. In Guwahati, the bank credit grew at a CAGR of 15.61 per cent (India- 15.25 per cent) between 2007-08 and 2015-16. Bank credit as a per cent of the total credit of the country (average) amounted to 0.79 per cent. The average 'credits to GSDP ratio' in Guwahati accounted for 27.66 per cent.

Regarding bank credit, it can be summarized that all regions under RLIF except Bhubaneswar have their CAGR higher than that of India between 2007-08 and 2015-16, implying that disbursement of bank credit in these regions are going to hike substantively. The following section describes the second explanatory variable of FDI inflows in RLIF, that is government capital expenditure.

According to Table 6.3, the share of all the four regions in RLIF together constituted 29.15 per cent (average) in the total Government Capital Expenditure (GCE) of India during 2007-08 and 2015-16. Among RLIF, Kanpur has the highest share of CE and

Odisha has the lowest. The CE of Kanpur expanded at a CAGR of 19.3 per cent between 2007-08 and 2015-16 (India - 15.64 per cent). The (average) ratio of CE to Aggregate Expenditure (AE) accounted for 23.76 per cent, which is lower relatively and it needs urgent revision from the part of the governments coming under Kanpur region, to have progressive change in their capital expenditures. CE of the region as per cent of the total CE of India, constituted 14.37 per cent (average). CE of Bhubaneswar expanded at a CAGR of 18.53 per cent between 2007-08 and 2015-16 (India - 15.64 per cent). The average CE to AE ratio amounted to 19.39 per cent and is also lower comparatively. Hence the region needs to commit additional fund for capital expenditure. CE of the region as per cent to the total CE of the country amounted just to 2.92 per cent (average). The CE of Patna expanded at a CAGR of 18.08 per cent between 2007-08 and 2015-16 (India - 15.64 per cent). The (average) ratio of CE to Aggregate Expenditure (AE) accounted for 23.28 per cent, which is lower relatively. CE of the region as per cent of the total CE of the country accounted for 7.32 per cent (average) during 2007-08 and 2015-16. The GCE of Guwahati expanded at a CAGR of 17.93 per cent between 2007-08 and 2015-16 (India - 15.64 per cent). The GCE of Guwahati as per cent of its AE accounted for 19.81 per cent between 2007-08 and 2015-16. The region's CE as per cent of the entire CE of the country amounted to 4.54 per cent during the period.

In summary, it may be observed that the ratio of CE to AE is insignificant in RLIF which provides evidences of the relatively reduced volume of government capital investment taking place in these regions. However, since the CAGR of government capital expenditure is higher for all the regions than the nation, a considerable hike in the capital

expenditure can be expected to occur in the long run in RLIF. The following section explains the final explanatory variable, that is, GSDP in the manufacturing sector.

Table 2 shows that at constant prices, the manufacturing GSDP of Kanpur expanded at a relatively low CAGR of 4.39 per cent and low AAGR of 4.63 per cent between 2007-08 and 2015-16. In Bhubaneswar, it grew at a CAGR of just 1.87 per cent and at a low AAGR of 2.21 per cent. Bhubaneswar has the lowest AAGR and CAGR in manufacturing GSDP among RLIF during the period of study. In Patna also, manufacturing GSDP grew at relatively low CAGR of 2.17 per cent and low AAGR of 3.09 per cent. In Guwahati, GSDP in the manufacturing sector expanded at CAGR of 6.29 per cent and AAGR of 6.49 per cent between 2007-08 and 2015-16. Guwahati has the highest AAGR and CAGR in manufacturing GSDP among RLIF during the period of study.

A review of the GSDP in the manufacturing sector in RLIF discloses that Bhubaneswar straggles behind other regions with lowest AAGR and CAGR. Nevertheless, Guwahati, which had once lagged behind, is stepping forward with high CAGR and AAGR in manufacturing GSDP. Consequently, Guwahati can be presumed to turn out to be an industrial hub in no time; such a transformation of the region will be effectual in amplifying the pace of development in north-east India.

6.4.3 Correlation Matrix

The following table (Table 6.4) presents the correlation.

Table 6.4
Correlation Matrix
Dependent Variable: FDIINFLOW

	FDIINFLOW	GSDPMANUFG	CREDITSSCBS	CE
FDIINFLOW	1.00			
GSDPMNFG	<i>0.2</i>	1.00		
CREDITSCB	<i>0.41</i>	0.89	1.00	
CE	<i>0.17</i>	0.74	0.85	1.00

The correlation matrix (Table 6.4) shows that FDI inflow in RLIF, being the dependent variable is positively associated to all the explanatory variables.

The coefficient of correlation between FDI inflows and GSDP in the manufacturing sector (GSDPMANUFG) is positive (0.2). It indicates the weak positive relationship subsisting between the two. The association existing between ‘Credits given by Scheduled Commercial Banks’ (CREDITSSCBS) and FDI inflows is moderately positive with the correlation coefficient being 0.41. The correlation coefficient between ‘Government Capital Expenditure’ (CE) and ‘FDIINFLOW’, is positive (0.17) which expresses the weak positive relationship prevailing between the two variables.

6.4.4 Regression Results

The regression model is explained below.

Table 6.5
Pooled OLS Regression, Dependent Variable- FDI Inflows

Particulars	Coefficient	Std. Error	t-ratio	P-value	Significance level
const	-7.61	6.06	-1.25	0.22	
CREDITSCB	5.65	1.23	4.58	<0.0001	***
CE	-2.54	0.93	-2.72	0.0104	**
GSDPMNFG	-2.58	0.92	-2.8	0.0084	***
<hr/>					
<i>Mean dependent var</i>		5.88	<i>S.D. dependent var</i>		2.5
<i>Sum squared resid</i>		126.98	<i>S.E. of regression</i>		1.99
<i>R-squared</i>		0.42	<i>Adjusted R-squared</i>		0.36
<i>F(3, 32)</i>		7.76	<i>P-value(F)</i>		0.00049
<i>Log-likelihood</i>		-73.77	<i>Akaike criterion</i>		155.54
<i>Schwarz criterion</i>		161.87	<i>Hannan-Quinn</i>		157.75
<i>rho</i>		0.25	<i>Durbin-Watson</i>		1.38

Note: Table shows Pooled OLS Regression results. Period of observation (Time-series length) is 9 years starting from 2007-08 to 2015-16. No. of observations is 36. No. of cross sections is 4. Independent variables are lagged by 1 year to avoid endogeneity problem. Dependent and Independent variables are measured in natural logarithms. *** denotes significance at 1 percentage level. ** denotes significance at 5 percentage level.

In this model, the estimation method used is pooled OLS regression using a total of 36 observations. Panel data containing four cross sectional units with time series length of nine is used for estimation. Four regions in the RLIF viz. Kanpur, Bhuwaneswar, Patna and Guwahati are the four cross sectional units in the data.

With respect to ‘Credits Given by Scheduled Commercial Banks (CREDITSCB) in RLIF’ which represents the volume of financial intermediation, the coefficient is positive and significant at one per cent. It signifies a uni-directional causality existing between the extent of financial intermediation and FDI in RLIF including Kanpur, Bhuwaneswar, Patna and Guwahati. That means, with an increase in the financial intermediation

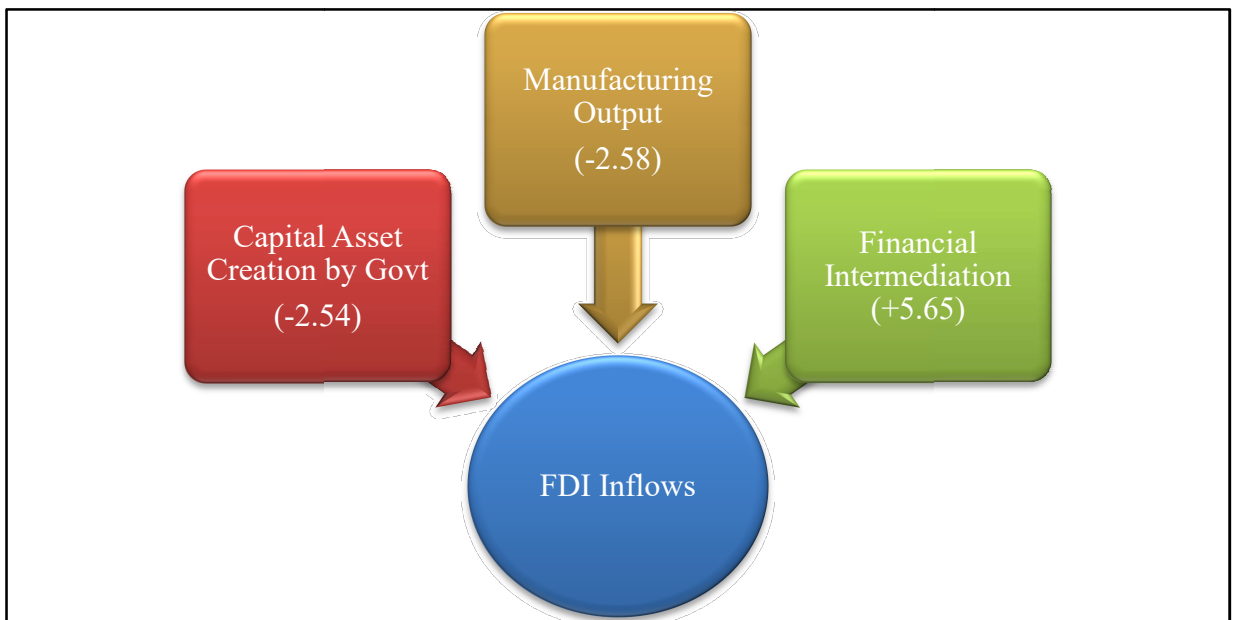
activities represented primarily by ‘Credits Given by Scheduled Commercial Banks (CREDITSCB) in RLIF, FDI to those regions boosts up.

In the case of the capital asset creation by Government in RLIF, the coefficient of ‘Government Capital Expenditure’ is negative, but significant at five percent; which denotes the uni-directional negative causality existing between fiscal sector and FDI inflows in the RLIF. It signifies that, with a diminution in the government capital expenditure in RLIF, FDI inflows to the region increase.

The coefficient obtained for ‘Gross State Domestic Product in the Manufacturing Sector’ is also negative, but significant at one per cent level. It indicates that FDI inflows to RLIF augment with a fall in the manufacturing output in RLIF. The results show that, *‘The FDI in RLIF is explainable by financial intermediation, manufacturing output and capital asset creation by the government’*.

The empirical findings can be conceptualized as follows:

Figure 6.1
The Conceptual Model



Source: Compiled by the researcher

The conceptual model (figure 6.1) clearly demonstrates that factors such as manufacturing output, capital asset creation by government and financial intermediation significantly influence the external capital flows in the form of FDI inflows to RLIF. While the impact of both manufacturing output, capital asset creation by government is negative, financial intermediation exert positive impact on FDI inflows to RLIF.

6.5 FDI Scenario in Kochi

Kochi constitutes both Kerala and Lakshadweep in the accounts of FDI inflows of RBI. However, the Union Territory of Lakshadweep hardly receives any FDI. However, the brief industrial profile of Lakshadweep (2015-16) published by the department of Micro, Small and Medium Enterprise (MSME) Development Institute, Thrissur, which is functioning under the MSME ministry of government of India, identified infrastructural constraints as the major hindrance behind the process of industrialization in Lakshadweep. In such an instance, the sole receiver of FDI inflows in the region of Kochi is Kerala. In Kerala itself, the interest of foreigners to commit direct investment is principally revolving around the locality of Kochi and other regions in the state lie more or less omitted by foreign investors (as well as by domestic investors) and the case inside the state except in Kochi is identical to that of the low FDI regions in India. Mani (2014) identified that four constraints are in operation there behind the industrial backwardness of Kerala viz. land, labour, environmental consciousness of the society, and the role of buroecracy. Nevertheless, industrial scenario in Kerala is progressing year by year. For instance between 2007-08 and 2015-16, Gross Fixed Capital Formation (GFCF) in Kerala expanded at a CAGR of 26.76 per cent against the national CAGR of 10.97 per cent. In

2007-08, GFCF of Kerala accounted for a mere 0.97 per cent of the state's GSDP. However, by 2015-16, the value of the variable turned into 3.97 per cent.

Now Kerala has several key industries like tourism, food processing, Textile-handloom-handicrafts, IT etc. with it. The state is home to 48 co-operative societies that promote handicraft industry and in 2015-16, the state produced handloom worth \$ 53.4 million. IT is another key industry in the state. The state has more than 500 IT companies and it employs more than 50000 professionals. The state has built up IT infrastructure in the form of IT parks such as Technopark in Trivandrum and Kollam and Infopark in Kochi which are notified as special economic zones. Regarding the food processing industry, the state is a major exporter of spices, marine products, Cashew, Coffee and pickles. Cochin Special Economic Zone, one of the seven central government owned special economic zones is in Kerala. A number of other SEZs are also operating in Kerala. The state has a robust and flexible policy environment aiming at strengthening of existing industries and making them more efficient. As a result of these conjoined output, foreign investment to Kerala has increased moderately between 2007-08 and 2015-16. This is evident from the following Table (6.6).

Table 6.6
FDI Inflows to Kochi

SI No	Items (from 2007-08 to 2015-16)	Kochi	India
1	Average FDI Inflows (Rs-Billion)	7.05	-
2	Median (Rs-Billion)	4.11	-
3	Standard Deviation (Rs Billion)	6.99	510.16
4	Per cent of Deviation (Standard Deviation/Mean)	99.15	34.25
5	AAGR (%)	1.84	13.01
6	CAGR (%)	20.22	17.76
7	FDI Inflows as Percentage of GSDP of the region (Average)	0.34	2.83
8	FDI Inflow as Per Cent of GFCF of the region (Average)	22.45	4.87

Source: Computed on the data from the various issues of FDI fact sheets of DIPP and handbook of statistics on Indian states, RBI.

One of the notable things is that Kerala is having progressive FDI inflows with its inflows expanded at a CAGR of 20.22 per cent between 2007-08 and 2015-16 to reach at Rs 5.89 million in 2015-16 from a lower volume of Rs 1.35 million in 2007-08. CAGR in the FDI inflows of India during the same period is just 6.01 per cent. However, Kerala has to go a long distance forward to make its composition of FDI inflows on its GFCF and GSDP higher.

It may be inferred that the state of Kerala has distinguished its strengths and weaknesses and has formulated suitable policies to develop strengths and conquer weaknesses. Although the state could achieve a portion of its targeted policy, *it requires additional capital* from stable and uninterrupted sources, for the full-fledged realization of its targets. It not only needs capital, but also sophisticated technology, marketing resources, management resources etc. to buoyant the developmental activities in its economic sectors. Against such a backdrop, the most feasible solution to tackle the problem of deficiency of resources is to attract enough foreign aid, especially in the form of FDI.

6.6 Conclusion

This chapter discusses two significant aspects; trend of FDI in RLIF and determinants of FDI in RLIF. A review of the trend of FDI in RLIF showed that the inflow of FDI is being rightly directed. The CAGR of FDI inflows is above that of India for three major sub regions under RLIF. These are Kanpur, Patna and Guwahati. The determinants of FDI inflows in RLIF have been identified as *manufacturing output*, *capital asset creation by the government* and *financial intermediation*. FDI scenario in Kochi is also explained. In Kochi, one of the regions which receive moderate inflow of FDI in India, the trend of FDI inflows is also in the right direction since it grew at higher per cent of CAGR than that of India.

CHAPTER VII

FINDINGS, CONCLUSION AND POLICY IMPLICATIONS

7.1 Introduction

The introduction of new economic reforms in India in 1991 was a keystone in the economic history of India. Significant changes occurred in the approach to and the content of economic policies thereafter and it resulted in the economy of India getting moulded to a new shape. Amidst the novel set of policies adopted by India in the beginning of 90s, the measures adopted for getting the FDI policy of India liberalized deserves special mention. It may be noted that, the eventual objective of the measures of liberalization undertaken during that period was to strengthen the flow of FDI to India since FDI has widely been preferred due to its attendant attributes like long term commitment in the host economy and ability not to raise the external debt burden of the host country. However, the considerably raising volume of FDI to India has also been accompanied by substantial regional dissimilitude. The attendant regional disparity in FDI inflows to India resulted in the denial of benefits of liberalization to a number of poor states.

A survey of existing literature was conducted and the summary of it is presented in chapter two. It was found that there is a gap with regard to an independent inquiry in to the magnitudinal-wise distribution of FDI in India. This study primarily examines the major determinants which play a role in distributing varied magnitude of FDI across the regions of India. Regions in India are classified in to two; Regions with High Inflow of

FDI (RHIF) and Regions with Low Inflow of FDI (RLIF). The role played by FDI at the regional level in India has also been identified. In this context, the present study has the following objectives:

1. To evaluate the trend and pattern of FDI inflows to India during the post reform period.
2. To evaluate the FDI policy framework of India.
3. To evaluate the trend and pattern and also to identify the determinants and role of FDI in Regions with High Inflow of FDI (RHIF) in India.
4. To evaluate the trend and to identify the determinants of FDI in Regions with Low Inflow of FDI (RLIF) in India.

Appertaining to the objectives, the study has a set of findings which, of course have induced the researcher to argue for further policy changes in India.

7.2 Major Findings

The major findings from the study are summarized and outlined as follows.

7.2.1 Trends and Pattern of FDI Inflows to India during the Post Reform Period

1. World FDI inflows (five year average) elevated by around 20 times between 1983-87 and 2013-17. However, recently, world FDI inflows show a decreasing trend. During 2008-12, it had a growth of 30.77 per cent and it got reduced to 11.2 per cent between 2013 and 17. Such a reduction in the growth rate in the global FDI inflows can be principally attributed to the globally reducing rate of return (reduced 1.4 per cent during 2012-17).

2. The total FDI inflows to developing economies increased around 38 times between 1983-87 and 2013-17. Thus, the share of FDI inflows to developing economies in the total world FDI inflows increased to 42.83 per cent (2013-17) from 23.27 per cent during 1983-87.
3. Between 1993-97 and 2013-17, FDI inflows to transition economies enhanced by 11 times.
4. FDI inflows in developed economies hiked by 13 times between 1983-87 and 2013-17. Simultaneously, the share of developed economies in the total world FDI inflows diminished from 77.63 in 1983-87 to 53.58 in 2013-17.
5. Among the developing world, Asia's developing economies reaped the highest volume of FDI inflows. Its FDI inflows composed 29.35 per cent of the total world FDI inflows in 2013-17. It was just 13.3 per cent in 1983-87. Simultaneously, FDI inflows in the total world FDI inflows of developing economies in America composed only 10.15 per cent in 2013-17. It was 6.35 in 1983-87. That of the developing economies in Africa constituted just 3.19 per cent in 2013-17.
6. While Eastern and South-Eastern Asian countries attract major shares of world FDI, both South Asia (Includes India) and West Asia lag behind them with comparatively low volume of FDI.
7. From an assessment of the trends of FDI flows to India from 1990 onwards, it is found that there is merely a moderate leap in the FDI inflows in the post reform period. It has marked with a moderate CAGR of 20.04 per cent and high ratio of standard deviation of 102.71 per cent with 28 years from 1990 to 2017. To

substantiate more, the ratio of 'India's FDI inflows to world FDI inflows', which was a meager 0.05 per cent in 1991, got enhanced only to 2.79 per cent even by 2017. The ratio of 'FDI to GDP' in India also increased at a diminishing rate (to 1.51 per cent in 2017 from 0.03 per cent in 1991). However, the ratio of 'FDI to GFCF' hiked moderately (to 5.26 per cent in 2017 from 0.11 per cent in 1991). The ratio of 'FDI inflows to FDI inflows in developing countries' also elevated moderately to 5.95 per cent in 2017 from 0.19 per cent in 1990. However, the ratio of 'India's FDI inflows to the total FDI inflows to South Asian countries' was substantially high in all the years from 1990 to 2017, owing to the reason that India is the principal recipient country in South Asia. In 2015, the ratio reached 86.1 per cent, the all time high.

In summary, it may be observed that, India's share in the global FDI inflows and FDI inflows to developing countries constituted merely 2.79 per cent and 5.95 per cent respectively even in the later phases of liberalization. The ratios such as FDI to GDP and FDI to GFCF are also not significant even after decades of liberalization.

8. During the period of 2000-01 and 2017-18, FDI comes to India substantially in the form of equity and the volume of equity component is slightly increasing whereas that of reinvested earning is decreasing mildly. Meanwhile, the volume of 'other capital' component remained more or less stable, with a segregated hike in 2003-04. Thus, in the total FDI inflows from 2000-01 to 2017-18, equity component contained 72 per cent, reinvested earnings encompassed 23.1 per cent and other capital included 4.9 per cent.

9. FDI flows to India has been surging up through the automatic route since 2000 and inbound of FDI through government approval route is diminishing substantially. In the year 2000, 60.75 percentage of FDI had come to India through government approval route and it got dismounted to 7.67 per cent in 2018, which stresses the losing significance of the government route in the advent of FDI to India.
10. Right at the moment, only a few sectors are opened to foreign investment under government route. They are public sector banking, broadcasting content services, core investment company, digital media, food products retail trading, mining of titanium bearing ores, multi-brand retail trading, sector of print media and satellite establishment and operation. FDI to all other sectors are either fully or partially allowed under automatic route and the FDI regime in India is approaching full-fledged liberalization. FDI inflows through automatic route reduced considerably by 2018 because of the phased liberalization policy measures undertaken by the government. At the same time, FDI inflows through the automatic route heightened from 16.26 per cent in 2000 to 82.03 per cent in 2018 at a CAGR of 31.61 per cent. Inflows through acquisition of existing shares also show a tendency to decline over time.
11. Mauritius brought the highest share of FDI to India from April 2000 to December 2017. It accounted for 34 per cent. The highest volume of FDI from such a small island can be attributed to the double taxation treaty that India has signed with Mauritius and also to the fact that most US investment into India is being routed through Mauritius. Singapore is followed by Mauritius. It ranked second and

brought 17 per cent of FDI to India. The volume of FDI to India brought by developed and relatively large countries like Japan, UK, Netherlands, USA, Germany etc. fall behind the volume of FDI brought by small countries like Mauritius and Singapore. However, when taking a closer look at the percent of FDI inflows brought by each country in the top 10 category from April 2000 onwards, immense variation is visible.

12. From April 2000 to October 2008, the share of Mauritius was 44 per cent and it got cut down to 41 per cent by October 2011. Again, the country's share got lessened to 36 per cent by 2014 and to 34 per cent by December 2017. It insinuates the reducing significance of Mauritius route in the inflow of FDI to India.
13. Simultaneously, the share of Singapore has reached 17 per cent by 2017 December, which was a meager eight per cent in October 2008. Within a short span of time, Singapore will become the most important route for FDI inflows to India by surpassing Mauritius. By 2017, the share of FDI inflows from USA shrank to six per cent and that of Japan increased to 7 per cent. UK and Netherlands are also emerging as two important source countries of FDI flows to India. By December 2017, countries Viz. Germany, Cyprus, France and UAE also aroused as prominent source countries and nine per cent of FDI inflows have come to India from these source countries.
14. A significant change in the structural composition of FDI inflows to India since 2000 has occurred. This can be ascribed to reasons including liberalization of policy regime and the timely changes occurred in sectoral policies. FDI policy

concerned to each sector has undergone significant shift since the outset of liberalization. A number of sectors, which were inaccessible to foreigners before were left opened to them to suit the necessity of time. Further, the ceiling limits of many others were raised considerably.

15. Service sector has attracted more volume of FDI inflows (17 per cent) by December 2017. However, from April 2000 to October 2008, it had attracted 22 per cent of FDI inflows and it got shortened to 20 per cent by October 2011 and to 18 per cent by October 2014. Thus, it appears that the share of FDI inflows to service sector, though the foremost contributor to the GDP of India, is getting lessened over time. Since the onset of liberalization, the country experienced a high jump in the inflows of FDI in service sector because of the tremendous growth potential it possesses. Importance for FDI in service sector has been surged due to a number of reasons. Pattern of economic development all over the world, policy changes, technological advancement and the strategies of both services and industrial transnational companies contributed to the growth of service sector.

7.2.2 Policy Framework

1. India had been following selective policy towards FDI, swinging between regulation and liberalisation, since independence. Foreign investment was permitted only in high technology and export oriented industries where it was felt very essential. During 1980s the policy was partially liberalised so as to encourage foreign capital and technology with a view to promote exports and

competition. Since 1991 with the inception of economic reforms the FDI policy has been liberalised further and made it more open and transparent.

2. It is an undisputable fact that the FDI policy has provided a better environment for more FDI inflows, skilled management and sophisticated technology resulting in the modernization of the Indian economy to a certain extent. But it appears that the approach towards FDI has yet to become powerful and pragmatic.

7.2.3 Regions with High Inflow of FDI (RHIF) in India

1. RHIF includes six regions such as Mumbai, Delhi, Bangalore, Chennai, Ahmedabad, and Hyderabad. These six regions together received 74 per cent of FDI inflows from April 2000 to March 2016. Accordingly, the determinants of FDI inflows and the role of FDI in RHIF have been examined.
2. An analysis of the determinants of FDI inflows to RHIF proved that deposits of scheduled commercial banks, gross fixed capital formation, fiscal deficit and net state domestic product are the principal determinants of FDI inflows to RHIF.
3. Deposit of scheduled commercial banks is proxying 'domestic savings' in the region. It is found that an improvement in the domestic savings results in an increase in the FDI inflows in RHIF. Gross fixed capital formation represents the domestic investment in RHIF. It is revealed that FDI inflows tended to increase with decrease in domestic investment in RHIF. Fiscal deficit stands for deficit financing. FDI inflows tend to increase with a fall in the extent of deficit financing in RHIF. Net state domestic product symbolizes the size of the economy. It is found that FDI inflows tend to increase with an increase in the size of the economy of RHIF.

4. It is found that FDI inflows have significant positive influence on the size of the economy of RHIF measured by net state domestic product. Along with FDI inflows, GSDP in industrial sector and deposits of scheduled commercial banks also have significant positive influence on the size of the economy of RHIF. GSDP in industrial sector proxies the level of industrial linkage in RHIF and deposits of scheduled commercial banks symbolizes domestic savings.

7.2.4 Regions with Low Inflow of FDI (RLIF) in India

1. RLIF encompasses four regions such as Kanpur, Bhubaneswar, Patna and Guwahati. RLIF received aggregate FDI of mere 0.36 per cent (from April 2000 to March 2016). Accordingly, the determinants of FDI inflows to RLIF have been examined.
2. Credit given by scheduled commercial banks, government capital expenditure and gross state domestic product in the manufacturing sector significantly influences FDI inflows to RLIF. Credit given by scheduled commercial banks proxies financial intermediation in RLIF. It is found that FDI tends to increase with an improvement in the activities of financial intermediation in RLIF. Government capital expenditure represents the creation of capital assets by government in RLIF. It is revealed that a decrease in the capital asset creation by government in RLIF tends to attract FDI inflows. Finally, gross state domestic product in the manufacturing sector stands for the manufacturing output in RLIF. It is disclosed that decrease in the level of manufacturing output tends to attract FDI inflows to RLIF.

3. The positive impact of the size of the economy on FDI inflows to RHIF signifies that the region has contributed more than 45 per cent (average) to the total NSDP of India between 2007-08 and 2015-16, which alludes the voluminousness of the economy. Such a large sized economy has played a role in bringing more FDI inflows to RHIF. From this perspective, it can be inferred that the presence of a huge sized economy will bring augmented volume of FDI inflows to RHIF, which is already rich in FDI flows. Then, it will be more difficult for the other regions (with small sized economy) such as RLIF to attract fresh investments. The size of the economy of RLIF is relatively small as it contributes only 19 per cent to the total GDP of India.

7.3 Suggestions and Policy Implications

1. Recently, service sector brought in huge quantity of FDI to India. The sector's growth can create further opportunities for employment for skilled, semi-skilled and unskilled people. It may be observed that in the recent scenario, by overlapping manufacturing industries, the IT/BPO services provided large number of employment opportunities in India. Therefore, apart from providing a boost to the manufacturing sector, it is equally important to provide a thrust to the service sector, which spans the value chain from low-end localised services to the most sophisticated globally-competitive intellectual property based services.
2. A conscious and coordinated effort at the national and the state government levels would be essential to make the laggard states more attractive to FDI flows. The direct method to achieve this objective may be to design the national FDI policy in such a way that a sizable portion of FDI flows to India move into the laggard

states. The indirect way is to provide a boost to the overall economy of the less advanced states, with special thrust on the manufacturing, services and the infrastructure sectors so that they themselves become attractive to foreign investors.

3. It has been observed that industrial output and industrial orientation have significant positive impact on FDI flows. This implies foreign investors' preference for states with a strong industrial base. Therefore, it is essential for the less industrially developed states to catch up with the developed ones to attract larger share of FDI flows. PPPs shall be encouraged in the construction of premier industrial infrastructure.
4. It has been revealed that, both in RHIF and RLIF, financial intermediation through banks play an important role in attracting FDI. In RHIF, while a rise in the domestic savings represented by deposits of scheduled commercial banks tends to attract FDI, in RLIF, enhancement of financial intermediation activities proxied by credit given by scheduled commercial banks bring more FDI. RHIF has amassed about 50 per cent of the total savings in India while the total deposit of RLIF is about eight per cent. The volume of credit rendered by financial intermediaries in RLIF is substantially low due to the low level of deposits gathered. Thus, it is suggested that in order to improve the money supply in the economy of RLIF, the excess deposits from RHIF shall be channelized to the financial markets of RLIF through effective methods. For this, the financial intermediation activities in the hinterlands of RLIF shall be strengthened. The enhanced money supply in the economy of RLIF will augment the aggregate

demand. Foreign investors will, thus, be prompted to set up green-field and brown-field investments in RLIF.

5. In RHIF, the huge base of deposits (domestic savings) is one of the reasons for the advent of bulk quantity of FDI. Since RHIF includes regions such as Mumbai, Chennai etc. which are regarded as the financial centers of the country, rise in the domestic savings can be directly linked to the accumulation of FDI in the financial service segments of RHIF such as insurance, banking, pension funds etc.
6. In RHIF, it has been proven that FDI tends to decrease with an increase in the domestic investment measured by gross fixed capital formation. The domestic investment might crowd out FDI inflows. Rather than attracting more and more green-field and brown-field investment to RHIF, FDI in the form of mergers and acquisitions as well as joint ventures are to be encouraged in RHIF so that the existing domestic firms in RHIF can grow further with the gathering of knowledge, technological, managerial and marketing spillovers got transferred from the foreign firms. At the same time, green-field and brown-field investments shall be encouraged widely in RLIF. The FDI policy, in this respect, shall be revised. There exists an absolute necessity to form two sets of FDI policy; one for RHIF and the other one for RLIF. The specific economic conditions and requirements of RLIF should be taken in to account during the framing of FDI policy on behalf of them.
7. The revenue base of regional governments also proved to have a specific role in attracting FDI inflows both in RLIF and RHIF. While deficit financing proxied by gross fiscal deficit play a role (negative impact) attracting FDI flows to RHIF,

capital asset creation by government represented by government capital expenditure (negative impact) play behind bringing FDI to RLF. In this regard, in RLIF, government expending should be lowered significantly in Public Private Partnerships (PPPs) projects. These PPPs shall be dominantly financed by FDI.

8. Following the liberalization of FDI flows in the 1970s, China confronted with rather similar type of experience like India. With the country's introduction of coastal preference open door policy¹ in 1978, the regional disparity between the coastal belt and China's interior had increased. As a result, the country witnessed the concentration of a few world class industrial clusters located in five coastal Chinese provinces at the expense of the Chinese hinterland. Gradually, foreign investors began preferring the earlier opened regions in China over the hinterland. Thus, by taking note of the raising regional disparity in the distribution of FDI, one important policy changes enacted by the Chinese government was to raise the entry requirements for FDI into coastal belt designed to secure high value investments, while encouraging labour intensive investments in the interior. Accordingly, since the late 1990s, most MNEs in China have made fundamental changes to their business strategies and operational policies to adjust to changes in policy, market conditions and the regulatory environment. In view of the Chinese experience, in the context of India also, similar set of policies shall be framed to direct part of the FDI flows to the laggard states and to curb the raising disparity in the distribution of FDI inflows.

¹The reform and open-door policy of China began with the adoption of a new economic development strategy at the Third Plenary Session of the 11th Central Committee of the Chinese Communist Party (CCPCC) in late 1978.

9. The laggard states are suggested to constantly examine the trend and pattern of FDI inflows in the advanced regions (RHIF). Based on such constant and continuous observations, they shall mould their own investment models with the desire of becoming FDI hubs. The laggard states including Kerala collectively can initiate the formation of regional forums in this regard. Such regional forums shall hold constant meetings and conferences with the sole purpose of boosting the quantity and quality of FDI inflows to them and thereby to reduce the FDI induced regional imbalance in the economic growth.

7.4 Limitations of the Study

1. Secondary data alone has been considered for analysis due to the difficulties confronted with approaching foreign firms operating in the country.
2. The study is limited to the magnitude of distribution of FDI in regions, its determinants and role. The study does not cover the magnitude of interregional variations and its determinants.
3. A firm level analysis could not be conducted due to the difficulties faced in gathering primary data.
4. The principal analysis has been carried out using data for a short span of time i.e. nine years from 2007-08 to 2015-16 due to the non- availability of historical data on FDI inflows in to India.

7.5 Scope for Further Research

1. A study on the disparity of FDI inflows in the global scenario can be conducted as developed economies receive a major portion of the global FDI inflows.

2. Studies shall be conducted regarding the magnitude of interregional variations of FDI, divergence, convergence and its determinants.
3. Disparity in FDI inflows both within the regional integration forums such as BRICS, SAARC, OECD, ASEAN, APEC, OPEC etc. and within the continents can be carried out.
4. Disparity of FDI inflows is crucial within the individual states of India such as Kerala, Karnataka, Maharashtra, Gujarat, Andhra Pradesh etc. For instance, in Karnataka, FDI gets accumulated in the region of Bangalore while the state's hinterlands lie ignored by foreign investors. Thus, in depth and separate study is to be conducted about the magnitudinal wise regional disparity in FDI inflows across the districts of the states of India.

7.6 Conclusion

This study has four objectives; to evaluate the trend and pattern of FDI inflows to India during the post reform period, to evaluate the FDI policy framework of India, to evaluate the trend and pattern and also to identify the determinants and role of FDI in Regions with High Inflow of FDI (RHIF) in India and to evaluate the trend and to identify the determinants of FDI in Regions with Low Inflow of FDI (RLIF) in India. An evaluation of the trend and pattern of FDI inflows to India during the post reform shows that, FDI inflows are being rightly directed during the post reform period. Regarding the pattern, it has been inferred that FDI is not rightly distributed across sectors and regions. The evaluation of policy framework showed that the landmark changes brought in the FDI policy have significantly improved the important macroeconomic parameters. RHIF in India has been sufficiently attracting substantial quantity of FDI inflows to its various

sectors and regions. However RLIF is deprived of the benefits of FDI since it had received only a negligible portion of FDI. Hence, it is essential to have a conscious and coordinated effort at the national and the state government level to make the laggard states, especially RLIF, more attractive to FDI flows. The efforts may include special thrust on the manufacturing, services and the infrastructure sectors along with direct policy endeavors adopted by China or a blend of both.

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