CHAPTER - I

INTRODUCTION

1.0 Study Background

The process of economic globalisation appears in the form of international trade in goods and services, short term capital movements across countries and by Foreign Direct Investment (FDI). FDI refers to a long-term cross border investment with a substantial influence on the multinational enterprises (MNEs). FDI has become an important source of private external finance for developing countries. In general, the composition of capital flows to developing countries has shifted away from bank loans and toward FDI and portfolio investment. In the 1970s and the first half of 1980s, bank loans were still the primary form of private capital flows to developing countries. In contrast, since the second half of 1980s, the capital flows to developing countries have been dominated by FDI. However, FDI and portfolio flows are the dominant flows after 1985. In addition, FDI is expected to remain the dominant source of external finance to developing countries for the foreseeable future (World Bank 2001).

There are some 82,000 multinational corporations (MNCs) worldwide, with 810,000 foreign affiliates in the world till 2008. These companies play a major and growing role in the world economy. For instance, exports by foreign affiliates of MNCs are estimated to account for about one third of total world exports of goods and services. And the number of people employed by MNCs world-wide, which has increased about four-fold since 1982, amounted to about 77 million in 2008 (UNCTAD 2009, p. xxi).
FDI bears great promise for improving efficiency and expediting growth in developing countries, particularly in the foreign countries where there are scarce capital and technology, or have limited managerial and entrepreneurial talents. Hence, FDI inflows provide the opportunity to get access to the technological and managerial assets of multinational enterprises (MNEs) and it possesses a bundle of assets, including long-term finance, new technologies, skills and management and market access.

One of the key motivations for the foreign countries to attract MNEs is to enjoy technology transfers, because many developing countries suffer from lagging labour productivity and managerial efficiency partly due to the failure or barrier to introduce newest technologies (Trefler 1995).

When MNE investments increase competition in the foreign-country industry, they will force local firms to become more productive by adopting more efficient methods or by investing more in human and/or physical capital. Furthermore, the competition from subsidiaries of efficient MNEs can stimulate local entrepreneurship and innovation, so that it can improve the knowledge base of the foreign economy and then move it towards the globally efficient production frontier.

Furthermore, FDI can aid in bridging a foreign country’s foreign exchange gap to ensure that foreign exchange reserve can fill the gap of insufficient savings to support capital accumulation and to purchase necessary imports.

The long-term nature of FDI has the potential to generate employment, raise productivity, transfer skills and technology, enhance exports and contribute to the long-term economic development of the world’s developing countries (UNCTAD 2004). It is also assisting the balance of payments both through the initial injection of
capital in the short-run and the generation of foreign exchange earnings in the long run. In addition, FDI is considered less prone to crisis as opposed to short term credits and portfolio investments, because direct investors, in general, have a long term perspective when investing in a foreign country (Lipsey 1999). The significant benefits of FDI over other types of capital inflows, has made attracting FDI one of the integral parts of economic development strategies.

Due to the significant role FDI can play in accelerating growth and economic transformation, developing countries are strongly interested in attracting FDI for their strategy of economic development. According to United Nation Conference on Trade and Development (UNCTAD) (1999), "Twenty years or so ago, many governments saw MNEs as a part of the development problem. Today, MNEs are seen as part of the solution". Consequently, FDI has become an important source of private external finance for developing countries. Renewed confidence in the positive benefits of FDI has induced many countries that were restricting FDI in the 1960s, 1970s and 1980s to be more open and friendly towards FDI in the 1990s and beyond, and are taking steps to improve the principal determinants influencing the location choices of MNEs to attract FDI. Hence, a number of countries have tried to improve the general investment environment and introduced various incentives to attract foreign investors. Governments of different countries, developed and developing alike, are competing among themselves to attract more FDI inflows with a variety of investment and tax incentives and other policy preferences (UNCTAD 1999).

According to the International Monetary Fund (IMF 1993), “FDI is defined as a category of international investment that reflects the objectives of a resident in one economy (i.e., the direct investor or source economy) obtaining a lasting interest in an enterprise resident in another economy (i.e., the direct investment enterprise or
foreign economy). The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise, and a significant degree of influence by the investor in the management of the enterprise. The ownership of at least 10 per cent of the ordinary shares or voting stock is the criterion for the existence of a direct investment relationship. Ownership of less than 10 per cent is considered as portfolio investment”.

FDI flows can take three forms, namely i) equity capital, ii) reinvested earnings and iii) intra-company loans. i) Equity capital is the foreign direct investor’s purchase of shares of an enterprise in a country other than its own. ii) In the case of reinvested earnings, it comprise the direct investor’s share (in proportion to direct equity participation) of earnings not disturbed as dividends by affiliates or earnings not remitted to the direct investor. Such retained profits by affiliates are reinvested. iii) Intra-company loans refers to short or long-term borrowing and lending of funds between direct investors (parent enterprises) and affiliate enterprises.

In principle, growth of foreign presence in a country could take place in either of the following two ways. The first is Greenfield investment, which refers to an investment project that entails the establishment of new production facilities, such as offices, buildings, plants and factories, as well as the movement of intangible capital (mainly in services). This type of FDI involves capital movements that affect the accounting books of both the direct investor of the home country and the enterprise receiving the investment in the foreign country. The latter (or foreign affiliate) uses the capital flows to purchase fixed assets, materials, goods and services, and to hire workers for production in the foreign country. Thus, it directly adds to production capacity in the foreign country, and other things remaining the same, contributes to capital formation and employment generation in the foreign country.
The second one is mergers and acquisitions (M&As), where foreign control could grow through acquisition of existing firms in the foreign country. It involves partial or full take-over or merging of capital, assets and liabilities of existing enterprises in a country by transnational corporations (TNCs) from other countries. M&As generally involve in the purchase of existing assets and companies. The target company that is being sold and acquired is affected by a change in owners of the company. There is no immediate augmentation or reduction in the amount of capital invested in the target enterprise at the time of the acquisition, except in some cases involving operations in which the direct investor already has an interest. However, M&As may subsequently lead to an expansion (or reduction) of operations.

From the investor’s perspective, Caves (1971) categorized FDI into three groups, viz., a) horizontal FDI, b) vertical FDI, and c) conglomerate FDI. a) Horizontal FDI is undertaken to produce the same or similar kinds of goods abroad (in the foreign country) as in the home country. Hence, product differentiation is the critical element of market structure for horizontal FDI. It is undertaken to exploit certain monopolistic or oligopolistic advantages, such as patents or differentiated products, particularly if expansion at home were to violate anti-trust laws. These are often found in industries with significant barriers to trade due to tariffs or high transportation costs. Horizontal FDI offer an alternative to trade for penetrating a foreign market. In addition, they allow firms to develop a better understanding of local tastes and preferences through a more hands on approach.

b) Vertical FDIs are firms that break production into stages geographically. In other words, production is fragmented into stages with each stage completed at a different location. The purpose here is to capitalize on difference in factor abundance by locating skilled-labour intensive activities in skill-labour abundant countries.
Subsequently, vertical multinationals arise between countries of different relative endowments. This type of FDI closely adheres to the traditional principles of trade. Vertical spillovers occur due to linkages between foreign firms and their local suppliers by transferring technological know-how through technology licensing and staff trainings. c) Conglomerate FDI involves both the horizontal and vertical FDIs.

According to UNCTAD (1998), there are three motives of FDI, viz., market-seeking, resource-seeking and efficiency-seeking investments. Market-seeking investment is undertaken in a particular country or region to supply goods or services to markets in these countries. The main motive is to bring about a reduction in the cost of supplying a market and the purpose is to serve local and regional markets. It is also called horizontal FDI, as it involves replication of production facilities in the foreign country. Tariff-jumping or export-substituting FDI is a variant of this type of FDI. Market size and market growth of the foreign economy are also the main drivers. Impediments to accessing local markets, such as tariffs and transport costs, also encourage this type of FDI.

In the case of resource-seeking investment, foreign investor locate abroad in order to secure cheaper supplies of raw materials or inputs which are not available at home, and thereby lessen the production costs and enhance competitiveness in both local and foreign markets. Their motives are usually export-oriented in contrast to horizontal FDI. It attempts to produce in as few countries as possible, with each one having advantages in terms of location, endowment and government incentives.

Efficiency-seeking investment occurs when the firm can gain from the common governance of geographically dispersed activities in the presence of economies of scale and scope. Their motive is to undertake to choose lower cost production sites to improve the efficiency with which they supply their established markets.
Together, the factors attracting each type of FDI suggest that countries with a large market, low-cost labour, abundant natural resources, and close proximity to major neighbouring markets would attract large amounts of FDI inflows. FDI would thus go to countries with favorable initial conditions. To an extent, it seems to differ based on the nature of investments, like market-seeking, rent-seeking, efficiency seeking (Dunning 1993), factor-seeking (Root 1994), Labour intensive seeking (Phongpaichit 1990), export-seeking, Tariff Jumping (Sharma 2000) and Natural resource seeking. Gray (1998) and Sadik and Bolbol (2001) termed market- and resource-seeking FDI as trade diverting effect and efficiency-seeking FDI as trade creating effect.

1.1 Statement of the Problem

A foreign investor makes certain crucial decisions while deciding to invest in a foreign country. The initial decision would be on the choice of entry, i.e., whether to produce domestically and export to the foreign market, or to make FDI in the foreign country. The investor would decide the mode of entry to invest via joint venture or wholly owned subsidiary to consider the ownership structure and the multinationals’ share on equity. If the foreign investor decides to enter through wholly owned subsidiary, then again it has to be decided whether to build up an entirely new plant, which means to undertake a Greenfield investment or whether to buy an already existing firm via mergers and acquisitions. All these crucial decisions relate to pre-FDI stage, which the foreign investor decides before entering into the foreign market. Once decision is made to enter the foreign market, timing of investment would be considered in terms of the risk factors involved in the initial stage of investment (i.e.,
sunk cost) due to exchange rate risk and other country-specific risks, like macroeconomic stability and legal environment (Baniak, et. al. 2002).

Thus, exchange rate uncertainty affects the FDI timing decision. According to Dixit and Pindick (1994), most investment projects share three important characteristics such as irreversibility of the investment, uncertainty about the cash flows and the possibility of the investor to delay the investment. Hence, foreign investor would decide when to enter or exit depending upon exchange rate uncertainty prevailing in the market. In this context, this study focuses on an analysis of impact of exchange rate levels and its uncertainty (volatility) on FDI in India.

Most of the theories stressed the importance of entry mode of FDI on the timing of entry into a foreign market and suggested different factors responsible for it. Over the past few years there has been an increasing interest in analyzing the decisions of firms to enter or exit foreign markets. Since the break-down of the Bretton Woods system, exchange rates have fluctuated widely, adding extra uncertainty to the decision to enter foreign market. Future exchange rate tends to affect a firms’ cash flow and thereby influences its decision to make entry into the foreign country.

Studies by Froot and Stein (1991), Klein and Rosergren (1994), and Kiyota and Urata (2004) have directed attention on the possible effects of depreciation and appreciation of real exchange rates on the location of domestic and international investment flows. For instance, if a foreign and domestic firm bid for domestic asset, then depreciation in the domestic countries’ exchange rate would increase the relative wealth of the foreign firm, which making it profitable for foreign firm to invest offshore. Depreciation also lowers relative cost of production in the domestic economy, which in turn increases FDI inflow.
Goldberg and Kolstad (1995), Kogut and Kulatalika (1994), and Lin, et. al. (2006) illustrated the importance of considering post-FDI changes in the context of exposure of a firm’s profits to exchange rate risk. If the investing firm chooses to serve foreign markets via exports or FDI, an increase in exchange rate volatility might lead the firm to substitute FDI for exports to avoid the exposure of profits to exchange rate risk. Whereas, if the purpose of FDI is to diversify location of production to increase market share and to have the option of production flexibility (i.e., market seeking motive), then a positive relationship between uncertainty and FDI would tend to avoid trade barriers. Thus both exchange rate levels and its volatility tend to alter the inflow of FDI.

Although the relationship between exchange rates and FDI has been empirically studied by several authors, disagreements persist on the nature of linkages between exchange rate volatility and the flow of international capital. Most of the research has focused on examining how exchange rate volatility affects FDI in developed nations. Very few studies have investigated the impact of exchange rate volatility and FDI flows to developing countries like India. However, recently some theoretical studies have focused on developing/emerging economies, such as Quere and Revil (2001) in Africa, Revil and Quere (2001) in selected developing countries, and Alaba (2003) in Nigeria and Lin, et. al., (2006) in China.

Research on FDI in India is very sparse, especially studies on the impact of exchange rate levels and its uncertainty (volatility) on FDI. Very few studies focus on the impact of exchange rate on capital flows, but not particularly on FDI. This reflects the lacuna in research on FDI in India. Hence, to fill the research gap the study is conducted in India.
In addition to exchange rate levels and its uncertainty, there are other factors, such as market size, inflation rate, lending interest rate, trade openness, agglomeration effect and wealth effect that play an important role. In this context, it is necessary to include these factors to identify the motivation of foreign investor’s decision to invest in India.

In sum, the research questions of the present study are: i) do changes in exchange rate levels affect the inflow of FDI in India?; ii) does the volatility in exchange rates to deter the flow of FDI to India?; and iii) what factors motivate foreign investors’ to decision to invest in India?

1.2 Objectives of the Study

In the light of these backgrounds, the objectives of the study are as follows:-

i) to analyze the impact of exchange rate levels on FDI inflows in India;

ii) to analyze the impact of exchange rate volatility on FDI inflow in India; and

iii) to examine the factors that motivate the foreign investors to invest in India.

1.3 Methodological Framework

1.3.1 Theoretical framework

The study adopt a simple theoretical model developed by Kogut and Kulatalika (1994) to describe the process of decision-making concerning the choice of production, which is determined by the level of real exchange rate dynamics. Further, the study follows Goldberg and Koldstad (1995) model to illustrate the nature of utility preference of risk averse investors on profit making, when exchange rate uncertainty exists.
The model assumes that foreign investor has the choice between producing domestically and exporting to the foreign market or producing abroad, in which case FDI decisions are based on the relative profitability of various production locations. Once an investment is made in the foreign country, it provides the option to expand in future. This is because the investors establish brand labels and distribution channels through previous export. Thus, they intend to preserve the value of their assets by shifting manufacturer investments to the foreign country when changes in exchange rate deteriorate the terms of trade. Thus, the movement in exchange rate influences the timing of investment for a firm, conditional on its previous investment, and thereby increases the inflow of FDI.

In addition to exchange rate levels, a foreign investor’s decision concerning FDI is made in an unstable macroeconomic environment. FDI behaviour will also be responsive to the degree of investment uncertainty about future prices, rates of return, and economic conditions while undertaking any long-term investments. Following Goldberg and Koldstad (1995), the study assumes that expected utility of profits depends on expected profits and the variance of profits. The model tries to prove that a foreign investor is induced to lower exports from the foreign affiliates when the foreign country’s exchange rate becomes more volatile relative to home country’s market. Thus, an increase in exchange rate volatility reduces export activity of a foreign affiliate, which in turn reduces inflows of FDI to the foreign country.

1.3.2 Data

The present study is exclusively based on secondary data, collected from various issues of Monthly Bulletin, Reserve Bank of India (RBI) and Hand Book of Indian Economy 2008-09, RBI. The study uses quarterly data collected during the period 1996: II to 2008: I. Data on FDI inflow are collected from Quarterly Balance of
Payment, RBI. Gross Domestic Product (GDP) at factor cost (at constant price) for the base year 1999-2000, monthly data on Bank Lending Interest Rate, Wholesale price index for the base year 1999-2000, Export and Import, Bombay Stock Exchange for the base year 1983-84, trade based Real Effective Exchange Rate and Nominal Effective Exchange Rate for the base year 1991-92 and Bilateral exchange rate between US$ and Indian Rupee are collected from Hand Book of Indian Economy 2008-09, RBI.

Gross Domestic Product (GDP) at factor cost (at constant price) for the base year 1999-2000 is considered as a proxy for market size. Bank Prime Lending Rate (BPLR) is considered as a proxy for cost of investment. Monthly data for wholesale price index (base year 1999-2000) is collected and converted into quarterly basis for measuring inflation rate. Openness of trade is measured by adding export and import and divided by GDP as a proxy for trade barriers. Wealth effect is measured through Bombay Stock Exchange index (base year 1983-84=100). Lag of FDI are interpreted as agglomeration effect in the model.

Exchange rate volatility is directly unobservable. Hence to overcome this problem, observations are generated by using conditional volatility framework and a few other methods, by selecting three exchange rate series, namely trade based real effective exchange rate (RER), nominal effective exchange rate (NER) for the base year 1991-92, and bilateral exchange rate (BIEX) between US$ and Indian Rupee. The study uses monthly data for the period April 1996 to January 2008, which were later converted into quarterly series.
1.3.3 Econometric and time series techniques

For the first objective, the study employed distributed lag model to examine the impact of exchange rate levels on FDI. The study anticipates that exchange rate depreciation would favour production in foreign country by encouraging FDI in India.

In the case of second objective, the study used distributed lag model to examine the impact of exchange rate volatility on FDI. The study verifies that whether exchange rate volatility affects the inflow of FDI in India. The present study followed both conditional and unconditional variance to measure volatility for exchange rate series. However the study considered Autoregressive Conditional Heteroscedasticity (ARCH) model as the benchmark model. The study examined the presence of ARCH effect in exchange rate series. Once the series are identified with ARCH effect through ARCH-LM test, volatility was computed using through ARCH model. In the absence of ARCH effect in the series then the study computes volatility through Moving Average Standard Deviation (MASD) and Hodrick and Prescott (HP) method as an alternative measure for volatility. Between MASD and HP model, the optimal measure of exchange rate volatility has been selected using non-nested testing method.

For the third objective, in addition to exchange rate level and its volatility, other factors such as market size, inflation rate, lending interest rate, trade openness, agglomeration effect and wealth effect are included in the distributed lag model to examine the factors determining FDI in India.

To examine the impact of exchange rate levels and its volatility on FDI, regression techniques are used. Further, the study also attempts to examine the long-run relationship between FDI and other variables like market size, inflation rate, lending interest rate, trade openness, agglomeration effect and wealth effect. The study
followed Autoregressive Distributed Lag (ARDL) model developed by Pesaran, et. al. (2001) to confirm the existence of long run relationship. The interest in ARDL model is three-fold: i) they provide a convenient way to deal with long-run relationships by focusing on the dynamics of one single equation, where the long-run relationship and short-run dynamics are estimated jointly, ii) since the present study deals with a small sample size consisting of 48 observation, ARDL technique is considered more appropriate to overcome the difficulties of small sample size, and iii) the variables used in the study are of different orders of integration. ARDL model makes it possible to deal with such a situation. In addition, to evaluate the parameter stability in the models, the study graphically plots cumulative residual sum of square (CUSUM) and CUSUM square tests and forecast error test.

1.4 Scope of the Study

Due to the economic reform, India has become one of the fastest growing economies in the world. The change in India’s policy towards liberalization in 1991 has provided a good external environment for sustainable economic growth. Further reform in the area of privatization has encouraged more competition among firms and has led to improvements in market efficiency. Such reforms are applauded by foreign investors and help to attract FDI inflows. In addition, developing countries lack the capital that is needed for further growth. Therefore, FDI is important to developing countries like India, to gain capital flows through FDI to achieve economic growth.

Foreign investors choose to invest in countries with minimally government-controlled private sector; this is because firms want freedom in making investment and business decisions. In this context it is important to understand how exchange rate volatility along with other factors influence foreign investor’s decision-making. This would be helpful to Indian government and policy makers in designing more
effective growth policies and strategies for the country. Government will be able to make changes in macroeconomic policies to create an environment that promotes investment in the region. Creating an environment that encourages investment is pertinent to India as a whole, as the region needs FDI for sustainable economic growth.

1.5 Limitations of the study

The following are the main limitation of the present study:-

i) the present study relies on aggregate data, particularly quarterly data series; and

ii) there may be factors other than those considered by the present study that determine the inflow of FDI. But, due to data constraint, the study considers only important factors that affect inflow of FDI into India.

1.6 Organization of the Thesis

The thesis is organised into five chapters. The first chapter presents the introduction, statement of the problem, research objectives, scope and limitation of the study.

The second chapter critically reviews some of the available theoretical and empirical literature and attempts to find the research lacuna.

The third chapter illustrates the theoretical framework, econometric and time series techniques used in the present study.

The fourth chapter presents the empirical results and the findings of the study.

The final chapter summarizes the findings, contributions of the study and suggestions for future research.