IMPACT OF ECONOMIC REFORMS ON FOREIGN DIRECT INVESTMENT IN INDIA

By

SUSMITHA. S

THESIS

Submitted for the award of
Ph.D. Degree in Economics

DEPARTMENT OF ECONOMICS
UNIVERSITY OF CALICUT
Dr. John Matthai Centre
ARANATTUKARA, THRISSUR

JULY - 2001

DR. D. PRABHAKARAN NAIR
Prof & Head of the Department

DR. JOHN MATTHAI CENTRE
ARANATTUKARA P.O.,
THRISSUR
KERALA 680 618.

UNIVERSITY OF CALICUT
DEPARTMENT OF ECONOMICS

CERTIFICATE

Certified that, this written account entitled '**IMPACT OF ECONOMIC REFORMS ON FOREIGN DIRECT INVESTMENT IN INDIA**' is a bonafide record of research work done by **SUSMITHA. S** under my guidance and Supervision. The work has not been previously submitted for any other degree or diploma.

UNIVERSITY OF CALICUT
Dr. JOHN MATTHAI CENTRE
TRICHUR-680 618
DEPARTMENT OF ECONOMICS

DR. PRABHAKARAN NAIR
Supervising Teacher

Place : Thrissur,
Date : 23/7/2001

DECLARATION

I declare that this written account entitled **"IMPACT OF ECONOMIC REFORMS ON FOREIGN DIRECT INVESTMENT IN INDIA"** is the record of research work done by me under the supervision of **Dr. D. Prabhakaran Nair** and it has not been previously formed the basis for the award of any degree, diploma or other similar titles of recognition.

SUSMITHA. S

Thrissur,
July 23rd, 2001

ACKNOWLEDGEMENT

I am quite sure that all my words in any way cannot fully express my emotions and gratitude to all those who have helped me in carrying out this study. But for the sake of formality, I do make an attempt in this direction.

First and the foremost, I hereby express my deep sense of love and gratitude to my Supervising Teacher ***Dr. D.P. Nair*** *(Prof. & Head of the Department of Economics) for his scholarly guidance, whole hearted support and sincere care for me. I owe him to a great deal for his immense trust on me which has really added to my confidence in research. Even in the midst of his busy work schedule being the Head of the Department , he always managed to find time to hear me and give out his suggestions. Frankly, I am privileged enough to get him as my guide.*

I have no words to explicit my feelings for ***Dr. K.K. Subramanian*** *(Prof. & Honorary Fellow, C.D.S., Trivandrum) who is the real 'Master Builder' of the present study. I often get excited when I speak of such a rare and dynamic personality. I am proud to say that he is unique in particular as a teacher, scholar and as an economist. I am greatly obliged for his intimacy, intellectual perceptions, creative advices and inestimable help rendered to me throughout the course of the study.*

A special note of thanks must go to ***Dr. K.C. Shankaranarayan*** *(Prof. & Former Head of the Department of Applied Economics ,CUSAT) for suggesting this challenging topic for me and also for his concrete comments in the initial stages of the study.*

I express my heartfelt thanks to ***Dr. K.X Joseph*** *(Reader, Department of Economics) for his profound help in the course of my research.*

I am grateful to all the other faculty members of the Department of Economics, Dr. John Mathai Centre, who always encouraged me in all my academic endeavours.

I express my sincere thanks to ***Dr. P.P. Pillai*** *(Prof. and former Head of the Department of Economics) for his stimulating suggestions in the earlier stages of the study.*

I am thankful to ***Dr. C.B Rajeev*** *(Sr. Lecturer Govt. College, Thrissur) and* ***Mr. V.K. Vijayakumar*** *(Sr. Lecturer, Sreekrishna College, Guruvayur) for supplying me sufficient reading materials, relevant for the study.*

I am grateful to all my co-researchers for their co-operation and support extended to me throughout the course of the study.

I hereby owe a word of special thanks to my friends ***Vimala. M.*** *and* ***Sreelatha. C*** *for their sincere help and whole hearted support extended to me in the later stages of the study.*

At this moment I remember with love all my former teachers especially at St. Mary's College, Thrissur who have been always the source of inspiration and strength for me.

Let me take this opportunity to express my deep sense of love & gratitude to ***Mr. T.R. Chandra Dutt,*** *(Director, COSTFORD, Ayyanthole) for his whole hearted support in bringing out this study.*

I am thankful to my friends ***K.P. Rajesh, Veeramani*** *and* ***Abdul Aziz*** *(Research Scholars, C.D.S, Trivandrum) who provided all possible help in the course of my research.*

I am grateful to ***V.R. Satheesh, P.J.Thomas*** *and* ***Pradeep.K.*** *(Faculties of M.C.A, Dr. John Mathai Centre) for their sincere help rendered to me in carrying out this study.*

I can't resist the desire to express my heartfelt thanks to ***Mr. K.A. Paul*** *(Advocate, District Court, Thrissur) for his cherishment and support in all my academic efforts.*

I am grateful to our librarian ***Usha Rani*** *and also to all the non teaching staff of Department of Economics for their sincere services extended to me throughout the course of my research.*

I am thankful to my brother for his assistance in the critical moments of the study.

I am deeply indebted to my parents for their care, affection and prayers for me. What ever I say in words can never match the sacrifices they have done for me, especially my mother whom I love the most in this world. I should admit the patience and calibre of my father in formating the complicated data collected for the purpose of analysis of the study.

Let me take this opportunity to express my sincere thanks to ***Sarmila. K.M.*** *(Cubix Computer Centre, Pallimoola, Thrissur) for her neat and beautiful typing of this work.*

Above all ***God Almighty****, the Super Power whom I believe is always with me to help and guide me to take the right decisions at the right time and to proceed with confidence in my life.*

SUSMITHA.S

CONTENTS

LIST OF TABLES

LIST OF CHARTS

CHAPTER - I

INTRODUCTION

India is a country with one of the oldest civilisation in the world. It is a country where religions, languages and customs different from one another co-exist. It appears to be a place of contrast with strong reactions and conflicting feelings, adding to the value and identity of the country. An Indian business man, Jagdish Parekh once observed that 'The Indian economy is like a coconut - it is hard on the outside, but once broken one can enjoy the taste of sweet liquour. It is a flavoured fruit for one who has patience'.

The World Bank has identified India as one of the powerful economic giants. With nearly a billion people, India is not only the world's largest democracy but a country of enormous economic and political potential.

India has a long history of wide and specific economic policies swinging between regulation and liberalisation, based on the prevailing social, political and economic environment. Now India is changing faster than at any time as a result of new economic reforms oriented towards privatisation, liberalisation and globalisation of the economy. All the regulated and liberal policy changes have proved to be significant in their own way resulting in the transformation of the Indian economy.

1.1 Economic Policy Changes in India : A Brief Review

Indian economy had undergone several significant policy changes before the inception of economic reforms. The past economic policies can be broadly explained under four distinct phases namely physical control Regime (1951-76); Rethinking on Economic Policy (1977-84); Liberalised Regime (1985 - mid 1991); Current Economic Reform (mid 1991 onwards) (Sharma, 1998).

The first phase (1951-76) pursued the planned objectives under physical control regime. Apart from direct resource allocation in the public sector, four major physical control instruments - Industrial licensing, Foreign exchange regulations, controls and regulations of monopoly and Restrictive trade practices and Import Controls were evolved to direct private investment in conformity with planned objectives and targets. Human resource development, food self sufficiency, diversified industrial structure etc. have been cited as some of the achievements of these policy changes. Still the functioning of the Indian economy was unsatisfactory on several counts. Neither the industrial growth nor the growth of the economy as a whole was impressive. Lack of competition due to protective shelter has resulted in high cost inefficient economy characterised by low and stagnant productivity. A plethora or rules and regulations have created a cumbersome system involving too many agencies leading to time and cost over-run for many investment proposals. Aggressive import substitution and export pessimism has led to Balance of Payments problems.

The poor economic conditions in the first phase led to rethinking of the entire economic policy during 1977-84. This has resulted in the formulation of several committees to review the policy framework in general. They recommended a shift from physical to fiscal controls, liberalisation in industrial licensing and trade regime, export promotion in the place of import substitution, greater role for private sector, and measures to improve the performance and efficiency of public sector enterprises. All these recommendations had been taken into account by the government for further policy improvement.

The third phase of Liberalised Regime from 1985-91 witnessed several liberal policies which had been put forward by the government based on recommendations of the various committees. Thus this phase was really different from earlier regimes. The major components of the 'New Economic Policy' in this period were removal and relaxation of controls; restoration of competition; re-orientation of fiscal policy; modernisation of industries involving sophisticated technology and a larger role of private sector in the economy. This period dismantled the edifice of controls by way of delicensing a number of industries, introduced broad banding of licenses in certain areas, raised ceiling of asset limit of big business houses under MRTP (monopolies and Restrictive Trade Practices Act) liberalised FERA (Foreign Exchange Regulation Act.) restrictions etc. All these liberal policies had a positive impact on the economy on one side. But on the other hand it gave rise to several

strains on the Indian economy. This has ultimately resulted in macro economic imbalances, leading to macro economic crisis during 1990s.

India entered the decade of 1990s with large internal and external imbalances which made the economy highly vulnerable to exogenous shocks. These imbalances were exacerbated by the domestic political developments and the gulf crisis during 1990-91. The macro imbalance fuelled by the fiscal and budget deficits and financed by the external borrowings and the decumulation of foreign exchange reserves was accompanied by accelerated inflation to double digit levels. There was a flight of capital in the form of withdrawal of non- resident deposits from the banking system and an unwillingness of international banks to extend new loans. Rising interest payment obligation, heavy overflow on account of subsidies, mounting support to public sector undertakings and large outflow in the form of financial assistance to states accentuated the severity of the situation. Thus the Indian economy witnessed an unprecedented economic crisis during 1991. There were crisis of investment, crisis of inflation, crisis of budgetary resources, crisis of unemployment and crisis of foreign exchange. In the midst of the crisis, the congress government under the leadership of Mr. Narasimha Rao assumed office in June 1991. The disastrous consequences of an impending default compelled the country to look for a way out. But the government found no other alternative but to approach the IMF to meet the contingency. IMF which had been insisting India, for a long time to

carry out radical economic reforms to solve the economic problems, obviously put forward a package of conditionalities which included liberalisation, macro-economic adjustments and structural reforms to be fulfilled to become eligible for the massive loans. India agreed to those conditions and launched a programme of economic policy reforms in July 1991.

This unfolded the fourth phase of Current Economic Reforms since mid 1991 with a policy package relying more on market driven forces, on the integration of the Indian economy with the global economy and creation of a market friendly environment for enhancing competitive strength of the economy. Dr. Manmohan Singh (the then Finance minister) is the pioneer of economic reforms in India.The successive governments at the centre have followed suit. We could see that despite changes in the governments, there has been no change in the economic policy. The commitment for economic reforms has been maintained and the nation is moving towards a Common National Economic Agenda irrespective of political considerations.

The economic reforms initiated in India really aimed at restoring macro economic balance and economic growth, regaining external credit worthiness and preparing the Indian economy to respond effectively to emerging global challenges and opportunities.

1.2 Major Policy Areas of Economic Reforms

A number of reform measures have been undertaken in India in the areas of trade, industry, agriculture, public and financial sectors, with a view to transform our system into a strong, stable, attractive, efficient, competitive and vibrant economy with a place in the fast changing global economic scenario since july 1991.

1.2.1 Agriculture Policy Reform

Agricultural sector remains crucial to the overall health of the economy. Agriculture reforms have been undertaken with a view to make Indian agriculture a vibrant and cost effective sector, through improved resource management. The thrust of the new agricultural policy is on boosting agricultural production and productivity, raising consumption levels through production and exchange, increasing public investments for the development of infrastructure, removal of zonal restrictions and export promotion, eradication of poverty. reduction of subsides, revamping agriculture research system and generation of productive employment. Successful implementation of these policies may change the entire outlook of Indian agriculture in a positive manner.

1.2.2 Trade Policy Reform

The basic objective of the new trade policy is to liberalise trade and also to remove all sorts of administrative controls and barriers which act as

obstacles to the free flow of exports and imports. The basic strategy of the new approach is export promotion through import liberalisation. The Introduction of EXIM Scrip and Replenishment system, removal of all quantitative restrictions on imports, abolition of all supplementary licences except in the case of small scale sector and shift to a price based system form the major components of new trade policy. Besides India has also undertaken a major commitment to liberalise its trade regime under W.T.O. agreement.

1.2.3 Financial Sector Reform

The ultimate objective of financial sector reform in India is to improve the operational and allocational efficiency of the system. The thrust of the financial sector reform is to phase out automatic monetisation of the central governments' budget deficits by the Reserve Bank of India, to reduce reserve requirements and release more resources for lending, to develop money market, to bring down non performing assets and liberalise interest rates and to enhance inter-bank competition through strengthening the banking system. Many significant steps have been taken in this field for transforming it into a strong, competitive and vibrant financial sector, operating on sound commercial principles and within a good, transparent, regulatory frame work.

1.2.4 Public Sector Reform

Public sector reform has been initiated with a view to enhance the

competency and efficiency of public sector units. 'Privatisation of viable units and closure of unviable units' is the basic motto of new public sector policy. Board For Industrial And Financial Reconstruction has been constituted to examine the sick units and decide the feasibility of their revival. The government is actively engaged in the disinvestment of public enterprises to promote competition. Schemes for compensation, retraining and redeployment of workers affected by economic restructuring have also been initiated.

1.2.5 Industrial Policy Reform

The liberalisation started with the introduction of major changes in the new industrial policy, with a view to alter the entire gamut of industrial environment in the country. The new industrial policy dismantled the industrial licensing system that regulated the industrial investments in the economy by abolishing the requirement of obtaining an industrial licence from the government in all except 14 specified industries. More and more sectors have been opened for private investment. A new broad banding scheme has been announced to facilitate flexibility of operation to industrial units. Automatic clearance to foreign equity upto 51percent has been permitted in 36 high priority industries with a view to attract FDI (Kumar, 2000). Automatic clearance for import of capital goods, the creation of Foreign Investment Promotion Board with special powers, automatic permission to foreign technology agreements and royalty payments in

specified high priority industries, liberalisation of foreign ownership are the other measures introduced to facilitate industrial growth.

Besides various fiscal and monetary policy reforms have been initiated by the government to overcome the chronic economic maladies and distortions of the country.

But the ultimate goal of all these reform measures is to increase the competitiveness, efficiency and growth of the economy. For achieving these challenging goals, our economy has undergone rapid structural changes and unpredictable transformation in its character and behaviour. Of these changes, the increasing significance of Foreign Direct Investment (FDI) deserves special mention. FDI accompanied by foreign technology and managerial skills has been accepted as a new effective mechanism for stimulating economic growth in the noval era of competition.

It has been observed that the new economic reform measures have got far reaching influence on FDI inflows to India. After a close examination of the past studies, we have realised that there is need for further research in this field. So the present study is intended to analyse the impact of Economic Reforms on Foreign Direct Investment in India.

1.3 Review of Literature

Literature review is the starting point of any research. It is essential to get a clear idea about the previous studies conducted in a particular area of research.

For shaping the objectives of the present study we have reviewed the existing literature associated with the topic. We don't dispute the fact that numerous studies have been conducted in the field of FDI both at the international and national levels. But considering the nature of the present topic we have given more stress on the studies conducted in the post reform period although we have included some of the relevant studies in the pre-reform period.

Subramanian (1967) made a case study of foreign and domestic firms working in India and came to the conclusion that the inter-firm comparison of foreign vis-a-vis Indian controlled joint ventures did not show that the foreign ownership (Direct foreign investment) by virtue of its presumed dynamic business attitudes, provided built in conditions for higher management efficiency. Here the efficiency was measured in terms of four ratios i.e. financial structure ratios, cost structure ratios, profitability and appropriation ratios and found that the foreign controlled companies showed overall better rates of return than the Indian public limited companies.

Reserve Bank of India (1967) had conducted a study on the international investment position of India for different years. This provided information on aggregate basis, on the inflow and volume of foreign investment. It was of general nature and was based on the information collected through the Foreign Investment Survey Report For Balance Of Payment Statistics.

Kelkar (1974) made a cost benefit analysis of private foreign investments in India. It also examined the trends in foreign investment during the period 1964-74 and observed that FDI increased from Rs.565 crores to Rs.814 crores during this period. As per this study the contribution of private foreign investment, from the viewpoint of external trade was found to be negligible.

Mehta (1980) made an attempt to examine the role of foreign capital in the ASEAN economies. The overall impact of foreign investments was analysed in the light of the proclaimed economic objectives set by the ASEAN countries. The study concluded with the statement that though the inflow of foreign capital had contributed to a relatively high rate of growth of national and per capita incomes, there had been little impact on the basic economic structure of these countries.

Lall (1985) explored the experience of India as an importer and

exporter of FDI. It provided data on inward FDI in India and analysed the reasons for India's poor performance relative to newly industrialising economies. It also pointed out the consequences of the restricted FDI policies and capital flows to India.

Mayer (1987) highlighted the significance of financial flows to developing economies and examined the problems associated with capital inflows to developing countries and vice versa.

Sarma (1988) examined the impact of investment allowance on the corporate sector. The study attempted measurement of the impact of investment- linked tax incentives, in particular the investment allowance and development rebate on private corporate investment behaviour.

Subramanian (1991) analysed the pattern of technology behaviour of Indian firms during the partial liberalisation period of 1980s compared to the earlier period of protectionism. He concluded that both planning and economic liberalism could strengthen the technological capability of local firms and for that, a relatively free environment of the market for technology is needed and it should be accompanied by positive intervention of the state to ensure that the import is backed by domestic R & D efforts for the firms/industry to move along a 'dependence-independence' continuum of technological change.

Cohen (1991) provided an excellent account regarding private lending to independent start use of FDI for production purchase in manufacturing activities. He has discussed the code of conduct for emerging market countries while inviting FDI.

Chandra (1991) analysed growth of foreign capital in Indian industries with reference to private corporate manufacturers. He criticised official policy of Government of India in terms of MRTP Act, FERA and code of conduct of Transnational corporation during the sixth and seventh plan periods. He has compared average ratios of government companies and private sector companies in terms of value of production, gross profits, pre-tax profit and dividends. He concluded that private corporate sector in Indian economy made better use of FDI than other public sectors.

Jenkins (1991) in his article reviewed the empirical evidence on the comparative behaviour of foreign subsidiaries and locally owned firms in four main areas like technology, marketing, foreign trade and wages which have a bearing on development. It also highlighted some of the methodological problems associated with the comparison of locally owned firms and foreign subsidiaries. He argued that case studies of specific industries are more powerful to measure the impact of Transnational corporations on less developed countries than static comparisons of local and foreign firms.

Balasubramanyam (1991) has analysed the role of FDI in the growth process of developing economies and confirmed that the beneficial effect of FDI is stronger in those countries which pursue an outward oriented trade policy.

Saibaba (1993) conducted a study on liberalisation and its impact on FDI in India. Here the author has examined the trends and composition of FDI during the period 1974 - 88 along with the factors that influence FDI inflows. It has found out that there has been an increase of 700 percent in the FDI inflows to developing countries during the period 1970-90. Among the determinants of FDI, the government policy and the duration of collaboration agreements have got a prominent role while the factors like illiteracy, communal tensions, high rate of population, terrorism and bureaucratic delays hinder FDI inflows. The author concluded with a set of suggestions to boost FDI inflows to India.

Government of India, Ministry of Finance (1993) has examined the FDI policies during the pre and post liberalisation periods and briefly discussed the foreign collaboration approvals and FDI inflows to India during the first three years of economic liberalisation.

Siddharthan (1994) has studied the interfirm variations in the export behaviour of Indian enterprises in 13 manufacturing industries using Tobit

models. The main contention of the analysis which is supported by the empirical findings is that the technology factor could be important for explaining export behaviour of developing country enterprises in medium and low technology industries. The firm size-export performance relationship has been found to be predominantly inverted U- shaped and further the study has revealed that a higher level of automation is an advantage only in high technology industries.

Rajan (1994) has pointed out that in the presence of sunk costs and policy uncertainty, even fairly large differentials in marginal returns on capital might be insufficient in attracting FDI into the country. The author has suggested the need for gradual and selective lifting of capital controls though it has been recognised that the actual timing and manner are largely a function of country's specific circumstances.

Prasad (1994) has discussed some of the basic facts of foreign investment in India. It has thrown light on the countrywise and sectorwise distribution of FDI along with the profitability remittance and export and import intensity of selected foreign controlled and Indian companies during the pre-reform period.

Joseph (1994) analysed the export performance of foreign firms relative to the local firms in India. The empirical findings did not provide

conclusive empirical support to the postulated hypothesis of positive relationship between foreign control and export intensity of firms. In other words, it has been confirmed that it is not foreign firms but their local rivals that do better on the export front in majority of the cases studied and the average export/output ratio of all sample firms taken together has been found to be significantly lower than the corresponding figure for local firms.

Kumar (1994) has examined the trends and patterns of FDI inflows to India in the post independence period as well as the emergence of Indian enterprises as direct investors abroad against the background of a changing policy regime. The sectoral pattern of FDI in India has been found to be in favour of more technology and skill intensive industries and the governments' policies appeared to have played an important role in shaping this pattern. As per the study, the recent liberalisation has not yet succeeded in attracting efficiency seeking FDI in a considerable manner. It has concluded that in the current environment of intense competition among developing countries to attract FDI, just the liberalisation of policies may not be adequate and more effective use of India's bargaining advantages with respect to MNCs, such as large domestic market, abundant supply of skilled labour and technical professionals as well as low wages may be desirable to attract a greater proportion of FDI.

Okamoto (1994) focussed on the effect of liberal FDI and trade

policies on the economic growth of Malaysia with special emphasis on the manufacturing sector. He confirmed that the foreign companies had contributed a great deal to the expansion of production, employment and accumulation of capital stock in Malaysia.

Morris (1994) discussed the implications of trends and patterns in FDI and also the structural policy changes in India for FDI in 1990s.

Bhalla (1994) has examined the role of foreign investment in promoting the economic growth of developing countries. He stressed on the various incentives to attract FDI. Global developments relating to the regulatory framework for FDI during 1980s are also discussed. But only the main regulatory changes that have occured in the 1980s are covered here and hence they provide only a partial picture of the evolving regulatory framework. He concentrated on the new economic policies and examined its impact on foreign investment during the early 1990s. He concluded that to attract foreign investment in an increasingly interdependent, open and competitive world, Indian government should continuously make a comparative analysis of her policies with those of other developing countries and make changes accordingly.

Chandrashekhar (1995) tried to know trinity of technology advancement in overall process of development of India. For this he has

classified FDI technology wise/sectorwise to know their impact and expressed needy areas for further FDI in priority sector of technology for India. More over he has made cross country analysis of structure of R & D during the stages of growth to get an insight on internalisation process.

Rangarajan (1995) conducted a study on the impact of liberalisation of foreign direct investment and employment in India. This paper has discussed the role of foreign investment in the growth process and attempts have been made to estimate the direct balance of payments effect as well as indirect income effect on the recipient countries. It has also examined the approvals and actual inflows of FDI during July 1991 to August 1994. As per the author, the impact of liberalisation on employment opportunities is really positive. According to him, generation of additional employment depends to a large extent on the growth of labour intensive sector and further pointed out that a diversified approach to employment generation is necessary as the problems are distinct between rural and the urban, educated and skilled and unskilled and uneducated.

Kumar (!995) analysed the evolution of India's FDI position and policies under four distinct phases. It also examined the trends and patterns in FDI inflows to India over the post independence period as well as the emergence of Indian enterprises as direct investors abroad in the background of changing policy regime. He observed that Indian government policies

have played an important role in shaping the sectoral pattern of FDI in favour of more technology and skill intensive industries by affecting the relative configuration of ownership, internalisation and locational advantages of foreign investors in the country. In conclusion, author opined that in order to attract FDI, mere liberalisation of policies is not enough and more effective use of India's bargaining advantages with respect to MNCs such as her large domestic market, abundant supply of skilled manpower and technical professionals at low wages etc. is desirable to attract a greater magnitude of export oriented FDI.

Reddy (1995) has thrown light on some of the important issues relating to FDI in china and India. He expressed that liberal policies have resulted in a quantum jump in the FDI inflows to these countries. According to him, the scope for FDI in India is quite vast and like China, India could develop industrial townships to attract FDI. He further stressed the combination of a well established democracy, with market reforms, a free press and an independent judiciary system for India to avail the long run advantages of economic reforms.

Zaidi (1995) stressed on the advantages of FDI over loans. He also made a comparison of economic reforms and FDI both in China and India. This paper briefly discussed the major problems associated with FDI inflows to India and put forward some suggestions to improve the situation.

Gupta (1995) outlined the strategies that were followed in India and China while pointing out the importance of FDI. He opined that the overseas investments are to be channelised to the areas which are most desirable and needed for pushing up the rate of growth and filling the gaps in the national economy.

Goel (1995) pointed out the special features and stipulations prescribed on FDI in China and also examined the performance and prospects of FDI in India. In conclusion he made several suggestions in the light of Chinese experience with FDI.

Murthy (1995) highlighted the crucial role of FDI in achieving economic development in less developed countries. In this context, he reviewed the socio economic conditions prevailing in both India and China which have some bearing on FDI. Further he examined the trends in FDI in both countries. On the basis of the study he opined that development of basic industries, improvement in administration and infrastructure and better investment opportunities are very much essential in order to attract FDI.

Ramakrishna (1995) has compared the FDI figures for India and China. He has observed that there is wide gap between approvals and actual inflows of FDI. Countrywise and sector wise break up of FDI into India was also discussed in detail.

Rao (1995) concentrated on the role of FDI in the economic development of Indian economy. He also examined the trends in FDI in the pre and post liberalisation periods. The main conclusion of his study is that the foreign capital resources should not be encouraged and used indiscriminately and a selective approach has to be followed to use these scarce resources for manufacturing or importing critical capital equipment or raw materials which cannot be manufactured domestically and which are vital for promoting objectives of economic development.

Shah (1995) has examined the economic reforms in India and China and has given a comparative picture of these economies. She concluded that India unlike China, has not been able to attract substantial FDI.

Naarasimhulu (1995) analysed the role of FDI and argued that FDI is favourable to Indian economy.

Adwant (1995) pointed out the remarkable differences in FDI inflows between India and China. He observed that inspite of liberal policies, India could not attract higher direct investments and hopefully Indian economy could perform better if it creates conducive environment for foreign investors.

Krishna (1995) has examined the role, trends and determinants of FDI

in India and China. It has also raised some issues relating to MNCs., balance of payments and government policies relating to FDI. He has found out that FDI inflows have strong relation with the rate of growth, gross domestic investment, good market potentials and levels of consumption of an economy.

Prasad (1995) is of the view that FDI is needed to augment capital flows with technology and skills. According to him, FDI has a positive effect on development and it is better than borrowing since it is interest free. He has observed that the share of FDI in India is less than 1 percent in world's FDI and most of the developing economies have adopted suitable policy changes in order to attract FDI.

Lakshmi (1995) emphasised the need to promote FDI for the development of the economy. This paper has examined the basic aims for the encouragement of FDI, government policies that are to be adopted to increase FDI inflows and also the trends in the flow of FDI in India and China. He has concluded that the encouragement of FDI should be selective, keeping in mind the betterment of the society.

Sastry (1996) has analysed the trends in the growth and patterns of investment flows and technology transfer into India during 1980-1995. It has also examined the impact of FDI on technological development and export promotion and also made an empirical assessment of the determinants

of FDI inflows. As per the study there has been a quantum jump in the FDI flows since liberalisation. Interms of investment pattern, FDI generally has moved into priority areas such as power generation, oil refinery, telecommunications, electronics and food processing where domestic investment is inadequate. The author has found out that the major determinants of FDI in India are domestic market, levels of infrastructure development and cost conditions prevailing in the economy. The study has further confirmed that no complementary relationship exists between technology import and domestic technological efforts and Indian firms with non equity forms of collaboration have performed better than FDI firms in terms of strengthening domestic capacities for Research and development. He has concluded that there is considerable scope for speeding up liberalisation with greater transparency and stability to augment FDI inflows and strategic interventions by using the country's comparative advantage in R & D skills and other inputs are necessary to strengthen linkages between TNCs and indian firms for domestic technological progress.

Bayoumi (1996) briefly discussed the significance of FDI in the process of economic development of APEC economies. It also explains the major determinants of FDI into the host country and has come to the conclusion that changes in the real exchange rate significantly influence movements of FDI.

Jadeja (1996) has analysed the impact of FDI on Indian economy under liberalisation policy. This paper has briefly discussed the trends in FDI in flows during planning period in India and at the end an attempt has been made to prescribe options for better management of FDI in India.

Kumar (1996) has conducted a study on Foreign direct investment in India. The study at the outset explains the concept of foreign direct investment. The recent global trends and the relative position of India have also been analysed. A brief survey of theoretical issues pertinent to direct investment is also discussed. This has attempted to give answers to the crucial questions like, whether to invest in India, which sector to invest and how to invest in India. The author has also examined the question whether the economic reforms and subsequent foreign investment flows have been beneficial to the economy or not and finds out that it has got positive impact on the growth rate in gross domestic product and industrial production. But how far it has been caused by the foreign investment is beyond the scope of this study. The study concludes with a set of suggestions for foreign investors looking for global business opportunities.

Sarkar (1997) has focussed on the role of FDI on the output potential of the economy through private capital inflows and superior technology. It has also explained the distribution of gains of FDI in a productive activity through the share of factors employed in the same. The author has also

highlighted the negative impact of FDI on the host economies and also discussed the recent policies adopted by the government towards FDI in India. It has briefly examined the trends of FDI inflows since 1991 coupled with foreign collaboration approvals sector, industry and statewise for the period 1991-1996. The study ends with a set of policy guidelines that India should adopt towards FDI to take full advantage of such investments without sacrificing the paramount goal of economic sovereignty.

Ganesh (1997) in his paper examines whether FDI is assuming a dimension which can threaten Indian Industry. The thrust of the paper is on whether there is a basis for the fear that foreign firms will gradually wipe out indigenous industry. Issues related to FDI like trends in technical collaboration approvals, sectoral levels of exports and dividend outgo and trade balance are also briefly explained.

Gopinath (1997) has highlighted the FDI trends and policy changes in India since independence. Through an empirical approach he has found out that macro-economic fundamentals are as important as policies in influencing FDI inflows. According to him it is very difficult to attract Foreign investment, unless appropriate incentives are provided by the host economies.

Mani (1997) has given a brief overview of the recent economic

performance of India and Malaysia focusing on the nature and pattern of economic reforms. Attempt has also been made to assess the role of FDI in the promotion of exports. The main finding of the study is Malaysia, within a short period of time has been able to become a major exporter of manufactured products through the medium of FDI. On the contrary, India which has a larger economy continues to export only low technology products since FDI in India has been flowing towards sectors with low export intensities. So the author has expressed his view that India has much to learn from the Malayasian experience with respect to promotion of exports of manufactures through the medium of FDI.

Mello (1997) has surveyed the latest developments in the literature on the impact of inward FDI on growth in developing countries and observed that FDI has got far reaching impact on the economic growth even though it varies between technologically advanced and developing countries. He has further explained that the ultimate impact of FDI on output growth in the recipient economy depends on the scope for efficiency spill overs to domestic firms, by which FDI leads to increasing returns in domestic production and increases in the value added content of FDI related production.

Dua (1998) has analysed the relationship between FDI and economic activity in India in the post liberalisation period. In this study FDI is

measured both by the amount approved as well as the actual flows and the economic activity is measured by the index of industrial production. Through innovation analysis and Granger causality tests the author has proved that FDI flows have responded to the level of industrial production and actual flows do not Granger - Cause industrial output.

Kumar (1998) examined the trends and patterns of FDI inflows to India in the post liberalisation period in the light of FDI policy changes. This has been attempted with an analysis of changes in India's share in FDI outflows from European and other triad sources of FDI as well as by analysing the changes in the shares of major source countries with policy liberalisation. The study has been concluded with a few remarks for policy improvements to attract FDI inflows to India.

Majumdar (1998) made an attempt to study the export behavioural patterns of over 1000 firms with varying degrees of foreign ownership in India, for the years 1988 to 1994, using cross section based analysis. The major finding of the study is that different categories of foreign ownership have varying impact on firm's export performance. It also suggests that partial foreign ownership, over 25 percent but less than 40 percent prior to 1991 and 51percent thereafter, in which control does not devolve to foreign firms, may not be any better for foreign investors than investments made without expectations of control or investment of less than 25 percent. Based

on these results, the author has argued that if the full benefits of foreign ownership are to be reaped full foreign control over firms should be permitted.

Reddy (1998) highlighted the policy frame work tools of management, size and composition of capital flows to India. He also explained the growth path and role of capital flows during the reform period. He has concluded with a set of suggestions to avoid crisis in the management of capital flows in the context of liberalisation.

Balasubramanyan (1998) has briefly reviewed Jagdish Bhagwati's contribution to International economics. In this paper he has pointed out Bhagwatis significant proposition that countries pursuing an export promotion policy are likely to attract both higher volume of FDI and experience substantially high rewards from it than countries pursuing import substitution policies.

World Trade Organisation (1998) examined the relationship between trade and FDI. It is of the view that FDI and trade should go hand in hand. WTO report revealed that FDI could be a source not just for capital, but for new technology and other intangibles such as organisational and managerial skills and marketing networks.

Gurumoorth (1998) argued that FDI is the major promoter of economic growth in the developing countries. He has briefly discussed the patterns of FDI inflows to India in the post liberalisation period and pointed out the wide gap between the approvals and the actual inflows of FDI in India.

Gupta (1998) has examined the trends and patterns of FDI inflows to India under the new policy environment. Sectorwise share performance and export behaviour of foreign firms have been discussed on the basis of past studies. It also highlighted the various factors that influence FDI inflows to the host economies. In conclusion he argued for prudent measures to boost FDI inflows to India.

Sahoo (1999) has made an empirical attempt to understand separately the role of foreign and domestic firms in augmenting development process in post reform India. Export orientation, import dependency, capital intensity, vertical integration, profit intensity product differentiation and effective tax rate are the major indicators taken into account for assessing the comparative development of foreign and domestic firms. The author has confirmed that foreign firms are relatively better export performer, less import dependent, less capital intensive and major contributor to national exchequer.

Goldar (1999) analysed the FDI trends in Asia with a special focus on FDI flows from Japan. It has related FDI flows to changing industrial structure and to trade flows. According to the study, Japan has been the main source of FDI flows to Asia and Japanese FDI has helped cost reduction and export promotion in the host countries. An econometric analysis is done to identify key determinants of FDI flows to Asian countries.

Siddharthan (1999) tried to verify the structural bias of Japanese FDI by comparing it with European FDI. The paper revealed that there is a marked difference in the import structure of the two groups.

Takuichi (1999) specifically questioned the role and performance of Japanese FDI in Thailand. Based on micro management data for the top 100 enterprises in Thailand, the paper has shown that Japanese affiliates imported 2.3 times more value than they exported to Japan.

Haltori (1999) related the recent korean economic crisis to their technology policies in general and their technological accumulation capabilities in particular and compared them with the Japanese experience. The author strongly argued that the rapid growth of national income and exports of Korea are highly import dependent and pointed out that the Koreans had chosen the easier option of import of advanced technology and machinery over the pursuit of domestic development of technology and skills.

Alam (1999) has made a comparison of FDI and economic development between India and Bangladesh. Eight macro economic variables of both the countries have been considered for the study. Analysis has been done using bi-variate estimate taking FDI as independent and rest as dependent variables. The study has pointed out that growth rate of GDP of India and Bangladesh to some extent depends on FDI and its influence on GDP of India is little bit more than that of Bangladesh. The author has concluded that FDI has got a very significant role in the growth and development of both countries and suggested some wise measures to attract sufficient FDI.

Sahoo (1999) has made an analysis of the export behavioural patterns of foreign and domestic firms in India in the post reform period. This paper has taken firm industry and TNC specific characteristics to measure the export determinants of both foreign and local firms at aggregate level and separately at industry level. It has been found out that the export intensity of both foreign and domestic firms in common depend positively to a greater extent on import intensity profitability and negatively on size and capital intensity. Further TNC factor or the foreign ownership is found to be positive at aggregate level and significantly influencing export behaviour only in one industry sub group namely Electric, Non-electric and Electronics industry.

Bhatt (2000) has attempted a comprehensive study on FDI in ASEAN economies. In this paper, he has reviewed the policies towards FDI, discussed the FDI trends and patterns and empirically examined the major determinants of FDI in the ASEAN region. He emphasised on the positive attitude and approach of ASEAN towards foreign investors. The study observed that the main vehicle of FDI inflows is through mergers and acqusitions. It has further found out that GNP is the most significant determinant of FDI in ASEAN region which has become one of the attractive investment locations in the developing world in the present competitive era.

Radhakrishnan and Pradhan (2000) have examined the policy, trends and determinants of FDI in India. It is observed that the liberalisation package of 1991 has a significant impact on the FDI inflows into the country. The study has found out that the crucial determinants of FDI inflows in the Indian context are the size of the domestic market, the exchange rate, openness of the economy and a set of sound macro economic fundamentals. The paper has concluded that in order to attract sufficient FDI to India policy is a very significant factor which is to be emphasised.

Kumar (2001) in his paper, presented some findings of a comprehensive attempt to quantitatively analyse the role of structural, geographical and policy factors in shaping the patterns of MNC's activity.

Here the focus is on the role of host government policies and on the implications of the emerging WTO regime in the light of empirical findings. He has concluded with some remarks for policy options before India to respond her self to WTO and globalisation.

From the literature review it is quite evident that most of the studies have concentrated on the role and impact of FDI on developing economies in a general perspective. Some scholars have discussed only the problems associated with FDI inflows. Only a very few has examined the trends and patterns of FDI in the post liberalisation period. But most of them confined their period of analysis to the early phases of economic reforms. Regarding the behavioural aspects of FDI only the export behaviour has been studied in detail so far in the Indian context. The single study which has attempted technological behaviour of FDI in the early 1990s did not take into account the effect of foreign ownership or control on the behaviour of FDI firms in India. So all the above cited short comings of the past studies are sure to accentuate the relevance of the present study.

1.4 Significance of the Study

FDI is a longterm investment in a foreign country where the investor retains control over the investment. It has got an added advantage over other forms of capital as it is a non-debt capital inflow which is accompanied by foreign technology and efficient management methods. India had been

following selective and restrictive policies towards FDI until 1991. This ambivalent approach of our government really limited the scope of FDI inflows to India. In fact since 1991, as part of liberalisation all administrative and regulatory barriers have been dismantled and FDI policy has been made more open and transparent realising the significance and role of FDI in the economic growth and development of our economy. This candid approach has facilitated augmentation of FDI inflows to India in the post reform period.

In the present competitive world, FDI is emerging as a very significant phenomenon. Our government is now actively engaged in the promotion of FDI through attractive liberal policies. It has been observed that this liberal approach has resulted in drastic changes in the trends, patterns and behaviour of FDI in India. At this juncture it is quite pertinent to have a serious study regarding FDI, as India is on the threshold of moving into the global markets, driven by globalisation.

It is an undisputable fact that a good number of studies have been conducted in the field of FDI. But most of the studies refer to the pre-reform period. Very few studies in the post-reform period which have examined the trends and pattern have failed to undertake an empirical and comprehensive analysis and further confined their period of study to early 1990s which of course not a sufficient period to generalise the results. Again

from the perusal of the available literature it is very clear that not even a single study has been conducted in the later phases of economic reforms, especially regarding the behavioural aspects of FDI which has got wide policy implications. To fill this research gap the present study has been attempted to analyse the trade and technological behaviour of FDI firms along with the trends and patterns of FDI in the background of new liberal policy changes in India.

1.5 Objectives of the Study

The specific objectives of the study are as follows.

1. To evaluate the specific economic reform measures introduced in India since 1991 that influence the entry and operations of FDI.
2. To examine the trends and patterns of FDI inflows to India during the post-reform period.
3. To study the trade and technological behaviour of FDI firms in India under the influence of economic reforms.
4. To draw or modify some theoretical and policy inferences on the impact of economic reforms on FDI in the light of the empirical findings of the study.

1.6 Data Source and Methodology

The present study is exclusively based on the secondary data. Major sources of data include Reserve Bank of India Bulletin, CMIE publications.

IMF survey, World Investment Report, India Development Report, World Debt Tables, World Development Report, Asian Economic Outlook, Global Development Finance and ASSOCHAM publications. We have also gone through Economic Times, Financial Times, Business Line and Journals like Economic and political weekly, World Development and Asian Economic Review for the purpose of literature.

Methodology is of prime importance in any research. It differs based on the nature of the objectives.

For the present study we have divided the period of analysis into Pre-reform (1980-90) and Post-reform (1991-99) in order to get a comparative picture of FDI though we concentrate more on the post - reform changes in FDI.

To examine the FDI policy changes in the post-reform period, we have followed a descriptive approach. While emphasising the new policies of FDI we have also examined the pre-reform policy of our government. Again a critical evaluation of the new liberal policies has been made incorporating the very recent policy changes.

Secondly to study the trends and patterns of FDI we have undertaken an empirical analysis. To examine the FDI trends, we have used an Exponential Trend Model as it is considered as a very relevant and most

accurate statistical tool for trend analysis. Again Wilcoxon Mann - whitney Rank Sum Test has been done to test whether there is any significant difference between the FDI inflows in the pre and post reform periods. It is a test to check if two random samples from two population have the same sample mean. We have also fitted a trend curve on the basis of the actual and estimated values of FDI inflows both for the pre and post liberal regimes. We have also used Lagged Model (Adhoc Estimated Model) to examine the lag between approvals and actuals of FDI. To analyse the pattern of FDI inflows at the country, industry and state levels, we have applied Regression Model to see whether there is any change in the pattern of FDI in the post liberalisation period. Apart from this simple statistical tools like Averages, Percentages and Ratios are also used.

Thirdly to analyse the trade and technological behaviour of FDI firms in India, we have used Multiple Regression Model which has been considered as the most significant econometric tool to express the nature of relationship between variables. This behavioural study is based on Prowess Data published by Centre for Monitoring the Indian Economy. We have examined it through cross section analysis taking the whole 3710 firms from the manufacturing sector of India for the year 1998.

To study the trade behaviour of FDI firms in the post reform period we have formulated export and import functions incorporating some crucial

variables like Sales, Advertisement intensity, Capital intensity, Net profit and Technological intensity and empirical analysis has been done through OLS regression estimation. Firms with 40 percent foreign equity and above are taken as foreign firms in both cases. As we have less foreign and more local firms for the trade behavioural analysis, we have taken them in the ratio 1:3 inorder to avoid a biased result infavour of foreign firms. To examine the trade behaviour, we have categorised firms under two heads. First, which are engaged in both exports and imports and second, which do only imports. From the data it is seen that there is not even a single foreign firm that does exports without importing. So we could not analyse trade behaviour of foreign firms which do only exporting. For the first category, we have retained with 146 foreign firms and 437 local firms totalling to 583 firms for the analysis of trade behaviour. Then all these firms have been classified under ten industry groups namely Food and Agro, Chemical, Drugs and pharmaceuticals, Textile, Transport, Electrical, Non-Electrical, Metalic, Non metalic and Electronics for the regression estimation. For the second category, there are 14 foreign firms and 60 local firms totalling to 74 firms which are classified under three industry groups namely Electrical, Chemical and Electronics where sufficient observations are available for the regression estimation. Thus altogether we have 657 firms for the analysis of trade behaviour which has been done using Multiple regression model through pooling foreign and local firms at the particular industry level introducing Dummy variable (1 = a foreign firm and 0 = a local firm).

Technological behaviour has been empirically analysed through OLS regression estimation by regressing R & D expenditure on the explanatory variables like sales and technology import expenditure which is mainly measured through import of capital and royalty payments. For the present analysis, we have excluded firms having R & D expenditure but no import of capital and similarly technology importing firms which do not incur expenditure on domestic R & D. Because our main intention is to see whether there is any complementary relationship between import of capital and R & D efforts. Thus subject to the above condition, we have 64 foreign and 177 local firms adding to 241 firms for the analysis of technological behaviour of FDI firms in India. Here the coverage is restricted to five industry groups namely Drugs and pharmaceuticals, Transport, Chemical, Electrical and Electronics where enough observations are there to carryout the regression analysis which is also done pooling foreign and local firms using Dummy variable (1 = foreign and O = local) at the particular Industry level.

Altogether we have 898 firms for the analysis of both trade and technological behaviour of FDI firms in India. Again it is to be noted that different set of firms have been taken to study both types of behaviour as there is lack of conformity among the variables chosen for the regression estimation.

Finally the researcher has made some theoretical and policy inferences based on the empirical findings of the study.

1.7 Plan of the Study

The chapter scheme of the present study is summarised as follows :

Chapter one starts with an Introduction which discusses the new economic reforms coupled with, various policy areas and its implications on Indian economy. It further portrays review of literature, significance, specific objectives, methodology and limitations of the study.

Chapter two describes the theoretical framework of FDI in the global perspective. Almost all relevant theories associated with FDI are briefly discussed in this context.

Chapter three outlines the salient features of the pre-reform FDI policies of our government with special emphasis on the post reform policy changes of FDI in India.

Chapter four analyses the trends and patterns of FDI in India in the background of the new liberal policy environment.

Chapter five examines the trade and technological behaviour of FDI firms in India in the post liberalisation period.

Chapter six draws some conclusions on the rationale and scope of policy interventions with regard to FDI, in the light of empirical findings of the study.

1.8 Limitations of the Study

The weak data base of FDI has turned out to be the serious limitation of the present study. Further the frequent changes in the FDI policies of our government have limited the scope of evaluation of the policy changes. Lastly the behavioural pattern of FDI has been examined on the basis of cross section data which has got its own limitations.

CHAPTER - II

FOREIGN DIRECT INVESTMENT : A THEORETICAL FRAME WORK

2.1 Meaning and Significance of Foreign Direct Investment

Foreign Direct Investment is generally defined as a form of long term international capital movement made for the purpose of productive activity and accompanied by the intention of managerial control or participation in the management of a foreign firm (Ryutaro1990). The IMF'S Balance of Payments Manual defines foreign direct investment as one in which the investor wishes to exert a significant degree of influence on the management of the enterprise resident in the host country. It is an investment made to acquire a lasting interest in foreign enterprise with the purpose of having an effective voice in its management. It often implies setting up of new projects. It typically takes the form of starting a subsidiary, acquiring a stake in an existing firm or starting a joint venture in the foreign country. In general foreign direct investment includes all flows, whether direct or through affiliates, from the investor and include reinvested earnings and net borrowings as well as equity capital (Helleiner 1989).

Foreign direct investment is a stable source of finance for the host economy since it is a long term commitment. It provides mutual assistance to both home and host countries. For the home country it is an investment

generating income and a source for spreading business operations globally and for the host country it is a source of capital for the development of infrastructure which is the corner- stone for economic development. Foreign direct investment has got an added advantage over other forms of capital inflows and has a direct impact on the economic development of the host country. It is crucial for host economy as capital, efficient management methods and sophisticated technology are being transmitted through foreign direct investment. It is a viable route for mobilising funds for economic growth and development of host economy. The rationale of foreign direct investment in a developing country like India is based on the view that it contributes to foreign exchange reserves, supplements domestic savings and is associated with substantial technology diffusion, dissemination of better management practices and stimulation of competition. Through Foreign direct investment countries are brought closer into the web of international commerce both by economic integration and by the transmission of tastes, designs, ideas and technology. In a nut shell, foreign direct investment paves way for improved technology, better quality products, addition to foreign exchange reserves, job creation, higher economic growth better choice to consumers, competition in the market, improved managerial skills, low cost production and superior marketing techniques for the host economy. In the new dynamic world, foreign direct investment has been accepted as a panacea for accelerating the pace of industrialisation and modernisation of the developing economy like India

2.2 Types of Foreign Direct Investment

Mainly there are three types of Foreign direct investments. They are natural resource seeking, domestic market seeking and export- oriented investments (Naomi and Hamid 1997). Much of the earliest type of foreign investment was of the natural resource seeking variety which consists of investment in areas such as mining, oil and gas extraction etc. Market seeking foreign direct investment is essentially targeted at the large domestic market possessed by some of the developing countries. This type has received a major fillip consequent to the economic liberalisation pursued by most of the developing countries. Export- oriented foreign direct investment is of relatively recent origin. Availability of good infrastructure, cheap labour and correct policy environment is very much essential in order to attract this type of investment. Since it has got strong linkage effect, it has been encouraged by developing countries. For the same reason it has got far reaching significance in the world economy.

2.3 Motives For Foreign Direct Investment

There can be three motives for undertaking Foreign direct investment. They are natural resource motive, labour motive and market motive (Datt 1998).

A country undertakes foreign investment in a natural resource-oriented industry with an objective to import easy and relatively cheaper

products from the host country. In this case the investing multinational corporations tend to integrate production and marketing there by monopolising or oligopolising the benefits available from the exploitation of natural resources. Natural resource - oriented investment is trade generating. But the countries endowed with these resources get only marginal benefits, unless the host governments have protected their interests at the time of signing the contract. In the developed countries due to capital intensive and knowledge intensive industries, wages become higher and higher with the passage of time. So the multinational corporations find it very difficult to meet the growing wage bill in their home countries. Therefore they undertake direct foreign investment in those countries where wages are relatively lower. The products manufactured by the subsidiaries of these corporations can be imported by the parent corporations for marketing in the home country. The subsidiaries can also export such goods to third world countries. Such foreign investment, thus helps in the reorganisation of the international division of labour and also in the expansion of trade between labour abundant and labour scarce nations.

Market-oriented direct foreign investment is generally induced by trade barriers imposed by the host country, Incase the tariffs on the final product are very heavy, the multinational company would like to export machinery, equipment technology, intermediate materials, components etc to the host country and would undertake actual production there. In this

way the corporation could help the host country in its import substitution efforts.

2.4 Theoretical Arguments

During earlier periods, economists argued that Foreign direct investment was not at all beneficial to the developing economies since most of the direct investment flows went to the primary sector. For the same reason, Singer(1950) argued that Foreign direct investment had a detrimental effect on developing countries and ultimately led to uneven global development. Griffin (1970) and Weisskopf(1972) also supported the earlier view that foreign direct investment from developed to developing countries did not have beneficial effects. But in the recent past there has been a shift in the attitude among economists with respect to Foreign direct investment. Developing countries have also started to favour direct investment and this has resulted in the adoption of more liberal policies towards this investment and subsequently to a surge in foreign capital inflows to these countries.

Recently economists have argued that foreign direct investment can have positive effects on growth in the host country and large number of studies supported this view relating direct investment and economic growth.

De Mello and Sinclair (1995) have pointed out that Foreign direct

investment is an important source of human capital augmentation and provides specific productivity, increasing labour training and skill acquisition through knowledge transfers.

Bala subramanyam (1996) has accepted FDI as an important vehicle for the transfer of technology and knowledge and has showed that direct investment can have long run effects on growth through generating increasing returns on production via externalities and productivity spillovers.

Dutt (1997) has examined the sector wise allocation of foreign direct investment flows. During 1950s primary sector accounted for more than half of direct investment flows to developing countries and only 10 percent to the manufacturing sector. In 1990 about 40 percent of FDI went to manufacturing, 50 percent to services and only 10 percent to the primary sector. Thus the share of direct investment in the primary sector has found to be declining.

Borensztin (1998) has argued that FDI can contribute more to growth if there is sufficient absorptive capacity available in the host country.

Theoretically speaking, the main avenues by which foreign direct investment can affect growth now are productivity spillovers, human capital

augmentation and technological change though it becomes very difficult to incorporate all these in empirical studies as they are not easy to measure.

2.5 Theories of Foreign Direct Investment

Investments in a foreign country are motivated by various strategic, financial, behavioural and economic factors. Several theories have been developed to explain the phenomenon of foreign direct investment. These theories have tried to explain the economic rationale of such investment in the host economy. Mainly there are three groups of theories which expound the underlying principles of direct investment in a foreign country (Jain,peyrard Yadav 1998).

1. Theories based on market structure
2. Theories based on organisation
3. Eclectic theory of international production.

2.5.1 Theories Based On Market Structure

According to the theories based on market structure, firms which invest abroad must have a comparative advantage at least in one or more of the various factors like cost of capital, economies of scale, infrastructure for research and development, funds for advertisement etc. These advantages should be sufficiently significant to offset the costs of setting up a company in a foreign country.

2.5.1.1. Theory of Product Cycle

The American economist R.Vernon has developed this theory in 1966. It is one of the most controversial theories of Foreign direct investment. This theory is based on product life cycle analysis. It explains how the production of a product shifts to different categories of countries through the different stages of the product life cycle. The product cycle has three phases.

1. The product develops in the country of origin where the firm has a comparative technological advantage. The firm may have a complete monopoly in its exports without facing any competition from others.
2. The technology of production settles down and the product attains maturity. At this point , foreign competitors may appear on the scene. In order to maintain its advantage, the firm may shift its location of production to countries where it can obtain lower costs of production.
3. The firm may start producing either in the country where it was previously exporting or in a less developed country to take advantage of lower labour costs with a view to exporting from there to the rest of the world.

This theory explains the large number of foreign investment after 1960s by American multinationals in the Latin America, Hong Kong, Asia etc. It emphasises that the advantages of multinational companies are not permanent but change over time. In its most recent version, the theory also

expounds why multinational firms cannot maintain themselves for long time in certain sectors.

2.5.1.2 Hymer's Theory of Imperfect Markets.

S. Hymer, a Canadian economist developed this theory in 1960. He bases his theory on the structure of oligopolies. The theory suggests that Foreign investment is a natural consequence of the growth of the oligopolistic corporation. As per the theory if the MNCS want to set up their operations abroad, they should have a comparative technological or organisational advantage over its competitors in the host country. These advantages can take the form of lower cost of production and maximum and efficient utilisation of available resources.

Hymer distinguishes between the economies of scale obtained at the level of the firm and the economies of scale obtained at the level of the sector. The economies of scale at the level of a firm which are more important can be visualised in different areas like production, finance, research and development, marketing, human resources etc. This can be explained as follows.

a) Organisation of production: A multinational company chooses a place of production according to the cost. The product may be manufactured in a single country or in several countries, each making one or more components for finally assembling the product in the country of its market .

b) Organisation of marketing: Setting up of a subsidiary for marketing gives to the firm a better knowledge of the market vis- a-vis exporting agencies of the host country.

c) Organisation of research and development activities: Multinational companies may set up their research centre where the research in its field of activity is more advanced or can be carried out at a lower cost.

d) Organisation of human resources : Multinationals employ nationals as well as foreigners in their companies. In certain organisations, foreigners are included even in the governing board.

Thus as per Hymer's theory an oligopolistic firm is capable of maximising profits in an imperfect market. Multinational companies are often in a position to identify market imperfections to their advantage. These imperfections may be created by governments to motivate and induce foreign companies to undertake direct investment.

2.5.1.3 Theory of Internationalisation of Markets of Intermediate Products

P.K. Buckley and M.Casson are the pioneers of this theory. It attempts to explain why firms become multinationals.

Internalisation means, the firm keeps inside the group the competitive advantages, to maintain its position. The knowledge, the patents and the

trade marks are the important intermediate goods. The internal market of a group permits the production of final products using the knowledge as an intermediate product. This in turn leads to a better return on the expenditure incurred on the past research to acquire knowledge. A better way of maintaining comparative advantage is to keep a control on human capital by creating subsidiaries. As per this theory, before the second world war, companies become multinationals due to their fear regarding scarcity of raw materials resulting in the internationalisation of the markets of raw materials. This constitutes the rationale of direct investments in the mining industry. This is called vertical integration which assure the supply of raw materials.

After the second world war, firms became multinationals on the basis of knowledge and technology. In order to remain competitive, a firm should be the owner of information and keep the human capital that generates new information in the areas of research, management, marketing, technology etc. Only these type of firms really deserve to be multinationals and could become multinationals. It explains how possession of information leads to a direct investment. Even though knowledge is an intermediate product, there may not be any market to sell the information created by the firm. Thus MNC may create an internal market to compensate the absence of external markets.

2.5.2 Theory Based on the Organisation of Firms.

These theories use a managerial approach or an organizational behavioural approach to explain the phenomenon of multinationals.

2.5.2.1 Managerial Approach

This approach expounds and emphasize the role of managers of big groups. A very good management is essential for the growth and development of the firm. To capture new external market is equally important, and expansion in foreign countries is particularly viewed in terms of 100 percent acquisitions or creation of new enterprises. J.D. Richardson has theorised two major reasons for setting up subsidiaries abroad, namely, the economic objective of earning profits on a long term basis and the geographical preference for selection of managers.

2.5.2.2. Strategy of the Enterprise Approach

As per this approach the decision to invest abroad is a response to an opportunity that comes either from an internal stimulus or from an external stimulus. The internal stimulus is the decision of the management to set up a subsidiary abroad. The external stimulus is the fear of losing a market on account of foreign competition.

Certain firms became multinationals at the early stages of their growth, while others have exported over long periods before setting up

their production units abroad. Firms may adopt an offensive or defensive strategy of internationalisation. A multinational firm is said to be employing offensive strategy when it is already well established in its own country and decides to set up subsidiaries in foreign countries. When a firm sets up units in foreign countries with an intent to conserve its market share or to attain technological / comparative cost advantages it is said defensive strategy.

2.5.2.3. Theories of Y. Tsurumi and K. Kojima

Tsurumi and Kojima have individually propounded the theory of Foreign direct Investment drawing on the experiences of Japan.

Tsurumi has explained the efficiency of Japanese firms vis-a-vis American ones as regards their management. According to him, higher competition and more efficient internalisation of Japanese Companies is due to better organisation on the one hand and the significant role that the Japanese trading houses play on the other. These trading houses have an extremely developed information network that permits them to have very high flexibility and enables them to respond very rapidly to foreign demands. They provide information about the possibility of setting up units abroad.

Kojima has laid emphasis on the speciality of the organisation of Japanese multinationals. He has tried to demonstrate that Foreign direct

investment and external trade of a country are complementary. The two major basic points of the Theory are (i) Japanese direct investments take place essentially in Asian Countries (ii) Direct investments of Japan are effected by small and medium companies.

2.5.3 Eclectic Theory of International Production

This theory was developed by J.Dunning by integrating three theories i.e. industrial organisation theory, the internalisation theory and the location theory. Because Dunning argues that a single theory does not explain all the forms of multinationalisation. He has listed the multiple factors which affect the decisions pertaining to direct foreign investments in three major categories known as OLI Paradigm (Ownership, Location and Internal Advantage Paradigm) more popularly referred to as Eclectic theory. According to him direct investment is undertaken on the basis of three kinds of advantages. They are

Ownership Advantage: This advantage emanates from the ownership of several major inputs, having direct impact on production and sales. Patents, brands, sources of supply, market access etc. are the major factors that come under this list. The company also benefits from ownership of large capacity and product differentiation.

Locational Advantage :- This advantage results from the differences in price and quality of inputs, transport costs, psychological distance such as language, culture etc.

Internalisation Advantage :- This advantage consists of reduction in uncertainty and exchange costs, control of supplies etc.

According to Dunning, if a firm has only ownership advantage, it will prefer licencing. If it has an advantage of both ownership and internalisation, it will choose to export goods and services and if it has all the three advantages (ownership, location and internalisation) it will go in for direct investment to set up units in foreign countries.

2.6 Other Theories (International Monetary Fund 1991)

2.6.1 Catching Up Product Cycle

This theory was developed by Dr. Akamatsu. As per this theory, the product cycle starts with imports of new product with superior quality. With significant increase in demand for that product, domestic production becomes attractive. A learning process follows and is assisted by importing technological know-how and by foreign direct investment. The expansion of production then leads to the economies of scale, increases in productivity, improvement of quality and reduction in costs. This involves an import substitution process. But as domestic costs reach the international competitive threshold, foreign markets are developed, the scale of production is extended further and costs are reduced again.

2.6.2 Differential Rates of Return

This theory argues that foreign direct investment is the result of capital flowing from countries with low rates of return to countries with high rates of return.

2.6.3 Tax Policy

Tax rate is one of the major factors that determine foreign direct investment. Direct investments are more attracted to those countries where the rate of tax is low. The higher the tax rate, the lower will be the rate of foreign investments. As the return on direct investment is affected by the tax system of both the home country and the host country, the tax policies do affect the incentives to undertake foreign direct investment.

2.6.4 Barriers To International Capital Flows

According to this theory, for direct foreign investment to take place, barriers to portfolio flows must exist that are greater than those to Foreign direct investment and investors must recognise that multinational firms provide a diversification opportunity that is otherwise not available.

Thus in conclusion, theories explaining direct foreign investment were initially based on theories of international trade. Recently new theories have been developed, putting more emphasis on market imperfections, organisation of enterprises and specific advantages. The underlying principles and motivations of direct investments have been explained by the various theories of Foreign direct investments. These theories have their positive as well as negative implications. But in actual practice the foreign direct investments are undertaken based on the policy framework and incentives laid down by the home and host economies.

CHAPTER - III

FOREIGN DIRECT INVESTMENT POLICIES IN INDIA

3.1 FDI Policies in Developing Economies : An Overview

FDI means an investment in a foreign country where the investor retains control over the investment. It constitutes a relatively stable element of international private capital flows that is insulated from short term and cyclical pressures, since it primarily reflects the long term strategies of international investors. In the present global economy FDI is not only a source of capital funds and foreign exchange, but also a dynamic and efficient vehicle to secure the much needed industrial technology, managerial expertise and marketing knowledge and networks to improve on growth, employment, export and productivity of an economy. Obviously it has become the single largest source of net capital inflows for the developing countries.

During 1960s and 1970s the developing economies followed restrictive policies towards FDI fearing foreign economic domination. So they regulated the entry and operations of FDI. The decade of 1980s saw a marked shift in the attitudes of less developed countries towards FDI. Recently with increasing globalisation and integration of markets, developing countries have started taking definite policy steps to facilitate

an increased role for FDI in their economies. Consequently to attract FDI, now they have changed their developing strategies giving greater stress on competitiveness, privatisation and outward orientation.

Factors that influence the effectiveness of FDI flows are not uniform across developing countries. So different policy initiatives by governments and strategies by multinational corporations are required in different nations. Most of the developing economies use a complex set of direct and indirect incentives to attract FDI. In some countries repatriation of earnings is unrestricted and profits and dividends are freely convertible into the currency of home country and some have specific laws regarding transfer of technology, ownership rights etc. Thus laws and policies regarding the ownership and entry, transfer of technology, repatriation of profits, fiscal incentives all vary across countries.

Indonesia enacted the Foreign Investment Law in 1967 to promote and regulate FDI inflows. Its approach towards FDI remained cautious till 1990s. Falling oil and commodity prices in the mid 1980s; the heavy fiscal burden of non-performing state owned enterprises and the demonstration effect of the successful export oriented ASEAN economies caused a shift in development strategy towards a more open economy and higher roles for the private sector and for FDI. Indonesia has eliminated the 49 percent limit on foreign share holdings in firms other than financial firms in

September 1997. It allowed 100 percent foreign ownership of non bank financial firms including insurance companies. Under the new Reformation Policy on Investment announced in 1998, retail and wholesale trading and palm oil sectors were opened to foreign investment (UNCTAD 1998).

Malaysia introduced tax incentives to attract FDI into the nascent manufacturing sector in the late 1950s. The new economic policy in 1970s adopted equity participation in the corporate sector targeted at 30 percent for bumiputras (local Malaysian) 40 percent for other Malaysians and 30 percent for foreign investors. The New Development Policy (NDP) in 1990 emphasises the role of private enterprises rather than government interventions to narrow the ethnic and social gap. Foreign equity holding in the basic telecommunications companies has been raised from 30 percent to 49 percent. It guaranteed upto 51 percent foreign equity participation in existing insurance companies by current holders. All new projects in manufacturing including expansion and diversification can hold 100 percent equity and will not need to meet any export requirements except a specific exclusion list (UNCTAD 1998).

The Basic Investment Law of 1961 of Philippines provided tax incentives for the imports of machinery and spare parts for basic industries, followed by incentives for textiles, mining etc. In 1970 the Export Incentive Act granted incentives to investments in export oriented industries. In 1981

the various legislations were considered under Omnibus Investment Act. This was followed by the 1991 Foreign Investment Act which liberalised the rules and regulations on foreign ownership. Amendments were made to the Investment House Act and the Finance Company Act. Under these amendments foreign equity participation has been increased to 60 percent for both investment houses and finance and leasing companies, subject to reciprocity rights (UNCTAD 1998).

Thailand's basic legislative frame work for foreign investment dates back to 1950s and has remained virtually unchanged. After 1984 it adopted a flexible investment policy. Foreign equity holdings were limited to no more than 49 percent except for export oriented projects with atleast 80 percent export share located in Zone 3, where 100 percent foreign ownership was allowed. The Board of Investment relaxed this regulation in 1997 for companies with financial difficulties. It announced majority foreign ownership of existing promoted firms in certain industrial zone and eliminated 30 percent export requirement for exemption of import duties used in the manufactures of export (UNCTAD 1998).

In South Korea there is no restriction on foreign particiption in equity with prior approval. Stability and transparency are the basic features of FDI policies. She has a well defined regulation governing foreign investment.

In Bangladesh the government has allowed free access to foreign investors in order to make domestic enterpreneurs competitive. The various incentives offered include expediting approvals for industrial licensing or investment or collaboration, tax holidays, concessionary rate of import duty on machinery, liberalised export policy, repatriation of profits, dividends, capital gain, royalties, tax exemption, tax rebate and residence facilities to foreign investors. Non resident Bangladesh investors enjoy facilities similar to those of foreign investors. Legal protection to foreign investment has been ensured in Bangladesh against nationalisation and expropriation.

In China Basic Law on Joint Ventures of 1979 allowed FDI for the first time. Chinese continue to resist foreign take over in sensitive areas like telecom, banking, transport etc. Only in 1992 China allowed broad based foreign participation in the retail sectors. China puts many restrictions on foreign capital and has strict exchange control not only on capital account but also on the repatriation of dividends and royalties. No automatic approval scheme prevails and import of capital goods is allowed duty free for most enterprises. In China foreign majority ownership is decided on case by case basis with 100 percent foreign ownership permitted in export oriented and high technology industries.

Developing countries believe that FDI could make an effective

contribution towards their economic development through modernising their industries and making them more competitive internationally and through expansion of marketing links in the highly competitive world markets. So now almost all developing countries have liberalised their FDI regulatory policies and are vying with each other in offering incentives to attract sufficient FDI, realising its significance in the novel era of competition.

3.2 FDI Policies in India : A Brief Review

The policy of our government towards FDI has undergone rapid changes since independence. Viewed in a historical perspective, the Indian policy on FDI could be seen as ambivalent and swinging between regulation and liberalisation. These policy changes can be explained under four distinct phases, viz (Subramanian, 1996).

1. 'Cautious Welcome Policy (1948 - 67)
2. Selective and Restrictive Policy (1968- 1979)
3. Partial Liberalisation Policy During 1980s
4. Liberalisation and Open door Policy since 1991.

Each of the phases marks different degrees of freedom or regulation on the entry of foreign investment and technology transfer in India.

3.2.1 Cautious Welcome Policy (1948 - 67)

The basic approach to FDI was first laid down in the Industrial Policy Resolution of 1948. It recognised the role of foreign capital in accelerating

the rapid industrialisation of the country. The thrust of the policy was to welcome foreign private investment on a selective basis while maintaining majority ownership and control in Indian hands. In the Foreign Investment Policy Statement of 1949 the government showed no intention of adopting any legislation for the regulation of foreign capital. Because foreign investment was considered necessary for supplementing Indian capital and securing scientific, technical and industrial knowledge and capital equipment. Foreign investors were assured of unrestricted remittances of profits and dividends, fair compensation incase of acquisition and were promised national treatment. The New Industrial Policy Resolution 1956 was drawn up in accordance with the goal of a socialistic pattern of society. The resolution earmarked a number of important industries for the public sector, thus reducing the scope of operation of the private local as well as foreign sector. The foreign exchange crisis of 1957-58 led to a further liberalisation in the government's attitude towards foreign capital. In a bid to attract foreign investment to finance the foreign exchange component of projects, a host of incentives and concessions were extended. The protection accorded to local manufacture acted as an important locational advantage encourageing market seeking FDI. A large number of foreign enterprises serving Indian market through exports started establishing manufacturing affiliates in the country.

3.2.2 Selective and Restrictive Policy (1968 - 1979)

As a result of the liberal policies in the first phase, outflow on account of remittances of dividends, profits, royalties and technical fees grew sharply and became a significant proportion of the foreign exchange account of the country. This resulted in another foreign exchange crisis in the late 1960s. So the government was forced to adopt selective and restrictive policy towards FDI.

On the recommendation of the Mudaliar Committee on Foreign Collaborations (1966) a new agency called the Foreign Investment Board (FIB) was set up in 1968 to deal with all cases involving foreign investment or collaboration except those in which total investment in share capital exceeded Rs. 20 million and where the proportion of foreign equity exceeded 40 percent. These cases were to be referred to the cabinet committee. A sub-committee of the FIB was empowered to approve cases of foreign collaboration in which the proportion of foreign equity did not exceed 25 percent and where total equity investment was upto Rs.10 million. The administrative ministries were authorised to approve cases involving purely technical collaboration. Foreign investments unaccompanied by technology were not favoured. A new patent act was enacted in 1970 which abolished 'product' patents in foods, chemicals and drugs and reduced the life of process patents from 16 to 7 years. Government listed industries in which FDI was not considered desirable in view of local capabilities. The

permissible range of royalty payments and duration of technology transfer agreements with parent companies were also specified for different items. The guidelines evolved for foreign collaborations required exclusive use of Indian consultancy services where ever available. The renewals of foreign collaboration agreements were also restricted. In 1973 Foreign Exchange Regulation Act (FERA) was passed. It became the corner stone of the regulatory framework for foreign investment in later years. It required all foreign companies operating in India to register themselves as Indian Companies with upto 40 percent of foreign equity. The Indian Companies were also directed to dilute their foreign equity to a maximum of 40 percent and exceptions were made only for companies operating in high priority or high technology sectors. In 1976 a Technical Evaluation Committee with representation from various scientific agencies was set up to assist the FIB in screening foreign collaboration proposals. The committee was expected to provide a professional input into the decision whether foreign collaboration or FDI proposal under evaluation was justifiable on the grounds of bringing technology not available locally to the country.

3.2.3 Partial Liberalisation Policy During 1980s

Towards the end of 1970s India's failure to significantly step up the volume and proportion of her manufactured exports in the background of the second oil price shock began to worry the policy makers. It led to the realisation that international competitiveness of Indian goods had suffered

from growing technological obsolescence and inferior product quality and high cost which inturn were due to the highly protected local market. Another limiting factor was that the marketing channels in the industrialised countries were substantially dominated by MNCs. The government intended to deal with the situation by putting emphasis on the modernisation of industry with liberalised imports of capital goods and technology exposing the industry to foreign competition by gradually liberalising the trade regime and assigning a greater role to MNCs in the promotion of manufactured exports. This strategy was reflected in the FDI policy pronouncements made in the 1980s.

The Industrial Policy Statements of 1980 and 1982 announced the liberalisation of licencing rules, a host of incentives and exemption from foreign equity restrictions under FERA to 100 percent export oriented units. Four more export processing zones were started to attract MNCs to set up export oriented units. The trade policies gradually liberalised the imports of raw materials and capital goods by gradually expanding the list of items on the Open General Licence (OGL). Tariffs on imports of capital goods were also slashed. Imports of designs and drawings and capital goods were permitted under a liberalised Technical Development Fund Scheme.

The liberalisation of industrial and trade policies was accompanied by an increasingly receptive attitude towards FDIs and foreign licensing

collaborations. Approval systems were streamlined. A degree of flexibility was introduced in the policy concerning foreign ownership and exceptions from the general ceiling of 40 percent on foreign equity were allowed on the merits of individual investment proposals. The rules and procedures concerning payments of royalties and lumpsum technical fees were relaxed and withholding taxes were reduced. The approvals for opening liaison offices by foreign companies in India were liberalised. New procedures were introduced enabling direct application by a foreign investor even before choosing an Indian partner. A fast channel was set up in 1988 for expediting clearances of FDI proposals from major investing countries like Japan, Germany, USA and UK.

3.2.4 Liberalisation and Open Door Policy Since 1991

In July 1991 the Indian government initiated a programme of macro economic stabilisation and structural adjustment supported by the IMF and the world bank. As a part of this programme, a New Industrial Policy (NIP) was announced in 1991 in the parliament which has laid the foundation for the process of fullscale liberalisation and intensified the process of integration of India with the global economy. The New Industrial Policy and subsequent policy amendments have liberalised the industrial policy regime in the country, especially as it applies to FDIs beyond recognition. The industrial approval system in all industries has been abolished except for 18 strategic or environmentally sensitive industries. Automatic approval

has been given upto 74 percent foreign equity participation whereas it is 100 percent in the case of NRIs. It has been proclaimed that FDI proposals do not necessarily have to be accompanied by technology transfer agreements. Trading companies engaged primarily in export activities are also allowed upto 51 percent foreign equity. To attract multinational corporations in the Energy, Petroleum, Airports, Drugs and pharmaceuticals. Roads and highways and Tourism, 100 percent foreign equity participation has been permitted. Our government has scrapped the dividend balancing norms imposed on foreign investors engaged in the production of consumer goods. 74 percent foreign equity participation has been allowed in the Infrastructure sector and Telecom whereas it is restricted to 24 percent in the small scale sector of India. Eventhough Government has recently allowed 100 percent foreign equity participation in the E-commerce, it is limited to B2B (Business to business) ventures and FDI is not permitted in B2C (Business to Consumer) operations. The ceiling of Rs.1500 crores for automatic clearance to 100 percent FDI in power projects has been cleared. This would be applied to all power generation, transmission and distribution projects except atomic power. It is to be pointed out that our union cabinet has decided to open up the defence sector for private investment permitting, FDI upto 26 percent. A new package for 100 percent export oriented projects and companies in Export processing zones was announced. A Foreign Investment Promotion Board (FIPB) authorised to provide a single window clearance has been set up in the Prime Minister's

Office to invite and felicitate investments in India by international companies. The use of foreign brand names for goods manufactured by domestic industry which was very much restricted earlier is now liberalised. The Foreign Exchange Regulation Act (FERA) of 1973 has been amended and restrictions placed on foreign companies by FERA have been lifted. Textile sector is also opened to private investment with 100 percent foreign equity participation whereas in the case of insurance sector it is restricted to 26 percent. The upper limit for foreign equity participation is fixed at 74 percent in the advertising sector. Hydrocarbon industry - specifically refining sector has been allowed for 100 percent FDI against the existing limit of 49 percent. Companies with more than 40 percent of foreign equity are now treated on par with fully Indian Owned Companies. 100 percent FDI has been permitted in the Non banking financial companies and in the Information Technology Industry. Recently FERA has been replaced by Foreign Exchange Management Act (FEMA) as part of liberalisation. The most significant change brought in by FEMA is that forex law violators would no longer be treated as criminals but as civil offenders. Our government has started Foreign Investment Implementation Authority to provide all sorts of technical and operational assistance to foreign investors. An inter - ministerial committee and a Foreign Investment Promotion Council (FIPC) are set up by the government, as an advisory group to interact with prospective investors in order to identify and attract the type of foreign technology and investment best suited to India's needs. As per the new

policy the trading companies involving foreign equity cannot trade or sell products manufactured by associated joint ventures in the domestic market. It has been further announced that trading would be permitted only for items manufactured by itself and not contracted from other sources. The Industry ministry has stated that automatic approval route for FDI technical collaboration would not be available to those who have or had any previous venture or technology transfer. But Information technology is exempted from this restriction . It has been decided not to allow MNCs to use debt raised from the domestic market to finance their new acquisitions in the country. Instead they have to bring in fresh equity to finance the takeover of any local company. The commerce and industry ministry is proposing to amend the Industry Regulatory and Development Act (IDRA) which would empower it to proceed against MNCs violating FDI clearances.

3.3 FDI Policy in India : An Evaluation

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.

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 modernisation of the Indian economy to a certain extent. But it appears that the approach towards FDI has yet to become powerful and pragmatic. In this context we summarise the views expressed by eminent scholars and economists regarding the attitude, approach and policies towards FDI in India in the background of liberalisation.

Subramanian (1996) has explicitly stated that the sectors which are opened to FDI now are much larger as compared to the earlier protected regime. According to him the most striking feature of the new liberal FDI policy is the freedom provided to the level of foreign equity participation coupled with the simplification of the procedures. He further says that FDI policy of our government is more open and liberal in comparison to that of China and Malaysia to the extent that in a large number of manufacturing industries foreign majority ownership is freely allowed without any restriction. He emphasises that India's automatic approval of equity upto 51 percent is a unique process which goes a long way in making Indian policy on FDI transparent.

Dutt and Sundaram (1998) has argued that FDI has created a new consumer culture of colas, jams, ice creams and processed foods favouring the affluent sections. According to him this has resulted in an utter neglect

of the wage goods sector of our economy. In this sense, the unrestricted entry of MNCs has dangerous implications.

Raj (2000) has noticed that the sector specific FDI policies in the telecom, power and transport sectors are not conducive for attracting foreign direct investment and argues for further liberalisation of these sectors.

Assocham (2000) has observed that despite all the efforts to liberalise FDI over the last decade most of the foreign investments still continue to be cleared on an adhoc case to case basis. It has further pointed out that only less than 5 percent of the FDI proposals has been cleared under the automatic route even after liberalisation. This has obviously provoked them to question the liberal nature of the existing FDI policy of India.

Venu (2000) opined that Indian policy on FDI has been 'higgledy - piggledy' particularly in the telecom,energy and infrastructure sectors where mainly the lack of consistency has delayed investment.

Ghosh (2000) has suggested that it is quite desirable for the government of India to study the laws relating to FDIs in Malaysia which has now turned the corner without any international assistance, against all the predictions of neo-liberal economic experts and the purveyors of international finance including the IMF and world bank. He has further

added that the problems and prospects of mergers and acquisitions have to be addressed properly and argued that FDI policy of India has to be made more open and transparent so as to promote and attract sufficient FDI to the economy.

Eventhough the proposal to allow 100 percent FDI in the Non Banking Financial Companies (NBFCs) is in line with the liberalisation policy of our government, most of the leading industrialists have observed that its implications are exhaustive.

Balasubramanian (2000) is quite worried that the entry of foreign companies will eclipse the domestic players in the long term. He forsees a situation where the locals will find it extremely difficult to withstand competition from the 'monied' foreign companies.

George, Anandan and Sampath kumar (2000) are really optimistic with regard to the opening up of the NBFCs of India and they strongly state that this move in no way can have adverse impact on the domestic players of the financial sector of India.

Mankad (2000) has pointed out that the FIPB is losing ground as a nodal agency for FDI approvals as several sectors have started shifting to the automatic list. He has further expressed the desirability to improve the

functioning of FIPB in such a way so as to provide more facilities to foreign investors and also to re-orient it into a think-tank for secretaries from economic ministries to discuss sectoral issues relating to foreign investment and provide policy inputs conducive for the promotion of FDI in India.

Kumar (2001) observed that in India focus of the FDI policy should be on maximisation of its FDI policy should be on maximisation of its contribution to the India's development rather than on maximisation of the magnitude of inflows by itself.

All the above views expressed by the eminent scholars regarding FDI policy of India, infact throw light on some of the implications of the existing policies as well as the need and scope for further policy changes in order to accentuate FDI inflows to our economy.

CHAPTER - IV

TRENDS AND PATTERNS OF FOREIGN DIRECT INVESTMENT IN INDIA

4.1 FDI Inflows to Developing Countries : An Overview

FDI constitutes a relatively stable element of international private capital flows. It has become the single largest component of long term capital flows to developing countries. FDI in particular is of interest to developing economies as along with capital it can bring in modern technology and marketing expertise, give access to global markets, generate additional employment, increase tax revenue and stimulate economic growth.

During 1960s and 1970s the developing economies followed restrictive policies towards FDI fearing foreign economic domination. The attitudes towards MNCs were openly hostile in most of the developing countries. Even so, developing countries' share of world wide flows rose from an average level of around 20 percent in the first half of the 1970s to over 32percent in the late 1970s (OECD 1987).

The decade of 1980 saw a marked shift in the attitudes of less developed countries towards FDI. Still its share of FDI flows slumped in the first half of the 1980s. This was a consequence of a slow down in capital

flows in general and more especially the major reduction in US outward FDI (UNCTAD 1998). After that the net FDI inflows to developing countries had slightly surged from 10.5 $ million in 1985 to 19.8 $ million in 1990 (World Economic Outlook 1992).

The net FDI inflows to selected developing economies during (1970-1990) are given in the Table below.

Table 4.1

Net FDI Inflows To Developing Countries 1970 -1990 (US $ million)

Country	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1990
Brazil	421	1911	2326	2547	1359	1549	1263	185	1148	2130	989
Mexico	323	2156	2536	167	461	391	491	1522	3249	2600	2634
China	-	0	0	386	543	1124	1031	1425	1669	1650	3487
Malaysia	94	934	1265	1397	1261	798	695	489	575	693	2333
Argentina	11	678	944	257	183	268	919	574	-19	1177	1836
Thailand	43	190	288	189	348	400	162	261	182	938	2444
Nigeria	205	-740	165	730	365	189	350	367	386	378	588
Indonesia	83	180	133	225	292	222	310	258	307	600	1093
Korea	66	6	60	-76	-57	73	199	325	418	400	788
Philippine	-25	-106	175	17	112	6	-9	140	205	617	530

Source :- Global Development Finance World Investment Report, Various Issues

From the table it could be seen that Brazil and Mexico were the leading recipients of FDI during 1970-90. China started attracting FDI only from 1982 onwards. Since then FDI inflows to China has been continuously increasing. But Philippines and Korea received only a very lesser amount of FDI compared to others in the list.

During 1990s, most of the developing countries started following a very liberal attitude towards FDI. Recently with increasing globalisation and integration of markets, developing economies are taking definite policy steps to facilitate an increased role for FDI in their economies on the belief that it is necessary for strengthening their resource base and macroeconomic stability and thus to improve their overall economic performance. So they have changed their developing strategies giving greater stress on competitiveness privatisation and outward orientation in order to permit and attract FDI.

Table 4.2
Global FDI Inflows

(US $ billion)

Country Group	1992	1993	1994	1995	1996	1997	1998
Developed Countries	120	134	146	208	211	273	460
Developing Countries	51	79	101	106	135	172	166
Central and Eastern Europe	5	220	253	328	358	464	644

Source : World Investment Report 1999

It is quite inspiring to note that the FDI inflows to developing countries show an increasing trend even though it declined by 4 Percent to $ 166 billion in 1998. But FDI inflows to developed as well as the Central and East European countries have been continuously increasing during 1992-1998.

Global FDI has increased to $ 825 billion in 1999. FDI flows to developing countries reached a level of $ 198 billion during this period. Of the total,$ 91 billion has been absorbed by Asia. Of this, China alone accounted for $ 40 billion. The Republic of Korea also saw a quantum jump in FDI inflows which stood at $ 8.5 billion. Out of $ 97 billion to Latin America,$ 31 billion was absorbed by Brazil alone.Argentina has been emerging as a major recipient of FDI experiencing significant increase in FDI inflows in 1999. (UNCTAD 1999).

Evidence shows that the driving force behind FDI flows among industrial countries is Mergers and Acquisitions. Such acquisitions account for a substantial share of total flows. It is felt that entry of FDI through the take over of domestic firms is less beneficial for economic development. A concern from the political angle is that such acquistions can lead to strategic firms or even entire industries falling under foreign control. From the Indian angle, available data indicate that acquisition of shares as part of FDI has been a negligible proportion of the total. In this context the Net FDI inflows to selected developing countries during 1991 - 97 are shown in the table 4.3.

Table 4.3

Net FDI Inflows To Developing Countries (US $ Million)

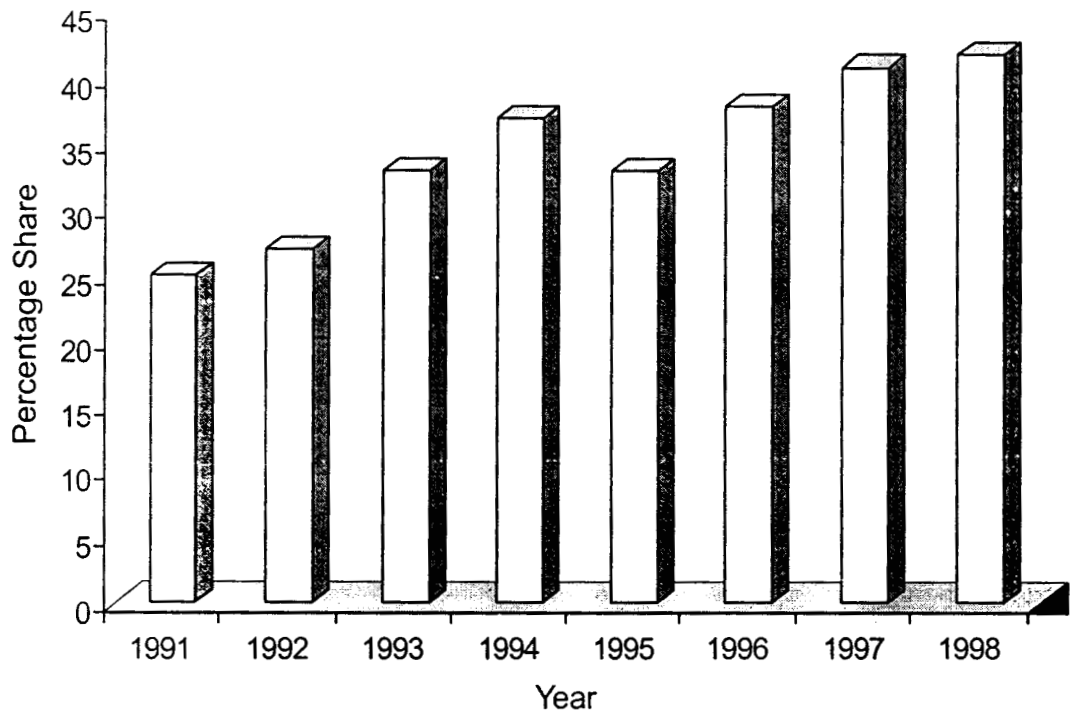
Country	1991	1992	1993	1994	1995	1996	1997
China	4366	1156	27515	33787	35849	40180	44236
Indonesia	1482	1777	2004	2109	4348	6194	4677
Brazil	1103	2061	1292	3072	4859	11200	19652
Korea	1180	727	588	809	1776	2325	2844
Philippines	544	228	1238	1591	1478	1517	1222
Malaysia	3998	5183	5006	4342	4132	5078	5106
Mexico	4762	4393	4389	10972	9526	9185	12477
Thailand	2014	2113	1804	1366	2068	2336	3745
Bangladesh	1	4	14	11	2	15	135
India	74	277	550	973	2144	2426	3551

Source : Global Development Finance 1999

China had a quantum jump in the net FDI inflows during 1991-1997. Brazil and Mexico also fared well during this period. The rest of the countries had only a marginal increase in terms of net FDI and the performance of Bangladesh is quite disappointing.

Chart 4.1

FDI to Developing Countries as a Share of Total FDI

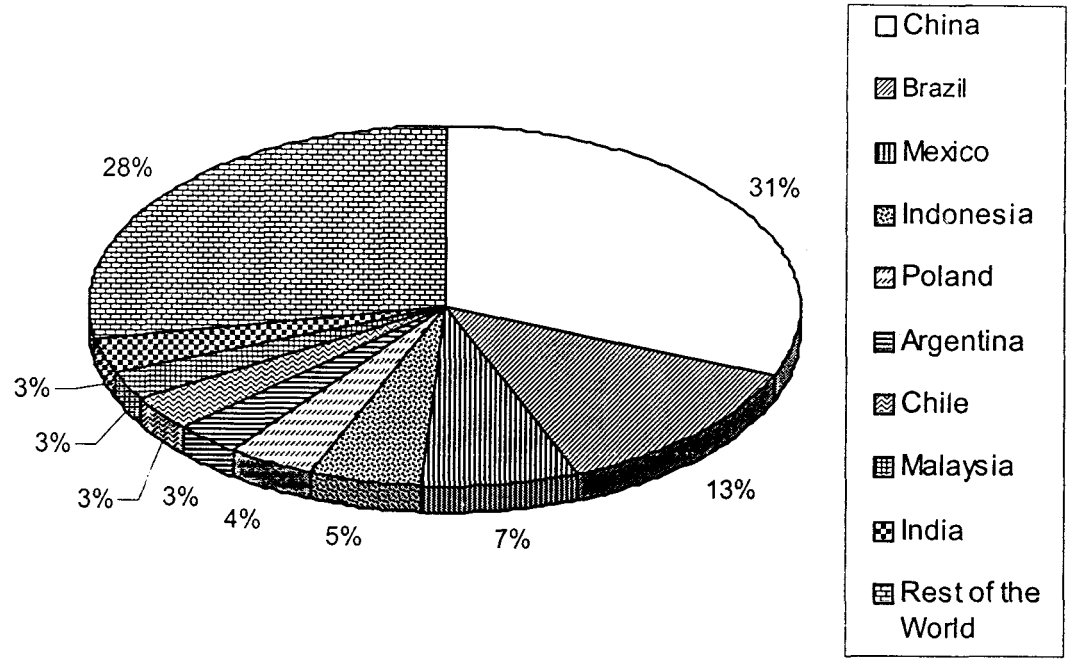


Source : World Bank Debtor Reporting System and World Development Indicators.

FDI inflows to developing countries increased more than six fold from 1990 to 1998 and their share of global FDI flows has risen from 25 percent in 1991 to an estimated 42 percent in 1998 (OECD 1998).

Chart 4.2

Share of Top Ten Recipients in Developing Country Total FDI Inflows



Source : World Development Indicators, World Bank 1998.

China is the largest recipient of FDI among developing countries followed by Brazil. Others are having only a meagre share of total FDI inflows to developing countries.

The main feature of FDI in developing countries is its highly concentrated flow into a few of them. Top ten countries account for more than 70 percent of total FDI inflows to developing economies (world Investment Report 1997). Thus the distribution of FDI among developing countries is highly skewed.

Another notable point is that even though almost all developing countries have sought to attract FDI by liberalising their policies, only very few have been successful. This means, mere liberalisation not enough to augment FDI inflows. So the developing economies have to consider other relevant factors that influence and determine FDI and sort out suitable investment strategies in order to attract sufficient FDI which is very much essential to survive and grow in the present competitive world.

4.2 Foreign Direct Investment in India :- Trends and Patterns

In the earlier periods of protected and closed regimes, India followed restrictive policies towards FDI fearing foreign economic domination. Infact she regulated the entry and operations of FDI. But recently, with the inception of economic reforms, oriented towards privatisation and liberalisation, there has been a marked shift in the attitude of our government regarding FDI. They strongly believed that FDI has got a very significant role to play in improving India's competitiveness and economic performance in a globalising world economy. Consequently our government started attracting FDI through liberal, open and transparent investment policies. In this context, it is desirable to have an insight into the effect of all these liberal policies on FDI inflows to India.

4.2.1 FDI Inflows to India : Trends

To analyse the trends we have used an Exponential trend model which

has been accepted as the most significant statistical tool for trend analysis. It is explained as follows.

$$Y = ab^t$$

where, Y = FDI inflow in period t

t = time period

a&b are parameters

The above model can be converted to a log linear model by log transformation which can be written as :

$$\text{Log } Y = \text{Log } a + t \text{ Log } b$$

$$Y = A + Bt$$

where, Y = log Y

A = log a

a = Antilog A

b = Antilog B

We have estimated the trend both for pre and post reform periods.

FDI Inflows :- Pre-Reform Period

$$\text{Log } Y = \underset{(0.4099)}{3.0957} + \underset{(0.0661)}{0.2914}\, t$$

R^2 = 0.71

C.G.R = (Antilog of β value -1) x 100

$\therefore$ C.G.R. = Antilog (0.2914 -1) x 100 = 33.83 %

C.V. = σ/X x 100 = 69.74 %

FDI Inflows : Post Reform Period

Log Y = 4.6059 + 0.3992 t
(0.3997) (0.0644)

R^2 = 0.83

C.G.R. = Antilog (0.3992 - 1) x 100 = 49.06 %

C.V. = σ/X x 100 = 79.58 %

Note :

[Figures in Parentheses show standard error)

Positive intercept in both periods indicate a positive change in the FDI inflows with time period. Higher R^2 value for the post reform period implies that the relationship between FDI and time period is greater in this period. The regression co-efficient further indicates that if 83 percent of FDI inflows is determined by change in time period in the post reform period, only 71 percent is explained by the independent variable in the pre-reform period. Since co-efficient of variation is higher in the post reform period, we can infer that FDI inflows in this period is more variable and less consistent compared to pre reform period. Again post reform period shows a higher compound growth rate which denotes the intensity of FDI inflows during this period. Altogether in terms of FDI trends, post reform period depicts an encouraging picture compared to pre liberalisation era. But to know the yearly fluctuations in the FDI inflows we have to estimate the annual growth rate (AGR).

Table 4.4

FDI Inflows to India (Annual Growth Rates)

Pre-Reform Period		Post-Reform Period	
Year	AGR	Year	AGR
1980-81	-	1990-91	-
1981-82	550	1991-92	32.99
1982-83	-3.08	1992-93	144.19
1983-84	-1.59	1993-94	86.03
1984-85	158.06	1994-95	124.23
1985-86	30	1995-96	63.17
1986-87	-12.98	1996-97	31.58
1987-88	58.56	1997-98	26.09
1988-89	21.95	1998-99	-30.78
1989-90	-52.86	1999-00	-12.47

Source :- Computed from R.B.I Bulletin (various issues)

From the table it is seen that, in general the annual rate of growth of FDI is comparatively higher in the post reform period. But it is to be noted that growth rate has been showing a declining trend since 1995-96. This implies that the response of foreign investors to India's new liberalisation policy in terms of FDI inflows is not at all satisfactory.

The Wilcoxon-Mann-Whitney Rank Sum Test

This is to test if two random samples could have come from two populations with the same mean. In the present study, it is used to test whether there is any significant difference between the FDI inflows in the pre and post reform periods.

The notations used in this test are as follows.

R = Rank sum of the smaller sample.
Since samples are of equal size, R is taken as the smaller of the two rank sums which occur .

N = Size of combined sample.

n = Size of smaller sample.
Since samples are of equal size, n = 10

Incorporating the above variables R^1 is calculated using the formula $R^1 = n(N + 1) - R$.

Method

The FDI inflows in the two periods are combined and arranged in order of increasing size and given a rank number and Rank sums are found out. Since samples are of equal size i.e., 10, Rank sum R is taken as the smaller of the two rank sums which occur. Then R^1 is calculated using the given formula. Then values R and R^1 are compared with critical values obtained from the table in order to test the difference if any between the two samples.

Combined rank

FDI inflows Post Reform X	Rank	FDI inflows Post Reform Y	Rank
97	5	10	1
129	6	65	4
315	12	63	3
586	14	62	2
1314	15	160	7
2144	16	208	10
2821	19	181	9
3557	20	287	11
2462	18	350	13
2155	17	165	8
Rank sum	= 142	Rank Sum =	68

$\therefore R = 68$

$N = 10 + 10 = 20$

$n = 10$

$\therefore R^1 = n(N + 1) - R$

$= 10(20 + 1) - 68 = 10 \times 21 - 68$

$R^1 = 142$

It is given that the critical value for $n_1 = 10$, $n_2 = 10$ at $\alpha = 0.05$ is 82. If either R or R^1 are less than the critical value, the null hypothesis of the same mean would be rejected.

Here R < 82. So null hypothesis of the same mean is rejected.

So it is concluded that there is difference between the two means.

Fitting a Trend Curve

We have fitted a trend curve based on the actual and estimated values of FDI inflows both for the pre and post reform periods.

Trend Curve : Pre-Reform Period.

The suggested model is $y = ab^t$

To fit the curve,

Taking log, $\log y = \log a + t \log b$

Put $\log y = Y$; $\text{Log } a = A$; $\text{Log } b = B$

Then the equation becomes

$$Y = A + Bt$$

∴ The normal equations are

$$\Sigma y = nA + B\Sigma t$$

$$\Sigma ty = A\Sigma t + B\Sigma t^2$$

Solving A = 1.3444 and B = 0.1265

∴ a = Antilog (1.3444) = 22.10

b = Antilog (0.1265) = 1.339

∴ The estimated curve is $\hat{y} = 22.10\ (1.339)^t$

Putting t = 1, 2 .... 10, we get the estimated values.

t (time period)	y (actual values)	$\hat{y}$ (estimated values)
1	10	$22.10\ (1.339)^1 = 29.59$
2	65	$22.10\ (1.339)^2 = 39.62$
3	63	$22.10\ (1.339)^3 = 53.05$
4	62	$22.10\ (1.339)^4 = 71.04$
5	160	$22.10\ (1.339)^5 = 95.13$
6	208	$22.10\ (1.339)^6 = 127.37$
7	181	$22.10\ (1.339)^7 = 170.55$
8	287	$22.10\ (1.339)^8 = 228.37$
9	350	$22.10\ (1.339)^9 = 305.78$
10	165	$22.10\ (1.339)^{10} = 409.45$

Trend Curve : Post Reform Period

Given the model $y = ab^t$

Taking log, $\text{Log } y = \log a + t \log b$

Put $\log y = Y$; $\text{Log } a = A$; $\text{Log } b = B$

The equation becomes

$$Y = A + Bt$$

Then the normal equations are

$$\Sigma Y = nA + B\Sigma t$$

$$\Sigma tY = A\Sigma t + B\Sigma t^2$$

Solving $A = 2.0000$ and $B = 0.1733$

$\therefore$ a = Antilog (2) =100; b = Antilog (0.1733) = 1.49

$\therefore$ The estimated curve is $\hat{y} = 100\ (1.49)^t$

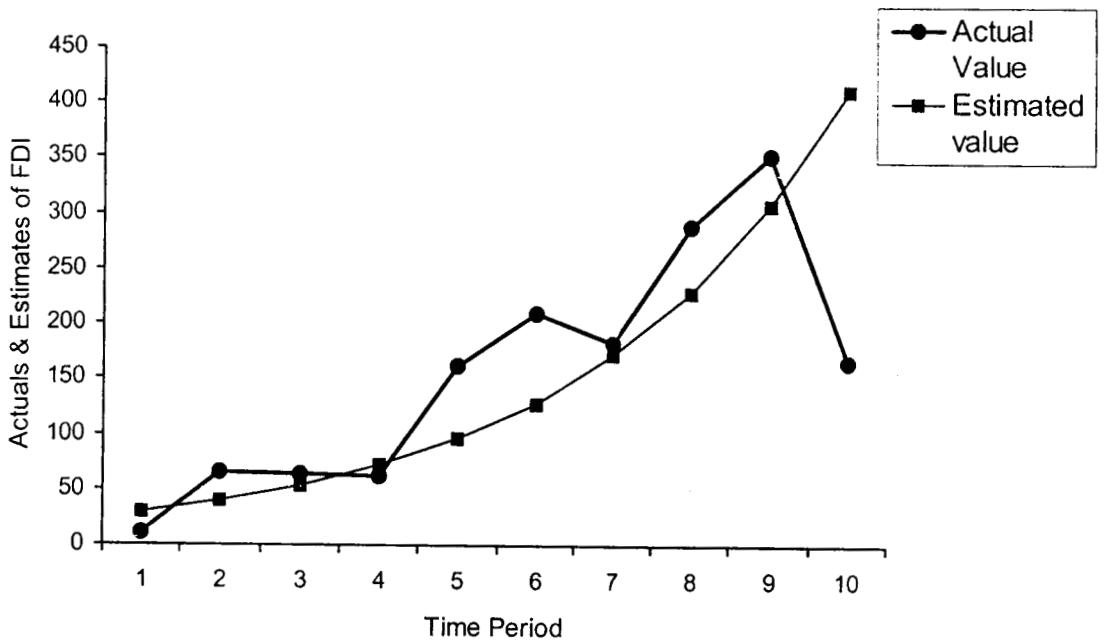
Putting t = 1, 2.... 10, we get the estimated values.

t (time period)	y (actual values)	$\hat{y}$ (estimated values)
1	97	$100\ (1.49)^1 = 149$
2	129	$100\ (1.49)^2 = 222.01$
3	315	$100\ (1.49)^3 = 330.79$
4	586	$100\ (1.49)^4 = 492.88$
5	1314	$100\ (1.49)^5 = 734.40$
6	2144	$100\ (1.49)^6 = 1094.25$
7	2821	$100\ (1.49)^7 = 1630.44$
8	3557	$100\ (1.49)^8 = 2429.35$
9	2462	$100\ (1.49)^9 = 3619.73$
10	2155	$100\ (1.49)^{10} = 5393.40$

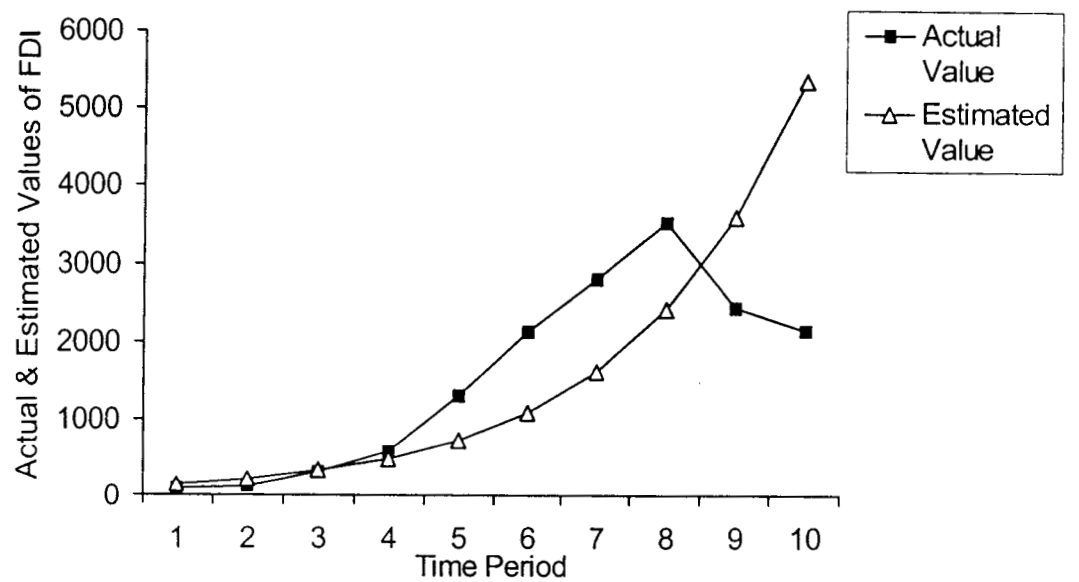
The trend curves for both pre and post reform periods are given in chart (4.3).

Chart 4.3

Trend Curve (Pre-reform Period)



Trend Curve (Post Reform Period)



In order to get a view of FDI as a share of Gross Domestic Product, we have estimated the FDI- GDP ratio.

Table 4.5
FDI - GDP Ratio

Year	FDI as percent of GDP
1985-90 (average)	0.1
1990-91	0.03
1991-92	0.1
1992-93	0.1
1993-94	0.2
1994-95	0.4
1995-96	0.6
1996-97	0.7
1997-98	0.9
1998-99	0.6

Source : RBI Report on currency and Finance 1998-99.

From the table we could infer that in general FDI as percent of GDP has been showing an increasing trend in the post reform period. This increase is mainly attributed to the liberal and open policies followed by the government towards FDI.

But inspite of the liberal policies, India has failed to attract, adequate FDI in comparison to other emerging markets of Asia and other regions. This is very much revealed in the share of India to the total FDI inflows to developing countries.

Table 4.6.

India's Share to Total FDI into Developing Countries.

Year	Percentage share
1992	0.4
1993	0.7
1994	1
1995	2
1996	1.8
1997	1.9
1998	1.4

Source :- ASSOCHAM, May 2000

The above table raises a question that why India has a very poor share in terms of FDI inflows inspite of her liberal policies. This implies that mere liberalisation not enough in augmenting FDI inflows. In otherwords liberalisation is not the only factor, but one of the factors that determines FDI. Thus liberalisation is a necessary condition but not a sufficient condition to attract FDI (Susmitha 2000).

We have seen that FDI inflows to India are not at all sufficient. Another relevant aspect with regard to FDI is the wide gap between the approvals and the actual FDI. Approvals are just proposals or promise to invest. But FDI is estimated on the basis of actual flows. This being the case one has to look into the realisation rate of FDI measured interms of the actuals as percentage of approvals.

Table 4.7

Actual / Approval Ratio

Year	Realisation Rate
1991	65.73
1992	!7.36
1993	20.17
1994	23.18
1995	21.26
1996	28.74
1997	29.92
1998	43.29
1999	59.46

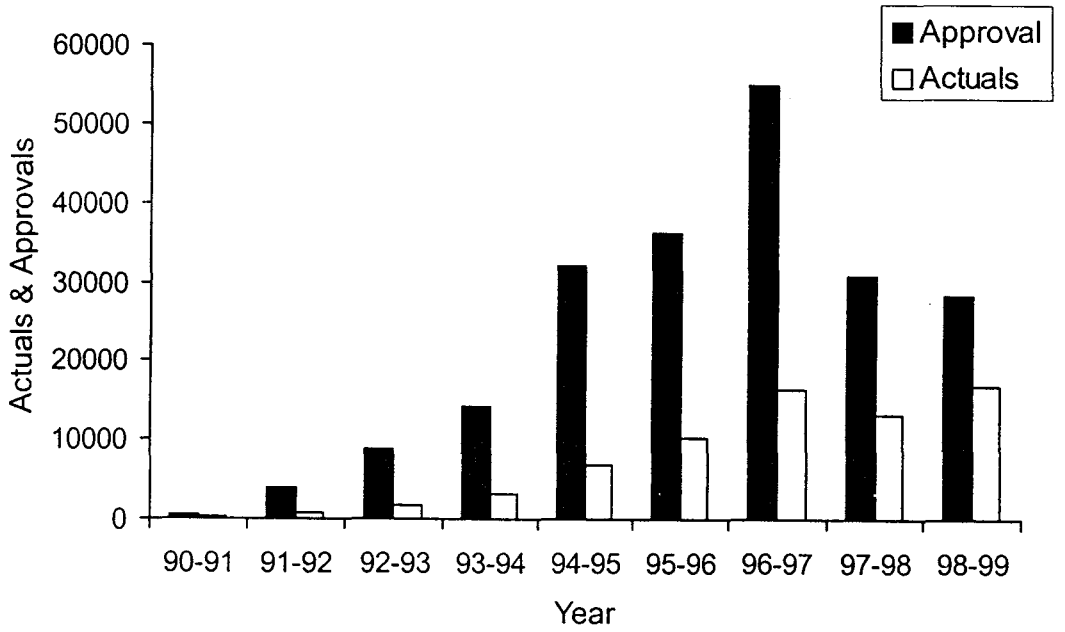
Source :- Economic Times, July 8, 2000.

It is quite inspiring that the realisation rate has been showing an increasing trend since 1996. Still the actuals as percentage of approvals for

the period 1991-1999 as a whole, comes only upto 25.31 percent which is not at all competent. For easy perusal, the Actuals and Approvals of FDI are given in chart 4.4

Chart 4.4

FDI Approvals and Actuals



Source : Economic Times, July 8, 2000

The existence of wide gap between actuals and approvals in India might be due to the restrictive policies still being followed by our government in the favourable areas of foreign investors, lack of several factors like political stability, infrastructure facilities which the foreign investors look for in our economy, corruption, red tapism, technological gestation, poor pace of project implementation and multiple clearances etc. All these hindrances have to be sorted out in order to ensure smooth and sufficient FDI inflows to India.

We have fitted a lagged model which is otherwise called as Adhoc estimated model to analyse the impact of current approvals as well as previous year's approvals on the present actual inflows.

Lagged model (Adhoc estimated model)

$$Y_t = \beta_0 + \beta_1 X_t + \beta_2 X_{t-1} + u_t$$

where Y_t = present actual inflow

X_t = Current approval

X_{t-1} = Previous approval

β_0, β_1 and β_2 are the parameters which are estimated using OLS method.

$$Y_t = \underset{(1650.59)}{14.8575} + \underset{(0.0906)}{0.1744\, X_t} + \underset{(0.0838)}{0.1829\, X_{t-1}}$$

$R_2 = 0.93$

Calculated Value of t for X_1 = 1.926

Calculated Value of t for X_2 = 2.182

Table value of t at 5 percent level of significance = 1.833

1.926 > 1.833 (β_1 is significant at 5 percent level)

2.182 > 1.833 (β_2 is significant at 5 percent level)

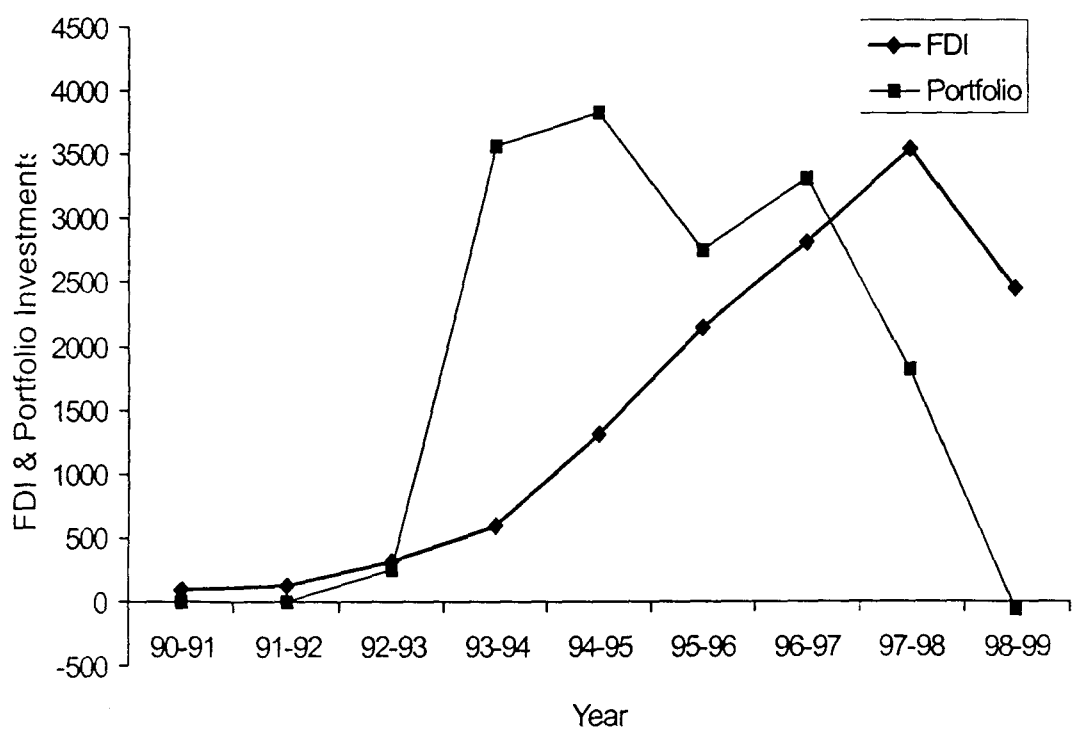
(Figures in parentheses are standard errors)

Since the sign of co-efficients are positive, we can infer that there is a direct relationship between dependent and independent variables. Again the results show that the current and previous year's approvals, influence the current actual FDI inflows.

R^2 indicates that 93 percent of the current actual FDI inflow is determined by the changes in the current and previous approvals of FDI. Thus the lag between approvals and actuals of FDI is estimated through this model.

In order to get a comparative picture of foreign investments in India, we show the trends in FDI and port folio investments in the chart (4.5)

Chart 4.5
Trends in Foreign Direct and Portfolio Investments (US $ Million)



Source : R.B.I. Bulletin, Nov. 2000.

The trends in the early 1990s show that FDI was more prominent of the two kinds of foreign investments till 1992-93. But portfolio investments surged up in the next four years and became the dominant component during the period 1993-94 to 1996-97. The later two years however saw FDI regaining its preeminent position.

4.2.2 Patterns of FDI In India

The source, nature and the direction of the FDI inflows constitute the pattern of distribution of FDI to an economy. Here we examine the pattern of FDI inflows to India in the liberal regime in comparison to that of the pre liberalisation era.

4.2.2.1 Pattern of FDI Distribution by Type of Approval

FIPB/SIA, N.R.I. and R.B.I are the major routes through which FDI is permitted in India. The percentage distribution of FDI approval route is given in the table 4.8.

From the table we could infer that FIPB/SIA route has the largest share of FDI approvals in the post liberalisation period and NRI direct investment is second in importance in the total FDI inflows to India. The distribution pattern of FDI is marked by insignificant share under R.B.I. automatic route. It is to be noted that since mid 1990s, FDI through acquisition of shares has been showing an increasing trend.

Table 4.8.
FDI Flows : Share of Different Approval Sources (percent)

Sources of approval	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99
FIPB/SIA	51.16	70.48	47.78	53.35	58.26	68.13	77.42	73.96
RBI	0	13.33	15.19	13.01	7.88	4.79	5.68	7.27
NRI	48.84	16.19	37.03	33.64	33.35	22.65	6.78	2.52
Acquisition of shares	0	0	0	0	0.51	4.43	10.12	16.25
Total	100	100	100	100	100	100	100	100

Source :- RBI Bulletin, December, 2000

The largest share of FDI approvals under FIPB/SIA route implies that even under the liberalisation policy, the government is evaluating foreign investment proposals on a case by case basis. In order to improve the FDI inflows through R.B.I. automatic route, it is quite necessary to have a single agency for screening and clearance of all cases of foreign investment in the most simplest manner. Again one could also argue for more effective measures to mobilise and attract sufficient FDI inflows from NRIs.

Next the pattern of FDI inflows is examined with reference to the country of origin, to see whether there is any change in the preference pattern

to countries for investment during the liberalisation regime as compared with the earlier policy regime.

4.2.2.2 Country Wise Distribution of FDI in India

Table 4.9
Country Wise FDI Approvals : Pre-Reform Period (1981 - 90)

Country	Percentage share
USA	25.53
Germany	18.00
Japan	8.43
U.K.	7.08
Italy	4.70
France	3.46
Switzerland	3.16
Netherlands	1.45
Singapore	0.78
Australia	0.49
Hong Kong	0.41
Malaysia	0.14
NRI	9.66
Others	16.90
Total	100.00

Source : SIA Newsletter, Ministry of Industry

From the table it is seen that USA accounted for the highest percentage of FDI approvals followed by Germany and Japan in the pre reform period.

Table 4.10
Country Wise FDI Approvals : Post Reform Period (1991 - 2000)

Country	Percentage share
USA	22.01
Mauritius	12.07
U.K.	7.30
Japan	4.42
S. Korea	4.35
Germany	3.68
Australia	2.96
Malaysia	2.49
France	2.29
Netherlands	2.19
Italy	2.03
Singapore	1.92
Hong Kong	0.97
China	0.32
Mexico	0.11
NRI	3.81
Others	27.08
Total	100.00

Source :- India Investment Centre and SIA Newsletter.

USA responded very positively and maintained her position as the major source of FDI approvals both in the pre and post reform periods. But instead of Germany and Japan, in the liberal regime Mauritius and U.K. emerged as the major country sources of FDI approvals to India.

In order to examine the yearly fluctuations in the countrywise FDI approvals we have used the exponential trend model. The results of the analysis are given below.

Country Wise Approvals : Trend Analysis (1991 - 98)

Country	Co-efficient	R^2	C.G.R.	C.V.
U.S.A	6.0932 + 0.4354 t (0.7180)* (0.1422)*	0.61	54.56	85.88
U.K.	3.7776 + 0.6357 t (0.5717)* (0.1132)*	0.84	88.83	94.76
Mauritius	-0.1602 + 1.2769 t (1.1162)* (0.2210)*	0.85	258.55	151.94
Japan	4.5522 + 0.4123 t (0.5735)* (0.1136)*	0.69	51.03	73.49
Germany	3.6960 + 0.5306 t (0.5553)* (0.1099)*	0.80	70.00	91.52
Singapore	1.6353 + 0.7556 t (0.9824)* (0.1946)*	0.72	112.89	95.35
France	2.6702 + 0.5727 t (0.6137)* (0.1215)*	0.80	77.30	123.95
Netherlands	4.1338 + 0.3733 t (0.5150)* (0.1020)*	0.69	45.25	79.20
Switzerland	4.7047 + 0.1407 t (0.8685)* (0.1720)*	0.10	15.12	73.95
Italy	3.4744 + 0.3914 t (0.7041)* (0.1394)*	0.57	47.91	112.95
S.Korea	1.7171 + 0.7535 t (0.9082)* (0.1799)*	0.75	112.44	157.37
Hongkong	3.3519 + 0.3648 t (0.4987)* (0.0987)*	0.69	44.02	78.79

Note :- * : Standard error of the co-efficient
C.G.R. : Compound Growth rate
C.V. : Co-efficient of variation.
The trend model is explained in the earlier sections of this chapter.

It is seen that C.G.R. and R^2 value are very high for Mauritius and they are very low in the case of switzerland. It means that the intensity of increase and the influence of time period is greater in the case of former and lesser in the case of latter. It is further noticed that Japan shows more consistency and stability in terms of FDI inflows as the value of C.V. is low whereas in the case of S.Korea consistency is very less which is denoted by a higher C.V.

Next we move to the comparison of countrywise Actual FDI inflows in the pre and post liberalisation period.

Table 4.11
Country Wise Actuals : Pre-Reform Period

Country	Percentage Distribution		
	I Phase 1955 - 66	II Phase 1966 - 79	III Phase 1979 -91
U.K.	78.70	61.68	47.73
U.S.A	12.82	19.56	19.96
Canada	1.38	2.99	2.94
France	0	0.33	0.44
Germany	1.28	4.46	9.20
Netherlands	0	0	2.10
Sweden	0.79	1.73	3.00
Switzerland	2.17	4.39	4.11
Japan	0.10	0.33	4.48
Others	2.76	4.53	6.04
Total	100.00	100.00	100.00

Source :- R.B.I. Bulletin, Various issues

From the table it is observed that in the pre-reform period UK has the largest share of FDI inflows to India followed by U.S.A. In that respect U.K. can be called as our traditional investor.

Table 4.12

Country Wise Actuals : Post Reform Period (1991-97)

Country	Percentage share
Mauritius	13.6
USA	13.5
UK	8.2
Japan	5.3
Germany	4.6
Netherlands	3.6
Singapore	2.3
France	1.9
Switzerland	1.7
Korea	1.3
Italy	0.9
Hongkong	0.8
NRI	33.2
Others	9.1
Total	100.00

Source : R.B.I. Bulletin Various issues

It is quite clear that USA and UK have maintained their positions as the leading investors in India. But the interesting point is that a developing country like Mauritius has emerged as the major source of FDI inflows in the post liberalisation period. In Mauritius, foreign investments are tax free. In that way it is called tax heaven for MNCs. Consequently the foreign investors especially from developed countries like USA are seemed to mobilise their investments through Mauritius in order to escape tax. This might be the reason for the larger share of FDI inflows from Mauritius.

We have examined the yearly variations in the country wise FDI actuals, using exponential trend model.

From the results of trend analysis, low C.V for U.K. denotes consistent FDI inflows to India through that country. But in terms of actuals and approvals, S.Korea shows inconsistency with a high C.V. Both C.G.R. and R^2 value are very low in the case of switzerland which indicates a lack of relationship between time period and FDI inflows. Mauritius with a high C.G.R. signifies the greater intensity of FDI inflows. Greater R^2 value for Italy points out the deep influence of time period on FDI.

Countrywise Actual FDI Inflows : Trend Analysis (1992-93 to 1997-98)

Country	Co-efficient	R^2	C.G.R.	C.V.
U.S.A	0.2233 + 1.3934 t (1.1996)* (0.3080)*	0.84	302.85	119.32
U.K.	-0.1666 + 1.2109 t (1.5582)* (0.4001)*	0.70	235.65	90.56
Japan	0.1974 + 1.1585 t (1.1899)* (0.3055)*	0.78	218.52	94.24
Netherlands	-0.0673 + 1.2004 t (0.8721)* (0.2239)*	0.88	232.14	107.25
Mauritius	-4.5295 + 2.5134t (2.4645)* (0.6328)*	0.80	1134.68	102.53
Germany	-0.2313 + 1.2673 t (0.9897)* (0.2541)*	0.86	255.13	100.72
Switzerland	0.2328 + 0.3911 t (0.8174)* (0.2099)*	0.46	47.86	105.85
Singapore	-1.9768 + 1.4992 t (1.3563)* (0.3483)*	0.82	347.81	93.67
Hongkong	-1.6127 + 1.4036 t (1.7561)* (0.4509)*	0.71	306.98	91.38
Italy	0.1867 + 0.8403 t (0.2154)* (0.0553)*	0.98	131.71	118.52
S. Korea	-0.9977 + 1.2035 t (1.1519)* (0.2958)*	0.81	233.18	214.82
France	-1.1026 + 1.2577 t (1.2661)* (0.3251)*	0.79	251.73	101.95

Note :- * : Standard error of the co-efficient

C.V : Co-efficient of variation

C.G.R. : Compound growth rate

Next we shift to the analysis of foreign collaborations both under the protected and liberal regimes.

Foreign collaboration refers to the formal arrangement of inflow of Foreign investment and technological transfer from outside the country. Mainly there are two types of collaborations; Financial and technical. The inflow of foreign investments is approved through the instrument of financial collaboration agreement and transfer of technology through technical collaboration agreements.

Table 4.13
Annual Foreign Collaboration Approvals : Pre-Reform Period (1980 -90)

Year	Financial collaboration (FCs)	Technical Collaboration (TCs)	Total Collaboration	Percentage of FCs to total	Percentage of TCs to total
1980	73	453	526	13.88	86.12
1981	57	332	389	14.65	85.35
1982	113	479	592	19.09	80.91
1983	129	544	673	19.17	80.83
1984	151	601	752	20.08	79.92
1985	239	785	1024	23.34	76.66
1986	240	717	957	25.08	74.92
1987	242	611	853	28.37	71.63
1988	282	644	926	30.45	69.55
1989	193	412	605	31.90	68.10
1990	194	472	666	29.13	70.87
Total	1913	6050	7963	24.02	75.98

Source : India Investment Centre and SIA Newsletter

Eventhough there seem to be fluctuations in the annual number of foreign collaborations, from the table 4.13, we could easily observe that the proportion of technical collaborations to total was very high in the earlier regulated regime. This is surely an encouraging sign as far as a developing country like India is concerned. Because for the developing country firms, technical collaborations are considered to be the important sources of having access to advanced and sophisticated technologies generated by developed nations. Again this type of foreign collaborations are found to be less costly which again conform to the economic situation of India. Altogether, technical collaborations are more preferable, in comparison to financial collaborations.

The total of all foreign collaborations - financial as well as technical - approved annually reflects the trends and nature of technology transfer from abroad. Infact it is quite desirable to look at the emerging pattern of foreign collaborations in the post liberalisation period as compared to the earlier policy regime.

Table 4.14
Annual Foreign Collaboration Approvals : Post-Reform Period (1991 -98)

Year	Technical collaboration (TCs)	Financial Collaboration (FCs)	Total Collaboration	Percentage of FCs to Total	Percentage of TCs to Total
1991	661	289	950	30.40	69.58
1992	828	692	1520	45.53	54.47
1993	691	785	1476	53.18	46.82
1994	792	1062	1854	57.28	42.72
1995	982	1355	2337	57.98	42.02
1996	744	1559	2303	67.69	32.31
1997	660	1665	2325	71.61	28.39
1998	592	1196	1788	66.90	33.10
Total	5950	8603	14553	59.11	40.89

Source : SIA Newsletter

It can be seen that since the introduction of 1991 policy reforms there has been momentum of growth in foreign collaborations. This quantum jump in the number of collaborations implies that we are getting more and more integrated with the world economic system. It also shows the growing response of foreign investors to liberalisation policy.

The point to be noted here is that in the liberal regime, the share of technical collaborations have been decreasing and that of financial collaborations have been continuously increasing since 1991. We know that FDI comes

through financial collaborations. Thus the data reveals the preference of MNCs to transfer technology in the packaged form which raises the cost of technology transfer to the host country. This sort of a shift in the pattern of foreign collaborations can be attributed to the deregulatory measures towards the MNCs in the new economic policy. But this is not a desirable pattern for a developing country like India as it prevents their access to modern technology and scope for research and development. Infact exploration of transfer of technology in less packaged forms like the simple licensing agreement or outright purchase is more suitable for developing economies.

In this context it is quite supportive to examine the distribution of foreign collaborations based on foreign investment in order to trace the preference range of investment among the foreign investors across the liberal regime.

Table 4.15
Foreign collaborations Based on Foreign Investment (1991-97)

Investment Range (Rs. Crores)	No. of Approvals	Percentage Share
0-1	3040	49.2
1-5	1686	27.3
5-25	906	14.7
25-50	212	3.4
50-100	128	2.0
100-500	173	2.8
Above 500	38	0.6
Total	6183	100.0

Source : SIA Newsletter

The data shows that about 91.2 percent of the total approvals come under 0-25 investment range. This projects the peculiarity and significance of small size investments in India. Foreign investors need not wait for prolonged procedures if they opt for small investment range. Easy approval is got through R.B.I. automatic route. This might be the reason for the larger proportions of approvals in the small size category.

Against this back drop it is quite desirable to have some insights into the pattern of foreign ownership during the post reform period.

Table 4.16
FDI Approvals by Proportion of Foreign Equity Ownership (1991-97)

Foreign ownership (Percent)	No. of contracts	Share in total
25 ≥	1077	17.8
25 - 40	689	11.4
40-50	1746	29.0
> 50 < 100	1725	28.6
100	800	13.2
Total	6037	100.0

Source : SIA Newsletter, Ministry of Industry

The data shows that more than 70 percent of FDI approvals come under 40 percent and above foreign ownershp range in the post liberalisation

period. Apparently, the MNCs, taking full advantage of the new rules under the liberalisation policy are trying to secure majority ownership stake, to strengthen their hold and control over Indian industry. Obviously this can cause adverse impact if not regulated in the desired manner.

4.2.2.3 Sectorwise Distribution of FDI in India

Next the sectorwise pattern of FDI is examined to see whether there is any difference in the preference pattern of FDI inflows to various sectors during the liberalisation regime as compared to earlier policy regime.

Table 4.17
Industrywise Approvals : Post Reform Period (1991-98)
(Percentage Distribution)

Industry	1991	1992	1993	1994	1995	1996	1997	1998	1991-98
Food & Agro	10.69	10.63	12.64	5.07	3.40	10.32	6.21	2.12	6.17
Textiles	3.48	3.58	1.35	6.87	0.97	1.15	1.08	0.76	1.55
Chemicals	27.72	12.30	4.59	11.81	4.36	9.00	6.15	6.30	6.99
Basic metals	0.41	1.52	14.07	16.79	1.27	6.41	4.58	7.26	6.16
Electrical	20.10	12.14	7.49	4.06	4.55	9.09	4.54	5.71	5.96
Non electric	11.49	3.49	2.22	6.49	2.54	1.88	1.52	1.83	2.32
Fuels	0.43	38.69	31.86	16.53	15.68	16.38	48.15	44.86	31.89
Misc. ind.	12.47	2.29	1.53	5.33	0.32	1.63	0.64	1.16	1.35
Service Sector	7.39	14.10	21.17	20.55	65.50	38.44	24.59	26.65	34.19
Others	5.82	1.26	3.08	6.50	1.41	5.70	2.54	3.35	3.42
Total	100	100	100	100	100	100	100	100	100

Source : Computed from data published by CMIE May 2000

Analysis of major recipients of industrywise FDI approvals has indicated its concentration in a few sectors. From the table we could infer that the manufacturing sector is losing ground and the share of service sector has been increasing. In order to get a clear picture of sectorwise distribution, we have reclassified the above data as follows.

Table 4.18.
Sectoral Distribution of FDI Approvals (1991-98)

	(Percentage distribution)								
Sector	1991	1992	1993	1994	1995	1996	1997	1998	1991-98
Manufact-uring	86.79	84.64	75.75	72.95	33.09	55.86	72.87	70.00	62.39
Service Sector	7.39	14.10	21.17	20.55	65.50	38.44	24.59	26.65	34.19
Others	5.82	1.26	3.08	6.50	1.41	5.70	2.54	3.35	3.42
Total	100	100	100	100	100	100	100	100	100

Source : Computed from the data published by CMIE, May 2000

In the earlier protected regime, manufacturing sector accounted for the largest share of FDI approvals (Kumar 1994). But now it is losing its importance and the service sector is emerging as the major recipients of FDI approvals. This might be due to the opening up of the service sector to foreign direct investment under the new liberalisation policy. Eventhough the service sector oriented distribution of FDI is consistent with the policy intention of the government, one cannot consider it as a desirable pattern for a developing country like India.

In order to estimate the annual fluctuations in the industrywise FDI approvals, we have used an exponential trend model. The results of the analysis are explained as follows.

Industrywise Approvals : Trend Analysis (1991-98)

Industry	Co-efficient	R^2	C.G.R.	C.V.
Food & Agro Products	4.99 + 0.3759 t (0.79)* (0.1569)*	0.49	45.63	99.13
Textiles	3.91 + 0.3280 t (0.77)* (0.1531)*	0.43	38.82	88.62
Chemicals	5.141 + 0.4023 t (0.4350)* (0.086)*	0.78	49.53	78.59
Basic metals	1.9525 + 0.9929 t (1.2293)* (0.2434)*	0.86	169.91	192.01
Electrical Machinery	4.9964 + 0.3996 t (0.4391)* (0.0869)*	0.78	49.12	85.68
Non Electrical machinery	4.4183 + 0.3352 t (0.5104)* (0.1011)*	0.65	39.82	65.79
Misc. Industries	4.2473 + 0.2500 t (0.5827)* (0.1154)*	0.44	28.40	83.95
Transportation	3.5698 + 0.6380 t (0.6926)* (0.1371)*	0.78	89.27	95.97
Fuel	3.4086 + 0.9307 t (1.4939)* (0.2958)*	0.62	153.63	122.26
Service sector	4.1360 + 0.7737 t (1.0577)* (0.2095)*	0.69	116.78	108.45

Note :- * : Standard error of the co-efficient

C.G.R. : Compound growth rate

C.V. : Co-efficient of Variation

While basic metals with a high C.G.R. denotes a higher rate of growth of FDI approvals, miscellaneous industries, on the other hand show a very low growth rate in terms of sectorwise FDI flows. Electrical machinery, Transport and Chemicals indicate a close correspondence between FDI and time period denoted by a higher R^2 value. As textiles have not been opened to FDI, time period has failed to influence, FDI inflows which is clearly signified by a low R^2 value. While Non electrical machinery with a low C.V. indicates consistency in the FDI approvals, Basic metals shows inconsistency denoted by a high C.V.

Sectorwise distribution of FDI approvals for the period 1991-1999 is given in the following table.

Table 4.19
Sector Percentage to Total Investment Approvals (Aug 1991 - Dec.1999)

Sector	Percentage share
Energy	30
Telecom	17
Transport	8
Financial service	4
Hotel Tourism	2
Computer Software	2
Mining	1
E-commerce	0
Others	36
Total	100

Source : Economic Times, August 30, 2000.

The interesting pattern that emerge from the data is that 61 percent of total FDI approvals has been attracted by the service sector. It shows the significance and preference for this sector among the foreign investors in the liberal regime. But the issue is regarding the desirability of this pattern in the context of Indian economy. We have seen that the manufacturing sector is losing ground interms of FDI inflows. But it is a fact that manufacturing sector is the back bone of economic growth. In that sense priority should be given for the development of this sector, especially for a developing country like India. We need FDI in the service sector, but we need more FDI in the manufacturing sector.

So far we had been dealing with the industry wise FDI approvals. But approvals are just proposals to invest and they cannot be accounted as real FDI. In order to get a clear description of sectorwise FDI inflows to India we have to examine the actuals flows of FDI.

From the table 4.20 it is seen that manufacturing sector has the largest share of actual FDI inflows in the pre-reform period. This might be due to the high priority rendered to the manufacturing sector by the government through suitable investment policies in the preliberal regime.

Table. 4.20
Industry wise Actuals : Pre-Reform period

(percentage distribution)

Industry	Phase I 1955-1966	Phase II 1966-1979	Phase III 1979-1991
Plantations	18.56	9.51	8.25
Mining	1.34	0.80	0.44
Petroleum	22.35	11.18	1.00
Manufacturing	40.34	70.33	84.88
Food & Beverages	5.87	4.79	5.90
Textile products	3.69	2.66	2.32
Transport equipment	2.27	4.66	8.83
Machinery and tools	2.56	5.79	11.82
Metal products	5.21	10.65	7.49
Electrical and machinery	3.69	7.32	11.18
Chemical allied products	10.23	24.55	28.28
Others	6.91	9.91	9.08
Trading	3.69	3.19	1.03
Construction Projects	4.92	2.33	1.37
Transport	1.23	0.73	0.44
Utilities	0.38	0.13	0.10
Financial Institutions	0.47	0.40	0.12
Others	6.72	1.40	2.37
Total	100.00	100.00	100.00

Source : R.B.I. Bulletin, Various issues

In this context it is quite supportive to look into the sector wise distribution of actual FDI in the post reform period, to see whether there is any significant variation in the pattern of FDI inflows in comparison to pre reform period.

Table 4.21
Industry wise FDI Actuals : Post Reform Period (1992 - 1999)

	Percentage Distribution							
Industry	1992-93	93-94	94-95	95-96	96-97	97-98	98-99	1992-99
Food & Agro	9.37	10.95	7.86	11.48	5.10	2.71	7.30	5.93
Textiles	1.60	7.13	3.92	4.23	1.41	0.58	0.29	1.67
Chemicals	22.20	26.66	15.66	23.20	11.71	13.50	9.19	13.87
Non electric	12.35	4.95	10.46	4.46	3.38	2.28	2.77	3.98
Electrical	19.87	16.92	22.19	12.12	12.16	9.66	12.61	12.83
Basic metals	2.95	0.92	1.42	1.52	0.90	1.44	2.41	1.45
Misc. ind.	7.07	6.10	6.14	6.56	17.19	11.80	22.86	14.24
Fuels	0.95	4.81	4.02	4.38	13.55	6.45	10.24	8.92
Service.S	13.38	6.31	8.39	18.21	25.74	37.91	22.27	25.16
Others	10.26	15.25	19.94	13.84	8.86	13.67	10.06	11.95
Total	100	100	100	100	100	100	100	100

Source : Computed from data published by CMIE May 2000.

From the table we could see that the service sector, chemicals, electrical machinery, miscellaneous industries and fuels are the major recipients of FDI in the post liberalisation period.

In order to get a vivid description of the distribution of FDI between the manufacturing and the service sector, we have reclassified the data as follows.

Table 4.22
Industry wise Actuals : Post Reform Period (1992-93 to 98-99)

(Percentage Distribution)

Industry	92-93	93-94	94-95	95-96	96-97	97-98	98-99	1992-99
Manufacturing	76.36	78.44	71.67	67.95	65.40	48.42	67.67	62.89
Service sector	13.38	6.31	8.39	18.21	25.74	37.91	22.27	25.16
Others	10.26	15.25	19.94	13.84	8.86	13.67	10.06	11.95
Total	100	100	100	100	100	100	100	100

Source : Computed from data published by CMIE May 2000.

In general, the data shows that eventhough the manufacturing sector leads in attracting FDI, its share is declining in the post liberalisation period. On the other hand the share of the service sector is picking up in the preference pattern of FDI. But it is discernible that a service oriented growth, disregarding the manufacturing sector may not be able to accelerate economic development of an economy like India. So one can argue for re-orientation of the existing policies and incentives in such a way so as to promote and attract sufficient FDI in the manufacturing sector since it has been accepted as the backbone of economic growth.

To examine the trends of industry wise distribution of FDI for the period 1992-99 we have used an exponential trend model. The result of the regression estimates are explained as follows. Only the major recipients of FDI have been included for the purpose of analysis.

Industry	Co-efficient	R^2	C.G.R.	C.V.
Food & Agro Products	-10.7297 + 2.6892 t (4.8821)* (0.8861)*	0.65	1371.99	59.05
Textiles	4.1209 + -0.0167 t (0.9079)* (0.2030)*	0.0014	-1.66	68.40
Chemicals	5.3896 + 0.2295 t (0.4150)* (0.0928)*	0.55	25.80	64.41
Non Electrical machinery	4.5793 + 0.1269 t (0.5068)* (0.1133)*	0.20	13.53	59.88
Electrical Machinery	5.0958 + 0.2726 t (0.4386)* (0.0981)*	0.61	31.34	69.04
Basic metals	2.4176 + 0.3777 t (0.3598)* (0.0805)*	0.82	45.89	73.83
Misc. Industries	3.4149 + 0.5925 t (0.5409) * (0.1209)*	0.83	80.85	109.79
Fuel	2.3029 + 0.7020 t (0.7837)* (0.1752)*	0.76	101.78	127.40
Transport	3.6952 + 0.5176 t (0.6367) * (0.1424)*	0.73	67.80	106.24
Service sector	0.7324 + 1.0308 t (1.1579)* (0.2589)*	0.76	180.33	119.91

* Standard Error of the Co-efficient

C.G.R. : Compound growth rate

C.V. : Co-efficient of Variation

The result show that the Food and agro products has high growth rate and consistency in terms of FDI inflows. The Miscellaneous industries with a high R^2 value denotes the inter-relationship between FDI inflows and the time period. As the Textile industry has not been opened to MNCs extensively, it shows a negative growth rate and a very low R^2 value during this period.

ASSOCHAM 2000 in their analysis on sectorwise distribution of FDI revealed that out of total FDI of Rs.85, 615 crores in the post liberalisation period ranging from August 1991-October 2000, six sectors namely Transport, Electrical equipment, Telecommunications, Chemicals, Fuels and Service sector accounted for bulk of the investments at Rs.25168 crores representing 30 percent of the total amount. It further indicated that the transport industry had emerged as the largest recipient of FDI during this period with Rs.6236 crores followed by Electrical equipment Rs.5755 crores, Telecommunications Rs.4333 crores, Chemicals Rs. 4406 crores, Fuels Rs.4112 crores and Service sector with Rs.4225 crores.

As per the analysis, the other sectors that received FDI of over Rs.500 crores in the post reform period are Food processing industry at Rs.2569 crores, Paper products Rs.1126 crores, Mechanical and Engineering items Rs.878 crores, Trading Rs.784 crores, Textiles Rs.837 crores and Metallurgical industries with Rs.695 crores.

4.2.2.4 State wise Distribution of FDI

It is of interest to know about the states which attract FDI to India. But Unfortunately, there is no information on the actual disbursements of FDI inflows among states. Therefore we confine our analysis to the figures of approvals which are not at all a good reflection of the actual distribution of FDI in the states. At the same time, this information is much needed since India is a country with a strong federal character and the states are enjoying considerable autonomy. At present with increasing decentralisation the states are competing among themselves to attract FDI.

From the table 4.23 we could see that Delhi has the highest percentage of approval and Maharashtra, Tamil Nadu, W. Bengal, Karnataka and Gujarat are the other top ranking states interms of FDI approvals. But the point to be noted here is that all these states are having a very high infrastructure development index (CMIE, October 2000). That means, FDI is flowing only to those states which are having better infrastructure facilities. Infact infrastructure can be considered as one of the basic determinants of FDI in India.

Table 4.23
Statewise FDI approvals : Post Reform Period (1991 - 1996)

State	Amount (Rs. Million)	Percent
Delhi	171985.60	18.10
Maharashtra	124699.50	13.12
Tamil Nadu	54095.30	5.69
W. Bengal	51630.30	5.43
Karnataka	50884.80	5.36
Gujarat	34713.40	3.65
Madhya Pradesh	27977.00	2.94
Orissa	27368.40	2.88
Andhra Pradesh	24336.30	2.56
Uttar Pradesh	24309.80	2.54
Haryana	11468.00	1.21
Punjab	8026.40	0.84
Rajasthan	5676.70	0.60
Kerala	5147.30	0.54
Himachal Pradesh	3296.80	0.35
Goa	2823.90	0.30
Pondicherry	2525.00	0.27
Bihar	1307.50	0.14
Assam	724.60	0.01
Tripura	698.30	0.02
Others	317907.50	33.45
Total	950201.30	100.00

Source : Monthly SIA Newsletter

As per the latest data regarding the statewise distribution of FDI approvals, Delhi is maintaining her position as the largest recipient of FDI during 1991-2000 period, followed by Maharashtra, Karnataka, Tamil Nadu, Gujarat, Madhyapradesh, Andhra Pradesh, Orissa, W.Bengal and Uttar Pradesh (Economic Times, August 28,2000).

Altogether we can say that there is no prominent change in the positions of the major recipients of FDI among states throughout the post liberalisation period, even though it fluctuates occasionally. It implies that a major proportion of the total FDI approvals is being concentrated in a few states. This skewed distribution can cause adverse impact on the economy as it accentuates regional disparities. So the states that lag behind in terms of foreign investment have to go for more liberal policies along with suitable incentives and facilities to attract sufficient FDI.

To conclude, the foregoing analysis has proved that the trends and patterns of FDI being shaped by liberalisation, are distinctly different from the earlier policy regime, which indeed restricted the entry and operations of FDI fearing foreign economic domination.

CHAPTER - V

TRADE AND TECHNOLOGICAL BEHAVIOUR OF FDI FIRMS IN INDIA

5.1 Behaviour of MNCs in Developing Countries

The world economy of today is characterised by functional integration between internationally dispersed economic activities with increased geographic spread of economic activities across national boundaries. In the new global economy, countries are brought closer into the web of international commerce both by economic integration and by transmission of tastes, designs ideas and technology through MNCs. Today MNCs are very much attracted to deploy their tangible and intangible assets in the developing countries with a view to increase their competitiveness and profitability. They enjoy the political strategic support of their countries of origin and international financial institutions like IMF, world Bank etc. With regard to the theoretical perspectives of MNCs there are mainly Four schools of thought namely Neo Classical, Global Reach, Neo-Imperialist and Neo Fundamentalist favouring and criticising the operations of MNCs. (Jenkins 1990). Neo Classical (Reuber, Meier, Vernon, Balasubramanyan) observe that MNCs act as efficient allocators of resources internationally so as to maximise world welfare.

Global Reach (Barnet and Muller, Streeten, Lall) are of the view that MNCs

are the major factors creating imperfect markets i.e. MNCs reduce efficiency by making markets less perfect as a result of their oligopolistic strategies.

Neo - Imperialist (Baran, Sweezy, Frank Girwan) consider MNCs as a major mechanism blocking development in the third world and also as an important obstacle to socialist transformation.

Neo Fundamentalist (warren, Emmanuel, Schiffer) are of the view that MNCs not only supplement existing local resources but also generate additional local resources or utilise resources previously unutilised.

We could see all these features of MNCs in different developing economies with varying intensities. MNCs organise their operations in different countries through any of the five alternatives namely Branches, Subsidiaries. Joint venture, Franchisee and Turn Key projects. Large size of MNCs, their technological leadership, better bargaining power, wide marketing network, well established management methods and the multinationality of their operations have contributed towards the efficiency, supremacy and competitiveness of MNCs in developing countries.

Several studies were conducted regarding the general behaviour of MNCs in the developing economies. Here we refer to some of the very relevant studies.

Muller and Morgenstern (1972) compared the employment potential of the MNC technology with that of indigenous technology. They found out that MNCs in developing economies employed only half the labour power per $ 10000 of sales.

Lall (1979) opined that the penetration of MNCs in the less developed countries would lead to higher concentration in the long run as they pull out local firms out of business through effective acqusitions and secure influential positions in their industries out of their bargaining power.

Misra and Puri (1998) in their study regarding the behaviour pattern of MNCs revealed that they are not engaged in R & D activities within the developing countries.

World Investment Report (1992) observed that MNCs have made significant positive contribution in the growth of physical capital and transfer of technology in developing economies.

World Investment Report (1997) noticed that MNCs do make large repatriation of profits and huge payments for royalty and imports in the developing countries.

World Investment Report (1998) revealed that the behaviour pattern of

MNCs has resulted in acceleration of economic growth in the developing economies like Hongkong, Indonesia, Malaysia, Singapore, Taiwan and Thailand.

Nurkse (1973) observed that MNCs were not interested in imparting technical and managerial knowledge to the local population, unless compelled to do so by government regulation in the host economies.

Having examined the general behaviour of MNCs in the developing economies, it is quite supportive to have a brief insight into the nature and pattern of MNCs in the Indian economy.

5.2 Multinationals in India : Some Specific Observations

The rule of thumb is that an MNC prefers marketing to manufacturing. Even after 42 years of existence in India, Hindusthan Lever is more of a marketing company and some of its products like close-up tooth paste are manufactured by other Indian manufacturers. Godrej is producing Camay soap for Procter and Gamble. Reebok shoes in India are manufactured by phoenix shoes. Even Nike shoes, Wrangler jeans, Pierre Cardin shirts are made by Indian manufacturers for the foriegn owners of these brands. Though this sort of FDI seems 'non-essential' it can create business opportunities for Indian entrepreneurs to work with advanced technology and in enhanced quality control environment.

Since liberalisation, MNCs by introducing better products have helped in expanding the choice of the consumers in India. Better technology and efficient manufacturing practices obviously resulted in lowering of production costs. The emphasis on marketing and distribution network of course ensured the availability of the products in every nook and corner of the country.

Many MNCs have pulled out local firms out of business in India. For eg: Hindusthan lever has taken over companies like Tomco, vashishti Detergents and stephan chemicals and Kelvinator has been taken over by whirlpool.

In the process of acquisition, MNCs help to release capital which inturn can be re-invested thus increasing the capital investment in the country.

But it is quite encouraging that Indian Industry has not fared badly in the wake of MNC competition. Indian companies have also followed and offered better products at lower prices by seeking either technical expertise or equity partnership and has come out in flying colours. For eg: Nirma has acquired strong distribution network, marketing skills, quality products and strong brand loyalties.

Reliance has emerged as one of the major TNCs in India. It is the only Indian company to figure in the list of the top 50 developing countries' TNCs.

MRF has been able to stand on its own and it is improving its performance against the entry of all the major MNCs due to its strong R & D and marketing skills. Bajaj Auto continues to be the leader in the two wheeler segment. Hero Cycle is maintaining its position as the largest producer of bicycles in India. Ranbaxy laboratories has not only kept improving its performance but has emerged as a strong Indian multinational.

India has become one of the biggest exporters of software in the world with companies like Infosys Technologies, Tata consultancy services and Tata Infotech exporting software to developed countries (Kum 1998).

The foregoing discussion has highlighted the general nature and character of MNCs in India since liberalisation. But the above scattered views are not sufficient enough to get a clear insight into the pattern of behaviour of MNCs in India. Infact the present study is directed towards a careful empirical investigation of the behavioural pattern of MNCs through analysing the two crucial behavioural aspects namely the trade and technological behaviour of FDI firms in the Indian context.

5.2.1 Trade Behaviour of FDI Firms in India

Trade behaviour explains the export as well as import behaviour of firms. During the earlier protected regime certain studies were undertaken regarding the export behaviour of foreign firms in India. Very few have attempted the

same during the early phases of economic reforms and disclosed their views on the basis of their own empirical findings.

Studies by Lall and Mohammad (1983) have found that foreign presence and the extent of foreign share holding are positively associated with export propensities whereas studies by Subramanian and Pillai (1989), Pant (1993) Kumar (1994) Subramanian et. al (1996) and Joseph (1997) have not found empirical evidence supporting the theory of better export performance of foreign enterprises.

Supporters of TNCs argue that they are powerful agents of export growth. But critics argue that the operations of TNCs are predominantly oriented towards the internal market and the export possibilities of these firms are checked by clauses of territorial restrictions.

Thus it is very easy to say that there is no consensus among the scholars on the relationship between foreign ownership and export intensity.

From the perusal of the available literature it is seen that not a single study has been conducted on the import behaviour of foreign firms in India.

So against this backdrop, we have endeavoured to analyse the trade behaviour of FDI firms to see whether there is any significant change in this

particular behavioural pattern of FDI in the post reform period compared to the pre liberal regime.

To start with, a brief presentation has been made about the variables chosen for the study both for the export and import function.

The Export and Import Determination Models have been specified in terms of some industry and firm characteristics in the frame work of neo-factor endowments and neo-technology theories of international trade.

The explanatory variables chosen for the Export Determination Model are Sales, Advertising Intensity, Capital Intensity, Import Intensity, Net profit and Technological Intensity.

Export Function

Sales (Size) : The size of the firm is measured in terms of sales. It is opted on the ground that exporting requires certain economies of scale. There must be some minimum sales before a firm starts its exporting. Therefore we expect a postive relationship between Size and export intensity.

Advertising Intensity (AdvtInt): This variable has a role in the promotion of export through making variations in the elasticity of demand. So it is postulated that a positive relationship is there between Advertising Intensity and Export Intensity.

Capital Intensity (CapInt.) : The choice of this variable is dictated by the logic of Heckscher-Ohlin theory of trade according to which one would expect to export a commodity based on its relative factor abundance. Thus a labour surplus country like India has comparative advantage in the manufacture and export of labour intensive products. For the same reason we expect a negative relationship between Capital Intensity and export intensity.

Import Intensity (ImpInt) : The new liberal trade policy is oriented towards export promotion through import liberalisation. So there is immense scope for an increase in the imports while accelerating exports. Hence we postulate a positive link between import Intensity and export intensity.

Net Profit (NetP) : It stands to logic that firms with greater access to financial resources do better on the export front. So a positive correlation is expected between Net profit and export intensity.

Technological Intensity (TechInt) : To the extent that a developing country like India is mainly an importer of foreign technology, firms with high technology import can be postulated to have better export performance. So it is hypothesised that there is a positive link between Technological Intensity and export intensity.

The explanatory variables chosen for the Import Determination Model

are Sales, Capital intensity, Export intensity, Net profit and Aavertising intensity.

Import Function

Sales (Size) : The size of the firm is measured interms of sales. It has been included as an explanatory variable expecting that import may increase with increase in the size of the firm. So we postulate a positive relationship between Size and import Intensity.

Capital Intensity (CapInt.): One of the main characteristics of Indian economy is lack of capital. We compensate this deficiency through import of capital goods. So a positive relationship is postulated between Capital intensity and import intensity.

Export Intensity (ExInt.) Evidence shows that export and import of a firm are very much inter-related especially in the present out ward oriented regime. It has been chosen as a variable to see whether firms that import also do export. We expect a positive correlation between them as Export Intensity can have a direct influence on import intensity in the new global economy.

Net Profit (NetP) : It stands to logic that firms with high profitability are better placed to do import. So we expect a positive relationship between Net Profit and import intensity.

Advertising Intensity (AdvtInt.) : In the present competitive world, advertisement has emerged as one of the most crucial components of the selling strategy of an industry. Infering an indirect influence we postulate a negative relationship between Advertising Intensity and import intensity.

Measurement of Variables :

$$\text{ExpInt} = \frac{\text{Total Exports}}{\text{Sales}}$$

$$\text{ImpInt} = \frac{\text{Total Imports}}{\text{Sales}}$$

$$\text{CapInt} = \frac{\text{Gross Fixed Assets}}{\text{Total Wage bills}}$$

$$\text{AdvtInt} = \frac{\text{Advertisement Expenditure}}{\text{Sales}}$$

$$\text{TechInt} = \frac{\text{Expenditure on R \& D +Royalty payments}}{\text{Sales}}$$

NetP = Gross Profits - Taxes

Sales = Gross sales

The specification of both Export and Import Determination Model is given below.

$$\text{ExpInt} = f(\underset{+}{\text{Size}}, \underset{+}{\text{AdvtInt}}, \underset{-}{\text{CapInt}}, \underset{+}{\text{ImpInt}}, \underset{+}{\text{NetP}}, \underset{+}{\text{TechInt}}, \underset{+}{\text{TNC}})$$

$$\text{ImpInt} = f(\underset{+}{\text{Size}}, \underset{+}{\text{CapInt}}, \underset{+}{\text{ExpInt}}, \underset{+}{\text{NetP}}, \underset{-}{\text{AdvtInt}}, \underset{+}{\text{TNC}})$$

Signs indicate the theoretical expectation of the relationship.

TNC is being included here as a dummy variable which takes 'I' for a foreign firm and 'O' for a domestic firm.

Note :- For detailed methodology see section 1.6 of chapter 1.

5.2.2 Empirical Results

The validity of the hypothesis of the Export determination model of firms engaged in both export and import has been tested with the help of OLS multiple regression method on cross section data. The results of the regression analysis at the particular industry level are reported in the table 5.1.

From the Empirical results, it is observed that Regression equations do not fairly explain the variations in the dependent variable in most of the industries which have been indicated by value of R^2. Highest R^2 value is reported in the Electrical industry and the Transport has the lowest R^2 value.

Intercept is positive in all the regression equations which implies the direct relationship between the explanant and explanatory variables of the model.

Table 5.1
Regression Results : Particular Industry Levels

Industry	Inter-cept	Explanatory Variables						
		Size	NetP	CapInt	AdvInt	ImpInt	TechInt	TNC
Food & Agro	0.260 (3.366)	-0.001 (-1.55)	0.006 (1.528)	0.005 (2.879)	-0.878 (-0.611)	-0.003 (-0.006)	5.344 (0.440)	-0.110 (-0.856) R^2=0.31
Textile	0.270 (4.825)	-0.001 (-1.382)	-9.852 (-0.062)	-0.001 (-0.134)	0.998 (-0.342)	0.447 (1.300)	-11.918 (-1.529)	0.141 (1.576) R^2=0.39
Chemical	0.012 (0.250)	-8.246 (-0.742)	0.001 (0.251)	0.004 (2.286)	5.105 (2.039)	0.207 (1.398)	0.290 (0.103)	0.073 (1.270) R^2=0.28
Electrical	0.093 (2.796)	-0.001 (-2.392)	0.001 (2.025)	0.001 (0.144)	-0.884 (-1.110)	0.495 (6.007)	-0.160 (-1.178)	-0.020 (-0.439) R^2=0.44
Electronics	0.016 (0.261)	6.126 (0.636)	-0.003 (-1.240)	0.002 (0.893)	0.162 (0.102)	0.413 (2.606)	-0.264 (-0.795)	-0.049 (-0.719) R^2=0.23
Transport	0.234 (1.554)	-0.001 (-0.639)	0.001 (0.785)	0.006 (0.689)	-3.880 (0.621)	0.387 (0.742)	-2.849 (0.692)	-0.112 (0.639) R^2 = 0.02
Non Electrical	0.094 (2.338)	-3.200 (-0.328)	-0.001 (-0.456)	-0.002 (-0.908)	9.641 (1.988)	-0.074 (-0.325)	-0.717 (-0.526)	0.001 (0.031) R^2=0.17
Metalic	0.140 (2.263)	-0.001 (-1.232)	0.001 (0.979)	0.001 (0.817)	9.008 (0.804)	0.434 (1.876)	4.987 (0.499)	-0.109 (-1.241) R^2=0.26
Non Metalic	0.087 (0.955)	-0.001 (-1.499)	-0.002 (-0.828)	0.003 (0.904)	-12.124 (-1.595)	1.622 (2.963)	-14.939 (-1.505)	-0.026 (-0.189) R^2=0.39
Drugs & Pharma	0.143 (2.690)	5.663 (0.620)	-0.001 (-0.672)	0.003 (1.107)	-1.497 (-1.577)	0.371 (1.777)	0.145 (1.015)	-0.029 (-0.434) R^2=0.18

Note : Figures in parentheses indicate t-statistics.

: Variables are significant at 5 percent level.

The variable Size has the postulated positive sign and significant in the Drugs and pharmaceuticals and Electronics industries which confirms the positive effect of size on export intensity. But it is negatively significant in Non electric and Chemical thereby indicating the export responsiveness of small firms in these two industries.

Advertisement intensity is significant in all the industries except Electronics. But the only difference is that it has a negative influence on export intensity in the Electrical, Transport, Food and agro, Non metalic and Drugs and pharamaceuticals whereas it has shown the expected positive relationship in the rest of the industries.

Net profit has shown a negative sign and found to be significant only in the Textile industry. Thus it has proved to be an insignificant variable in determining the variations in the export intensity in all the other industry groups. It further implies that profit making firms are seen to be less engaged in exports.

Import intensity has the postulated positive sign and seemed to be significant in Textile, Electrical,Electronics,Metalic and Non metalic industries which indicates the direct influence of this variable on the export behaviour.

Technological intensity with the hypothised positive sign has found to

be significant in Food and agro and Metalic industries which confirms the technological back up of firms engaged in exports. But it has taken a negative sign and established its significance in Textile, Transport, Nonmetalic and Non electrical industries which reveals the indirect influence of this variable on the export intensity.

The poor explanatory power of Capital intensity is to be admitted as it is not at all significant in any of the industries eventhough it has taken the postulated negative sign in Textile and Non electrical industries. Thus we have seen that the intensity of influence of the independent variables of the model varies across industries.

But the most important point to be noted here is that the Dummy variable (TNC) has found to be insignificant in all the industries with a negative sign in seven out of the ten industry groups. So one can easily state that this empirical analysis does not support the general proposition regarding the better export performance of foreign firms. On the otherhand the export responsiveness of the local firms has been very well established and proved through the empirical estimation. Thus on the basis of the estimated results we could infer that local firms are better export performers than foreign firms in the manufacturing sector of India even in the later phases of new liberal regime. It further implies that foreign firms have a strong motivation to capture domestic market than undertake exports even after liberalisation.

5.2.3 Import Determination Model

Analysis of trade behaviour will be effective, only through the empirical investigation of import behaviour of the firms engaged in both exports and imports. So an attempt has been made here to estimate the postulated Import determination model through multiple regression method on the basis of cross section data. The empirical results of the regression analysis have been recorded in table 5.2.

From the estimated results, R^2 value in the regression equations vouch for only a reasonable explanatory power of the model. In other words, the independent variables included in the model do not fairly expound the changes or variations in the dependent variable.

Positive intercept in all the equations represent the direct relationship between the explanant and explanatory variables of the model.

Table 5.2
Regression Results : Particular Industry Levels

Industry	Intercept	ExpInt	Size	CapInt	Advt Int	Net P	TNC
Food & Agro	0.053 (2.000)	-0.001 (-0.028)	4.380 (0.498)	0.001 (0.243)	0.510 (1.181)	-0.001 (-0.433)	-0.043 (-1.127) R^2=0.07
Textile	0.028 (1.195)	0.055 (1.229)	7.140 (1.576)	0.001 (2.288)	0.310 (0.351)	0.001 (0.925)	0.077 (2.493) R^2=0.25
Chemical	0.074 (1.918)	0.183 (1.419)	0.001 (2.143)	0.004 (2.576)	-2.702 (-1.122)	-0.002 (-1.711)	0.015 (0.279) R^2=0.36
Electrical	0.001 (0.020)	0.696 (5.951)	0.001 (1.417)	0.005 (2.338)	-0.046 (-0.048)	-0.001 (-1.239)	0.068 (1.258) R^2=0.44
Electronics	0.210 (4.230)	0.415 (2.607)	-0.001 (-1.663)	-0.001 (-0.678)	-1.890 (-1.224)	0.005 (1.905)	0.081 (1.211) R^2=0.28
Transport	0.0381 (2.522)	0.003 (0.223)	-7.898 (-0.346)	0.006 (5.273)	-0.384 (-0.489)	0.001 (0.582)	0.073 (3.133) R^2=0.36
Non Electrical	0.103 (3.944)	-0.048 (-0.398)	-5.700 (-0.810)	0.001 (-0.263)	- 4.150 (-1.134)	-0.001 (-0.155)	0.103 (3.326) R^2=0.31
Metalic	0 098 (2.325)	0.209 (1.943)	1.640 (0.027)	0.001 (0.916)	19.487 (2.843)	-4.400 (-0.170)	0.012 (0.207) R^2=0.34
Non metalic	0.035 (1.352)	0.126 (2.915)	0.001 (2.104)	0.001 (1.614)	3.265 (1.528)	0.002 (2.712)	0.053 (1.741) R^2=0.42
Drugs & Pharma	0.116 (4.284)	0.108 (1.804)	-7.277 (-1.506)	0.002 (1.684)	-0.861 (1.686)	0.001 (1.502)	0.026 (0.742) R^2=0.18

Note :Figures in parentheses indicate t- statistics
Variables are significant at 5 percent level.

From the empirical analysis, eventhough export intensity has the expected positive sign in eight out of the ten industries it is positively significant only in Electrical and Electronics which strengthens the positive effect of this variable on the import behaviour. Size is found to be significant with the postulated positive sign in Food and Agro, Metalic and Textile industries which indicates the direct influence of size on the import intensity. But it is negative and significant in Transport, Non-electrial and Drugs and pharmaceuticals thereby confirms the import responsiveness of small firms in these industries. It has shown to be statistically significant with a negative sign in the Electronics industry which accounts for its negative influence on import intensity.

Advertisement intensity is positive and significant in Food, Metalic and Non metalic which reveals its direct influence on import behaviour. But it has the hypothised negative sign in Chemical, Electronics, Drugs and pharma and Non electrical which thereby establishes its indirect influence on import intensity.

Net profit has a negative sign and found to be significant only in Metalic industry which shows the indirect relationship between this variable and import intensity. Thus it has turned out to be an insignificant variable in all the other regression equations of the model though it has shown meagre positive influence in the case of Electronics industry.

The variable Capital intensity has the postulated positive sign in nine out of ten industries and it has proved to be statistically significant in Textile, Chemical and Electrical with an implication of positive influence and in Electronics it has indicated a negative relationship with import intensity.

Dummy variable has the hypothised positive sign in all the industry groups except Food and agro. It has shown to be statistically significant with a positive sign in five industry groups namely Textile, Electronics, Transport, Non metalic and Non electrical pointing out the tendency on the part of foreign firms to do import. But in the rest half of the industries local firms have proved to be more import responsive.

As the co-efficient of the Dummy variable has shown to be insignificant in all the industry groups considered for the regression estimation, it can be ascertained that foreign ownership has no significant effect on import decision and it does not provide empirical support to the general proposition regarding import responsiveness of foreign firms. On the otherhand through the empirical analysis, local firms have proved to be more import intensive than their counterparts in the manuacturing sector of India even in the advanced stages of liberalisation.

Foregoing has thrown light on the trade behavioural pattern of firms engaged in both exports and imports. Further an attempt has been made to

examine the trade behaviour of firms which are conferred only in imports to see if there is any change in their pattern of behaviour based on the nature of trade. This sort of behaviour also has been estimated through multiple regression model based on cross section data. The empirical results of the trade behaviour of firms which are engaged only in imports have been reported in the table below.

Table 5.3
Regression Results : Particular Industry Levels

Explanatory Variables

Industry Group	Intercept	Size	CapInt	AdvtInt	NetP	TNC	R^2
Chemical	0.142	9.160	-0.001	-1.269	-0.001	-0.019	0.24
	(1.752)	(1.876)	(-0.619)	(-0.657)	(-0.443)	(-0.170)	
Electrical	0.105	-0.001	-0.001	6.019	-3.100	-0.024	0.74
	(3.163)	(-1.638)	(-0.875)	(7.096)	(-0.045)	(-0.443)	
Electronics	0.308	-9.200	-0.007	-0.176	0.003	0.013	0.31
	(4.921)	(-0.526)	(-1.724)	(-0.731)	(1.362)	(0.140	

Note :Figures in parentheses indicate t-statistics

Variables are significant at 5 percent level

The inter-relationship between the variables in the regression equation has been well established by high R^2 value in the Electrical industry. But in the case of other two industries, it indicates only moderate influence of independent variables.

Positive intercept points out the direct relationship between the explanant and explanatory variables of the model.

The variable Size is positive and found to be highly significant in the Chemical industry which confirms the positive effect of size on import intensity. But it is negatively significant in Electronics which thereby reveals the import dependency of small firms.

Advertisement intensity is observed to have high positive influence on import decision in the Electrical industry. But it has shown an indirect relationship in the chemical industry with the postulated negative sign.

Net profit has appeared to be negatively determining the import behaviour in the Electrical Industry. It has the postulated positive sign only in Electronics though not statistically significant.

Capital intensity has taken a negative sign and found to be insignificant in all the three industry groups. Thus it has turned out to be a trifle variable in influening the variations in the import intensity.

It is important to note that here also the Dummy variable is found to be insignificant in all the industry groups both in terms of co-efficient and t-statistics. Thus the postulated positive relationship between foreign

ownership and import intensity in the regression equation has been refuted. On the otherhand in contrast to the hypothesis, the import dependency of local firms has been ratified and ascertained on the basis of empirical estimation.

In brief, the analysis of trade behaviour of firms in the manufacturing sector has empirically proved that foreign firms are neither export promotive nor import responsive in the Indian context even in the post liberalisation period.

5.2.4. Technology Behaviour of FDI Firms in India

Technology has been recognised as a dynamic factor in economic growth. It is a combination of knowledge equipment and skill required in the production process. Now Technology is revolutionising our lives. Technological progress is not of course a new phenomenon in human history. But what is unique about the modern era, however is the rapidity, depth and constancy of the flow of new and sophisticated technology and its application. The import of technology, its absorpton and diffusion, generation of local technology in the national laboratories, its ultimate transfer and successful commercial utilisation, further diffusion and imports of technology all together form the dynamic systems of innovation.

Technological change and the consequent increase in the technological capability of a developing country depends very much on the transfer of

technology from the developed countries which is complemented by R & D efforts for assimilation, adaptation and improvement. FDI is one of the efficient means of transferring technology to developing countries. The possibility of obtaining modern technology is perhaps the most important reason why developing countries wish to attract FDI. It is argued that foreign technology leads to better and more efficient allocation of the scarce resources to serve as a sparkplug for initiating the transformation of semi-stagnant economies of the third world into modernity, assuring self reliance in the long run. But the transfer of technology by the MNCs are generally criticised on the grounds that they transfer capital intensive technology, create superflous wants influencing the pattern of consumption through technology import and promote monopoly resulting in concentration of economic power in developing countries. Thus arguments prevail, for and against MNCs. But technology behaviour of MNCs has been a subject of great interest among the scholars since 1950s. For the same reason, in the pre-reform period several studies were conducted in this area. But very few have attempted an empirical investigation of technological behaviour of MNCs during early 1990s in the Indian context and all came out with their own empirical findings. Here we refer to some of the very relevant past studies undertaken in India.

Subramanian and Balasubramanian (1972) observed that payments for foreign technology were exorbitant imposing a heavy burden on the economy and with the export restrictive conditions often found in the collaborative

agreements and a given tariff jumping motivation of MNCs transfer of technology had been import creating and export discouraging.

Kumar (1985) found out that the local technological development was restricted by MNCs and they spent little on R & D and preferred to depend on their parent companies for their technological requirements.

Lall (1988) concluded that the technological behaviour of Indian enterprises was highly conditioned by their protected economic environment.

Katrak (1990) revealed that technological effort, measured by R & D expenditure was higher in enterprises whose technology imports include those intended to strengthen their in house technological capabilities but lower in the enterprises that had negotiated an exclusive right of sale in the home market.

Kumar (1990) did not find any significant difference between R & D intensity of local and foreign firms.

Subramanian et.al (1996) through his empirical analysis established the absence of complementary relationship between technology import through FDI and domestic technology efforts. Studies by Subramanian (1972) Kurian (1966), Kidron (1965) Kumar (1982) indicated excessively expensive nature of technology import through FDI.

Most studies (Bhagwati & Srinivasan (1975), Desai (1980) (1984) Lall (1987) Nayar (1983) emphasised that adaptation of foreign technology to suit local conditions constituted a major component of indegenous technological effort in India. Usually R & D expenditure are regressed on technology purchase expenditure and other explanatory variables like sales. (Katrak 1985, 1989, 1990, Kumar 1987 and Subramanian 1991) and majority of the studies (eg. subramanian (1987) Katrak (1989) Kumar (1987) suggested that R & D expenditure and expenditure on technology imports are positively correlated.

Thus we have seen that different studies have used different methods and measures of variables and have arrived at conflicting inferences on the technological behaviour of MNCs in India.

But it is important to note that Indian firms were found backing up the technology import with indigenous R & D and thereby strengthening their internal technological capability under the closed door policy regime as empirically established by precedent studies.

In the background of the past studies regarding the technology behaviour of MNCs it is supportive to have a brief insight into the technology import policy prevailed in India and also the policy changes that have taken place in the post reform perod as part of liberalisation. Because policies with regard

to technolgy transfer are of vital importance in shaping the nature and pattern of technology behaviour of foreign firms.

5.2.4.1 Technology Policy

Technology policy followed by our government was relatively liberal in 1950s and early 1960s but its scope was limited. The mid 60s saw in operation an internal technological development strategy and a more restrictive policy of selective import of technology to achieve self-reliance. However towards the later part of 1970s an intense dissatisfaction began to emerge and the technology policies got modified in an evolutionary way towards import liberalisation and outward orientation which gained real momentum in the 1980s. (Kumar 1985).

With economic reforms and liberalisation programmes since 1991 the policy and procedures for the transfer of foreign technology have been simplified by providing for measures such as automatic approval of technology agreements in high priority areas with specified parameters (eg : maximum limits for royalty, lumpsum payments) and freedom for hiring of foreign technicians. The liberalisation has thus made enterprises free to negotiate terms and conditions of technology transfer according to their commercial judgement. This is distinctly different from the earlier regimes when the terms and conditions of technology transfer were determined by the government using adhoc rules and discretion (Subramanian 1996).

It is seen that the shift in policy and transparency in approval procedure introduced since 1991 has been making wonderful effects on the acquisition of sophisticated technology by the Indian enterprise.

In a developing country context it is often said that 'Industrialisation is a process of acquiring technological capability in the course of continuing technological change' (Pack and West phal 1986). In the process of industrialisation, the influence of FDI and technology transfer in enhancing the national technological capability is widely recognised and accepted. But technology transfer is only one element of the technological capability and by itself is not adequate to ensure the dynamics of technological progress. It has to be backed up with domestic technological efforts on a continuous basis to mould the imported technology appropriate to local conditions and also to develop new processes and products in tune with the fast changing environment. Thus the technology capability building of a developing country is a combined process of import of technology and the domestic technology efforts through R & D. This complementary relationship between technology import and domestic R & D has a very important role in enhancing the national technological capability.

It is seen that technology behaviour is measured mainly through technology import and R and D efforts. In fact in our present study regarding technology behaviour of FDI we emphasise on the empirical investigation of

the complementary relationship between technology import and domestic technology efforts of foreign firms in India. The analysis has been done through OLS Multiple Regression Model subject to the limitation of cross section data.

In this context we give a brief note on the explanatory variables chosen for the study.

Sales (Size) : The size of the firm is measured interms of sales. Size is expected to have some influence on the R and D effort of a firm.

Import of Capital (ImpC): It is used as a proximate of technology import as it represents the cost of the import of embodied technology.

Foreign payments (ImpR) : Foreign payments on account of royalty, technical fees etc. on account of transfer of disembodied technology has been included as another variant of technology import.

Transnationality (TNC) is being incorporated as a dummy variable which takes 'I' for a foreign firm and 'O' for a local firm. The model has been specified as follows.

$$R \& D = f(Size, ImpC, ImpR, TNC)$$

This particular behavioural pattern has been attempted to see whether there is any difference in the technological behaviour of firms under liberal regime as compared to the earlier pre-reform period. We expect a complementary relationship between technology import and R & D efforts of foreign firms in India. The empirical results* of the OLS Regression Estimation are reported in the table below.

Table 5.4

Regression Results : Particular Industry Levels

Industry group	Intercept	Sales	ImpC	ImpR	TNC	R^2
Transport	0.821 (0.882)	-0.001 (-6.500)	0.398 (13.055)	-0.029 (-0.482)	1.084 (0.686)	0.83
Chemical	0.465 (1.304)	0.003 (5.257)	0.003 (0.487)	-0.061 (-2.012)	1.075 (1.873)	0.91
Drugs & Pharma	2.946 (2.025)	0.004 (4.189)	0.324 (1.360)	-0.133 (-0.157)	-3.266 (-1.187)	0.42
Electrical	-1.217 (-1.951)	0.006 (6.353)	0.175 (6.056)	2.149 (4.053)	-1.389 (-1.230)	0.91
Electronics	0.344 (0.574)	0.007 (5.260)	0.109 (1.403)	-0.034 (-0.848)	-2.291 (-1.952)	0.52

Note :Figures in parentheses indicate t-statistics

Variables are significant at 5 percent level

* For detailed methodology see section 1.6 of Chapter 1.

The variables in the regression equation explain a fair proportion of the variations in the dependent variable in three of the five industries which has been clearly indicated by high R^2 value.

The positive intercept in the four industries shows direct relationship between the explanant and explanatory variables in general.

The co-efficient of Sales is positive and shown to be statistically significant in Chemical, Drugs and pharma, Electrical and Electronics which thereby reveals the positive effect of size on domestic R & D.

The cost of the import of capital is found to be statistically significant with a positive sign in all industries except the Chemical industry, with an implication of the postulated complementary relationship between technology import and domestic R & D in four of the five industry groups.

The co-efficient of Foreign payments has taken a positive sign and proved to be significant only in the Electrical industry where the complementary relationship between import of technology and R & D intensity is well established. But the corresponding relationship in terms of this variant of technology import is not seen in the rest of the industries especially Drugs and pharmaceuticals which accounts for large volume of FDI. Thus it implies that the presence of FDI in these

industries do not contribute towards the national technological capability building.

It is important to note that the Dummy variable has a positive sign and found to be significant in the Transport and Chemical industries which thereby confirms the positive relationship between foreign ownership and domestic R & D efforts. It further implies that foreign firms do internalise the technology they import from their parent firms and subsidiaries in these industries. But the Dummy variable is found to be negatively significant in the rest of the three industries which thereby establishes the R & D intensity of local firms in India.

It is noticed that the engagement of local firms in the domestic technology efforts is of course an encouraging pattern as it indicates the increasing degree of technologial self reliance of local firms. But the analysis does not provide empirical support to the postulated complementary relationship between technology import and domestic R & D efforts of FDI firms in three of the five industries taken for the study. So it is quite disturbing to note that FDI firms do not adequately back up the import of disembodied technology with domestic R & D in the Drugs and pharmaceuticals, Electrical and Electronics which are considered to be the crucial manufacturing industries in India where local technological development is indispensable.

Thus from the analysis of the trade and technology behaviour of FDI

firms in India in the post liberalisation period, we can conclude that in terms of trade behaviour, foreign firms have proved to be neither export promotive nor import responsive. But in the case of technological behaviour the empirical results show that the technology import of FDI firms are backed up with domestic R & D efforts in the Transport and Chemical industries whereas in the rest of the three crucial industries namely Electrical, Drugs and pharmaceuticals and Electronics, FDI firms are not found to be engaged in domestic technology efforts in India even under the new policy environment.

CHAPTER - VI

CONCLUSIONS AND POLICY IMPLICATIONS

It is a fact that the new economic reforms introduced in 1991 marked an important water shed in the economic history of India. Since then the approach to and content of economic policies under went an important change, thus giving a new shape and climate for Indian economy.

Of the new economic changes that have taken place in India, supported by the new policy environment, the liberal approach adopted in favour of FDI deserves special mention. It is quite inspiring to note that one of the objectives of liberalisation itself is to promote FDI which has been recognised as the most preferred form of capital inflow due to its long term commitment and non-debt creating in nature. FDI which has been accepted as the engine of economic growth is emerging as a very significant phenomenon in the new global economy.

In this context, the present study has analysed the trends, patterns and behaviour of FDI under the influence of economic reforms in India. Obviously the study has a set of findings which, of course have induced us to argue for further policy changes in India.

During the course of the present study related to economic reforms and

FDI, we have observed, several aspects regarding new policy changes and nature and pattern of capital inflows in the Indian context. But for the time being, to be more precise, here we summarise only the major findings emerged out of the empirical analysis, with respect to the specific objectives of the study.

6.1 Major Findings of the Study

Our first objective is to evaluate the specific economic reform measures introduced in India since 1991 that influence the entry and operations of FDI. Although we have attempted a brief evaluation of FDI policies on the basis of candid views expressed by eminent scholars and economists, it is felt that, this particular task would be fruitful only if the new policy changes are evaluated in the background of empirical findings of the study. Thus the evaluation of the existing policies coupled with suitable policy implications have been endeavoured in the later sections of this chapter.

The second objective of the present study is to examine the trends and patterns of FDI inflows to India during the post reform period.

Findings with respect to this objective have been condensed as follows.

* From the analysis of FDI trends, it is found out that there is a quantum jump in the FDI inflows in the post reform period. To substantiate, in the pre-reform period, the compound growth rate was only 33.83 percent

whereas it has increased to 49.06 percent in the post liberalisation period.

* It is evident that India's share to total FDI into developing countries is only 1.4 percent even in the later phases of liberalisation.

* The realisation rate (actual / approval ratio) of FDI in India has been found to be increasing since 1996. But the actuals as percentage of approvals for the period 1991-99 came only upto 25.31percent . Thus with respect to the trends of FDI in India it is quite encouraging to note that there is substantial improvement in the FDI inflows during the post reform period. But it is worrisome that India's share in comparison to other developing countries is very poor inspite of her liberal policies and it has been observed that in our economy the FDI approvals are not easily getting materialsed.

Regarding the patterns of FDI distribution, we have found out the following.

* With respect to source of approval FIPB/SIA route (67.33 percent) has the largest share of FDI approvals in the liberal regime. NRI direct investment (16.24 percent) has the second place and RBI automatic route (7.47 percent) is found to have an insignificant share during the period 1991-99.

* In terms of country wise approvals,USA (25.53 percent) accounted for the highest percentage of FDI proposals followed by Germany (18 percent) and Japan (8.43 percent) in the pre-reform period. But it is to noted that USA

(22.01 percent) maintained her position even in the post reform period succeeded by Mauritius (12.07 percent) and U.K. (7.30 percent) with respect to approvals of FDI in India.

* It has been observed that the nature of country wise origin of FDI is slightly different for the actual inflows. Data shows that in the pre-reform period, U.K. was the principal traditional investor in India followed by USA, whereas in the post reform period, Mauritius (13.6 percent) a developing country has emerged as the leading investor in India succeeded by USA (13.5 percent) and UK (8.2 percent) in terms of actual inflows.

* From the available data, it is quite evident that the technical collaborations (75.98 percent) outnumbered financial collaborations (24.02percent) in the protected regime. But in the post liberalisation period, it has been found out that the financial collaborations (59.11 percent) have superseded the technical collaborations which obviously, provide scope for serious thinking on the part of policy makers in India.

* The analysis of the FDI approvals as proportion of Foreign equity ownership has shown that more than 70 percent of the FDI approvals have come under 40 percent and above Foreign ownership range in the post reform period, which throws light on the increasing foreign ownership and control over the Indian enterprises, as part of liberalisation.

* A detailed examination of foreign collaborations on the basis of foreign investment has revealed that 91.2 percent of the total FDI approvals has come under 0-25 (Rs. crores) investment range in the post reform period, indicating the preference for small size investments in India.

* Regarding the sectorwise distribution of FDI approvals, it has been observed that the Manufacturing sector accounted for the largest share of approvals in the pre-reform period. But in the liberal regime, it is found out that the share of Manufacturing sector has got reduced to 62.39 percent and that of service sector has increased to 34.19 percent.

* Out of the service sector, energy has the highest percentage of approvals (30 percent) followed by Telecom (17 percent) and Transport 8 percent during the period 1991-99.

Interms of sectorwise actual inflows of FDI,the Manufacturing sector was the leading recipient (83.88 percent) in the pre-reform period of 1979-91. But in the post liberalisation period the share of the Manufacturing sector has declined to 62.89 percent and that of service sector increased to 25.16 percent during 1992-99.

* The statewise distribution of FDI has shown that Delhi (18 percent) has the highest percentage of FDI approvals followed by Maharashtra (13 percent), Karnataka (5.35 percent) and Tamil Nadu (5.6 percent) in the post reform

period. It is to be noted that all the leading states are seemed to have high infra-structure index which, thereby proclaims the significance and role of infrastructure, while attracting FDI to the economy.

Thus all considered, the findings with respect to the pattern of FDI distribution have proved that the FDI approvals are mainly scrutinised and ratified through FIPB/SIA route in the liberal regime. The countrywise analysis of FDI revealed that U.S.A has maintained her position interms of FDI approvals both in the pre and post reform periods. With regard to actuals, Mauritius, a developing country has accounted for the largest share in the outward oriented regime. The sector wise distribution of FDI has shown that interms of actuals as well as approvals, the Manufacturing sector is losing ground and Service sector is emerging as the major recipient of FDI in the liberalisation era.

The statewise dispersal of FDI approvals indicated that states like Delhi, Maharashtra, Karnataka and Tamil nadu which have high infrastructure index are the leading recipients of FDI in the post reform period.

Our third objective is to study the trade and technological behaviour of FDI firms in India under the influence of economic reforms.

* From the analysis of the trade behaviour of FDI firms in India it is seen

that the empirical support to the a -priori idea of high export propensity and export orientation of FDI firms in comparison to domestic firms is not pragmatic in the Indian context. Likewise it is also observed that the foreign firms are not even import intensive compared to local firms in India.

Thus from the empirical estimation it is proved that the FDI firms in India are neither export promotive nor import responsive even after liberalisation.

* Interms of technological behaviour of FDI firms it is found out that there is complementary relationship between R & D expenditure and import of capital in two industries viz. Transport and Chemical whereas in the rest of the industries namely Drugs and pharmaceuticals, Electrical and Electronics which are prone to technological progress, the import of capital is not backed up by domestic technological efforts.

Thus the analysis has revealed the lack of interest on the part of MNCs to internalise the technology mainly in those industries which are subjected to continuous technological change, thereby restraining the scope for local technological development in India.

The results of the present study show that the trends, patterns and behaviour of FDI in the post reform period do not conform to the new policy

expectations of our government. So there seems to be immense scope for fine tuning some of the existing policies and practices in such a way so as to make FDI advantageous to our economy. In fact some policy inferences have been made in the light of empirical findings of the study, which, thereby may provide some clues for further policy making in India.

6.2 Policy Implications

1. The wide gap between actuals and approvals of FDI observed by the study, indicates the cautious approach of foreign investors even if they get easy approvals. The study has further shown that inspite of the liberal FDI policies, India has failed to attract sufficient FDI. That means liberalisation is not the only factor that influence and determine FDI. In other words, liberalisation is a necessary condition but not a sufficient condition to attract FDI. There are several other factors like size of the domestic market, growth rate of the economy, inflation, wage rate, natural resources, tax rate, political climate, infrastructure etc. which can really stimulate and influence FDI. So all these factors have to be taken into account while formulating national policies. Thus we should go for 'rational liberalisation' rather than merely opening up the economy for foreign investors (Susmitha 2000).

2. We have seen that R.B.I. automatic route has only a very meagre share in terms of source of FDI approvals. But it has to be admitted that the process of automatic approval can go a long way in accelerating FDI inflows

as it facilitates easy approvals without any sort of delayed procedures. So to improve its significance, it is quite desirable on the part of the government to declare the specific areas where FDI would not be permitted without prior clearance, so that it may be easy for the foreign investors to get automatic approval for all cases except in the negative list where FDI is not allowed. With such a change, the relevance and role of R.B.I. automatic route may get improved, providing a better chance for augmenting FDI inflows to India.

3. The study has observed that in the post reform period, the technical collaborations are showing a declining trend in comparison to financial collaborations. But technical collaborations are considered to be the important sources of having access to advanced and sophisticated technologies generated by firms of developed countries. Moreover after liberalisation there is a tendency on the part of host economies to acquire foreign technology through other types of alliances/tie ups such as manufacturing, marketing, financial etc. other than pure technical collaborations. This might be one of the reasons for the declining share of technology agreements in India. But it is mainly attributed to the deregulatory measures towards MNCs with respect to technology transfer. That is as per the new liberal policy, FDI need not be accompanied by technology transfer agreements. So obviously it is not mandatory for the MNCs to transfer technology along with FDI. Certainly this will have some adverse effect on less developed countries who attract FDI mainly to get hold of modern technology. So we argue that our government

have to make suitable amendments in the existing laws with regard to transfer of technology in such a way so as to encourage technical collaborations which are less costly and affordable and ensure that FDI is accompanied by transfer of technology so that less developed countries can get easy access to advanced technology with greater scope for local adaptations, improvements and innovations.

4. The study has revealed that in the liberal regime the Manufacturing sector is losing its significance in terms of FDI inflows even though some of the priority sectors like Chemicals, Drugs and pharmaceuticals and Electronics have started attracting FDI. But it is to be noted that Manufacturing sector is the backbone of economic growth and it has got a far reaching role in the process of industrialisation of an economy. Infact the emergence of the service sector as an important designation, at the cost of the Manufacturing sector cannot be considered as an encouraging pattern and has to be viewed with caution. So to improve the situation, we suggest that through appropriate sector specific policy changes and incentives, FDI is to be attracted to the Manufacturing sector where it is indispensable.

5. Promotion of exports has been one of the basic objectives of liberalisation in India. In the new global economy, it is strongly believed that exports could be easily boosted through FDI. But in contrast, the present study has proved that FDI firms in India are not export intensive even under

the new policy environment. That means, foreign firms continue to exploit domestic market in preference to exporting during the regime of liberalisation. This calls for suitable changes in the pattern of export clauses in the existing collaboration agreements, so as to make it conducive to host economy. The new liberal FDI policies like repatriation of profits without export commitment, scrapping of dividend balance condition (linking dividend share with exports) etc. obviously restrict exports through FDI. So these export clauses have to be re-oriented in a suitable manner and also it is quite necessary to impose export commitments on MNCs in order to make FDI export responsive, productive and thus favourable to Indian economy.

6. The study has shown that there is lack of complementary relationship between technology import and domestic R & D efforts of foreign firms especially in those industries which are subjected to continuous technological change and where local technological development is indispensable. But the truth is that if the technology behaviour of FDI firms has to be made effective and favourable to Indian economy, it has to impart enough dynamism to the national technological capability building. So we argue for distinct policies and programmes to strengthen the domestic technological capability on its own, with the initial support that FDI renders. In other words, we need a well thought out policy regarding technological import and also positive government intervention to ensure that the technology that we import through

FDI is backed up by domestic R & D efforts in order to enhance the technological capability of the economy.

In conclusion, it is well known that the wave of globalisation is sweeping across the world today. It is an unavoidable process which is taking place independent of us. In fact there is no room in a globalised world for an economy delinked from world trade and foreign investment. The truth is that if we do not reform rapidly and position ourselves to compete, we will be marginalised. Because there is no divine dispensation that gives India alone the power to survive and prosper as an isolationist island in a globalised world.

In the increasingly interdependent open and competitive world, globalisation is an inevitable change. Obviously FDI which has now been recognised as the crucial vehicle of globalisation is an inevitable phenomenon especially for developing economy like India. So there is no way out but to permit and promote FDI in order to provide easy accessibility for India to become part of global economy and ultimately emerge as global economic power.

Thus in the wake of recent developments, it is a challenge for India to formulate FDI policies in accordance with her development policy goals and intune with the comparative advantage interms of different structural and geopolitical parameters. But successful implementation is more challenging and have to be seriously dealt with while formulating policies.

We want growth, technology and employment through FDI without sacrificing ownership and control. So FDI policy will have to be pursued in a manner that the foreign entry does not threaten the existence of national champions in an unfair manner. In otherwords the idea of inviting MNCs to India should be to increase competition and not to build monopolies by killing the Indian brands. Thus India needs to implement a consistent policy fostering FDI and improve competitiveness.

The process of attracting FDI has to be cost effective and does not mean expensive and frequent international travel by Ministers and officials in the name of seeking FDI.

It is always better if we follow a selective, discriminatory and flexible approach towards FDI. India as a country must take full advantage of the global changes in capital flows and attract not only more but also high quality investment which has strong links to the domestic economy export orientation and advanced technology. Thus FDI needs right and steady liberalisation with proper sequencing in order to make it effective and conducive to our economy.

6.3 Areas for Further Research

The present study is limited to the analysis of trends, patterns and trade and technological behaviour of FDI in India under the new policy environment. Indeed there are some important areas which could not be touched upon with

proper treatment or captured by our analysis due to time and resource constraints. Some of such critical areas identified for further research can be briefly noted as follows.

* It appears that some significant developments in the recent decades have created a new setting for FDI inflows and technology transfer into developing countries. In the wake of these developments, it is useful to have a study on the trends, patterns and determinants of FDI in order to understand the dynamic role of FDI under liberalisation policy in the developing countries. Moreover in the background of this study it is likely to observe that, to what extent the Indian experience with respect to FDI under new policy environment differs from that of other countries. Indeed it facilitates India to learn from the development experience of her counter parts.

* It has to be admitted that the impact of multinational firms on Indian economy has to be studied in a wider perspective especially in the new global world and thus it cannot be confined to the trade and technological behaviour of FDI. Because it seems to have several significant dimensions which obviously, crave for an indepth analysis. Of that, the impact of FDI on employment creation deserves special mention. So while analysing the role of MNCs, we should pay more attention to the pattern and generation of employment which has been recognised as an important parameter of development. Such a study on employment behaviour of FDI is important because factor proportions of the process of production of MNCs is likely to

be different from that of national firms which are usually consistent with factor endowments of the economy.

* Lastly it is quite interesting and desirable to have a study on the nature, pattern and effect of market behaviour of MNCs in India in the light of new policy changes. To elaborate we have to examine the manner in which the behaviour of MNCs influence the market orientation and thereby the market structure dynamics, in particular the tendency of MNCs to expand market power through mergers and acquisitions and other forms of strategic behaviour and to what extent this behaviour is observed in the Indian context and also it may be fruitful to examine whether that has led to increased concentration of power at the macro level and also with respect to specific industries in India.

All the above issues are very important and needs a closer examination especially in the new Indian context. So if get a chance, the researcher has plan to make a move in this direction.

BIBLIOGRAPHY

Adwant, Vijay (1995) : 'Impact of Foreign Direct Investments on India and China', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Alam Shah, Mohammed (1999): 'Foreign Direct Investment and Economic Growth of India and Bangladesh : A Comparative Study', *The Indian Journal of Economics,* Vol. LXXX, No. 316, July .

ASSOCHAM (2000) : *'FDI : The Way Ahead'*, New Delhi, May.

Balasubramanyam V.N., Salisu M, Sapsford David (1991) : 'Foreign Direct Investment and Growth in Export Promoting and Import Substituting Countries', *The Economic Journal,* January.

Balasubramanyan V.N., Salisu M. and Sapsford, D (1996) : 'Foreign Direct Investment and Growth in EP and IS Countries', *The Economic Journal,* Vol. 106.

Balasubramanian, P.S. (2000) : 'NBFCS : Move for 100 percent FDI', *Hindu,* December 31.

Balasubramanyan, V.N. (1972) : *'International Transfer of Technology to India'*, Praeger Publications, Newyork.

Balasubramanyan. V.N. (1998) : 'Jagdish Bhagwati's Contribution to International Economics : An Overview', *The Indian Economic Journal,* Vol 46, No 3, January - March.

Bayoumi Tamin, Bartoline Leonardo and Klein Michael (1996) : 'Exchange Rate Movements and Their Impact on Trade and Investment in the APEC Region', *IMF Publication Service,* Occasional Paper, Washington DC.

Bhagwati, J and Srinivasan, T.N. (1975) : *'Foreign Trade Regimes and Economic Development in India',* Columbia University Press, New york.

Bhalla, V.K. (1994) : *'Foreign Investment and New Economic Policy',* Anmol Publications, New Delhi.

Bhatt, P.R. (2000) : 'Foreign Direct Investment in Asean Economies', *Indian Journal of Economics,* Vol LXXXI, No. 321, October.

Borensztein E., De Gregorio J and Lee J.W. (1998) : 'How Does Foreign Direct Investment Affect Growth?', *Journal of International Economics,* Vol. 45.

Chandra, N.K.(1991) : 'Growth of Foreign Capital and its Importance in Indian Manufacturing', *Economic and Political Weekly,* March.

Chandrashekhar. S. (1995) : 'Technology Priorities for Indian Development : Need for Restructuring', *Economic and Political Weekly,* October 28.

Cohen, Deniel (1991) : *'Private Lending to Sovereign States',* Massachussets, M.I.T. Press.

Datt, N. (1998) : 'Theories of Direct Foreign Investment',in C.S. Nagpal and A.C, Mittal, *Applied International Economics,* Anmol Publications, New Delhi.

De Mello, L.R. and Sinclair Thea, M. (1995):'Foreign Direct Investment, Joint Ventures and Endogenous Growth', *Department of Economics, University of Kent,* Mimeo, U.K.

Desai (1980) : 'The origin and Direction of Industrial R & D in India', *Research Policy*, No : 9.

Desai (1984) : 'India's Technological Capability : An Analysis of Its Achievements and Limits', *Research Policy*, No. 13.

Dua, Pami and Rashid, Aneesa (1998) : 'Foreign Direct Investment and Economic Activity in India', *Indian Economic Review,* Vol. 33, No. 2

Dutt, A.K. (1997) : 'The Pattern of Direct Foreign Investment and Economic Growth', *World Development,* Vol. 25.

Dutt and Sundharam (1998) : 'Foreign Capital, Foreign Aid and Economic Development', in *Indian Economy*, Chand and Company Publishers, New Delhi.

Ganesh.S. (1997) : 'Who is Afraid of Foreign Firms ; Current Trends in Foreign Direct Investment in India', *Economic and Political weekly*, May 1997.

Ghosh, Arun (2000) : 'Mergers and Acquisitions and Foreign Investment Flows', *Business Line*, December 26.

Goel, M.S. (1995) : 'A Comparative Study of FDI in China and India : Problems, Prospects and Planning', in B. Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Goldar, Bishwanath and Ishigami, Etsuro (1999): 'Foreign Direct Investment in Asia', *Economic and Political Weekly,* Vol 34, No.22, May 29- June 4.

Gopinath. T. (1997) : 'Foreign Investment in India : Policy Issues, Trends and Prospects', *R.B.I. Occasional Paper,* Vol. 18, June, Special issue.

Government of India, Ministry of Finance (1993) : 'Foreign Direct Investment Policy', *Facts for you*, November.

Griffin, K.B. (1970) : 'Foreign Capital, Domestic Savings and Development', *Oxford Bulletin of Economics and Statistics*, Vol, 32.

Gupta, I.D. (1995) : 'Foreign Direct Investment in China and India : Planning and Development Strategy', in B. Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives*, Himalaya Publishing House, New Delhi.

Gupta, S.P. (1998) : '*Post Reform India - Emerging Trends*', Allied Publishers, New Delhi.

Gurumoorth, T.R. (1998) : 'FDI - Stimulator for Economic Growth', *Facts for you,* Vol.18, No. 12, April.

Haltori (1999): 'Foreign Direct Investment in Asia', *Economic and Political Weekly,* Vol. 34, No.22, May 29- June 4.

Helleiner, G.K. (1989) : 'Transnational Corporations', in Chenery and Srinivasan (Eds) *Hand Book of Development Economics*, Vol. II, North Holland.

IMF (1991) : 'Determinants and Systematic Consequences of International Capital Flows', *Occasional Paper 77*, March, Washington, DC.

Jadeja, Rajniben (1996) : 'Foreign Direct Investment Under Financial Liberalisation Policy', *in B.M. Jani (Ed) Impact of Financial Liberalisation Policy in India,* Himalaya Publishing House, Mumbai.

Jain P.K., Josette Peyrard and Surendra. S. Yadav (1998) : *'International Financial Management'*, Macmillan Publications, New Delhi.

Jenkins., R. (1990) : 'Comparing Foreign Subsidiaries and Local Firms in Less Developed Countries : Theoretical and Empirical Evidence', *Journal of Development Studies*, Vol. 26, No. 2.

Joseph. K.J. and Subramanian. K.K. (1994) : 'Foreign Control and Export Intensity of Firms in Indian Industry', *C.D.S. Working Paper,* February.

Joseph, K.J. (1997) : 'Structural Adjustment in India : A Survey of Recent Studies and Issues for Further Research', *CDS Working Paper,* No. 267.

Katrak, H. (1985) : ' Imported Technology, Enterprise Size and R & D in a Newly Industrialising Country : The Indian Experience', *Oxford Bulletin of Economics and Statistics,* Vol. 47, No. 3.

Katrak, H. (1989) : 'Imported Technologies and R & D in a Newly Industrialising Country : The Experience of Indian Enterprises', *Journal of Development Economics,* Vol. 31.

Katrak, H. (1990) : 'Imported Technology and the Technological Effort of Indian Manufacturing Enterprises', *World Development,* Vol. 18, No. 3.

Kelkar, Vijay (1974) : 'Impact of Private Foreign Investment in India : An Economic Analysis', *R.B.I. Occasional Papers*, Mumbai.

Kidron, Michael (1965) : *'Foreign Investments In India'*, Oxford University Press, London.

Krishna,G.R. and Saibaba.,G. (1995) : 'FDI in India and China : Trends and Issues', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Kumar, Nagesh (1994) : 'Industrialisation, Liberalisation and Inward and Outward Foreign Direct Investment', in John Dunning and Rajneesh Narula (ed) *Foreign Direct Investments and Governments*, Routledge

.Kumar, Nagesh (1995) : 'Industrialisation, Liberalisation and Two Way Flows of Foreign Direct Investments : Case of India', *Economic and Political Weekly*, December 16.

Kumar, Nagesh (1987) : 'Technology imports and Local Research and Development in Indian Manufacturing', *The Developing Economics*, Vol. 25, No. 3 .

Kumar, Nagesh (1990) : *'Multinational corporations in india'*, Routledge, London and Newyork.

Kumar, Nagesh (1994) : *'Multinational Enterprises and Industrial Organisation : The Case of India'*, Sage Publications, Delhi.

Kumar, Nagesh (1985) : 'Cost of Technology Imports : The Indian Experience', *Economic and Political Weekly*, Vol. 20, No. 35.

Kumar, Nagesh (1982) : 'Regulating Multinational Monopolies in India', *Economic and Political Weekly*, May 29.

Kumar, Nagesh (1998) : 'Liberalisation and Changing Patterns of Foreign Direct Investments : Has India's Relative Attractiveness as a Host of FDI Improved?', *Economic and Political Weekly,* Vol. 33., No. 22, May 30 - June 5.

Kumar, Nagesh (2001) : 'WTO Regime Host Country Policies and Global Patterns of MNE Activity.: Recent Quantitative Studies and India's Strategic Response', *Economic and Political Weekly*, Vol XXXVI, No. 1, January 6.

Kumar, Sanjeev (1996) : *'Foreign Direct Investment In India'*, B.R.Publishing Corporation, New Delhi.

Kum, Arvind (1998) : 'Foreign Direct Investment : A Hobson's Choice', *Capital Market*, March 23- April 5.

Kurian, Mathew (1966) : *'Impact of Foreign Capital on Indian Economy'*, People's Publishing House, Delhi.

Lakshmi, S. (1995) : 'FDI-Aims, Policies and Trends in India and China', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives*, Himalaya Publishing House, New Delhi.

Lall, Sanjaya (1985) : 'Patterns and Impact of Foreign Direct Investment Flows Into and From India', *Economic and Social Commission for Asia*

and the Pacific, Bangkok, U.N. Development Paper.

Lall, S. (1979) : 'Transnationals, Domestic Enterprises and Industrial Structure in Host LDCs : A Survey', *Oxford Economic Papers*, Vol.30, No.2.

Lall, S. and Mohammad. S. (1983) : 'Foreign Ownership and Export Performance in Large Corporate Sector of India', *Journal of Development Studies,* Vol. 20, No.1

Lall,S (1987) : *'Learning to Industrialise'*, Macmillan Press, London.

Lall, S. (1988) : *'Learning to Industrialise : The Acquisition to Technological Capability By India'*, Macmillan Press, London.

Majumdar, Sumit and Chhibber, Pradeep (1998) : 'Are Liberal Foreign Investment Policies Good For India', *Economic and Political Weekly,* Vol, 33, No.6, February.

Mani, Sunil (1997) : 'Foriegn Direct Investments and Exports of Manufactures; A Contrast Between India and Malaysia', *Research Paper Institute of Management*, Trivandrum.

Mankad, P.G. (2000) : 'Government Bets on Increased FDI', *Hindu*, November 8.

Mayer, Helmut (1987) : 'Financial Flows To Developing Countries : Trends ,Problems and Future', *Economic and Political Weekly*, Vol. XXV.

Mehta, Pradeep & Sarma Atul (1980) : 'Role of Foreign Capital in Asean Countries', *Economic and Political Weekly,* December 20, Vol.XV, No. 51.

Mello, Luiz (1997) : 'Foreign Direct Investment in Developing Countries and Growth; A selective Survey', *Journal of Development Studies,*

Vol. 34, No.1, October.

Misra, S.K and Puri, V.K. (1998) : *'Economics of Development and Planning : Theory and Practice'*, Himalaya Publishing House, Delhi.

Morris, Sebastian (1994) : 'Prospects for FDI and Multinational Activity in the 90s', *Economic and Political Weekly*, May 7, Vol. 29, No. 19.

Muller. R. and Morgenstern R. (1972): 'Multinational Versus Local Corporations in LDCS : An Economic Analysis of Export Performance in Latin America', *Southern Economic Journal*, Vol. 42. No.39.

Murthy, Gautham (1995) : 'Foreign Direct Investment in LDCs; Trends in China and India', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives*, Himalaya Publishing House, New Delhi.

Naomi and Hamid Naved (1997) : 'Economic Environment in Asia for Investment' in Charles Oman, Douglas. H. Brooks and Colm Foy (Eds) *Investing in Asia,* OECD, Paris.

Narasimhulu M. and Reddy Sudhakar (1995) : 'The overall Planned Development Strategies in India and China with Special Reference To FDI', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives.* Himalaya Publishing House, New Delhi.

Nayar, B.R. (1983) : *'India's Quest for Technological Independence'*, Lancer Publishers, New Delhi.

Pack, G and Westphal, L.E. (1986) : 'Industrial Strategy and Technological Change : Theory Versus Reality', *Journal of Development Economics,* Vol. 22.

Pant, M. (1993) : 'Export Performance, Transnational Corporations and Manufacturing Sector', *Indian Economic Review*, Vol. 1, No.1.

Prasad, Ashok Chandra (1994) : 'Foreign Investment in India : Some Basic Facts and Issues', *Foreign Trade Review.*

Prasad, P. (1995) : 'FDI and Development', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Radhakrishnan, K.G. and Pradhan, Jayaprakash (2000) : 'Foreign Direct Investment in India : Policy, Trends and Determinants', *Productivity,* Vol. 41, No.3, October - December.

Ragnar, Nurkse (1973) : 'Problems of Capital Formation in Underdeveloped Countries', *Oxford University Press*, Delhi.

Rajan, Ramkishen (1994) : 'Liberalisation and Foreign Capital Flows in the Presence of Uncertainty and Irreversibility : Theory and Policy Considerations', *Development and International Co-operation*, Vol. X, No. 19, December.

Raj, Krishna (2000) : 'FDI Blues', *Economic and Political Weekly*, May 6.

Rao, Venkateshewar (1995) : 'Role of FDI in Indian Economic Development', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives*, Himalaya Publishing

House, New Delhi.

Ramakrishna, S (1995) : ' A Comparative Study of Investment Planning and Patterns for FDI in India And China: Some Issues', in B.Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Rangarajan, C. (1995) : 'Impact of Liberalisation on Foreign Direct Investment and Employment Opportunities in India', *R.B.I. Bulletin,* January, Mumbai.

Reddy, Y.V. (1998) : 'Managing Capital Flows', *R.B.I Bulletin,* November 23, Mumbai.

Reserve Bank of India (1967) January, Mumbai.

Ryutaro, Komiya (1990) : *'The Japanese Economy Trade, Industry and Government'*, University of Tokyo Press.

Sahoo, Kumar Rajib (1999) : 'Foreign Direct Investment and Export Behaviour : An Analysis of Foreign and Domestic Firms in Post-Reform India', *Indian Journal of Economics*, Vol. LXXX, No. 316, July.

Sahoo, Kumar Rajib (1999) : 'Foreign Direct Investment and Economic Development : A Firm Level Analysis of Manufacturing Sector in Post Reform India', *Asian Economic Review*, Vol. 41, No. 1, April.

Saibaba, P and Saqib, M. (1993) : 'Liberalisation and Its Impact on FDI and Capital Flows', in S.P. Gupta (ed) *Liberalisation and Its Impact upon Indian Economy*, Macmillan Publications.

Sampath Kumar, N. George and Anandan, M. (2000) : 'NBFCS : Move for 100 percent FDI', *Hindu,* December 31.

Sarkar Subrata, Sen Anindya and Vaidya Rajendra (1997) : 'Industry Coping with New Challenges', *India Development Report.*

Sarma Atul, Faber Gerrit, Kumar Pradeep (1998): 'India Meeting the Challenges of European Union', in Uma Kapila (ed) *'Economic Developments in India'*, Academic Foundation, Vol. 4.

Sarma, J.V.M. (1988) 'Investment Allowance and Private Corporate Investment in India', *Economic and Political Weekly,* October, Vol XXIII, No. 43.

Shah, Maya (1995) : 'Economic Reforms and FDI in India and China' in B. Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.

Siddharthan, N.S. and Kumar, Nagesh (1994) : 'Technology Firm Size and Export Behaviour in Developing Countries Review', *The Journal of Development Studies,* December, Vol.31, No. 2.

Siddharthan (1999): 'Foreign Direct Investment in Asia', *Economic and Political Weekly,* Vol. 34, No.22, May 29- June 4.

Singer, H. (1950) : 'The Distribution of Gains Between Investing and Borrowing countries', *American Economic Review*, Vol. XL.

Subramanian. K.K. (1967) : 'Foreign Control-No Index of Efficiency', *Commerce*, Bombay, No. 18.

Subramanian K.K. (1991) : 'Technological capability under Economic Liberalism: Some lessons from Indian Industry Experience in the 80s', *Economic and Political Weekly,* Vol. XXVI, No. 35.

Subramanian K.K, Sastry D.V.S, Pattanaik, S.K. and Sujan ,Hajra (1996): 'Foreign Collaboration under Liberalisation Policy : Patterns of FDI and Technology Transfer in Indian Industry Since 1991', *Development Research Group Study,* No. 14, Reserve Bank of India, Mumbai.

Subramanian, K.K and Pillai, P.M. (1979) : *'Multinationals and Indian Exports : A study of Foreign Collaboration and Export Performances',* Allied Publishers, New Delhi.

Subramanian, K.K. (1972) : *'Import of Capital and Technology',* Peoples Publishing House, New Delhi.

Subramanian, K.K (1987) : 'Towards Technological self-Reliance' in Brahmananda P.R. and Panchamukhi V.R. (eds.) *The Development Process of Indian Economy,* Himalaya Publishing House, Bombay.

Susmitha, S (2000) : 'Globalisation and Foreign Direct Investment in Developing Countries', *Development Review*, Vol.1, No. 1, August.

Takuichi (1999) : 'Foreign Direct Investment in Asia', *Economic and Political Weekly,* Vol. 34, No.22, May 29- June 4.

UNCTAD (1998) : *World Investment Report*, UN Publications, New York.

UNCTAD (1999) : *World Investment Report*, U.N. Publications, New York.

Venu, S (2000) : 'Policy Issues in International Investment', *Business Line,* October 24.

Weisskopf, T.E. (1972) : 'The Impact of Foreign Capital Inflow on Domestic Savings in Under Developed Countries', *Journal of International Economics*, Vol.2.

World Investment Report (2000) : *'M & As and Foreign Investment Flows'*, United Nations, New York.

World Trade Organisation (W.T.O.) 1998 : 'Report on Trade and Foreign Direct Investment', *Facts for you*, April.

Zaidi, Naseem (1995) : 'Foreign Direct Investment in India and China : A Comparative Study', in B. Satnarayan (ed) *A Comparative Study of FDI in China and India : Problems and Perspectives,* Himalaya Publishing House, New Delhi.