ANALYSIS OF THE FACTORS DETERMINING FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH OF PAKISTAN (1971-2005)

By
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Ph.D. Research Scholar

Supervised By
Professor Dr. Naeem-ur-Rahman Khattak

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF ECONOMICS UNIVERSITY OF PESHAWAR IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS.

DEPARTMENT OF ECONOMICS
UNIVERSITY OF PESHAWAR
N.W.F.P, PAKISTAN
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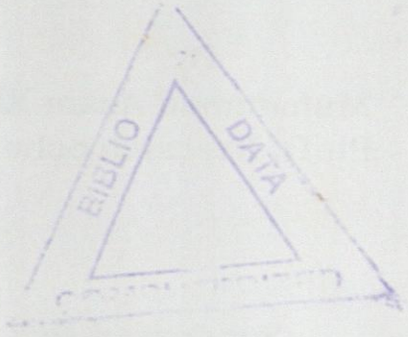

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IN THE NAME OF ALLAH, THE MOST GRACIOUS AND MERCIFUL

DEPARTMENT OF ECONOMICS
UNIVERSITY OF PESHAWAR

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APPROVAL CERTIFICATE

This dissertation entitled "Analysis of the Factors Determining Foreign Direct Investment (FDI) and Economic Growth of Pakistan (1971 to 2005)" submitted by Muhammad Azam Khan in partial fulfillment of the requirements for the award of degree of Doctor of Philosophy in Economics is hereby approved.

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Dedicated
To
My Sweet Father (Late), Mother, Loving Brothers and Wife

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ABSTRACT

The broad aim of the present study is to evaluate the influence of various economic, social and political determinants of host country in enhancing foreign direct investment (FDI). Further, an attempt has been made in this study to examine the impacts of domestic investment, foreign direct investment, human capital and trade openness on economic growth of Pakistan. For analysis secondary data has been utilized over the time period from 1971 to 2005, taken from Federal Bureau of Statistics, Pakistan Economic Survey and World Development Indicator various issues. Regression models have been used and the methods of Least Square, Two Stage Least Square, and Generalized Method of Moment have been applied as analytical techniques for the empirical estimation. In addition, Augmented Dickey Fuller test and Error Correction Mechanism are used to check stationarity in the level of data.

It has been argued that foreign capital inflow particularly in the form of FDI is likely to encourage national economic development in a host country by playing supportive role to local investment and by bringing many other benefits. FDI is the amount invested by resident of a country in a foreign enterprise over which they have effective control. Almost two and half decades ago an excessive increase occurred in the global FDI inflow due to world globalization.

Pakistan is a developing country and characterized by low per capita income, burden of external debt, lack of capital, low saving rate, rapid growth of population, and deficit in balance of payment etc. Domestic resources are short to finance the development needs of the country, therefore, FDI is one of the important sources of external finance for the economic development of Pakistan. Thus in order to have increased level of FDI in Pakistan, efforts has been made by the government of Pakistan by offering incentives to the investors in the

country. But Pakistan has not yet enhanced desirable amount of FDI even offering many incentives to the investors.

The empirical results of FDI economic model in the present study such as market size, infrastructure facilities, domestic investment, trade openness, external debt and indirect taxes of the host country have been found statistically significant. But government consumption has been found statistically insignificant in the study. Similarly in the socio-political model a positive and statistically significant relationship has been found between human capital and FDI inflows, while the result of political instability indicates though an inverse relationship with FDI but insignificant. For comparison, the study in hand comprised of one each econometric model for economic determinant of FDI for India and Indonesia respectively. The empirical results of India matched with the results of Pakistan excluding two determinates (viz, trade openness and government consumption) while the results of Indonesia do not match with the economic determinants of FDI for Pakistan.

The empirical result of the economic growth model indicates that expansion in domestic investment, trade openness and FDI promote economic growth but human capital has been found statistically significant with unexpected negative sign. In simultaneous equations model, from the economic growth equation, it has been found that the impacts of domestic investment, trade openness and FDI are statistically significant. Likewise the FDI equation indicates that FDI is positively related to growth rate, domestic investment and trade openness, while external debt negatively as expected.

Therefore, on the basis of importance of FDI for boosting of economic growth, it has been concluded that to enhance more FDI into Pakistan, the management authorities may make efforts to improve Pakistan's image in the international

community, ensure stable economic and political environment, provision of quality infrastructure, controlling inflation rate, peace and security, law and order situation and consistency in the government policies because these all are the key factors for potential investors in making investment choices.

Thus to achieve higher levels of sustainable economic growth, improved living standard, alleviation of poverty, generating employment opportunities, socio-economic development and sustainable foreign investment– it is proposed, that the management authorities may give equal importance to follow appropriate macroeconomic stabilization policies (fiscal and monetary policies) accordingly.

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LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
ASEAN	Association of South East Asian Nation
BOI	Board of Investment
BoP	Balance of Payment
DCs	Developed Countries
D-W	Durbin Watson
ECM	Error Correction Model
EPZ	Export Processing Zone
FDI	Foreign Direct Investment
FPI	Foreign Portfolio Investment
IT	Information Technology
GDP	Gross Domestic Product
GDI	Gross Domestic Investment
GNP	Gross National Product
GMM	Generalized Method of Movement
GoP	Government of Pakistan
IMF	International Monetary Fund
LDCs	Less Developed Countries
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
R&D	Research and Development
2SLS	Two Stage Least Square
M&As	Merger and Acquisitions
MNEs	Multinational Enterprises
MNCs	Multinational Corporations
TNCs	Transitional Corporations
UNCTAD	United Nations Conference on Trade and Development
US	United State
WB	World Bank
WDI	World Development Indicator
WIR	World Investment Report
WTO	World Trade Organization

Chapter 1

INTRODUCTION

INTRODUCTION

The word investment refers to the accumulation of some kind of assets in hope of getting a future return from it. In the broadest sense, investment provides the mechanism needed to finance the growth and development of an economy. Generally, the international flows of financial resources are classified into two forms: first is the public development assistance and second is the private foreign investment, where the former is referred to foreign loan, grants and aid etc., (see appendix-A). The latter is further subdivided into portfolio investment and foreign direct investment (hereafter FDI). FDI is real investment and in this kind of investment the investors have complete control over their investment.

A Direct Foreign Investment is the amount invested by resident of a country in a foreign enterprise over which they have effective control (Ragazzi, 1973).

International Monetary Fund (2003) defined direct investment as comparatively more stable than the other forms of foreign capital inflows. This kind of investment does not change quickly the investment environment in the host/recipient country, while the other forms of investment do. It has been seen that usually foreign investors when investing abroad aim to earn more profit in the long run, therefore, due to high transaction and business costs, avoid taking their investment in the short period of time.

Generally, FDI made by large multinational corporations (MNCs)[1] through merger and acquisition[2], or through the construction of a new facility. Moreover, usually FDI composed of three parts as given:

i. Equity capital: It is the foreign direct investors purchase of shares of a firm in a country other than its own shares;
ii. Reinvested earnings: It refers to the retained profits of affiliates that are not distributed as dividends or not remitted to the direct investor but used to reinvest,
iii. Intra-company loan refers to taking loan and providing loan between parent enterprises and member enterprises in the short period or long-term period of time.

The return on FDI taking forms of profit, expansion of business, market development and innovations, which are linked to social, economic, political, financial and cultural factors in the host country. Along with these factors of FDI, varying degree of risk also attached with them and equally important for multinational corporations location decision. Therefore, for this very reason, studies on the determinants of FDI have tended to concentrate on the role of these determinants in the overall decision of multinational corporations to invest in other countries/abroad.

1. MNCs can be defined as a corporation or enterprise that owns and controls productive activities in more than one country. For example the largest MNCs in 1993 General Motors had sales revenues in excess of the GDP of Thailand, General Motors (US) sales revenue was 133.6 billion dollars and Thailand GDP was 124.8 billion dollars.
2. Mergers & Acquisitions refers to the acquiring or merging with an existing firm in the foreign country, while the establishment of a wholly new operation in a foreign country is called green-field investment.

The major goal of both developed and developing countries is to achieve higher level of economic growth[1]. Generally, FDI theories reveal that FDI has strong effects on the economy of a host country, since it affects positively production, employment, income, exports, economic growth, balance of payments, and general welfare of the recipient country. FDI is considered an essential source of external finance for developing countries, when domestic resources are short to finance the development needs. In addition, some recent studies concluded that FDI has been one of the most effective means of transferring technology and knowledge as well.

Explaining motives of the firms that why do firms go abroad? and why do foreign firms choose to invest in specific locations? The answer is found in the theoretical literature on determinants of FDI in Hymer's doctoral dissertation (1978). According to Hymer firms go abroad for investment because the advantages firms possess include patented technology, team specific managerial and marketing skills and brand names.

Dunning and Hamdani, (1997) reported that countries lacking capital accumulation and technological progress usually grow much slower than countries with high investment rate and huge Research and Development (R & D) expenditures. Through FDI, MNCs can provide countries with both capital and new technology.

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1. Economic growth represents the expansion of a country's potential GDP or national out put and it is a long run process. Promoting economic growth is imperative for almost any nation because it's strongly connected with the living standard of the masses. Growth is not an automatic birthright for an economy. For an economy to grow, it has to create the right conditions for growth.

Indeed, many economists and researchers have been studying the ways to achieve higher level of economic growth in order to promote welfare of the masses. Obviously, this is the economic growth that leads to greater economic prosperity and similarly increasing overall prosperity which improves the livelihoods of those able to participate in the system. This rising prosperity is empirically linked to higher overall levels of human happiness and betterment. Developing countries in order to boost economic growth, for this purpose, frequently try to enhance more foreign investment because saving rate in these countries are low and not sufficient and also can't finance their investment requirements. Frequently, FDI is carried out through MNCs and technology may be traded indirectly in the form of advanced machinery. Technology in the form of ideas and techniques cannot be traded from one country to another easily. Once a foreign investor invests in a host country, however, advanced technologies and new ideas from the source country can directly be transferred and eventually diffused to a host country through the establishment of MNCs. The transfer may also improve the production techniques in a host country. Moreover, technology from abroad can help to upgrade the existing technology in a host country and can also lead to innovative research in the host country to create new ideas and develop new technologies (UNCTAD, 1999).

Though there are numerous channels through which a country can increase their economic growth but a question arises in mind that why do nations particularly concentrate on attracting FDI? The answer is that, FDI encourages those important factors, which are highly vital, and actively participating in the promotion of economic growth of a country. Also short-term flows have mostly been volatile and unwanted, long-term capital flows such as FDI, which tend to be more stable (Lipsey, 2001). Certainly, the tremendous increase in FDI is undoubtedly related to globalization of the global economy as well.

FDI is an acknowledged catalyst for the economic growth and has been prime and pressing need of the capital deficient economies of the developing world. FDI is good cholesterol and considered mothers' milk for the nascent and surging economies of the developing states (Malik, 2005).

Explicitly, without promoting economic growth, economies become stagnant and nations are unable to provide for the well-being of their citizens openly. It is also argued that higher amount of FDI inflow contributes to achieve higher level of economic growth. Consequently high level of economic growth performances would attract further FDI inflows, that is called virtuous circle[1] of FDI flows and economic growth and it is indeed important for the socio-economic development of a country.

The government of Pakistan has taken various measures for the encouragement of FDI in order to promote economic growth. These measures are such as the introduction of enhanced structural economic reforms, the policy of liberalization and privatizations have created an investment-friendly environment in the country. In addition, to the investment incentives being offered by the government of Pakistan, the country has hard-working and cheap labour making the investment environment still more attractive for foreign investors. Pakistan has not yet been enhanced desirable amount of FDI even offering many incentives to the foreign investors if compared with other countries in the region.

A glance on the world FDI inflow is that global FDI flows reached their highest level in the year 2005, reaching US$ 9163000 million. According to the study of UNCTAD (2006), the inflows of FDI have been increased to advanced countries

1. Virtuous Circle means higher amount of foreign direct investment contributed to achieving higher economic growth. Consequently high growth performances would attracted further capital inflows that is called virtuous circle of capital flows and economic growth.

and less developed countries. In this context the inflows of FDI are relatively higher into USA than the other developed countries. Similarly Pakistan received FDI up to US $949.4 million in the year 2003-04 and in the year 2004-2005 it increased to US$ 1524.2 million. Nearly 70% of FDI in Pakistan has come into oil and gas, telecom sector, chemicals, textile, and power sector etc. Moreover, the share of FDI inflows into Pakistan from United State of America, United Kingdom, Switzerland, Japan, United Arab Emirates and Netherlands have estimated approximately 60% during the year 2004-05.

1.2 THE PROBLEM STATEMENT

No doubt that the benefits and obstacles of FDI have received substantial attention in the academic literature. Certainly, it seems that international capital flows and particularly FDI became important economic activities among different countries in the World with the introduction of the World globalization. It is also argued that FDI from advanced economies have positive effect on economic growth in less developed economies through the process of technological conversion and transfer of knowledge. Since Pakistan is a developing country and a developing economy is commonly characterized by low per capita income, burden of external debt, lack of capital, low saving rate, rapid growth of population, low level of industrialization, paucity of foreign aid, deficit in balance of payment, lack of technical and managerial skills, and heavy reliance on export of primary goods etc. It has been observed that aid and other commercial loan do not contribute to productive investment, its impact on growth will be limited and this will contribute to debt burdens. Therefore, FDI can be an important instrument of overcoming these structural weaknesses necessary for transitions towards economic development. Also the domestic resources are short to finance the development needs, therefore, FDI may be one

of the important sources of external finance for the economic development of Pakistan.

The benefits that FDI brings to the host countries include advanced technology and managerial skills, creating sound business environment, increased employment opportunities, increase in production, different tastes and life style, market access, and increase in government revenue etc. Moreover, such sort of investment brings private overseas funds into a country for investment in manufacturing or services through MNCs, which increase the level of economic growth of the host country. For FDI presently the potential sectors in Pakistan are such as energy, manufacturing, mining, engineering, tourism, information technology (IT), and telecommunication sectors etc. Further, Pakistan has abundant cheap and effective labour that make the investment environment more profitable for foreign investors.

1.3 MAIN OBJECTIVES OF THE RESEARCH

The main objectives of this study are as follows;

i. To study the patterns and trend of FDI in Pakistan.
ii. To analyze the various factors effect on FDI inflows.
iii. To determine the different factors effect on economic growth.
iv. To examine the role of FDI in the process of economic growth.
v. To make appropriate suggestions in the light of findings of the study.

1.4 HYPOTHESES OF THE RESEARCH

Hypotheses of this study are as follows;

- The first hypothesis is that the greater (less) the economic factors[1], the more (less) will be the FDI inflow.
- The second hypothesis is that the lower (higher) the economic factors[2], the more (less) will be the FDI inflow.
- The third hypothesis is that the higher (lower) the social factors[3], the more (less) will be the FDI inflow.
- The fourth hypothesis is that the greater (less) the political stability, the more rapid (slow) is the inflow of FDI.
- The last hypothesis is that the higher (lower) the FDI, domestic investment, openness, and human capital, the more (less) will be the level of economic growth.

1.5 LIMITATIONS OF THE RESEARCH

The present study is based on the secondary annual time series data ranging from 1971-2005. The numbers of observations are 35 because reliable data on some key variables were not available before 1970. For analysis using only secondary data because it is more difficult to collect and utilize primary data on such macroeconomic study for the whole country Pakistan. Moreover, there are various quantitative and qualitative factors, which determine the inflow of FDI and economic growth in Pakistan. These factors may be economic, social, cultural and political respectively. The determinants of FDI are often grouped into demand-side and supply-side factors[4]. However, this study focuses only on demand-side determinants of FDI and further assumes that factors such as;

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1. These economic factors are GDP, domestic investment, trade openness, return on investment and infrastructure facilities.
2. External debt, inflation, government consumption and taxes
3. Human capital
4. The supply-side determinants consist of economies of scale, oligopoly reaction, product life cycle, intangible assets and internalization.

market size, inflation rate, trade openness, domestic investment, physical infrastructure, human capital, external debt, taxes, and political instability are determining FDI flow in Pakistan. Likewise economic growth depends only on domestic investment, FDI, exports plus imports to gross domestic ratio, and human capital, respectively. This study will also include India and Indonesia in order to compare the effects of economic determinants of FDI with Pakistan.

The study in hand preferred time series data analysis over cross section data analysis. Certainly, every country has its own economic parameters and a structured economic system having its different own unique characteristics and features. It has been observed in different studies where researchers assumed similar characteristics for different countries as it is not accurate. However, on the basis of only these proposed incorporated factors in this research study; one can't say that only these factors influencing FDI and economic growth of a country. Though host country's other various quantitative and qualitative factors also influencing FDI inflow and economic growth of a country. These quantitative and qualitative factors may host country's macroeconomic policies like fiscal and monetary policies.

1.6 ORGANIZATION OF THE STUDY

The organization of the present study is as follows. Introduction regarding FDI, objectives, hypotheses, problem statement, and limitations of the research is summarized in Chapter-1. Chapter-2 presents review of literature, which consists of empirical evidence on FDI, growth, and factors relating to technological costs. Chapter-3 deals with theoretical foundation that comprises relevant theories that contribute to the understanding and fundamental motivation of FDI flows and also theories of economic growth. Similarly Chapter-4 presents an overview of Pakistan's economy, history of capital movement into developing countries and Pakistan, economic growth performance of Pakistan, FDI and the Pakistan

economy, environment for FDI in Pakistan, and impact of FDI on balance of payments respectively. Chapter-5 deals with the impact of various factors on FDI and economic growth in Pakistan with justification. Likewise chapter-6 explains the analytical framework and research methodology, estimation techniques, and the data sources of the study. Chapter-7 explains results and discussion. Finally, chapter-8 presents conclusions and policy implications.

Chapter 2

REVIEW OF LITERATURE

2.1 BACKGROUND

Thorough review of literature is very imperative for any research activity in order to highlight the findings of related studies in relevance to the background knowledge of the problem to be examined. It gives relatively complete information regarding the problem and also provides a better understanding to make objectives of the research study more purposeful.

2.2 EMPIRICAL EVIDENCE ON FDI

A number of empirical studies have been conducted regarding the forces that determine FDI. Though there is not only available extensive literature, but also confusing. Most of the studies utilize multiple numbers of theories or hypotheses in order to investigate the empirical linkage between FDI and variety of economic, social and political variables. In this regard the key literature includes work by Vernon (1966), presented Product Life Cycle Hypothesis, Hymer (1976), analyzed MNEs on the bases of Industrial Organization Theory, Buckley and Casson (1976), focused on Internalisation theory, and the significant work by Dunning (1977, and 1993), who introduced an Ownership-Location-Internalisation (OLI) paradigm to explain FDI by Multinational Enterprises.

Dunning's location advantage theory provides a framework to identify important variables that influence FDI using three main categories: (a) economic,

(b) social or cultural factors, and (c) the political environment. Overall, Dunning concludes that foreign countries that attract investment by multinational firms have a large and growing market, a high gross domestic product, low production costs, and political stability.

Empirical studies like Scaperlanda & Mauer (1969), Reidel (1975) and Torrisi (1985) have shown that the demand side determinants are crucial in attracting FDI. Due to the non-availability of a generally accepted theoretical framework has led economists and researchers to trust on empirical evidence for explaining the emergence of FDI. The empirical determinants of FDI are classified in to demand side and supply side determinants. The demand side determinants are aggregate variables grouped into three main categories (Root and Ahmed (1979), Agarwal 1980), economic, social, and political. Most of the studies on the demand structure of FDI concentrate primarily on economic variables Dunning (1973), Lunn (1980); Scaperlanda & Balough (1983). Social and political variables has been ignored or given limited consideration Root and Ahmed (1979), Dunning (1980), Schneider & Frey (1985) and Nigh, (1985). The supply side determinants, which include oligopolistic reaction, intangible assets and product life cycle, are derived from the theory of the firm and are tested using microeconomic data.

Various researchers studied the demand side factors such as market size, incentives and operating conditions, infrastructure and political stability, while they ignored the supply side determinants, such as economies of scale, product life cycle and internalization. Also the demand side determinants have analyzed by using aggregate variables but they did not give any proper coverage to supply side determinants due to non-availability of data (Tsai, 1991).

Aggregate studies by Root and Ahmed (1979), Schneider and Frey (1985) have looked at both economic and political factors in an attempt to identify the main determinants of FDI. Schneider and Frey (1985) analyzed data from over fifty-four countries for (1979), and (1989) to test their political-economic model of total direct foreign investment. They used four models, the political model, the economic model, the amalgamated model (which uses only the institutional investor's credit rating indicator composed of both economic and political factors), and the politico economic model to analyze the determinants of FDI. A comparison of the models indicates that the 'politico' economic model statistically explains by far the largest part of the variance 75%. The 'economic' model accounts for 51% and the 'political' model for 40% of the variance. Most of the coefficients of all three models are statistically significant at the 95 and 99% levels of significance and all of the coefficients have theoretically expected sign. Statistically significant political variables are internal political stability (measured by the average number of political strikes and riots with in a country from1972-1977), foreign aid such as multilateral aid received. The economic variables used are gross national product (GNP) per capita, the growth of real GNP, rate of inflation, balance of payment deficit (BoP), wage costs and the educational level. The determinants of FDI are not giving the same results in developed and developing countries.

Schneider and Frey (1985) concluded that FDI in developing countries is simultaneously determined by both economic and political factors and the amalgamation of economic and political influences in to a Credit Risk Indicator (CRI) is not advisable because it is unable to do the complexity of politico-economic interdependence. The most important economic factors are real per capita GNP and balance of payment. The higher per capita income and the lower the balance of payments deficit, the more FDI is enhanced. Among the less important economic influences are the growth of GNP and the workers skill level

attracting FDI and inflation and wage costs reducing the flow of FDI. Also another relevant factor is political instability which significantly reducing the flow of FDI. Root & Ahmed (1977) tested the two-type hypothesis that economic factors are the prime determinants of FDI and political variables are secondary for FDI flow. The model has tested by step-by-step regression for twenty-five developing countries like Africa, Asia and Latin America for the period of 1965-1967, and found that economic variables are the most significant determinants for direct investment with political stability being the only non-economic, significant variable. Leftwich (1973) examined the economic determinants of FDI in the United State of America (USA) namely market size, annual economic growth rates, the host country tariffs and found the market size variable was significant with positive sign in the study.

Tallman (1988) examined the proposition that home country political risk factors determine investment outflows. The study found a positive and significant correlation between the level of political risk and economic development of the home country, measured by the gross domestic product (GDP) and FDI in the United States. Grosse and Trevino (1996) employed the Ordinary Least Square (OLS) model to explore the factors that influence FDI in the USA. Their study indicates that the primary determinants of FDI in the USA are exports and market size (proxy used GDP) of the USA. Cultural and geographic distances and imports from the USA and exchange rates, while statistically significant, negatively relate to FDI in the United States of America.

Many of studies have conducted regarding to test the FDI determinants and found the size of the market almost universally as an important determinant of FDI in developing countries, Root & Ahmed (1979) and Wheeler & Mody (1992). Summary and Summary (1995) presented an empirical analysis of the US direct investment in developing countries. They used variables such as distance to host

country, the productivity of the labour force, labour costs, exchange rates, and foreign aid already received to explain the location of investment abroad. Due to multicollinearity among the variables and found no sound conclusions as to effect of such variables.

Agodo (1978) has conducted a study about those factors that determined the decision to invest in manufacturing and tested eleven hypotheses about the determinants of manufacturing investment in the United States. Variables tested are size of the domestic market, rate of return, GDP growth, per capita income, population, labor cost, existence of raw material, existence of tax concessions, existence of protective tariffs, political stability, infrastructure, development planning. Agodo used t-test for rate of return and found the following variables significant, like GDP, per capita GDP, population size, existence of raw materials, political stability, infrastructure, and development planning. He used simple and multiple regressions to test host-country variables and significant variables in the study are GDP, per capita GDP, population size, raw material, political stability, infrastructure and existence of development planning. Moore (1993) examines the determinants of German manufacturing direct investment and found that the results support the study hypotheses that German FDI is sensitive to the size of the host country market (proxy used GDP) and labour costs. Also found that little evidence on tariff rate, real GDP growth and exchange rate regimes affect on the FDI flows.

Shamsuddin (1994) studied the economic determinants of FDI by using single equation econometric model. This empirical study was based on the 1983 cross-section data on 36 Less Developed Countries (LDCs) and the study observed that the most important factors in attracting FDI are the per capita GDP in the host country, wage cost, investment climate represented by as per capita debt, per capita inflow of public aid, volatility of prices, and the availability of energy in

the recipient country. Singh and Jun (1995) empirically analyzed various factors including macroeconomic variables, business conditions and political risk that influence FDI to developing countries and they argued that (i) political risk is a significant determinant of FDI flows for countries that have historically attracted high FDI flows, while countries that have not attracted such flows in the past, socio-political instability has a negative impact on investment flows; (ii) business operations condition is an important determinant of FDI in countries that receives high flows; and (iii) export orientation is the strongest variable for explaining why a country attracts FDI.

Tsai (1994) and Lipsey (1999) found real gross domestic product (GDP) per capita to have a positive effect on FDI, while Edwards (1990) and Jaspersen, et al., (2000) found negative effect. Hanson (1996), and Schneider and Frey (1985) found that the level of human capital is a significant determinant of the locational advantage of a host country.

Khan and Yun (1999), examined theoretically the determinants of FDI. This study shows that in Pakistan the requirements for foreign investment are: infrastructure, local business environment, law and order, quality of labour force, economic strength, government economic policies, government bureaucracy, quality of life, welcoming attitude and political stability.

Nnadozie (2000) has estimated three models. The first model only consists of economic explanatory variables (GNP growth, per capita GNP, inflation and debt burden). The second model consists of risk indicator (as measured by the Political Risk Indicator (PRI) obtained from Business Environment Risk Intelligence (BERI) and the final aggregate of economic and political variables and applied the Ordinary least Square (OLS) techniques and found the most significant variables (GNP and inflation) and political risk in his study.

Akhtar (2000) analyzed the locational determinants of FDI through multivariate regression analyses in Pakistan for the period 1972-1992. The results showed that market size, relative interest rates and exchange rates are the major determinants of FDI in Pakistan and market growth and political instability were found consistently insignificant in the analysis.

Asiedu (2001) for Sub-Saharan Africa (SSA), used dependant variable is the ratio of net FDI flows to GDP and independent variables are return on investment in the host country, infrastructure development, openness of the host country, political risk and other economic variables included ratio of government consumption to GDP, growth rate of GDP and inflation. Asiedu used OLS techniques for all the estimations and found that openness, return on investment and GDP are the important variables for FDI fostering and infrastructure and political risk found insignificant. Asiedu (2002) found that openness, return on investment and GDP as proxy variable for market size, are significant variables for FDI fostering and infrastructure and political risk found insignificant.

Yasmin, et al. (2003) analyzed the volume and determinants of FDI in developing countries, which they classified in low, lower middle and upper middle-income countries. The analysis showed that urbanization, GDP per capita, standard of living, inflation, current account, and wages are affecting FDI significantly in low income countries. Also in case of lower middle income countries found urbanization, labour force, domestic investment, trade openness, standard of living, current account, external debt and wages significant. Like wise in case of upper middle income countries found urbanization, labour force, GDP per capita, domestic investment, trade openness and external debt statistically significant.

Quazi and Mahmud (2004) investigated that which factors, either economic or non-economic, drive the flow of FDI into South Asia and found that economic freedom, openness, prosperity, human capital, and lagged FDI significantly increase FDI inflow into South Asia, while political instability depresses it.

Asiedu (2005) suggests that macroeconomic instability, investment restrictions, corruption and political instability have a negative impact on FDI to Africa. The study examined impact of natural resources, market size, government policies, political instability and the quality of the host country's institutions on FDI. The main result is that natural resources and large markets promote FDI. However, lower inflation, good infrastructure, an educated population, openness, less corruption, political stability and a reliable legal system have a similar effect.

2.3 EMPIRICAL EVIDENCE ON FDI AND ECONOMIC GROWTH

A large number of studies have been carried out to examine whether FDI impacts positively on economic growth or negative. For this purpose two types of studies, at micro and macro level have generally been conducted to see the relationship between FDI and growth. On one hand micro studies usually finds no positive evidence that FDI makes a positive contribution to growth. While on the other hand macro studies, often finds FDI to positively affect economic growth.

Early studies on FDI, such as Singer (1950) claimed that the host countries of FDI receive very few benefits, because most benefits are transferred to the source country. One view about the negative effect of FDI on the host country's economic growth is that although FDI raises the level of investment and perhaps the productivity of investments, as well as the consumption in the host country,

it lowers the rate of growth due to factor price distortions or misallocations of resources.

Gershenkron (1952) claims that technology from advanced economies is one of the primary factors assuring a high speed of development in a backward country entering the stage of industrialization. Gershenkron (1952) argues that technological diffusion, or technological improvement, is an important contributor to economic growth in backward countries. The catch-up process[1] in fact is for reducing productivity and technological gaps between backward and advanced countries.

Wang (1992) viewed that FDI can lead to positive technology spillovers to domestic firms in the host country. Also concluded that FDI not only benefits the host country by improving its income level, but also advances the existing technology in the host country to further increase the rate of income growth. In addition, Wang also weighs heavily the contribution of human capital to economic growth in his model, and assumes that human capital is the engine of growth in a host country. Following Findlay (1978), Wang also assumes that time derivatives of human capital in the developing countries is an increasing function of the openness to FDI in the backward country. Wang postulates that the income gap between the advanced and less advanced countries can eventually be reduced if the initially backward countries increase their human capital stock to adopt to the advanced technologies from abroad.

1. Gershenkron suggests that once a backward country initiates industrialization and begins to develop into a more advanced country, it will have a rapid and intense growth in its industrial output and this is a catch-up process for the backward countries.

Blomstrom, et al., (1994) examined that FDI inflows had a positive and significant effect on the per capita GDP growth in all of the developing countries. They also compared the effect of FDI inflows on per capita income growth between higher income developing countries with lower income developing countries. And eventually found that FDI has a significant contribution to the growth in the higher income developing countries, but has less-evident effects in the poorer developing countries.

Balasubramanyam et al., (1996)[1] tested the hypothesis that export-promoting (EP) countries enjoy greater efficiency from FDI using a production function in which FDI is considered an additional input to domestic capital and labor. They argues that, since it is a prime source of human capital and new technology for developing countries, the FDI variable captures the externalities, learning by watching, and spillover effects. Exports are also used as an additional factor input into the production function. Their finding indicates that FDI is a positive and a significant contributor to growth for EP countries, while having no influence on growth for import-substituting (IS) countries. In addition, as far as EP countries are concerned, it is FDI and not domestic investment that acts as a driving force in the growth process.

De Mello (1997) lists two main channels through which FDI may be growth enhancing. First, FDI can encourage the adoption of new technology in the production process through capital spillovers. Second, FDI may stimulate knowledge transfers, both in terms of labour training and skill acquisition and by introducing alternative management practices and better organizational arrangements. Borensztein, et al. (1998) conducted a similar study on the effect of

1. The model was consist of real GDP dependent on labor, domestic capital stock, foreign capital stock, exports, and a time trend capturing technical progress.

FDI flows on real per capita growth. Borensztein, et al. found that FDI has a marginal, yet significantly positive effect on growth. When FDI is interacting with average educational attainment, the coefficient indicates a stronger and more significant effect on growth. The author also found some evidence of a crowding-in effect, i.e., that FDI is complementary to domestic investment. As one dollar increase in FDI inflows is associated with an increase in total investment in the host economy of more than one dollar. Also concluded that FDI is more productive than domestic investment only when the host country has a minimum threshold stock of human capital to absorb the new technology from FDI. The higher the level of human capital in a host country, the greater is the effect of FDI on economic growth. A latter another new study by Balasubramanyam et al. (1999) evaluated four hypotheses of FDI's contribution to growth i.e. (i) FDI can promote growth in the presence of a liberal trade regime; (ii) a threshold level of human endowment is necessary for the promotion of growth through FDI; (iii) effective utilization of human capital in conjunction with FDI requires an adequate domestic market for the goods produced; and (iv) similarly technology and skill spillovers from FDI do not materialize from the mere presence of FDI, but from a competitive environment. Though their first hypothesis is the same as the one they tested earlier in 1996. To test their second hypothesis, the authors included an FDI-human capital interaction term in their model, but found the coefficient to be statistically insignificant. Such as in testing their third hypothesis, the authors used per capita GDP as a proxy for the role of the domestic market. And found the coefficient statistically significant, its sign was negative. More, the coefficient of the FDI-human capital interaction term became statistically significant with the inclusion of the domestic market proxy. Finally tested their fourth hypothesis by including the share of manufacturing to total value added as a proxy for local competition, but the coefficient of this variable turned out to be insignificant.

Agrawal (2000) evaluated impact of FDI in south Asia and found that, the impact of FDI inflows on GDP growth rate is negative prior to 1980, shortly positive for early eighties and strongly positive over the late eighties and early nineties. Most South Asian countries followed the import substitution policies and had high import tariffs in the 1960s and 1970s. These policies gradually changed over the 1980s, and by the early 1990s, most countries had largely abandoned the import substitution strategy in favor of more open international trade and generally, market-oriented policies. Nair-Reichert et al., (2001) studies the relationship between FDI and growth and finds the causal relationship between investment (foreign and domestic) and economic growth in developing countries. The study found a causal relationship from FDI and domestic investment to growth. The study also found no statistically significant role for human capital in economic growth, but this does not mean that human capital is unimportant, since the relationship between human capital and growth is quite complex and may not be adequately captured in linear models.

Carkovic and Levine (2002) examined the relationship between FDI and economic growth. The results indicate that for both developed and developing economies FDI inflows did not exert an independent influence on economic growth. Specifically the exogenous component of FDI did not exert a reliable positive impact on economic growth, even allowing for the level of education, the level of economic development, the level of financial development and trade openness of the recipient country. Ahmad and Hamdani (2003), studied the effects of FDI, domestic private investment, government expenditure and labour on economic growth using data for 32 developing countries. The result showed that the contribution of domestic private investment to economic growth is more consistent and reliable than the contribution of FDI. Thus, FDI loses is attraction as an engine of growth if the adverse balance of payments consequences of the resulting profit repatriation are also taken into account. Ahmad and Hamdani

further finds that the contribution of government expenditure to economic growth is negligible and the productivity of labour is low, indicating that the growth strategy that neglects human capital cannot yield long-term benefits.

Nath (2004) evaluated that the domestic investment is the most important determinant of growth in transition economies and a mixed evidence of FDI having positive effects on growth. However, by using per capita real GDP as a measure of economic performance, both FDI and exports seem to have significant positive impact on per capita GDP. Also, FDI and exports together have significant positive effect. Lee and Tcha (2004) empirically showed that the marginal contribution of FDI to growth is greater than that of domestic investment. Lyroudi et al. (2004) conducted empirical research on the effects of FDI on economic growth. The results indicated that FDI does not exhibit any significant relationship with economic growth for the transition countries.

Asheghian (2005) examined the FDI-led growth hypothesis for Japan. The results suggested that the major determinants of economic growth in Japan are total factor productivity, and domestic investment growth and there is no causal relationship between FDI growth and economic growth in either direction. Further there is no casual relationship between FDI growth and total factor productivity growth in either direction.

Ahmad (2005) explored causality relationship between growth rate of GDP and growth rates of exports, imports, openness, domestic investment and labour in Pakistan. The main findings of the study were that openness and imports do not matter for economic growth in Pakistan, whereas growth rate of exports, domestic investment and population do affect positively the growth rate of GDP.

Mariam (2005) investigated the impact of investment on growth and found that investment has a significant and positive relationship with real income per capita, irrespective of any human capital requirements. However, the coefficient on the FDI variable is considerably larger than that of the domestic investment variable, suggesting a potentially large role for FDI. Alireza, et al. (2005) found that FDI, trade, human capital and domestic investment are important sources of economic growth for developing countries. Also finds that FDI stimulates domestic investment and the contribution of FDI to economic growth is enhanced by its positive interaction with human capital, sound macroeconomic policies and institutional stability respectively.

2.4 FDI-LED GROWTH HYPOTHESIS

Since FDI not only filling the saving-investment gap but may also bring advanced technologies and new entrepreneurial skills, which enhance production and export composition of host economies. Foreign firms operating in host countries are also expected to diffuse ideas and technology to domestic enterprises that, in turn, will improve domestic management capabilities and the export performance of the host countries. Therefore, it is generally believed that inward FDI accelerates the stagnant growth process of the underdeveloped countries.

On the basis of literature the relationship between FDI and economic growth has the subject of considerable debate. Due to globalization i.e., the generalized expansion of international economic activity, which includes increased international trade, growth of international investment and international migration, and increased creation of technology among countries. So globalization is the increasing worldwide integration of markets for goods, services, labour, capital and also the role of multinational corporations in the

economic growth of developing countries as well. According to the export-led growth hypothesis argue on exports, which plays a very significant role in the economic growth of a country but here in FDI-led growth hypothesis, this is foreign direct investment that plays a crucial character in the promotion of exports of any country. If exports of a country increase due to increase in the inflow of FDI, the ultimate results will be a sound increase in the economic growth of that country. So FDI is directly and indirectly (i.e., directly means growth as a function of FDI, and indirectly means exports is function of FDI, and growth is a function of exports) affecting economic growth of a country.

2.5 ADVANTAGES OF ECONOMIC GROWTH

Economic growth is a key component of most governments macroeconomic policies due to numerous benefits such as; an increase in the standard of living etc. However this may not always be the case if the wealth within a country is not distributed equally i.e. one particular section of society reap the benefits while other parts do not see the effects[1]. However, if the economic development is very low, there is nothing to distribute. The second benefit is that it stimulates higher employment. This is because economic growth is represented by an extension in aggregate demand, or a shift to the right of the aggregate demand curve. Either way it means more of an economy's resources, which include labour, are being utilised. Thirdly, economic growth boosts tax revenues and provides the government with extra money to finance spending projects. Fourthly it increases the accelerator effect. This means rising demand encourages investment in new capital machinery which helps sustainable economic growth by increasing long run aggragate supply. And lastly it boosts business confidence. It normally has a positive effect on firms profits, which boosts the stock exchange helps both small and large businesses grow.

1. Implementation of trickle down theory, as according to this theory the wealth within a country will be distributed fairly in all sections i.e. all section of society reap the benefits.

2.6 TECHNOLOGICAL COSTS OF FDI ON RECIPIENT COUNTRY

Apparently for the economic development of any economy technical change and technological learning are very important. Since most research and development takes place in Transitional Corporations (TNCs), which are located in the advanced economies, these global enterprises can play an important role in transferring technology. The environment of the host country is also important for the diffusion of this technology to the local economy. These spillovers can occur directly through linkages with the local economy, through the labour market or through competitive pressure. But they can be negative if the foreign investment enterprise "crowds out" local enterprises through strong competitive pressures.

Many channels provide the opportunity of technology transfer but three are most common channels of technology transfer, which are: (a) Foreign direct investment (b) International licensing agreements; and (c) International trade.

Hence in the developing countries, FDI seems to have a clearly less good effect on growth, which has been attributed to the presence of "threshold externalities". It means that in developing countries educational and infrastructure levels are poor. An additional factor that may prevent a country from reaping the full benefits of FDI is imperfect and underdeveloped financial markets. Therefore, not all development economists agree that FDI contributes to economic growth (Lall and Streeten, 1977). While it is argued that FDI tends to block the spread of skills and technology as well as other opportunities for domestic enterprises, while the excessive profits made by foreign companies are repatriated, and not made available for host country's taxation and/or domestic investment (Frank, 1978). Even, if they contribute to growth, this growth may be biased as MNCs distort consumption patterns, generate enclaves of capital, technology, skilled labour and infrastructure incompatible with the domestic economy, and widely

generate negative externalities[1] which reduce welfare of host countries. Jocelyn and Saggi (1998) argued that the FDI transmission to developing countries is of lower quality. It is saying that technology, transfer by the MNCs is absolutely more advanced than indigenous technologies and some time the technology which transfer to developing countries are obsolete and over-priced.

According to Dunning (1994) not all TNCs activity leads to technology transfer and positive spillovers. TNCs can have a negative impact on the direct transfer of technology to the foreign investment enterprises and reduce the spillovers from FDI in the host economy in several ways. They can provide their affiliates with too few, or the wrong kind of technological capabilities, or even limit access to the technology of the parent company. This type of behaviour may restrict the production of its affiliate to low-value activities and can also reduce the scope for technical change and technological learning within the affiliate. Even if the TNC transfers new technology to its affiliate, it can reduce the scope for technology spillovers by limiting downstream producers to low value added activities or eliminate them altogether by relying on foreign suppliers (including itself) for higher value added intermediate products. In some cases they can even eliminate competition by "crowding out" local producers. They may also limit exports to competitors and confine production to the needs of the TNC. This behaviour not only limits the scope for technology spillovers, but it may also lead to a decline in the overall growth rate of the host economy by reducing competition and worsening the balance of payments. Technology spillovers from TNCs tend to occur more frequently when the social capabilities of the host country and the absorptive capacity of the firms in the economy are high. While relatively backward countries have a certain scope for catching up, it is often difficult for

1. One of the most important negative externalities, generated by MNCs, is widespread pollution in developing countries.

the country to build the necessary social capabilities and absorptive capacities that allow firms to take advantage of the technology spillovers that are potentially available to the economy. Countries (and firms) without the capability to absorb new technology tend to attract mainly market-seeking or resource-seeking FDI, while countries with this capability tend to attract more efficiency-seeking and asset-seeking foreign investment.

Summing up in this chapter the researcher have been studied that various studies have been carried out in order to investigate the empirical linkage between FDI and variety of economic, social and political variables such as market size measured by GDP, per capita growth rate, return on capital, cost of capital, external debt, trade openness, labour cost, infrastructure, size of the government, exchange rate, political stability, per capita aid, overall economic stability, domestic investment, taxes, inflation rate, and population. In addition many researches studied the impact of FDI, domestic investment, government expenditure and labour on economic growth. However, there is no general consensus in the literature as to the direction of influence of some of these variables. The empirical evidence on FDI and economic growth is ambiguous, although in theory FDI is believed to have several positive effects on the economy of the host country (such as productivity gains, technology transfers, the introduction of new processes, managerial skills and know-how, employee training) and in general it is a significant factor in modernizing the host country's economy and promoting its growth. But all development economists not agree that FDI contributes to economic growth.

Chapter 3

THEORETICAL FOUNDATION OF FDI AND ECONOMIC GROWTH

3.1 BACKGROUND

The chapter in hand presents a summary of the relevant theories that contribute to the understanding and fundamental motivation of FDI flows. It is important to recognize the fundamental motivation for a firm or multinational corporation when investing in another country, rather than exporting its products to that country. Such as, theories of economic growth are presented in the current chapter.

Regarding foreign investment, a question arises in minds that why foreign investors invest in other countries and why host countries enhance foreign investors? The source and host/recipient countries both have some objectives. These objectives are basically to earn more profit in the host countries and send the earned profit to their home country in order to attain welfare. In addition, there may be many other reasons due to which multinationals undertake FDI in other countries and these may be the inputs and raw materials, labour costs, technology and manufacturing, market access, dealer networks and taxes etc. Another question is that, why foreign firms exploit resources rather than domestic firms. A common explanation of this phenomenon is that domestic firms lack the capital and technology needed to find and develop natural resources efficiently.

Multinational companies may invest in other countries to take advantage of lower production costs. If a multinational is to be able to compete with local firms in a foreign market, it must have some advantages that the local firms do not. These advantages can take many forms[1] and it may own intangible assets[2]. Foreign production is sometimes preferable to exporting because minor modifications can be made to suit local specifications and tastes. Some time exporting may be difficult because of high transport costs[3] or barriers to trade. Though often custom duties or tariffs are considered as a major cause of direct investment, it means that other things being equal, the higher the rate of duty, the greater is the incentive for a foreign company to produce inside the customs area rather than to export into it. In this regard as William Lever, the founder of the Lever Brothers said in 1902,

> "The question of erecting works in another country is dependent upon the tariff or duty. When the duty exceeds the cost of separate managers and separate plants, then it will be an economy to erect works in the country..." (Tugendhat, 1971).

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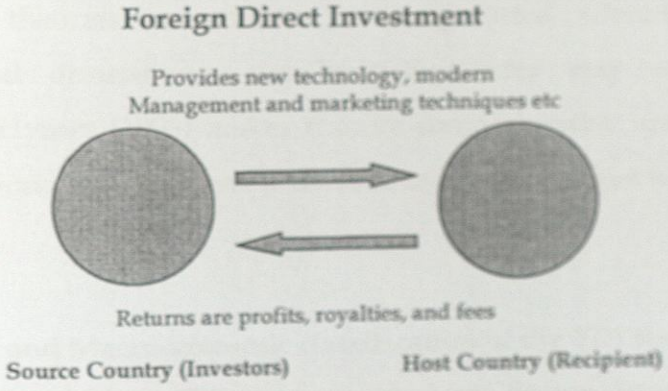
1. For example, MNCs may possess superior manufacturing technology, modern managerial experience and method, and an international distribution network for its products. Also, it may be able to borrow capital more easily than local firms because it has access to international capital markets.
2. Such as managerial skills, patents, and trademarks.
3. While the importance of transport costs depends on the product because for products that has a high value in relation to size and weight, transport costs are less important.

In addition, investors from developed countries come into developing countries because they know that the return on capital is less in their own countries and also multinational intend to utilize cheaper labour and raw materials of the host country in order to minimize their production cost. On the hand the host/recipient countries interested to welcome the foreign investors because it will bring more positive changes in their economy and the ultimate results would be in the form of improvement in the economic development of the host countries.

The following flow chart shows the flow of FDI from source[1] country to host country with benefits and rewards accordingly.

Figure-3.1



3.2 CLASSIFICATION OF THEORIES ON FDI

Extensive arguments exist in support of the various sets of classifications regarding FDI theories. In this regard Razin (2003), states that the FDI theories can essentially be divided into two categories, namely micro and macro theories. Kojima and Ozawa (1984) also support this distinction between micro and macro models of FDI, but give more emphasis on macro models.

1. Source country refers to the country from which the investment originates.

3.2.1 Microeconomic classification of the FDI theories

According to Razin (2003) early literature explaining FDI in microeconomic terms, focuses on market imperfections and on the desire of TNCs to expand their market power. Moreover recent literature concentrates on firm-specific advantages, product superiority or cost advantages flowing from economies of scale, multi-plant economies, advantages in technology and superior marketing and distribution. Thus according to this view, multinational enterprise will find it cheaper to expand directly into a foreign country, rather than by increasing trade. Further the micro theories show that firms may have objectives when investing abroad. Profit maximization (which is of primary importance in the long run) may in the short run be such as market access.

3.2.2 Macroeconomic classification of the FDI theories

The macro theories concentrate on comparative advantages as well as environmental dimensions, and how the latter may affect comparative advantages. Hymer (1993) makes it more comprehensive and emphasizes that infact transitional corporations possessed more advantages while the local firm does not.

3.2.3 Micro and Macroeconomic classification of the FDI theories

Discussing theories of FDI, a more modern theory based on micro and macroeconomic aspects, which seeks to give a general answer to location questions related to FDI, is the eclectic theory of Dunning (Agarwal, 1991). Moon and Roehl (1993) highlight this statement by saying that none of the general theories of FDI, except perhaps Dunning's eclectic theory-which is based on the OLI (ownership, location and internationalization advantages) paradigm-succeed in satisfactorily explaining the international activities of firms. According to Chakrabarti (2003), this is only Dunning (1980) that provides a

conceptual framework, to which literature on multinationals has converged in recent years.

3.3 THEORIES OF FOREIGN INVESTMENT

It is assumed that to undertake FDI, a necessary condition is that the investing firms must have some monopolistic advantage not possessed by local competitors. Adam Smith was the first one who studied the determinants of FDI and Ohlin (1933) also discussed this issue of the determinant of FDI. These authors view that the return on capital in home country is less than that the return on capital in host country. Though various theories trying to describe FDI but however, the following are the most important and influential theories explaining FDI broadly in all.

3.3.1 The Classic Theory of International Capital Movement[1]

Until the World war-1, international capital movements consisted essentially of flows of portfolio capital from a few developed European countries to the rest of the world. This theory based on perfect competition. Like other forms of international investment, FDI was seen as a response to differences in the rates of return on capital between home and host countries. On the basis of this theory the rate of return on capital under autarky[2] varies across the countries, the opening up of trade in capital will lead to a flow of capital from countries with lower return to those of higher return. Thus, foreign direct investment is a function of international differences in the rates of return on capital. This suggestion was proved by Mundell, (1957); through empirical observation and Blias (1975) also found empirical support for the differential rate of return hypothesis.

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1. FDI theories can be divided in micro and macro theories and therefore 3.3.1, 3.3.2, 3.3.4, and 3.3.5 are micro level and such as 3.3.3, 3.3.6, 3.3.7 and 3.3.8 are macro-level theories.
2. The absence of trade, or isolation.

3.3.2 Portfolio Diversification Hypothesis

The classic theory of international capital flows focuses only on the rate of return, ignoring the risk factor associated with the investment project. The latter factor has been captured by the portfolio theory. Grubel (1968) was the first to apply this theory in the context of international capital movement. The theory suggests that investors not only consider the rate of return, but also the risk in selecting their portfolios. Also there is a positive relationship between investment and rate of return and a negative relationship between investment and of the risk[1] (Agarwal, 1980).

3.3.3 Product Cycle Hypothesis (PCH)

Another important approach regarding FDI is Product Cycle Hypothesis introduced in 1966 and then modified this initial theory in 1974. This hypothesis offers an explanation for both FDI and international trade and focuses on the different stages that a product goes through. In the initial stage a new product is developed and produced by the innovating firm in its home country. The second stage is marked by product maturity and an increase in exports of products to higher-income countries. Increased demand and growing competition in local markets lead eventually to FDI. The third stage is characterized by a complete standardization of the product and its production technique, which is no longer in exclusive possession of the innovator (Agarwal, 1980). Clegg (1987) claims that "the product cycle" is not, itself a complete theory of FDI, as it does not explain the ownership of production. Also adds that "the product cycle is primarily a theory of new FDI, and it has little to say on the extensions of existing investments by a mature foreign-investing nation".

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1. $I = f(\pi, \sigma)$, Where π is expected rate of return and σ is risk.
   $>0, <0$

3.3.4 Industrial Organization Explanation (IOE)

The industrial organization explanation of FDI originates from Hymer's (1960) doctoral thesis (published in 1976). Hymer analyzed systematically issues related to the advantages of TNCs, market imperfections and control in foreign markets with the local firms and foreign firms' competition (Sing and Jun, 1995). Multinational Corporation investing in other countries does not know about that countries environment where they are investing but the domestic firms knows well, therefore MNCs faced some sort of risk includes transport and communication cost etc. Firms that want to invest through FDI in these foreign markets must have specific advantages to gain a competitive edge on local firms in a foreign country and that is of course the foreign firm possessed strong managerial skill and high technology etc.

Industrial organization explanation of FDI had been explained by many of the economists but the work done by Caves (1979) and Dunning (1973) are remarkable in the context of foreign capital flows.

3.3.5 Internalization Theory

Internalization theory proposed by Buckley and Casson (1976) and according to this theory intermediate product such as human capital, knowledge, marketing and management expertise are imperfect, mainly because of a lack of information. As a result of this linking different inter-national activities through these markets involves significant time lags and transaction costs. Firms are encouraged to infiltrate these foreign markets using their own product. This entering of firms across national boundaries to gain access to international markets leads to FDI. This process is continued until the benefits and a cost of further internalisation is equalized at the margin. Benefits include: avoidance of time lags, bargaining opportunities (because of the firm's involvement in the foreign market) and a decrease of buyer uncertainty. The impact of government

intervention through transfer pricing and the ability to use discriminatory prices are minimized (Agarwal, 1980). Furthermore, Buckley and Casson (1976) listed several markets where internalisation is very likely to happen i.e., perishable agricultural products, intermediate products in capital-intensive[1] manufacturing processes, and raw materials geographically concentrated.

3.3.6 Resource Based/ Raw Materials

The credit of this theory goes to Penrose (1958), and Cantwell (1989). According to this theory foreign investors making investment in other countries in order to take advantage of cheaper supply of inputs up to some extent (Jenkins and Thomas, 2002).

3.3.7 Market Size Hypothesis

The market size hypothesis is applied on the macro level, but microeconomic linkages exist between FDI and output that have their roots in the theory of domestic investment. A large market or an increasing market size will create opportunities for increased profits and this will attract increased levels of domestic and foreign investment (Agarwal, 1980). Edwards (1990) investigated the distribution of the OECD FDI across 58 less developed countries for the period 1971-81 and found that the higher the real GDP of a country, the larger was its share in the total OECD FDI in the less developed countries.

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1. A capital-intensive process of production in one, which uses proportionately more capital relative to the quantities of other inputs.

A valuable saying by Guy (1996) regarding FDI would be appreciable if mention here, as a famous Washington hostess of the 1950s used to tell young girl: "You either have to be pretty or I suggest you learn to speak French." The same is true for the host country (Pakistan). "Being pretty" means: being perceived by investors as having inherent attractions such as a large and expanding market. Investors will overlook the most elementary requirements in order to be present in such countries. But if you don't happen to be "pretty", if your market is small and unlikely to expand very rapidly and your country doesn't possess inherent attractions, then the only way you can attract private capital may be by "learning to speak French", that is: making yourself attractive. However, market size factor is very important factor for FDI. In my view the more successful countries " speak reasonably fluent French", meaning that the more fundamental development conditions are met: law and order, deal with poverty reduction programs, reduce duties, provision of good health facilities, improving infrastructure, increasing the capability of workers through technical education, maintaining appropriate inflation rate, encourages domestic investment, minimizing external debt burden, political risk, including exchange and interest rates, etc.

3.3.8 The Eclectic Paradigm

The eclectic paradigm of Dunning (1977, 1988 and 1993) integrates the features of the ownership, location and international advantages into a model for exploring international production and examining FDI and try to illustrate the "who", "where" and "why" of FDI activity prevails. This theory fully explains the activities of multinationals. Dunning (1988, 1993) proposed that for firm when undertake FDI needs three conditions. These three conditions are Ownership advantage (O), Location Advantage (L), and Internalization advantage (I). While firm's Ownership Advantage refers foreign firms have the advantages of patents,

trademarks, managerial, and marketing skills etc. Location (L) advantage refers to the availability of resources, economic stability, institutional stability, peace & safety, law & order, political stability and favourable government policies etc. In addition, Internalization is very much important for multinational corporations [1].

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1. There are many other theories explaining FDI such as,

(i) **Exchange rate:** Aliber (1971), and Bloningen (1997) mentioned that foreign firms are more willing to buy a country's assets when that country's currency is weak.

(ii) **Taxes, tariffs and incentives:** A host countries policies and institutions can play a prominent role in creating an environment for foreign firms to invest in that country. A high tariff, for example in the host country, may contribute every substantially to the host country's location advantage for an import substituting industry (Gastanaga, et al. 1998)

(iii) **Cheap Labour:** According to Riedel (1975), as for as developing countries are concerned, the availability of cheap labour as a determinant of FDI flows has attracted much attention since the 1970s, and

(iv) **Integrative School:** Wilhelms (1998) states that an integrative FDI theory considers micro, and macroeconomic variables that determine FDI. The macro-level encompasses the entire economy; the micro-level denotes firms and the meso-level represent institutions linking the two, for instance government agencies that determine investment policy applicable to enterprises.

3.4 CLASSIFICATION OF THE DETERMINANTS OF FDI

Generally, the FDI determinants are divided into two groups first is the supply side determinant and second the demand side determinants (Ragazzi, 1973; Root and Ahmed 1979; Agarwal, 1980; Chunlai, 1997; Chakrabarti, 2001; and Asseidu, 2005). Ownership advantages and Internalization advantages are supply-side determinants of FDI, while Location advantages the demand side determinants are location advantages. Even both demand-side and supply-side determinants play key role in determining the magnitude and direction of foreign investment. A brief explanation of supply side and demand-side determinants are included here but this study only concentrates on demand-side determinants of FDI.

3.4.1 Supply-Side Determinants of FDI

The supply-side determinants of FDI flows are largely related to the macroeconomic conditions in the source countries. As currency appreciation of a source country can usually promote FDI flows to host countries. When a sharp appreciation of currency occurs in a source country, the competitiveness of the source country's export decline in the world market. Nevertheless, host country's products are relatively cheaper and become more price competitive and the cost of production would also be relatively cheaper in the host country compared to the source country. This would lead to a comparative advantage in the host country and a result, the investors of a source country which have currency appreciation would tend to move their production facilities out of their home country[1]. Further more, the liberalization of international financial and capital market has also promoted FDI flows among countries. Foreign investors have found that investing in a foreign country is now less restrictive and more convenient.

Meanwhile, the supply-side determinants consist of economies of scale, oligopoly reaction, product life cycle, intangible assets and internalization (Ragazzi, 1973; Tsai, 1991).

3.4.2 Demand Side Determinants of FDI

The demand-side determinants are referred to the advantages that host countries have in attracting more FDI inflows from abroad. In general it is classified into three categories like economic determinants, policy framework for FDI and business facilitation (Poon, 2000).

3.4.2.1 Economic Determinants

The macroeconomic performance in a host country is important when studying FDI. Countries having a better economic performance can usually attract larger inflows of FDI than poorly performing countries. Though different economic determinants can attract different types of FDI to a host country. In addition, countries with a large market size, high per capita income, quality infrastructure, low costs in production, skilled labour and a potential markets growth etc., tend to make a country an attractive destination for FDI flows.

3.4.2.2 Policy Framework for FDI

Multinational enterprises prefer also to choose a location that is economically and politically stable for their investment. Therefore, a country's political stability is an important consideration for multinational when choosing the destination for the investment. More foreign investors seek locations that have a macroeconomic stability such as countries with a low inflation and stable exchange rate. Again, the goal is to reduce the risks in their investment. Other policies in the host countries, such as those affecting the function and structure of market, trade policy (tariffs and non-tariff barriers such quantitative restriction to

trade) and incentives (tax holiday, low corporation tax, etc.), also affect the level of FDI inflows.

3.4.2.3 Business Facilitation

In addition, to economic factors and political stability, the macroeconomic policy, solid base of physical infrastructure and open, non-discriminative investment regulations provide sufficient conditions to enhance FDI. Countries with better administration and social amenities may also increase the willingness of foreign investors to invest. The presence of any administrative inefficiencies or intensive corruption activities will increase the hassle costs of the foreign investors and discourage FDI.

3.5 THEORIES OF ECONOMIC GROWTH

Adam Smith, and the Physiocrats had tried and even a number of social scientists have been trying to search out way through which makes a nation wealthy. In this regard Adam Smith studied the importance of growth and therefore the idea appeared in the form of production function[1]. In a book written by Adam Smith in 1776 named "The Wealth of Nations" Adam Smith says that the growth may be influenced by these three factors (labour, capital, and land) or only by increasing the level of population. While the efficiency of the labour can be increased by providing them high advanced equipment, and even by increasing the duty hours and particularly emphasized on their specialization. Capital can be increased by regular and continues investment process and therefore land must be utilized more efficiently with the help of suitable technology. In 1956, economist Solow presented a growth model to understand growth and which is known as neo-classical growth model. Although Solow model explained more comprehensively economic growth but however according to Cortright, (2001) some have found that there are some weakness in this model of economic growth.

Later on in 1980s, economists introduced another economic theory which is called the Endogeneous Growth Theory. The features of this growth theory are that consists of mathematical explanation of technological advancement and also included the idea of human capital. Further explained that as the physical capital increasing rates of return, such as human capital may also increasing rates of return.

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1. $Y = F(L, K, T)$,

Where, Y = Output, L = Labor, K = Capital, and T= Land.

In short in this chapter it has been concluded that objectives of the foreign investors are to earn profit and repatriate it to their home country in order to attain welfare. While the host developing countries wants improvement in their economic development and to increase welfare of the nations.

Chapter 4

FOREIGN DIRECT INVESTMENT AND THE PAKISTAN'S ECONOMY

4.1 BACKGROUND

This chapter presents an overview of Pakistan's economy, history of capital movement into developing countries and Pakistan, economic growth performance of Pakistan's economy, environment for FDI in Pakistan, and impact of FDI on balance of payment respectively.

Due to the World globalization, international capital flows (i.e FDI) become important economic activities among different countries in the World. It has been argued that the effects of FDI on economic growth from advanced economies has positive in developing economies through the process of technological diffusion. In this regard with the primary goal and objective for attaining desirable level of economic growth, Pakistan also intend to take benefits of foreign capital inflows and therefore, encourages foreign private investment by offering attractive incentives and packages.

The purpose of this chapter will help about knowing the performance of Pakistan economy in general and particular with reference to the status of FDI in Pakistan. Further, it will help regarding knowing the trend of FDI, shares of various countries and sectoral distribution of FDI accordingly.

4.2 OVERVIEW OF PAKISTAN'S ECONOMY

Pakistan is a Muslim country and her total population is almost 156.77 million tough and hardworking people, which have entered the 21st century as an equal partner in the community of nations. The Pakistani labour force has a reputation of being one of the hardest working in the World. The Pakistani labour is also one of the cost-effective in the World and provides high return on investment. Pakistan ranks amongst the top seven fastest growing economies of Asia and the growth rate has been estimated 8.4 % during 2004-05 fiscal years. Although agriculture is still the mainstay of the economy and employs 48% of the work force, its share in the GDP recorded 21.6% during 2005. Comparatively Pakistan has been improved macroeconomic, financial and social indicators up to some extent during last few years. The details of economic indicators such as GDP growth and per capita income etc, financial indicators such as inflation, FDI inflow, export and import etc, and social indicators such as literacy rate, and health etc., are given in the Table 4.1.

4.3 FOREIGN CAPITAL INFLOWS INTO DEVELOPING COUNTRIES

Mostly, FDI is carried out by MNCs. Around 2500 B.C., in the earliest recorded civilization, the merchants of Sumeria found it useful to have foreign representatives handle their products. The British East India Company, a trading company that operated from A.D. 1600 until 1858, is often quoted as an early example of MNCs. The origins of MNCs in manufacturing can be traced to the 19th century, when American manufacturing companies established foreign subsidiaries to produce goods embodying new technology. For instance, in 1855 Singer licensed a foreign company to produce sewing machines, and in 1867 Singer established its own plant in Glasgow. In 1882 Western Electric established a plant in Belgium to manufacture telephone equipments. In 1889 George Eastman incorporated a company in London to manufacture film for cameras. Thus, MNCs have a long history, it was not until after World War-II that MNCs became a significant force in the World economy (Baker, 1995).

Table 4.1: Some Basic Economic & Social Indicators of Development in Pakistan

ECONOMIC INDICATORS	1971-80*	1981-90*	1991-95*	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
NATIONAL ACCOUNTS:														
GDP Growth (%)	4.87	6.09	4.90	6.60	1.70	3.50	4.20	3.90	1.80	3.10	5.10	6.40	8.60	6.60
Per Capita GNP (fc) US$	203.2	376	451	513	493	473	438	526	501	503	579	669	742	847
Private Consumption as % of GDP	77.71	79.00	76.92	70.81	73.99	74.43	75.15	74.96	68.63	65.92	60.45	57.00	56.30	56.20
FINANCIAL INDICATOR:														
Gross Domestic Saving as % of GDP	7.95	8.75	16.36	12.00	12.80	15.70	12.90	17.10	17.80	18.10	17.60	15.70	14.50	14.40
FDI inflows as % of GDP	0.13	0.33	0.67	1.19	1.45	1.14	0.81	0.90	0.50	0.65	1.39	0.99	1.38	1.40
Consumer Price Index	7.80	6.30	10.77	10.79	11.8	7.81	5.74	3.15	4.41	3.54	3.10	4.6	9.3	8.0
Exports as % of GDP	-	10.11	13.44	13.80	13.40	13.90	13.30	11.70	12.90	12.80	13.50	12.90	13.00	9.40
Imports as % of GDP	-	17.88	17.68	18.70	19.10	16.30	16.40	13.10	14.30	13.20	13.70	14.20	16.90	16.00
Trade deficit/GDP	7.80	7.10	4.70	5.90	5.00	3.00	3.50	1.90	1.80	0.40	0.50	1.30	3.90	6.60
Debt as % of GDP	-	42.52	44.36	42.4	43.5	44.8	49.4	43.4	43.2	40.3	39.3	35.7	32.8	28.8
Development Expend. as % of GDP	-	7.30	5.70	4.43	3.50	3.90	3.30	2.50	2.20	2.90	2.20	3.10	3.50	4.20
SOCIAL INDICATORS:														
Literacy Rate (%)	33.70	38.50	39.80	40.90	42.20	43.60	45.00	47.10	49.00	50.50	51.60	52.00	53.00	53.00
Expenditure on Education as % of GNP	1.6	1.9	2.2	2.4	2.5	2.3	2.2	2.3	2.2	2.1	1.6	1.9	1.7	2.1
Expenditure on Health as % of GNP	0.6	0.7	0.7	0.6	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5
Population Growth (%)	3.21	3.10	2.52	2.49	2.43	2.38	2.34	2.29	2.24	2.22	2.16	2.10	1.9	1.9

Sources: Pakistan Economic Survey, (1975,1980,1990,2000,2005-06), and World Development Report (1973,1985,1990,2000,2006)

* Shows averages

4.4. CAPITAL MOVEMENT INTO PAKISTAN

The inflow of foreign capital into Pakistan is not a new phenomena but FDI through multinational corporations began even before inception. Therefore, the presence of foreign companies in Pakistan predates the inception of country. The history tells us that in Pakistan Shell started their operations in 1903, and Pakistan Imperial Chemical Industries (ICI) started their operations in 1942.

Similarly in Pakistan ANZ Grindlays Bank and Standard Charted Bank started working even before inception. At this time in Pakistan, there are almost 30,000 companies, out of which more than 600 have foreign capitals. In order to encourage multinational companies in Pakistan even at the time of nationalization, all the foreign investment was exempted from the preview of nationalization. Where as in many countries foreign investment has been the first to be nationalized. Although the World FDI inflow in 1971-75 was recorded US$ 20450.61 million, where US$ 15262.08 million went to the developed countries and the remaining amount of US$ 5188.5 million went to developing countries, where US$ 1160.16 million went to Asia and only US$ 8.6 million came into Pakistan. In the year 2005, the World FDI inflow increased to US$ 916300 million, out of which US$ 452300 million, US$ 334300 million, and US$ 200000 million came into developed countries, developing countries, and Asia respectively, see for detail Table 4.2.

FDI inflow in the year 2004-05 has reached up to US$ 1524 million as the highest if compared with last year 2003-04 FDI inflows in Pakistan. Hence total FDI inflows into Pakistan from 1991-92 to 2004-05 stands at US$ 9089 million, which come to US$ 649.27 million per year. Table 4.5 depicts that a few sectors have comparatively attracted more FDI during last five years. The total inflows of FDI into textile sector in the last five years were US$ 138.4 million, and this textile sector attracted US$ 39.3 million during 2004-05, as the amount was US$ 35.4 million during 2003-04. The inflow has highly increased in the power sector as it

Table: 4.2 World Foreign Direct Investment Inflows: An Assessment (Million of US $)

Years	1971-75*	1976-80*	1981-85*	1986-90*	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
World FDI Inflow	20450.61	36188.93	59801.73	158705.3	158701.6	166402.4	225505.3	260775.2	335734.2	388531.6	488326.6	690904.9	1086750	1387953	817573.9	716128	632599	710800	916300
DC	15262.08	28165.74	39238.28	130600.3	112784.4	107129.7	136992.8	145710.8	204425.7	221877.8	268364.1	4725450.2	828351.8	1107987	571482.6	547778	442157	396100	542300
as % of World inflow	74.99	76.58	65.60	82.05	71.06	64.37	60.74	55.87	60.88	57.10	54.95	68.31	76.22	79.821	69.89	76.49	69.89	55.73	59.19
LDCs	5188.52	8003.07	20537.26	27870.16	43280.28	54579.04	81413.39	108742.7	115952.8	151983.5	198906.5	194054.5	231880.5	252459.1	219720.7	155528	166337	275000	334300
as % of World inflow	25.02	23.36	34.35	17.82	27.27	32.79	36.10	41.69	34.53	39.11	40.73	28.08	21.33	18.18	26.87	21.71	26.30	38.69	36.49
Asia	1160.16	2153.68	11620.04	16408.58	24238.25	32750.55	58665.65	68489.23	79588.66	94907.44	110137.6	102209.1	112587.5	146066.7	111853.6	92009	101278	157300	200000
as % of World inflow	5.82	6.84	19.43	10.32	15.27	19.68	26.01	26.26	23.705	24.42	22.55	14.79	10.36	10.52	13.68	12.8	16.00	22.13	21.83
as % of LDCs inflow	16.58	27.23	55.27	57.99	56.00	60.004	72.05	62.98	68.63	62.44	55.37156	52.67	48.55	57.859	50.90	59.15	60.88	57.2	59.83
S,ES-EA	1240.15	2333.63	5602.31	15696.42	21988.52	29768.79	53603.92	65766.34	77822.17	89738.42	100957.2	92136.37	109115.5	142682.6	102228.4	86326.34	94755	136000	165100
as % of World inflow	6.01	6.50	9.40	9.84	13.85	17.88	23.77	25.21	23.17	23.09	20.67	13.33	10.04	10.28	12.50	12.05	14.97	19.14	18.02
as % of LDCs inflow	25.28	29.04	28.08	55.41	50.80	54.54	65.84	60.47	67.11	59.04	50.75	47.47	47.05	56.51	46.52	55.50	56.95	49.46	49.39
Pakistan	8.6	35.51	60.86	154.07	257	344	346	419	719	918	713	507	529.7	305.1	385.4	823	946	1118	2183
as % of World inflow	0.03	0.08	0.09	0.09	0.16	0.20	0.15	0.16	0.21	0.23	0.14	0.07	0.04	0.02	0.04	0.12	0.15	0.16	0.24
as % of LDCs inflow	0.15	0.41	0.29	0.54	0.59	0.63	0.42	0.38	0.62	0.60	0.35	0.26	0.22	0.12	0.17	0.52	0.57	0.40	0.65
as % of Asia inflow	0.27	4.05	0.563853	0.93	1.06	1.05	0.58	0.61	0.90	0.96	0.64	0.49	0.47	0.20	0.34	0.89	0.93	0.71	1.09
as % of S,ESA	0.56	1.37	1.06	0.98	1.16	1.15	0.64	0.63	0.92	1.02	0.70	0.55	0.48	0.21	0.37	0.95	1.00	0.82	1.32

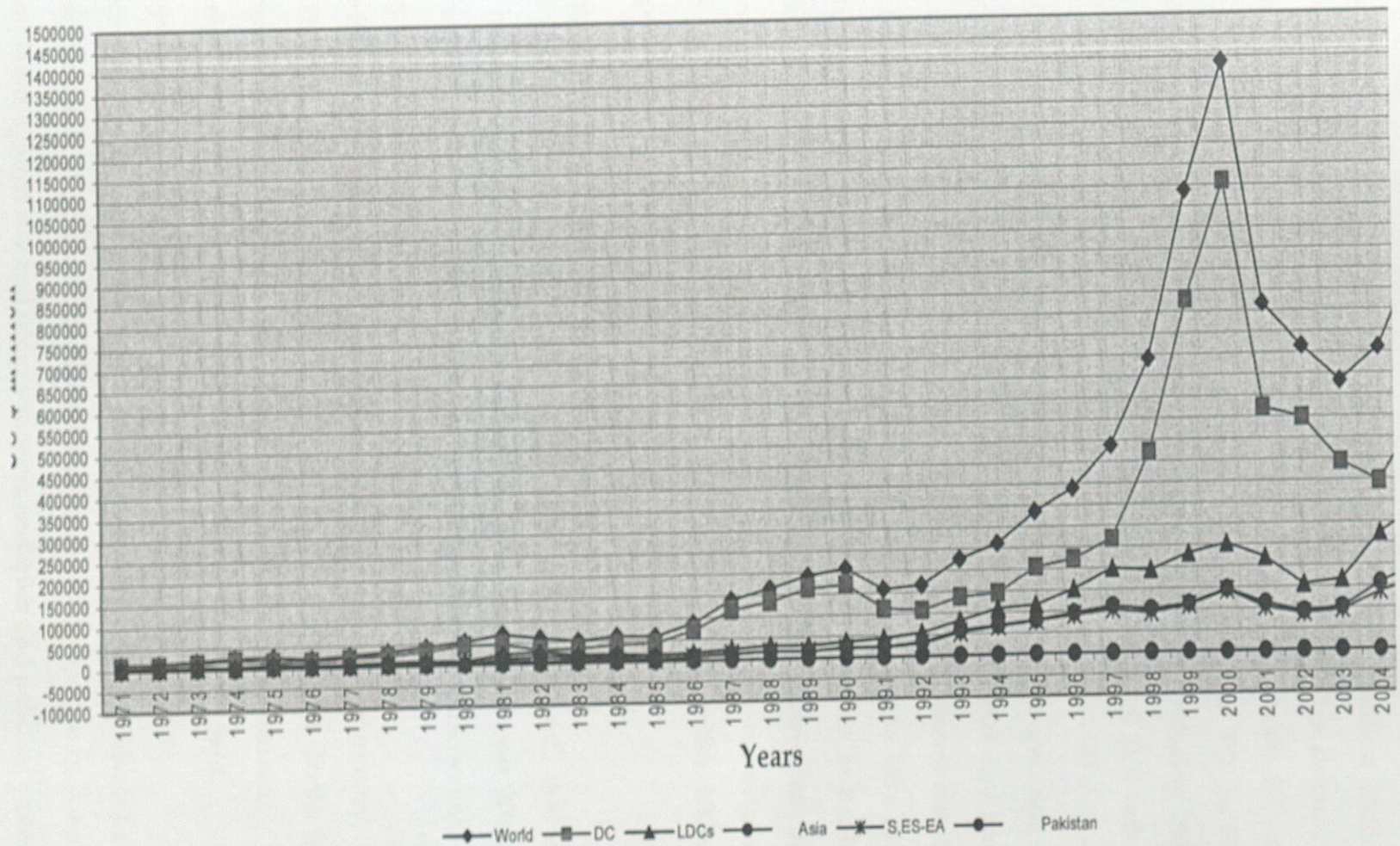
Source: Author construction from WIR (1980, 1995, 2002, 2005, 2006) UNCTAD, UN, New York and Geneva.

* Shows data in averages

S,ES-EA stand for South, East and South-East Asia

- To mention that the data on FDI taken from WIR and Federal Bureau of Statistics or others surveys shows differences.

Figure -4.1: World Foreign Direct Investment inflow: An assessment



was in US$ -14.3 million in 2003-04 and in 2004-05 it is US$ 73.3 million. During last five years comparatively power sector has enhanced considerable amount of FDI inflow of amount US$ 1007.9 million. Similarly communication (IT and Telecommunication) is on the top on the basis of more attracted FDI in this sector. FDI inflow in communication sector was recorded US$ 221.9 during 2003-04 but in 2004-05 it reached up to US$ 517.6 million and the total FDI inflow during last years is US$ 1090.1 million which is the highest amount in all sectors. Pakistan Telecommunication Authority (2007) reported that direct and indirect 1366698 jobs has been created during 2007 and estimated more 58009 direct and indirect jobs to be created in 2007-2008. The FDI inflow also increased into the financial business sector to US$ 269.4 million in 2004-05, as it was US$ 242.1 million during 2003-04 and the total FDI inflow is US$ 840.1 million in the last five years as well. It has been observed that about 70 % of FDI inflow has come into oil and gas, chemical, telecommunication and power sector, see the details in the Table 4.5. Table 4.3 shows that about 60% FDI have come from USA, UK and UAE respectively.

4.5 REASONS FOR LOW FDI INFLOW INTO PAKISTAN

Economist Intelligence Unit's (2001) and Saleem, (2001) analysed, that still Pakistan has not enhanced remarkable amount of FDI except fiscal year 2004-05, while provided many attractive incentives to foreign investors. However, the following are considering the major reasons for poor FDI inflows;

i. The image of Pakistan is not good in international business community.
ii. In Pakistan, foreign investment is looked down upon with doubt as a vehicle of exploitation and profits earned the investors are repatriated.
iii. Foreign investors face lack of suitable infrastructure for investment.
iv. Frequent changes in rules of taxes and tariffs make less attractive.
v. Uncertain fluctuations take place in prices of electricity and gas like inputs.
vi. Unstable political climate and corruption discourage the foreign investors.
vii. Complaints against law and order situation, sectarian and political violence.

Table 4.3: **Shares of FDI inflow from Various Countries to Pakistan** (Percentage)

Years	U.S.A.	U.K.	U.A.E	Germany	France	Hong Kong	Italy	Japan	S.Arabia	Canada	Netherlands	Others
1980-81	14.8	15.7	15	3.9	0.2	0.06	-0.15	0.68	0.16	0.3	1.71	47.6
1981-82	15.5	19.9	8.4	3.6	0.19	0.15	0.02	0.43	0.23	0.3	1.52	49.8
1982-83	11.6	16.9	10	3.3	0.23	0.06	0.01	0.5	2.6	0.23	3.34	51.3
1983-84	8.8	16.3	8.2	4.8	0.1	0.51	....	0.45	2.5	0.21	1.35	56.8
1984-85	24.5	12.7	16.9	9.1	1.71	0.85	0.14	9.53	5.4	0.43	9.71	9.1
1985-86	24.2	8.6	47.9	2.9	0.55	1.9	0.27	4.33	-5	....	0.89	13.5
1986-87	39.7	4.7	23.7	5	1.39	6.2	0.37	8.7	0.92	0.74	0.55	8
1987-88	28.2	15.7	15	11.3	3.08	3.39	0.67	8.38	0.55	0.62	0.25	12.8
1988-89	45.1	10.8	6.2	4.8	3.68	3.01	0.57	8	0.24	0.43	0.81	16.3
1989-90	43.4	10.5	7.3	5.2	2.77	0.42	1.75	7.45	0.51	0.42	2.45	17.8
1990-91	52.8	13.7	3.7	5.1	2.88	1.34	1.18	10.65	0.36	0.77	0.93	6.6
1991-92	63.7	6.1	3.1	6.4	2.53	.....	0.5	5.28	0.03	0.9	0.24	11.1
1992-93	44.7	8.4	3.1	11.8	1.98	4.05	0.19	7.18	2.67	0.09	1.83	14.1
1993-94	32.2	9	2.1	2.6	3.13	0.34	0.08	8.38	0.54	0.34	-0.03	41.3
1994-95	39.9	8.7	10.6	4	3.05	0.49	0.06	3.68	0.2	0.09	1.02	28.2
1995-96	29	30.1	4.8	2.4	1.28	3.11	0.04	7.52	2.46	0.07	1.09	18.8
1996-97	36.1	35.3	8.1	2.6	1.5	1.09	0.26	5.37	-2.5	0.25	1.13	9.9
1997-98	42.7	22.6	3.2	4	0.81	0.35	0.15	2.97	0.2	0.08	4.47	17.69
1998-99	4.4	21.8	1.9	5.1	1.86	0.27	0.05	15.27	0.29	0.08	1.51	7.19
1999-00	35.5	36	1.2	2.2	0.34	0.17	0.11	3.77	6.08	0.04	2.28	10.3
2000-01	28.8	28	1.61	4.8	0.22	1.1	0.4	2.82	17.56	0.03	1.49	11.97
2001-02	67.3	6.3	4.44	2.3	-1.4	0.6	0.02	1.34	0.268	0.72	-1.05	19.1
2002-03	26.5	27	15	0.5	0.33	0.7	0.03	1.77	5.451	0.06	0.38	21.8
2003-04	24.6	6.8	14.2	0.7	-0.6	0.7	0.2	1.59	0.758	0.05	1.47	48.87
2004-05	22.5	17	7.75	1.1	-0.3	2.1	0.03	4.31	1.514	0.48	3.65	39.85

Sources: State Bank of Pakistan (1995, 1980, 1996, 2001, 2005-06)
Pakistan Economic Survey (1973,1975,1980,1990,2000,2005-06)

Figure-4.2: Shares of FDI inflow from Various Countries into Pakistan

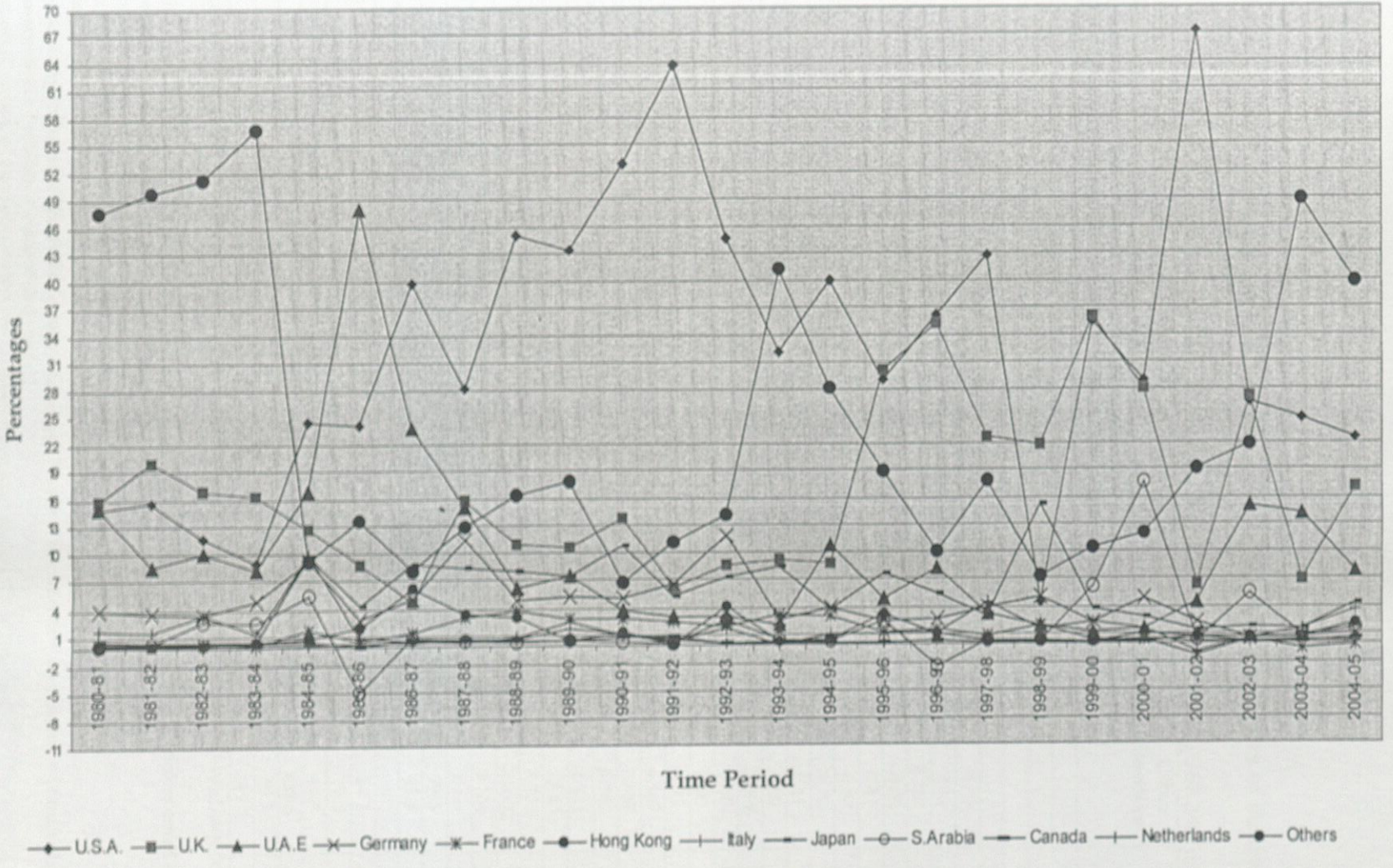


Table 4.4 and Table 4.5 respectively show inflows of FDI into various sectors of Pakistan.

Table 4.4: Group Wise Distribution of FDI into Pakistan (US$ Million)

Years	Agriculture, Hunting, Forestry & Fishing	Mining, Petroleum & Quarrying	Manufacturing	Construction	Utilities	Commerce	Transport, Storage & Communication	Other Services	Total
1971	..	..	..	..	..	..	..	..	..
1972	0.014	..	1.34	..	..	0.92	0.29	..	2.55
1973	..	1.15	1.32	-0.37	..	0.25	0.05	..	2.38
1974	..	1.01	9.67	0.14	..	0.43	0.050	..	11.30
1975	-0.01	0.49	7.97	1.21	..	0.58	0.17	0.02	10.41
1976	..	5.35	25.7	4.04	0.26	0.66	0.06	0.90	36.97
1977	..	7.34	16.78	18.3	..	2.38	0.13	0.151	45.08
1978	..	7.37	10.46	-5.04	..	0.68	..	-0.01	13.45
1979	0.03	17.06	15.65	0.40	..	0.78	0.94	8.82	43.65
1980	..	7.28	22.09	0.35	..	0.53	0.15	-0.84	29.60
1981	0.23	8.24	26.32	0.20	..	-1.68	0.59	9.79	43.67
1982	0.06	8.83	26.91	0.15	..	-0.40	0.095	0.41	36.06
1983	0.12	17.58	10.31	0.17	..	8.90	0.80	1.80	39.67
1984	0.10	1.44	18.44	0.06	..	9.90	0.71	3.069	33.72
1985	0.87	8.34	15.59	0.01	..	17.43	0.81	3.55	46.598
1986	0.36	24.70	23.47	0.01	0.05	33.179	3.24	3.95	88.96
1987	0.029	61.39	10.58	..	0.05	27.67	2.76	5.79	108.28
1988	..	60.89	14.65	-0.18	0.22	38.52	6.45	4.167	124.66
1989	2.08	96.80	15.05	15.88	..	34.30	8.26	3.337	175.70
1990	..	92.24	23.29	28.59	0.06	104.26	13.39	6.382	268.21
1991	..	117.89	42.05	13.44	0.18	86.09	-2.753	2.411	259.31
1992	..	14.38	41.38	125.9	33.3	119.29	-0.92	13.45	346.7
1993	..	36.50	41.00	64.38	0.05	226.51	0.71	1.213	370.34
1994	2.23	35.84	272.6	83.15	247	105.11	15.81	16.602	778.40
1995	-0.03	35.67	94.58	95.42	95.5	147.80	25.97	8.436	503.31
1996	..	74.05	103.1	29.69	81.4	122.22	34.08	8.63	453.16
1997^A	..	39.20	161.1	14.50	245	106.50	6.4	99.6	682.1
1998	..	100.7	130.8	21.50	240	33.0	10.2	63.5	601.29
1999	..	151.6	67.10	13.90	131	29.9	33.3	43	472.30
2000	..	91.7	181.2	21.10	67.4	37.2	31	34.3	469.90
2001	..	93.4	93.30	12.50	40.3	-21.7	81.5	19.2	322.59
2002	..	279.8	42.20	12.60	36.1	37.8	12.8	46.9	484.2
2003	..	191.2	137.3	17.6	32.8	246.6	26.8	138.6	798.00
2004	..	275.8	79.4	32.0	-14	277.20	230.7	59.7	949.4
2005	..	219.1	175.4	42.1	73.3	321.50	532	149.2	1524.2

Source: Foreign Liabilities & Assets and Foreign Investment in Pakistan (1975, 1980, 1990, 2000, 2005-06), State Bank of Pakistan.

Note: This table not shows the total FDI goes to all sectors because the data were not available for all concerned sectors.

1. Minus sign shows out flow.
2. Symbol (..) stands for nil or negligible amount.

^ From 1997 the data on the following sectors is as;

- Mining, petroleum & Quarrying (consists on Mining and Quarrying plus Oil Exploration)
- Manufacturing (consists of Food+ Beverages + tobacco+ Textile + Electronics + machinery + Chemicals + pharmaceutical+ Fertilizer + cement and sugar)
- Transport (Consists of transport + storages facilities + communication (IT & Telecom)
- Commerce (financial business + trade)

Table 4.5: **Foreign Direct Investment into Pakistan by Economic Group**

(US$ Million)

S.No	Economic Group	2000-01	2001-02	2002-03	2003-04	2004-05	Total
1	Food	45.1	7.6	6	3.3	10	56.1
2	Beverages		-13.6	1	0.7	6.2	-1.6
3	Tobacco		0.9	0	0.5	6.7	9.3
4	Textile	4.6	18.5	26.1	35.4	39.3	138.5
5	Mining & Quarrying	84.7	6.6	1.4	1.1	0.5	12.7
6	Oil exploration		268.2	186.8	202.4	193.8	1007.9
7	Petro-Chemical	8.7	2.2	0.8	1.5	1.1	5.8
8	Petroleum Refining		2.8	2.2	70.9	23.7	6.7
9	Machinery other than electrical	0.3	0.1	0.4	0.7	2.8	4.7
10	Electronics	2.8	15.9	6.7	7.5	10.3	50.8
11	Electrical Machinery	2.1	10.5	10.5	8.7	3.4	34.1
12	Power	40.3	36.1	32.8	-14.2	73.3	414.6
13	Chemical	26.3	10.6	86.2	15.3	51	192.4
14	Pharmaceutical		7.2	6.2	13.2	38	80.9
15	Fertilizer		0	0	0	3.5	0.5
16	Construction	12.5	12.6	17.6	32	42.7	137.1
17	Transport		0.1	0.1	8.8	10.6	23
18	Storage Facilities	81.5	0	2.4	0	3.7	6.1
19	Communication (IT & Telecom)		12.7	24.3	221.9	517.6	1090.1
20	Financial Business	-34.9	3.6	207.5	242.1	269.4	840.1
21	Trade	13.2	34.2	39.1	35.6	52.1	221.5
22	Tourism	1.6	21.4	87.4	0.1	0	110.6
23	Paper & Pulp	0	0.7	1.4	1.7	0	3.9
24	Cement	0	0.4	0.4	1.9	13.1	39.3
25	Sugar	15.2	0.1	0.9	0.4	4.2	9.4
26	Others	18.6	24.8	49.8	57.9	147.2	364.6
Total		322.6	484.2	798	949.4	1524.2	4859.1

Source: Pakistan Economic Survey (2002, 2005-06)

4.6 ECONOMIC GROWTH PERFORMANCE OF PAKISTAN

4.6.1 Comparison of Regional Real GDP Growth (%) Performance

The economic growth of Pakistan were recorded 1.2 % in 1971, 7.3 % in 1980, and during 2005 8.4 % respectively (Federal Bureau of Statistics Pakistan, various issues). Though the contribution of agriculture sector is always high to the national income of the country but however the performance of this sector was poor during this year 2005 and contributes only 2.5 %, as recorded 6.7 % during last year 2004, while the target was 4.2% for the year 2005. The slower performance was due to unfavourable weather conditions, although its share in GDP accounts for 21.6 % of gross domestic product (GDP) during 2005-06 (Pakistan Economic Survey, 2005-06).

Table 4.6 depicts the economic growth performance of a few regional different economies during 1997-2006. Table 4.6 also reveals that in China's growth performance has been remarkable and similarly growth in India has been appreciable during 1997-2006. Growth performance of Pakistan's economy has also been encouragable due to macroeconomic stability in the country during 1997-2006. In different countries like in the ASEAN region, Indonesia, Malaysia, Thailand and Philippines the economic growth rates have been estimated from 4.5% to 6.2 % during 1997-2006. During 1997-2006 the growth rates have been estimated in Pakistan 6.6%, India 6.4%, Sri Lanka and Bangladesh 5.9% and 6.0% respectively. Although in Egypt and Iran growth performance has been not bad while in Kuwait and Saudi Arabia posted a modest economic growth in the range of 3.2 % and 3.3 % despite rising oil revenues.

Table 4.6: A Comparison of Regional Real Gross Domestic Product (GDP) Growth (%) Performance

Years/Region	World GDP	DCs	USA	Euro Area	Canada	Germany	Japan	Developing Countries					ASEAN				South Asia				Middle East				Africa					
								China	Hong Kong SAR	Korea	Singapore	Vietnam	Indonesia	Malaysia	Philippines	Thailand	Bangladesh	India	Pakistan	Sri Lanka	Egypt	Iran	Kuwait	Saudi Arabia	Algeria	Kenya	Morocco	Nigeria	South Africa	Tunisia
1997	4.2	3.4	4.5	2.4	4	1.4	1.7	8.8	5.1	4.7	---	8.2	4.5	7.3	5.2	-1.4	5.3	5.2	1.7	6.4	5.9	3.4	2.5	2.6	1.1	2.2	-2.2	3.2	2.6	5.4
1998	2.8	2.6	4.2	2.8	4	2	-1.1	7.8	-5	-6.9	---	5.8	-13	-7.4	-0.6	11	5	5.6	3.5	4.7	7.5	2.7	3.7	2.8	5.1	1.6	7.7	0.3	0.5	4.8
1999	3.7	3.5	4.4	2.8	6	2	---	7.1	3.4	9.5	---	4.8	0.8	6.1	3.4	4.4	5.4	6.9	4.2	4.3	6.1	1.9	-2	-1	3.2	1.3	-0.1	1.5	2.4	6.1
2000	4.6	3.8	3.7	3.6	5	2.9	2.4	8	10.2	8.5	---	6.8	4.9	8.9	4.4	4.8	5.6	4.7	3.9	6	5.4	5.1	1.9	4.9	2.1	....	1	5.4	4.2	4.7
2001	2.5	1.2	0.8	1.6	2	0.8	0.2	7.5	0.5	3.8	9.4	6.9	3.8	0.3	1.8	2.2	4.8	4.8	1.8	-1.5	3.5	3.7	0.7	0.5	2.6	1.1	6.3	3.1	2.7	4.9
2002	3	1.6	1.9	0.9	3	0.1	-0.3	8.3	1.9	7	-2.4	7.1	4.4	4.1	4.3	5.3	4.9	4.4	3.1	4	3.2	7.5	-1	0.1	4	1.1	3.2	1.5	3.6	1.7
2003	4	2	3	0.5	2	-0.1	1.4	9.3	3.2	3.1	2.2	7.3	4.9	5.3	4.7	6.9	5.4	7.5	5.1	5.9	3.1	6.6	9.7	7.2	6.9	1.6	5.2	11	2.8	5.6
2004	5.1	3.4	4.4	2	3	1.7	2.6	9.5	8.1	4.6	1.4	7.7	5.1	7.1	6.1	6.1	5.4	7.3	6.4	5.2	4.1	6.6	7.2	5.3	5.3	3.1	3.5	3.5	3.7	5.8
2005	4.3	2.6	3.6	1.6	3	0.8	0.8	8.5	4	4	8.7	7.2	5.5	6	4.7	5.6	5.5	6.7	8.4	5.3	4.8	6	3.2	4.1	4.6	3.3	3	7.4	4	5
2006	4.4	3	3.6	2.3	3	1.9	1.9	8	4	5.2	6.4	7	6	6.2	4.5	6.2	5.9	6.4	6.6	6	5	5.9	3.2	3.3	4.7	3.7	3.8	5.8	3.5	5.9

Source: World Economic Outlook (IMF), (2000, 2006).

Figure-4.3: Annual GDP growth rate of Pakistan (%age)

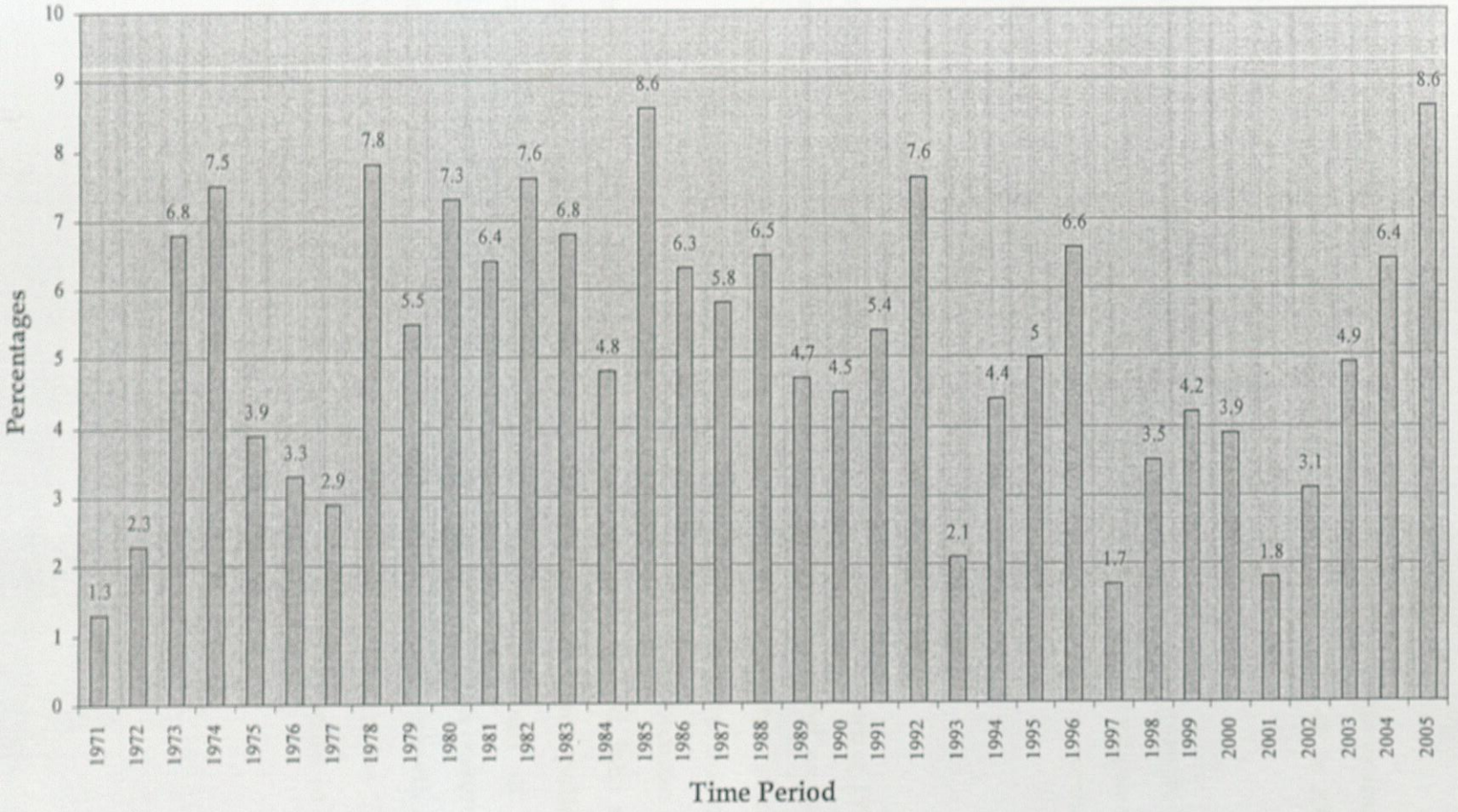


Table 4.6 and Figure 4.3 demonstrates Pakistan's economic growth estimated 8.4 % during 2004-05, and during the last four years i.e., during 2001-02 to 2004-05, it has been grown with the average rate of almost 7.0% per year.

The significant sustainable improvement in Pakistan's economic growth came in, not due to the promotion of one single sector but due to the development in all major sectors of the Pakistan's economy like industrial sector, services and agriculture sector etc.

4.6.2 Real GDP Growth of Pakistan

Pakistan's economic growth performance remained very low during 1990s. The low economic growths were due to numerous reasons including worsening of macroeconomic environment, serious lapses in macroeconomic stabilization policies implementation, unfavorable law and order situation, inappropriate policies and poor governance in the country and therefore, because of these imbalances in the 1990s both investment and growth turned into sluggish. However, in the period of last six years sound macroeconomic policies, and consistency and continuity in policies have made the economy of Pakistan comparatively more stable. As on the basis of these steps taken by the government of Pakistan, the foreign direct investment inflows, growth rate, and per capita GNP of Pakistan have been going up as shown in the Table 4.7. Likewise the Figure 4.4 shows trend of foreign direct investment in Pakistan during the period from 1971 to 2005.

Table 4.7: A comparison of FDI, Economic Growth and Per Capita GNP of Pakistan

Years	Foreign direct investment (US$ million)	Per capita GNP (US$)	Growth (%)
1971	90.1	175	1.3
1972	8.1	184	2.3
1973	-0.5	142	6.8
1974	-6.3	133	7.5
1975	14.9	163	3.9
1976	22.5	188	3.3
1977	10.7	213	2.9
1978	35.5	250	7.8
1979	36	270	5.5
1980	28	314	7.3
1981	35	363	6.4
1982	98	409	7.6
1983	42.1	358	6.8
1984	48	374	4.8
1985	70.3	360	8.6
1986	145.3	358	6.3
1987	108	358	5.8
1988	162	395	6.5
1989	209	398	4.7
1990	216.2	389	4.5
1991	246.2	424	5.4
1992	335.1	437	7.6
1993	306.4	450	2.1
1994	354.1	440	4.4
1995	442.4	504	5
1996	1101.7	508	6.6
1997	682.1	487	1.7
1998	601.3	473	3.5
1999	672.3	468	4.2
2000	469.9	526	3.9
2001	322.5	501	1.8
2002	484.5	503	3.1
2003	798	579	4.9
2004	949.4	657	6.4
2005	1524	737	8.6

Source: Federal Bureau of Statistics Pakistan, (1980, 1990, 2000, 2006)

Figure-4.4: Trend of Foreign Direct Investment Inflow in Pakistan

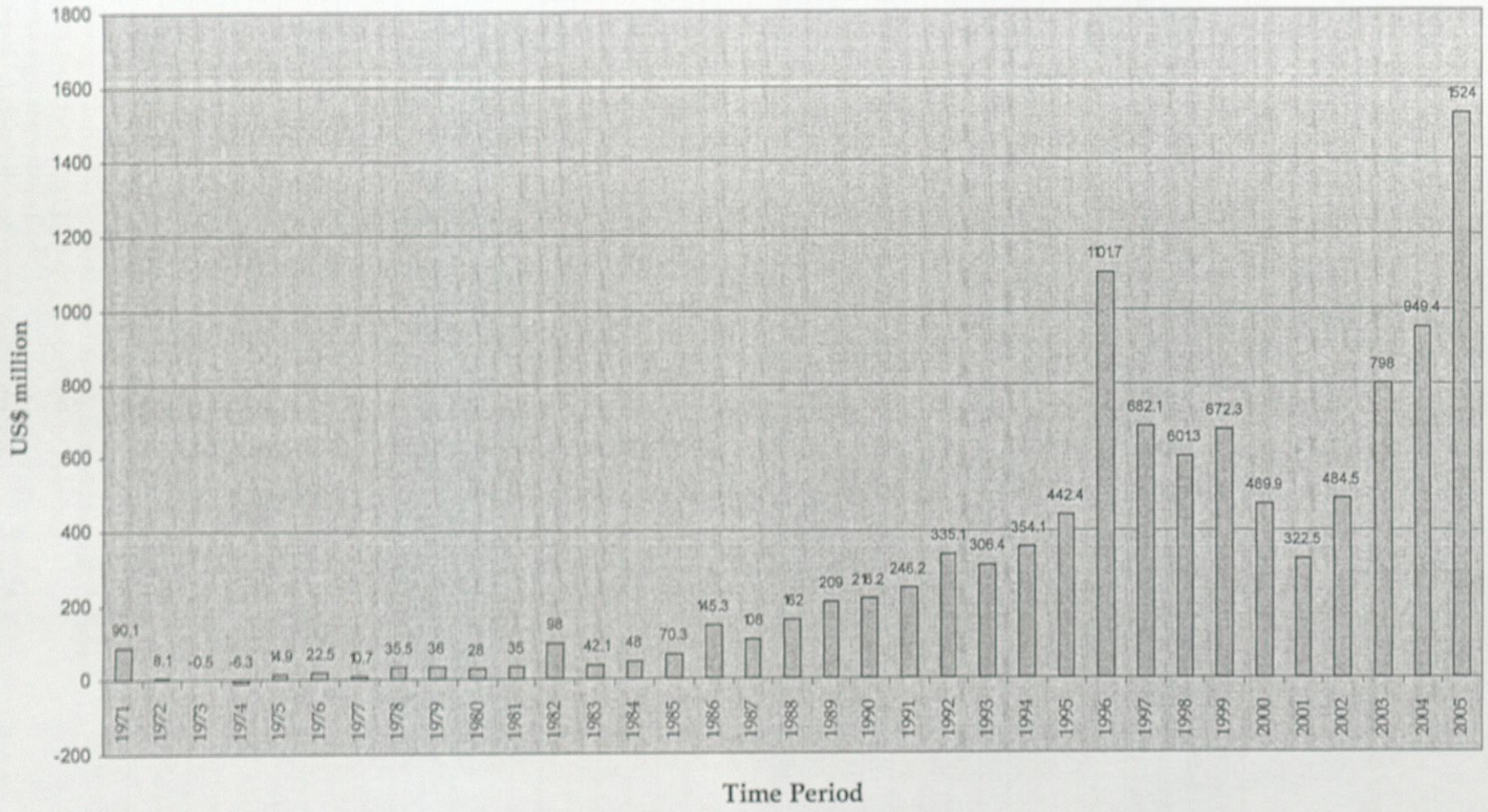


Table 4.8 shows net foreign investment into Pakistan by type like cash brought in, capital equipment brought in and re-invested earnings as well.

Table 4.8 **Net Foreign Investments into Pakistan by Type**

Years	Million Rupees				As a %age of total Assets		
	Total Assets	Cash Brought in	Capital Equipment Brought in	Re-Invested Earnings	Cash Brought in	Capital Equipment Brought in	Re-Invested Earnings
1971	..	..	..	..	..	..	..
1972	18.7	7.1	5.3	6.3	37.97	28.34	33.69
1973	23.6	0.5	6.0	17.1	2.12	25.42	72.45
1974	112	13.6	85.8	12.6	12.142	76.60	11.25
1975	103.1	11.5	67.5	24.1	11.154	65.47	23.37
1976	366.4	123.7	215.8	26.9	33.76	58.89	7.34
1977	446.7	257	128.1	61.6	57.53	28.67	13.79
1978	133.3	143.1	-51.7	41.9	107.35	-38.78	31.43
1979	432.6	329.7	36.8	66.1	76.21	8.50	15.27
1980	293.3	126.1	90.8	76.4	42.99	30.95	26.05
1981	432.8	247.7	83.7	101.4	57.23	19.33	23.43
1982	458.3	206.5	105.9	145.9	45.06	23.10	31.84
1983	534.7	391.9	15.3	127.5	73.29	2.86	23.85
1984	511	273.9	9.6	227.5	53.60	1.89	44.52
1985	752.1	489.9	10.9	251.3	65.14	1.45	33.41
1986	1528.3	1133.6	19.3	375.4	74.17	1.26	24.56
1987	1905.7	912.4	18.9	974.4	47.87	0.99	51.13
1988	2396	1344.9	315	736.1	56.13	13.15	30.72
1989	3768.9	1988.4	607.1	1173.4	52.75	16.10	31.14
1990	6013.1	4014.5	490.5	1508.1	66.76	8.16	25.08
1991	6441.4	4093.8	382	1965.6	63.55	5.93	30.51
1992	9001.5	3642.1	2975.6	2383.8	40.46	33.06	26.48
1993	11170.4	7225.8	1292.6	2652	64.69	11.57	23.74
1994	24013.8	7778.31	13371.8	2863.7	32.39	55.68	11.93
1995	16896.4	11866.3	1645.4	3384.7	70.23	9.74	20.03
1996	17669	14594.5	1515.1	1559.4	82.60	8.57	8.83
1997	31010.5	24525	2480	4005.5	79.08	7.99	12.91
1998	19240.1	15661.6	463	3115.5	81.40	2.40	16.19
1999	12030.6	6030.2	131.4	5869	50.12	1.09	48.79
2000	15586.5	6321.1	325.1	8940.3	40.55	2.08	57.36
2001	..	-4422.2	...	12673.4	..	..	..
2002	37539.2	15981.3	107	21450.9	42.57	0.29	57.14
2003	20037.6	-149.7	169.7	20017.6	-0.74	0.84	99.90
2004	..	..	..	..	..	..	..
2005	..	..	..	..	..	..	..

Source: Foreign Liabilities & Assets and Foreign Investment in Pakistan, (1975,1980,1990,2000,2005-06), State Bank of Pakistan

1. Minus sign shows out flow.
2. Symbol (..) stands for nil or negligible amount.

4.7 ENVIRONMENT FOR FDI IN PAKISTAN

For developing countries foreign investment has become dynamic catalyst for modern economic development on the basis of their benefits. As such on the basis of the importance of FDI every successive government desired to attract FDI and put it on the top priority on their agenda. In the 1980s when Pakistan reverted to private investment after nationalization in the 1970s, the industrial policy statement of 1984 not only gave importance to the public and private sectors, it has also encouraged the private sector to come forward and play its role in national economic development. Three distinct government investment liberalization initiatives have been introduced in 1992, 1997 and 1999 that progressively opened Pakistan to foreign investment. For the encouragement of FDI in export-oriented industries, export-processing zone (EPZ) was set up in Karachi.

As far as foreign investment is concerned, Pakistan has been enhanced high amount of FDI only during fiscal year 2004-05. In this regard the Government of Pakistan trying to make every possible action in order to improve the atmosphere for foreign investment to enhance a sustainable and desirable level of FDI for which the government announcing specific measures to restore business confidence.

Gradually, because of liberalization, sound macroeconomic environment and incentives, the FDI inflow into the country has been enhanced to some extent. Since FDI was US$ 376 million in 1998-99. The FDI level has been improved in 2004-05 and reached up to US$ 1524 million as the highest during last thirty five years.

Those governments who want to encourage FDI inflows needed to make transparent and stable criteria. The Government of Pakistan is well aware of the

importance of FDI and takes positive measures to promote foreign investment in all sectors of the economy. As discussed earlier the Government of Pakistan has been offering many investment incentives to both domestic as well as foreign investors with the prime objective to achieve higher level of economic growth in the country. Presently, the potential sectors for FDI in Pakistan are; energy sector (oil & gas, power), manufacturing sector (large and small scale), mining sector (coal, granite, chromites, limestone, and rock salt etc.), engineering sector, tourism, IT sector, telecommunication, and small and medium enterprises (i.e. value added textiles and leather, electronics, sports and surgical goods, furniture and chemicals). At the same time there is also strategic location as a regional hub for increasing FDI in Pakistan.

According to Sheikh (2005) Pakistan is a place where investors for investment in every sector are free without any discriminations or restrictions on bringing in or taking out the investment. The Government of Pakistan is very much ready to provide all possible incentives and facilitate investors to encourage investment activities in Pakistan. While presently more than 600 multinational companies are working here and earning high profits in Pakistan, because of the government's liberal economic policies and development at macroeconomic level in the country.

4.8 VIEW ON PAKISTAN'S INVESTMENT POLICIES

Majority of developed and developing countries are making efforts and providing incentives to enhance more FDI into their respective countries. In this regard some countries are providing tax concessions, and cash grants. While some countries are mainly focusing on the provision of improving their internal domestic physical structure and local skills etc.

Therefore, the Pakistan's investment policy has been structured in such a way to create an investor friendly environment in the country for foreign and local investors. According to the needs and passage of time necessary improvement has been brought in the investment policy and therefore now, the investment policy is comparatively more liberal and foreign investment with 100% equity on repatriable basis is also allowed in different sectors i.e., service, infrastructure, and social sectors etc. The limitations of initial fee and franchise fees in the food sector are also being liberalized. In order to attract FDI in the country, the Government of Pakistan has not only liberalized policies further but to analyze the projects viability in the scenario of World competitiveness. For this purpose the tariff structure has been reformed so that they can have all inputs and machinery free of custom duties and other taxes. The custom duty on the import of finished products would be maintained until the export industries have gained enough competitiveness in the international market (Board of Investment, 2005).

Indeed, Pakistan's continuing efforts to seek a larger inflow of FDI and greater access to international markets reflect a sensible strategy to boost the country's economy, sustain a high rate of GDP growth, generate jobs opportunities, improve human development indicators and reduce poverty. The introduction of structural economic reforms and the policy of deregulation, liberalization and privatization have created an investor-friendly environment in the country.

Further more, the Government of Pakistan has been awarding focused attention in its annual development spending to infrastructure development, which will clearly facilitate investors. Continuity in economic policies is one of the most reassuring factors from the investment point of view.

In the words of Aziz (2006) Pakistan provides the same level of incentives and other facilities to both domestic/local and foreign investors in order to encourage both local and foreign investors in the country. Further, he says that there are no differences and discriminations in the local and foreign investors and both have same and equal opportunities to invest in the country and earn more profit in Pakistan and take advantage of the liberal economic policies.

The following are the features of Pakistan investment policy;

i. Investment friendly environment
ii. Cheap labour
iii. The returns of capital is up to 50%
iv. There is stability in the economy
v. Expanding infrastructure
vi. Areas of investment are agriculture, oil and gas exploration, textile, telecom and IT, Tourism, energy sector, Mining sector, engineering sector, service industry, construction and building
vii. Liberal investment policy
viii. Foreign private loans
ix. Minimum fiscal deficit as percentage of GDP
x. No restriction on payment of royalty
xi. No import duties on agriculture machinery made in abroad
xii. Foreign investment in the manufacturing sector is open.

4.9 IMPACT OF FDI ON BALANCE OF PAYMENTS

It has been analyzed that FDI not always contributing positively to the economic development of the host country but it can also worsen host country's balance of payments (BoP) and flows can be particularly beneficial when access to other types of foreign capital is limited. However, most of the present economic growth literatures emphasize on the positive impacts of FDI, in the process of economic growth. Also it is claimed, that FDI, influences the process of economic growth by filling up the saving-investment gap, increasing productivity, transferring advanced technology, and so on. FDI can also result in positive "spillovers" to the local economy through linkages with local suppliers, competition and training. It can also result, however, in negative spillovers if it forces domestic enterprises to close down because they cannot obtain the necessary financing for upgrading their technology.

To understand clearly the impact of FDI on balance of payment more, frequently, foreign investment is welcomed by developed and developing countries, as certainly, it argued that it improves quickly the process of capital formation. It has also been observed that sometime some multinational corporation send their whole earning to their home countries, therefore the foreign investment do not help the host country and these cases there are negative impact of FDI on the balance of payment of the host country. While indeed it has also studied that FDI brings so many advantages include jobs opportunities and promoting exports and it also increases revenues of the government.

Even though FDI may increase the export volume, MNCs usually import many advanced capital goods to the host country. If the value of imported capital goods is greater than the value of final exports of MNCs, the FDI will worsen the trade balance. FDI may also fail to increase job opportunities if foreign investments take place in capital-intensive industries rather than labour-

intensive industries (Fry, 1996). However, despite substantial inflows of foreign investment many countries still face severe balance of payment difficulties, rising urban employment/increases job opportunities for citizen, and rural underemployment. Since FDI finances the import of machinery and equipment, which, ceteris paribus, causes a temporary deterioration of the current account balance. Meanwhile, the net effect of FDI on balance of payment depends on many factors and it may be negative but usually it is assumed that the net effect often would be positive.

Chapter 5

FACTORS INFLUENCING FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN PAKISTAN

5.1 BACKGROUND

The present chapter deals with the impact of various factors on FDI and economic growth in Pakistan. The purpose of this chapter is to build on the theories discussed in earlier chapter-3 and examine how these theories have been applied in empirically estimated models exploring the determinants of FDI and economic growth. Further, this will provide help in the selection of appropriate variables, data and proxies to be tested empirically to determine foreign direct investment inflows.

A firm builds or buys a subsidiary in a foreign country for a variety of reasons such as; first, a firm can locate operations very similar to their home country plant in a foreign country. This is called "horizontal" FDI. High transportation costs or high trade barriers would also encourage the firm to locate abroad. Second, a firm could locate part of its operations in a developing country in order to take advantage of cheaper inputs, which is called "vertical" FDI. Politicians and the media are now commonly referring to vertical FDI as "outsourcing". The third type of FDI described by Hanson, Mataloni and Slaughter (2001) occurs when a firm uses a host country as an "export platform". The firm could locate all or part of its operations in a host country and then export their goods to regional or international markets.

5.2 JUSTIFICATION OF THE FACTORS INFLUENCING FDI INFLOWS

Although there are number of factors that influence the inflow of FDI. Obviously the decision by foreigners to invest abroad depends on a wide range of factors and explicitly these factors may be economic as well as non-economic factors responsible for influencing FDI inflows.

On the basis of thorough and concrete literature the research study in hand consider a few but the most influential economic, social, political and other determinants such as; market size; trade openness, human capital, inflation rate, external debt burden, taxes, domestic investment, government consumption, return on investment and political instability respectively.

The following section describes explanation of the dependent and independent variables that have been used in this study. This is done in order to assist in the selection of appropriate variables, data and proxies to be tested empirically to determine FDI flows.

5.2.1 Dependent Variable

The dependent variable in some of the studies utilized a measure of the ratio of FDI to GDP. Chakrabarti (2001), Asiedu (2002), and Ancharaz (2003) have also used the ratio of FDI flows to GDP. In this study FDI consists of cash, capital equipment brought in and reinvested earnings while portfolio investment and other short terms are not included in the variable. Ignoring two negative values because it was difficult to take its natural log (ln).

5.2.2 Description of the Explanatory Variables

5.2.2.1 Market Size

Those host countries, which have larger market size that is larger gross domestic product, will definitely provide better opportunities and, therefore, can enhance

more FDI. Further more, FDI will move to countries with larger and expanding markets and greater purchasing power, where firms can potentially receive a higher return on their capital and by implication receive higher profit from their investments. Schneider and Frey (1985) come to the conclusion that the higher the GNP per capita, the better the nation's economic health and the better the prospects for profitable FDI.

Chakrabarti (2003) studied that larger market size attract more direct investment. Though several proxies for the relevance of the domestic market are available. As market size is usually measured either by real GDP per capita, real GNP per capita, and absolute GDP. Also private and public consumption can be used as alternatives measure (Lucas, 1993). Schneider and Frey (1985), Asiedu (2002), Chakrabarti (2003) and Eli A. Udo et al. (2006) have found positive relationship between real GDP per capita and FDI. Chakrabarti (2001) mentions that there may be some statistical and conceptual problems regarding the market size variable. GDP per capita has served as a proxy for market size in most empirical work on the determinants of FDI. He further states that absolute GDP and GNP or GNP per capita are relatively poor indicator of market potential for the product of foreign investors; particularly GNP appears to be a less appropriate measure of market size, because GNP captures earning by nationals in foreign locations and therefore overestimates the market for products of multinationals located in the host country and excludes the earnings of foreigner located in the host country. Thus, in this research study using GDP as proxy for market size and expecting that there is a positive relationship between this variable and FDI flow.

Table 5.1 Effect of Selected Economic Determinants on Foreign Direct Investment (Dependent variable FDI)

	Determinants of FDI	Variables used in literature	Variables used in this study	Empirical studies		Insignificant	Expected sign
				Positive significant	Negative significant		
Economic Determinants of Foreign Direct Investment	Market size	i. Real GNP ii. Real GDP iii. Real GDP or GNP per capita vi. Log GDP	GDP	Schneider and Frey (1985), Tsai (1994), Wang & Swain, (1995), Chakrabarti (2001, 2003), Lipsey (1999), Nnadozie (2000), Chunlai (1997), Ioannatos (2003), Banga (2003), Eli A. Udo et al. (2006)	Edwards (1990), Asiedu (1997, 2002), Ancharaz (2003),	Loree and Guisinger (1995), Hausmann and Fernandex-Arias (2000), Yasmin et al (2003)	+
	Domestic investment	i. GDI/GDP ii. Log GDI	DI	Razin (2003), Yasmin et al (2003),			+
	Infrastructure	i. Ratio of Commerce, transport and commu. to GDP ii. Energy production ii. expen. on transport and communication	Exp. On electricity, gas, transport, communication (EEGTC)	Wheeler and Mody (1992), Kumar (1994), Loree and Guisinger (1995), Asiedu (2002), Ioannatos (2003),	Nnadozie (2000), Yasmin et al (2003)	Ferris (1993), Banga (2003),	+
	Return on Investment	RI=1/GDP per capita	RI=1/GDP per capita o	Schneider and Fry (1985), Tsai (1994)	Edwards (1990), Jaspersen et al (2000), Asiedu (2002), Quazi and Mahmud (2004)	Eli A. Udo et al. (2006)	+
	Inflation rate	i. Percentage Change in Consumer prices ii. GDP deflator iii. Inflation	GDP deflator		Schneider and Frey (1985), Smasuddin (1994), Ioannatos (2003), Nath (2004), Eli A. Udo et al. (2006)	Nnadozie (2000), Flexner (2000), Asiedu (2002), Yasmin et al (2003)[b, c] Quazi and Mahmud (2004)	-
	Trade Openness	i. Import to GDP ratio ii. X+M/GDP iii. X iv. M	TO= X+M/GDP	Edwards (1990), Chunlai (1997), Aseidu (2002), Ioannatos (2003), Hausmann and Fernandex-Arias (2000), Anchraz (2003), Yasmin et al (2003),		Banga (2003)	+
	Taxes	i. Corporate tax ii. Indirect tax	Indirect taxes		Loree and Guisinger (1995), Wei (1997), Chakrabarti (2003)	Root and Ahmed (1987), Wheeler and Mody (1992),, Lipsey (1999)	-
	External debt	Total external debt	DEBT=Total external debt	Nnadozie (2000)	Smasuddin (1994), Flexner (2000), Banga (2003), Eli A. Udo et al. (2006)		-
	Govt, consumption	govt., consumption	GC=govt., consumption		Anchraz (2003)	Flexner (2000), Aseidu (2002),	-

Table 5.2 Effect of Selected Social and Political Determinants on Foreign Direct Investment (Dependent variable FDI)

	Determinants of FDI	Variables used in literature	Variables used in this study	Empirical studies		Insignificant	Expected Sign
				Positive significant	Negative significant		
Social and political Determinants of FDI	Human Capital	i. Primary School enrolment ii. Secondary School enrolment iii. Expenditure on education	Primary School enrolment	Banga (2003), Ioannatos (2003),		Taveira (1984), Schneider and Frey (1985), Cheng & Zhao (1995), Cheng & Kwan (2000), Yasmin et al (2003)	+
	Political stability/instability	i. Dummy ii. Risk Index iii. Military attack	Dummy	Nnadozie (2000)	Schneider and Frey (1985), Edwards (1990), Anchraz (2003), Chakrabarti (2003), , Eli A. Udo et al. (2006)	Loree and Guisinger (1995), Jasperson, et al. (2000) Hausmann and Fernandex-Arias (2000), Asiedu (2002),,	-

Table 5.3 Effect of Selected Variables on Economic Growth (Dependent variable real GDP)

	Determinants of Growth	Variables used in literature	Variables used in this study	Empirical studies		Insignificant	Expected Sign
				Positive significant	Negative significant		
Determinants of Economic Growth	FDI	FDI/GDP lnFDI	lnFDI	Borensztein, et al (1998), Alireza et al (2002), Nath (2004)		Poon (2000), Eli A. Udo et al. (2006)	+
	Domestic Investment	DI/GDP	lnDI	Alireza et al (2002), Athukorala (2003), Nath (2004)		Eli A. Udo et al. (2006)	+
	Trade Openness	X+M/GDP	TO= X+M/GDP	Athukorala (2003),, Eli A. Udo et al. (2006)			+
	Human Capital	Primary Schooling Secondary Schooling	Primary School enrollment	Alireza et al (2002), Poon (2000)			+

Table 5.4 Effect of Selected Determinants on FDI in Pakistan

Determinants of FDI	Variables used in literature	Empirical studies		Insignificant	Sign
		Positive significant	Negative significant		
Market size	i. GNP per capita ii. GDP per capita iii GDP vi. GNP per capita v. Real GDP per capita iv. Log of Per Capita GDP iiv. Log GDP	Schneider and Frey (1985) [G], Smasuddin (1994) [F] Akhtar (2000) [A] Shah and Ahmed (2003) [C]		Yasmin et al (2003) [D, a,b,c] Quazi and Mahmud (2004) [H]	+
Domestic investment	i. Real GDI, private + public/GDP ii. Log of Gross Domestic Investment	Yasmin et al (2003) [D, b]		Yasmin et al (2003) [a,c]	+
Growth	i. Growth of real GNP ii. GDP growth rate iii. GDP growth rate vi. Change in GDP v. GDP growth rate	Schneider and Frey (1985) Shah and Ahmed (2003)		Akhtar (2000) Asiedu (2002) [E] Quazi and Mahmud (2004)	+
Infrastructure	i. Log (Phone per 1000 population ii. Expenditure on transport and communication iii. Expenditure on transport and communication/GDP vi. Log (Phone per 1000 population v. Log of expend. on transpt. and comm..	Asiedu (2002), Shah and Ahmed (2003) Yasmin et al (2003) [a, b]		Yasmin et al (2003) [c] Quazi and Mahmud (2004)	+
Return on Investment	i. Log[1/GDP per capita] ii. [1/GDP per capita]	Asiedu (2002),		Quazi and Mahmud (2004)	+
Inflation rate	i. Inflation rate ii. Variance of the price level computed from CPI data for 1979-82 iii. Inflation rate vi. GDP Deflator v. Inflation rate iv. GDP Deflator	Yasmin et al (2003) [a]	Schneider and Frey (1985), Smasuddin (1994),	Asiedu (2002), Yasmin et al (2003) [b, c] Quazi and Mahmud (2004)	-

Determinants of Foreign Direct Investment (FDI)

Trade Openness	i. Import (Imp) ii. [X+M/ GDP] x 100 iii. X+M/GDP vi. Trade/GDP v. Log [X+M/GDP]	Aseidu (2002), Yasmin et al (2003)[b, c] Quazi and Mahmud (2004)	Yasmin et al (2003)[a]	Akhtar (2000)	+
External debt	i. Per capita debt ii. Total external debt iii. Log of total external debt	Yasmin et al (2003)[b]	Smasuddin (1994),	Yasmin et al (2003)[a, c]	-
Government consumption	i. [Govt. consumption/GDP] x 100 ii. Log of govt., consumption			Aseidu (2002),	-
Human capital	i. Secondary education ii. Secondary School enrollment iii. Literacy rate	Quazi and Mahmud (2004)	Yasmin et al (2003)[c]	Schneider and Frey (1985), Yasmin et al (2003)[a, b]	+
Political Instability	i. Dummy variable ii. Political risk iii. Political stability proxy Dummy vi. Dummy variable v. Dummy variable	Shah and Ahmed (2003)	Quazi and Mahmud (2004)	Akhtar (2000) Aseidu (2002),	-

Source: author compilation

A. Akhtar (2000) conducted study only on Pakistan for the period 1972-1996.

B. Shah and Ahmed (2003) conducted study only on Pakistan for the period 1960-61 to 1990-00.

C.

D. Yasmin et al (2003) conducted on 15 developing countries including Pakistan for the period 1970-1997, and categorized countries i.e.,
   a. Lower income; b. Middle income; c. Upper income countries

E. Aseidu (2002), conducted study on 71 developing countries including Pakistan for the period 1988-1997.

F. Smasuddin (1994), conducted study on 36 less developed countries including Pakistan for the year 1983.

G. Schneider and Frey (1985), conducted study on 54 less developed countries including Pakistan for the year 1979.

H. Quazi and Mahmud (2004) conducted study on 5 less developed countries of South Asia including Pakistan for the year 1995-2000.

5.2.2.2 ECONOMIC GROWTH

In general rapidly growing economy provides relatively better profit-making opportunities and obviously those markets that are growing rapidly can enhance high amount of FDI. As the foreign investors look toward those countries where there are higher level growth rate of GDP and it shows a great potentials demand for the multinational products.

Schneider and Frey (1985), Shah and Ahmed (2003) found a significantly positive effect of growth on FDI. While Akhtar (2000), Quazi and Mahmud (2004) found no relationship. Gastanaga, et al. (1998) calculated the growth rate by using the real GDP and Schneider and Frey (1985) used a one-year lag of the percentage yearly rate of growth of GNP per capita and Razin (2003) uses the annual percentage growth rate of GDP at market prices respectively. Thus using the annual percentage growth rate of GDP and hypothesizing a positive relationship between FDI inflows and economic growth for Pakistan. Calculating GDP growth rate as;

$$Growth_t = \left[\frac{(Y_t - Y_{t-1})}{(Y_{t-1})}\right] \times 100$$

Where, Growth=Growth rate of real GDP, Y_t=Current values of Y, and Y_{t-1}=Previous Values of Y.

5.2.2.3 Inflation Rate

High rate of inflation in a country can reduce the return on investment and it is considered a sign of macroeconomic instability and a sign of poor performance of the government and also weak and loose macroeconomic stabilization policies of the central bank (Schneider and Frey 1985). Usually minimum level of inflation rate is considered a sign of internal economic stability and also considered tight macroeconomic stabilization policies by the central bank in the

host country. Therefore, rising prices in economy creates instability in economy and discourages FDI. Lenders and borrowers are not as confident in their contracts and special arrangements need to be made in order to ensure that the expected profits will equal realized profits. This could have a negative effect on investors, as they need to spend more time, energy, and money in this environment to adjust to the rising price level. Flexner (2000), Asiedu (2002), and Quazi and Mahmud (2004) found inflation statistically insignificant, while Schneider and Frey (1985), and Smasuddin (1994), found significant with expected negative sign. Thus hypothesizing that this variable and FDI have negative relationship in this study. Inflation usually measured by the GDP deflator of the concerned country, therefore, using GDP deflator of the Pakistan for inflation and labeled INF.

5.2.2.4 Domestic Investment

Making domestic investment is a clear welcoming signal to foreign investors, because it shows the willingness of the local investors to invest in their own country. If domestic investors are unwilling to invest in their own country, it means that the country's investment climate is not adequate and unprofitable for foreign investment as well. Obviously the domestic investors know about the investment climate of their own country. Briefly the local or domestic investors must know something while the foreign investors do not. In literature, the results are mixed that domestic investment may be substitute or complement for FDI; however, it depends upon the investment climate of the host country and types of FDI. If marginal productivity of FDI increases then relationship will be complement. This may happen when domestic investment dominates in infrastructure. While, on the other hand when domestic investment increases marginal productivity of investment decreases marginal productivity of FDI will also decrease then relationship will be substitute. This may happen when

domestic investment dominates in production sector. Also, if both domestic and foreign investors compete for Joint venture then this relation will be substitute. Ravi and Michael (1992), and Razin (2003) found significant positive relationships between the two. Thus expecting here, that it has a positive effect on the FDI flows and labeled DI.

5.2.2.5 Government Consumption/Size of the Government

Generally, the share of government consumption in GDP as a proxy for size of the government has been used and so this variable reflects the host country's stance towards the private initiative. The variable government consumption affects the flow of FDI and considered that other things remain constant, the FDI will go down with rise in government consumption in Pakistan and vice versa. As increasing in the government consumption will lead to higher level of fiscal deficit and therefore instability and poor credit position of the economy which cause hindrance for FDI. Also increase in government consumption lead to higher rate of interest, which crowds out investment including FDI. Also rise in government consumption decreases the purchasing power in the private sector, which leads to fall in demand for luxurious goods and this decrease, fall in FDI. According to Aseidu (2002) smaller government consumption fosters FDI. Using government consumption and expecting negative relationship between this variable and FDI inflows in this study. Government consumption labeled GC.

5.2.2.6 External Debt Burden

The external debt of Pakistan is another important explanatory variable and it's measured by the debt that indicates a relatively unfavorable environment for foreign investment and obviously it shows the external imbalances in any economy. Higher debt burden creates constraints not only in terms of new

private lending but also in terms of FDI flows (Nunnenkamp, 1991). Higher external debt burden expected to discourage FDI inflows. Some studies found the relationship between debt and FDI inflow statistically significant with negative sign and some did not find. Shamsuddin (1994) found the coefficient of the per capita debt statistically significant with expected sign. While on the other hand Nnadozie (2000) found debt burden variable even the most significant but unexpected sign. Therefore, expecting negative relationship between external debt and FDI inflows. Taking disbursed and outstanding debt of external debt in this study and labeled DEBT.

5.2.2.7 Return on Investment

Naturally foreign investors would go to those countries where they could earn higher return on their investment. However, there is a problem that how to measure accurately the return on investment, it means that what would be the suitable variable for return of investment, particularly in case of developing countries.

To overcome on this problem less or more, it has assumed that investments in those countries where there are limited capital will give a higher return and investments with a higher per capita income would give a lower return. Edwards (1990), Jaspersen, et al. (2000), Asiedu (2002), and Quazi and Mahmud (2004) also used the inverse of income per capita as proxy for the return on capital and found expected negative relationship. In contrast, Schneider and Fry (1985) and Tsai (1994) found positive relationship between the two variables. Thus using the inverse of the real GDP per capita for Pakistan to measure the return on capital in this research study and expecting positive relationship between the two and can be calculated as follows;

RI=(1/GDP per capita of Pakistan)

5.2.2.8 Taxes

Another important explanatory variable, which is important in the eyes of multinational enterprises and that are corporate tax or other taxes because taxes are directly influencing their profit. Also it has found that the impact of taxes on FDI is negative and it has reported by Loree and Guisinger (1995), Gastanaga, et al. (1998), and Chakrabarti (2003). However, Root and Ahmed (1987), Wheeler and Mody (1992), and Lipsey (1999) concluded that tax do not have a significant effect on FDI.

Therefore, includes indirect tax an explanatory variable to examine whether the tax structures of Pakistan influence the foreign firm location decisions or not. It is some-how clear that indirect taxes increase prices of the manufacturing goods of the foreign firm and reduce purchasing power of the consumers that is deter FDI inflow. A reduction in the host country's tax rate should have an encouraging effect on FDI. Thus, hypothesizing that indirect taxes have negative relationship with FDI inflow to Pakistan.

5.2.2.9 Trade Openness

Another possible determinant in attracting FDI inflows is the liberal degree of trade regime or also called trade openness. In this regard Bhagwati, (1978) argues that FDI is captivated by those countries that implement export promotion than those promoting import substitution policy. Wang and Swain (1995) examined the case of export-oriented FDI and found positive influence on FDI. Hallward-Driemeier (2003) finds evidence of a positive relationship between openness and FDI. Cheng and Kwan (2000), for example, found that the Chinese Economic Zones exert a positive and significant influence on attracting FDI. However, the openness is presented in the literature by different writers as export to GDP ratio, import to GDP ratio, and imports plus exports to GDP ratio respectively.

Chunlai (1997), Aseidu (2002), Ioannatos (2003), and Anchraz (2003), have found openness is a positive and statistically significant determinant affecting the magnitude of FDI inflows into developing countries. While Akhtar (2000) found negative effect of openness on FDI in case of Pakistan. Thus expecting that there is a positive relationship between trade openness and FDI inflows. Calculating openness is given as under:

$$\text{TO} = \frac{X + M}{GDP}$$

Where TO, X, M and GDP respectively stand for trade openness, exports, imports and gross domestic product.

5.2.2.10 Availability of Quality Infrastructure

This is a very important factor in the eyes of foreign investors, determining FDI flow. Generally, infrastructure covers many dimensions, ranging from ports, railways and telecommunication system, roads, and buildings etc. The availability of electricity, telephones and transportation routes increases the profitability of a firm. This would allow a firm to focus on their products and not on these tools that are vital for the operations of many firms because good quality, well-developed infrastructure definitely increases productivity and therefore boost FDI inflows into that country. Thus, high quality infrastructure would encourage foreign investors to locate their operations in a host country. There are various measures for infrastructure like expenditure on transport and communication by Root and Ahmed (1979), and Wheeler and Mody (1992), registered commercial vehicles by Ferris (1993), number of main telephone lines by Nnadozie (2000). But according to Asiedu (2002) and Ancharaz (2003), the number of telephone per 1000 of population is a standard measurement in the literature for infrastructure development. Shah and Ahmed (2003) used expenditure on transport and communication and found significant. Applying

expenditure on Electricity, gas, transport and communication as proxy for quality infrastructure and expecting positive relationship between this explanatory variable and FDI inflow.

5.2.2.11 Human Capital

Another important independent variable is human capital both in terms of quality and availability. Cheng and Kwan (2000), also argued that the education variables (expressed as percentage of population with primarily and high education) have a positive and significant effect on FDI, and Cheng and Zhao (1995) also found similar results. However, Banga (2003), and Ioannatos (2003) found positive insignificant results. A plant locating abroad would want the opportunity to choose workers from an educated pool. The level of worker quality would be important to a firm that is locating in a host country primary to use their labor as a less expensive input than the labor in their home country. Even those firms locating in a country to serve that country's domestic market would need to hire local workers and thus see high quality workers as an advantage. Taveira (1984) and Schneider and Frey (1985) used the percentage of population in secondary education, but found no evidence of its significance. So expecting positive relationship between human capital and FDI inflows and utilizing primary school enrollment as proxy for the level of human capital.

5.2.2.12 Political Instability

Jun and Singh (1996) argued that political instability is a qualitative phenomenon and the exact measurement of which is a complicated issue in terms of what investors perceive as politically risky and a constraint to their investment. However, econometric studies frequently fail to establish a relationship between political risk[1] and FDI flows (Cahse, et al. 1988). Jasperson,

et al. (2000) and Hausmann and Fernandez-arias (2000) could not find any close relationship between FDI inflows and political risk, but however, Schneider and Fry (1985) found an inverse relationship between the FDI and political risk variables. Loree and Guisingers (1995) estimated U.S. data for two time period and found that political risk had a negative impact on FDI in 1982 but no effect in 1977.

Lucas (1993) considered political risk is the main cause of low capital inflows from developed countries into developing countries. MNCs prefer to choose a location that economically and politically stable for their investment. Therefore a country's political stability is an important consideration for MNCs when choosing the destination for their investment. A safer and more stable environment will help to minimize the risk for the MNCs (Poon, 2000). In the literature it has been found that political instability were measured by different variables that all are proxy variables like number of strikes and riots, workdays lost, etc., have proved significant in some studies, but these quantitative estimates can capture only some aspects of the qualitative nature of political instability.

However, due to the non-availability of appropriate data on political risk rating for Pakistan, employing dummy variable for political risk and using one (1) and zero (0) for stability and instability. By political stability we mean democracy in the Pakistan and vice versa. As it is argued that a democratic government is more conducive to foreign investors and dummy variable also used by Akhtar (2000);

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1. Political risk can be dived into two kinds i.e. **(i), macro political risk:** a macro political risk is one that affects all foreign enterprises in the same general way, and **(ii) micro political risk**: a micro political risk is one that affects selected sectors of the economy or specific foreign business.

Shah and Ahmad (2003) and found significant result. Utilizing D=0 (political instability), and D=1 (otherwise)

5.3 JUSTIFICATION OF THE FACTORS INFLUENCING ECONOMIC GROWTH

There would be a number of factors influencing the process of economic growth in Pakistan and these factors may be of qualitative and some of quantitative in nature. But including only those specified quantitative factors in this dissertation on which data available as given below with succinct explanations.

5.3.1 Foreign Direct Investment

Foreign direct investment inflows are the main channels of technological progress in the theoretical framework (The channels through which FDI may be growth enhancing are clearly identified in an excellent survey by de Mello (1997) and in Barro and Sala-I-Martin (1995). However, the effect of technological progress on growth does not happen immediately after a host country receives the FDI inflows since the adoption of technology takes some time. Therefore, FDI inflows in lagged periods tend to affect the economic performance in current and later periods. As a result, lagged FDI inflows are used as a measure of FDI for the growth analysis. The amount of FDI inflows tends to have a positive relation to growth in the model and it means that is, larger the amount of FDI inflows, greater its effect on economic growth will be.

FDI considered the other "engine" of growth in poor countries/less developed countries. Borensztein, et al. (1998), and Alireza, et al. (2002), found positive significant relationship between the two. While Poon (2000), Eli A. Udo et al. (2006) found insignificant positive result. Therefore, hypothesizing a positive relationship between FDI and economic growth.

5.3.2 Human Capital

The stock of human capital includes education and skill of labour. Human capital can be treated as an essential input in production process or used to model technological progress, which is important to economic growth (Romer, 1990; Mankiw, et al. 1992; Nelson and Phelps, 1996). By interacting lagged FDI with human capital, it is possible to see how the level of human capital in a host country affects the contribution of FDI to growth. It is assumed that a threshold stock of human capital is necessary for adopting technology from abroad via FDI. Borensztein, et al. (1998), Alireza, et al. (2002), and Nath (2004) found a significant positive effect of the FDI on economic growth, while Poon (2000) found insignificant result as well. Therefore, expecting positive relationship between the human capital and economic growth variable, that the higher the level of human capital in Pakistan, greater the effect of FDI on economic growth will be. Utilizing primary school enrollment as proxy for the level of human capital.

5.3.3 Trade Openness (exports plus import to GDP ratio)

This is a key explanatory variable contributing in the process of economic growth. Salvatore and Hatcher (1991) provide three reasons for the explicit introduction of exports into the production function. First, they argue that the neutrality of incentives associated with export orientation is likely to lead, ceteris paribus, to higher factor productivity because of the exploitation of economies of scale, better utilization of capacity and lower capital-output ratios thus making foreign capital more productive. Secondly, they argue that exports are likely to alleviate serious foreign exchange constraints and can thereby provide greater access to international markets. Thirdly, exports also promote technical innovation and dynamic learning from abroad and thereby create a more

favorable environment for externalities and learning from technology spillover associated with FDI.

According to Voivodas, (1973) and Ram, (1985) trade, particularly exports, may encourage competition. Moreover, it has studied that trade liberalization has a positive influence on economic growth. In the literature on exports and economic growth the implicit assumptions that export is factor, which positively affects the rate of economic growth.

Using import plus export to GDP ratio for trade openness in this study. As discussed earlier an increase in exports is expected to promote economic growth and expand market for the domestic producers and forces them to be more efficient in the wake of increased competition. Also make favorable balance of payment. While effect of increase in imports is uncertain but some time increase is expected to continue towards economic growth by promoting competition and bringing new products that can help improve domestic technology.

5.3.4 Domestic Investment

Physical capital accumulation takes place through domestic investment and foreign investment. Higher domestic investment leads to capital accumulation, which enlarges the production capacity in an economy. Domestic investment is therefore positively associated with economic growth in a host country. The influence of FDI on economic growth can also take place indirectly through domestic capital formation. Therefore, the effect of FDI inflows on overall domestic investment in host country is also tested. If inward FDI does not have multiplier effect on domestic investment, one-dollar increase in FDI inflows leads to exactly one-dollar increase in domestic. However, if FDI favours the expansion of domestic firms in a host country, it will lead to a crowding-in effect

(Borensztein, et al., 1998). On the basis of different literature studies, in this study expecting a positive impact of domestic investment on economic growth of Pakistan.

Chapter 6

ANALYTICAL FRAMEWORK AND RESEARCH METHODOLOGY

6.1 INTRODUCTION

The chapter in hand deals with the analytical framework and research methodology of this study. In particular, the aim is to illustrate the basic hypothesis governing the motivations for cross border investment. It is generally believed that multinational corporations invest in those countries where they expect higher rates of return on their investment as compared to the alternative investment possibilities at home or abroad. But this profit motive of foreign firms depends on many factors such as economic, social and political factors respectively. Though there are so many factors by which the MNCs decisions depends but incorporates proposed variables on the basis of data availability and plays effective role in the determination of FDI in case of Pakistan. Like wise the economic growth model comprises of the four major inputs, which play a key role in the determination of economic growth. Variables list of the determinants of FDI and economic growth are given in Table 6.1 and Table 6.2.

6.2 MODELS FOR FDI

Foreign investors undertake investment abroad with the prime objective to earn maximum profit. While as it is known that return particularly on FDI, taking forms of profit, expansion of business, market development and innovations, are linked to different factors of the host country and varying degree of risk also

attached with them as discussed in chapter-3 in detail. Obviously there is no single theory to explain FDI but many researchers suggested a number of economic, social and political variables determining the inflows of FDI based on various theories of FDI (Dunning, (1973, 1980); Schneider and Frey, 1985; Nnadozie, 2000; Ioannatos, 2003; and Aseidu, 2002, 2005)

Following Wheeler and Mody (1992) model where investment (I) is a positive function of the expected rate of return (π) and a negative function of risk (σ) i.e., $I=f(\pi, \sigma)$, where I= Investment, π= expected rate of return and risk (σ). Since the level of investment depends on the level of profit that the MNCs expect to make investment when locating in the host country. The MNCs will choose how much to invest based on their best prediction of their return. Following the above function and assuming that the expected profit that a firm can make by locating in a host country will depend on the size of the market, trade openness, inflation rate, external debt burden, infrastructure facilities, taxes, domestic investment, size of the government, return on investment and political stability.

Thus in the light of previously conducted studies based on various FDI theories, the present research study proposed the following regression models i.e., economic, and socio- political models for the determination of FDI.

6.2.1 The Economic Model

In the present study utilizing the following linear regression model for the determinants of FDI, which has also been used by Dunning (1980), Ioannatos, (2003), and Aseidu, (2005). It is assumed that FDI depends on selected determinants as given in below equation;

Foreign direct investment =f (market size, debt burden, inflation rate, domestic investment, infrastructure, return on investment, taxes, trade openness, government consumption)

The symbolic form of the log linear regression model is given as follow:-

$$\ln(FDI) = \alpha_0 + \alpha_1 \ln(MKTZ) + \alpha_2 \ln(DEBT) + \alpha_3 \ln(INF) + \alpha_4 \ln(DI) + \alpha_5 \ln(RI) + \alpha_6 \ln(EEGTC) + \alpha_7 \ln(Tax) + \alpha_8 \ln(TO) + \alpha_9 \ln(GC) + \varepsilon_1$$

6.2.1

The equation (6.2.1) states that FDI is a positive function of the market size measured by gross domestic product of the host country, domestic investment, return on investment, trade openness, and infrastructure facilities. Similarly the effect of external debt burden, inflation rate, government consumption, and taxes will negative on FDI.

Where

FDI = Foreign Direct Investment

MKTZ = Market size proxy used Gross Domestic Product

DI = Domestic Investment

DEBT = External Debt

TO = Trade Openness (X+ M/GDP)

EEGTC = Infrastructure proxy used Expenditure on Electricity, Gas, Transport and Communication

GC = Government Consumption

Tax = Indirect Taxes

INF = Inflation

RI = Return on investment measured by 1/GDP per capita

ε = Error term

The explanatory variables and error term (ε) will follow the least square assumptions.

6.2.2 The Socio-Political Model

The social factors also influencing the FDI inflows into host country and their importance must not be ignored. Root and Ahmad, (1979); Agarwal (1980) and Ioannatos, (2003) have given importance to social status of the host country. Since Dunning (1981), Schneider and Frey (1985), says that social factor that is human capital has positive effect on inflows of FDI into host country. Political factor is equally important determinant of FDI (Singh and Jun, 1995; Nnadozie, 2000; Asiedu, 2005). So the equation can be written as;

$$\ln(FDI) = \beta_0 + \beta_1 \ln(HK) + \beta_2(\Pr isk) + \varepsilon_2 \qquad 6.2.2$$

The equation (6.2.2) states that human capital as measured by primary school enrollment has positive impact on FDI inflows, while the above equation also states that the impact of political instability on FDI inflow will negative in this study.

Where

FDI = Foreign Direct Investment

HK =Human Capital measured by primary school enrollment

Prisk = Dummy variable used Political instability

ε = Error term

The explanatory variables and error term (ε) will follow the least square assumptions.

6.3 ECONOMIC GROWTH MODEL

6.3.1 Model Specification

Till 1920, the economic growth model was simply consisting of a production function where economic out put was of the result of the sum of two inputs namely labour and capital. According to the Solow (1956) model, the inputs physical capital and labour did not explain the growth potential of a particular economy. Therefore, Solow added technology to the production function exogenously (Mankiew, et al. 1995) and therefore it is called exogenous growth theory. Later on, in 1980s, the long term economic growth was considered endogenously. Romer (1986) described that a firm's production function is defined by firm specific variables (i.e. capital services, labour and R&D inputs).

The model use in this study followed by Athukorala (2003), Ahmad and Hamdani (2003), Barro and Sala-I-Martin (1995), Borenztien et al (1998) and Eli Ado (2006) based on a simple endogenous growth model. Assume that in general form the production function can be written as follows;

$$Y = F(L, K, A) \qquad 6.3.1$$

Where Y= economic growth/total out put, L= labour, K= capital, and A= technology. In the above equation the capital (K) is the combination of two capital i.,e domestic and foreign capital. In addition, incorporates the trade openness (TO) in the model in order to explore its impact on economic growth. Thus the new production function can be written as;

$$Y=f\ (L, FDI, DI, TO, A) \qquad 6.3.2$$

The above equation (6.3.2) indicates that economic growth is depends on human capital, foreign direct investment, domestic investment, trade openness and technology respectively. More the equation demonstrates the importance of FDI

in the process of growth through technological diffusion. Generally, it is says that technological diffusion via knowledge transfer and adoption of best practice across border is arguably a key ingredient in rapid economic growth. Further FDI also may stimulate knowledge transfer both in terms of man-powers training and skill acquisition and by introduction of alternative management practices and better organizational arrangement. Hence, increase in trade openness (export plus import to GDP ratio) mean that rise in exports and rise in necessary imports of the economy can equally contribute to better technology. Thus making the technology variable a linear function of FDI and trade openness, so the variable technology (A) has eliminated from the model. Also introduced error term in the model to capture the others factors effect. Now the equation can be expressed as;

$$\ln(\text{Growth}) = \beta_0 + \beta_1 \ln(\text{DI}) + \beta_2 \ln(\text{FDI}) + \beta_3 \ln(\text{School}) + \beta_4 \ln(\text{TO}) + \mu \qquad 6.3.3$$

Where FDI=foreign direct investment, DI=domestic investment, School=human capital, TO=trade openness, ln = log, and μ = error term

So equation (6.3.3) states that economic growth a positive function of the domestic investment, foreign direct investment, human capital proxy primary school enrollment, and trade openness of the host country. Poon (2000), Athukorala (2003) and Yasmin (2005) also used growth model in log form accordingly.

6.4 SIMULTANEOUS EQUATIONS MODEL

In this part effort is being made to develop a simultaneous equation model for analyzing the impact of FDI, human capital, exports plus import to GDP ratio, and domestic investment on economic growth. Therefore, for this purpose first of all to explain briefly the determination of economic growth, and foreign direct investment respectively.

6.4.1 Determinants of Economic Growth

Economic growth (Growth) is a positive function of the human capital proxy primary school enrolment (School), foreign direct investment (FDI), domestic investment (DI) and trade openness (TO) inputs respectively (see for detail Balasubramanyam et al. (1996) and Borensztein, et al. (1998).

The equation can be expressed as;

$$\ln(\text{Growth}) = \alpha_{10} + \alpha_{11} \ln(\text{DI}) + \alpha_{12} \ln(\text{FDI}) + \alpha_{13} \ln(\text{School}) + \alpha_{14} \ln(\text{TO}) + \dot{\varepsilon}_1 \qquad 6.4.1$$

6.4.2 Determinants of FDI

The following equation shows that FDI is a positive function of the GDP growth rate, domestic investment, trade openness, infrastructure, and a negative function of debt burden and inflation rate respectively. The FDI equation can be written as;

$$\ln\text{FDI} = \alpha_{20} + \alpha_{21} \ln(\text{Growth}) + \alpha_{22} \ln(\text{DEBT}) + \alpha_{23} \ln(\text{DI}) + \alpha_{24} \ln(\text{EEGTC}) + \alpha_{25} \ln(\text{TO}) + \alpha_{26} \ln(\text{INF}) + \dot{\varepsilon}_2 \qquad 6.4.2$$

6.3 RESEARCH METHODOLOGY

This section deals with the materials and methodology that would be utilized for analyzing the problem under investigation.

6.3.1 Sources of the Data

The present study is based on secondary data for the period ranging from 1971 to 2005. Since only secondary data would be used because subject to certain constraints such as it is highly difficult for a research student to collect primary data on such macroeconomic topic from the whole country. The data regarding suggested variables will be obtained from the Fifty Years of Statistics of Pakistan (various issues), International Financial Statistics (various issues), Economic Survey of Pakistan (various issues), World Investment Report, and World Development Indicator (various issues) respectively.

6.3.2 Estimation Techniques

For the analysis of data the methods of appropriate figures, tabulation, percentages and averages of different variables would be used. For the econometric analysis of the determinants of FDI two regression models would be used i.e., the economic, and socio-political models to determine the various factors impacts on FDI inflows into Pakistan. Such as a regression model for economic growth would be used and the method of least square (OLS) would be used as an analytical techniques for the empirical estimation of the parameters on the models for observing various determinants of FDI in the host country and economic growth respectively. Obviously there would be causality relationship between FDI and economic growth. For this purpose Two Stage Least Squares (2SLS) estimation techniques would be used on simultaneous equation model. Apart from these estimation techniques and for more robustness, another estimation technique that is called General Method of Moments (GMM) would also be applied to estimate the relationship. In addition, to check stationarity in

the level of data, applied Augmented Dickey Fuller (ADF) test and an Error Correction Mechanism (ECM). Further, the data are not linear; therefore, the data have been transformed into log form. E. View and Manitab statistical softwares have been using for data analysis.

Table 6.1: **Variables List of the Determinants of FDI Flow to Pakistan**

Variables Name	Specification Of Variable	Sources
Dependent variable FDI	Total FDI inflows from all sources countries into Pakistan in year t, million Pak. rupees.	Federal Bureau of Statistics, Pakistan various issues
MKTZ	GDP in million of Pak Rupees	Federal Bureau of Statistics, Pakistan various issues
INF	Inflation (GDP deflator) of Pakistan Base year 1995.	International Financial Statistics various issues
DEBT	Total external debt of Pakistan (million of Pak. Rupees).	Federal Bureau of Statistics, Pakistan various issues
GC	General government consumption of Pakistan in million Pak. rupees.	Federal Bureau of Statistics, Pakistan various issues
RI	RI=1/GDP per capita of Pakistan	Federal Bureau of Statistics, Pakistan various issues
DI	Domestic investment of Pakistan (million of Pak. Rupees).	Federal Bureau of Statistics, Pakistan various issues
Tax	Net indirect Taxes of Pakistan in million Pak. Rupees.	World Development Indicator, various issues
TO	Trade openness (export plus import to GDP ratio) of Pakistan	Pakistan Economic Survey, various issues
EEGTC	Expenditure on electricity, transport, , gas and communication of Pakistan (million of Pak. Rupees)	Federal Bureau of Statistics, Pakistan various issues
School	Primary school enrollment.	Federal Bureau of Statistics, Pakistan various issues
Prisk	Dummy variable.	Dummy variable

Table 6.2: **Variables List of the Determinants of Economic Growth in Pakistan**

Variables Name	Specification Of Variable	Sources
Dependent variable GDP Growth rate	Gross domestic product growth rate of Pakistan (%)	Federal Bureau of Statistics, Pakistan various issues
Independent Variables FDI	FDI inflows from all sources countries into Pakistan (million Pak. Rupees)	Federal Bureau of Statistics, Pakistan various issues
DI	Gross domestic investment of Pakistan (million of Pak. Rupees)	Federal Bureau of Statistics, Pakistan various issues
TO	Trade openness (export plus import to GDP ratio) of Pakistan (%)	Pakistan Economic Survey, various issues
School	Primary school enrollment proxy used for human capital.	Pakistan Economic Survey, various issues

Chapter 7

RESULTS AND DISCUSSION

7.1 INTODUCTION

This chapter reports the results of data analysis with discussion obtained in this present study. Almost all the results are satisfactory and significant on the basis of R-squared (R^2) and Adjusted R-squared values. Further, the multicollinearity problem has been removed by dropping some collinear variables during regression analysis and the Durbin Watson Statistics is 2 or very near to 2, which shows no autocorrelation problem as well. Secondary annual data over the period from 1971 to 2005 has been used and the methods of Least Square, Two Stage Least Squares and the Generalized Method of Moments have been applied as analytical techniques on regression models for empirical estimation.

7.2. EMPIRICAL RESULTS OF FDI MODELS

The empirical results of the economic model of Pakistan are shown in Table 7.1, for India in Table 7.2 and for Indonesia in Table 7.3. The results of socio-political model for Pakistan are reported in Table 7.4. While the empirical results of economic growth model for Pakistan reported in the Table 7.5, and results of economic growth model with one period lagged FDI are reported in the Table 7.6. The results of simultaneous equation model for Pakistan presented in Table 7.7. The comparison of the estimates of economic determinants of FDI of Pakistan, India and Indonesia are reported in the Table 7.8. More details of

regression results and Cointegration and Estimation of an Error Correction Mechanism see in Appendix-B, and Table-B1. Due to non-linearity of the data log linear models were used. Though some variables have been found statistically significant in economic, socio-political and economic growth models with expected signs, while a few variables found insignificant in the present study. But this research is not only confined to the objectives to find out the statistically significant and insignificant variables but to find out the degree of those variable and their importance that how much they affect the FDI inflow into Pakistan and also to see the effect of various factors on economic growth. Almost all the results, which have been obtained in this study strongly support this study hypothesis but response of some of the variables, are less encourageable.

7.2.1 Empirical Results of the Economic Model of FDI

The estimated regression equation of economic determinants of FDI is;

$$FDI = -4.3814 + 5.005\,MKTZ - 2.922\,DEBT + 1.701\,INF - 0.306\,GC + 0.913\,EEGTC - 2.628\,Tax + 4.829\,DI + 3.482\,TO + 5.937\,RI \qquad (7.1)$$

Results of the Table 7.1 shows that one of an important variable that is market size (MKTZ) has been found positively significant at one percent level of significance. Chunlai (1997), Chakrabarti (2001, 2003), Nnadozie (2000), Ioannatos (2003), Banga (2003), and Eli et al., (2006) also found a positive significant relationship between FDI and market size. This study hypothesized positive relationship between GDP and FDI and the result found correct according to the study hypothesis. The coefficient size found 5.00, and indicates that one unit change in the GDP will bring 5.00 unit changes in the FDI inflow. If the GDP increases, the inflow of FDI will also increase and vice versa. An expansion in the market size of a country/location leads to an increase in the

Table 7.1: **OLS Estimates of Economic Determinants of FDI for Pakistan**

Dependent Variable: FDI	
Method: Least Squares (OLS)	
Independent Variables	**Coefficients (t-statistics)**
Constant (C)	-4.38 (-0.67)
Market size (MKTZ)	5.00 (3.12)*
External debt (DEBT)	-2.92 (-5.03)*
Inflation rate (INF)	1.70 (0.79)
Government consumption (GC)	-0.30 (-0.34)
Infrastructure (EEGTC)	0.91 (2.94)*
Tax	-2.62 (-2.59)**
Domestic investment (DI)	4.82 (3.84)*
Trade openness (TO)	3.48 (3.76)*
Return on investment (RI)	5.93 (2.87)**
R-squared (R^2)	0.97
Adjusted R-squared	0.96
S.E. of regression	0.50
Akaike info criterion	1.71
Schwarz criterion	2.21
F-statistic	102.57
Durbin-Watson statistic	2.06
N	35

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1%, 5%, and 10 % level of significance respectively.

(ii). The figures in parenthesis are t-statistics

amount of FDI through increased demand accordingly. Further more, FDI will move to those countries which have larger and expanding markets and greater purchasing power, where firms can potentially receive a higher return on their invested capital and by implication receive higher profit from their investments.

The effect of external debt has been found highly significant with expected negative sign at one percent level of significance. Smasuddin (1994), Flexner (2000), Banga (2003), and Eli (2006) also found negative relationship between external debt and FDI. Therefore, the result of this variable is in favour of hypothesis of this research study. The coefficient size found -2.92, which indicates that one unit change in the external debt will bring -2.92 unit changes in the FDI inflows into Pakistan. The debt burden badly affects the investment climate of a country. The result implies that FDI is negatively affected by the country's bad debt condition. An overhang debt not only discourages further lending but also discourages FDI inflows. Moreover, a country has to spend more of its resources to serve its debt and leaves with less to spend on direct productive activities such as, improvement of infrastructure and the provision of public services. In addition, even debt burden signifies the poor financial condition of a country and that clearly indicates a relatively unfavorable environment for foreign investment.

Similarly by the estimation of the economic model of FDI, the study found that the impact of infrastructure is positively significant at one percent level of significance. Wheeler and Mody (1992), Kumar (1994), Asiedu (2002), and Ioannatos (2003), also found positive significant results. In the study in hand the coefficient size of this determinant found 0.91, which indicates that one unit changes in this variable will bring 0.91 unit changes in the total FDI inflow into Pakistan. The availability of quality infrastructure is always very important factor in the eyes of foreign and local investors, determining FDI inflow and it

can be supposed that the availability of quality infrastructure affects the decision of selecting the place investment. As the more highways, railways and interior transport services are adjusted according to the size of host country; the more FDI inflow and no doubt that higher level of telecommunication services will save time and reduce the costs of communication and information gathering, thus facilitating business activities. Moreover, a well-developed infrastructure increases the productivity, potential of investments in a country and therefore, stimulates FDI flows towards that country.

Another key variable is trade openness found highly significant with positive sign at one percent level of significance. Chunlai (1997), Aseidu (2002), Ioannatos (2003), Hausmann and Fernandex-Arias (2000), and Anchraz (2003) also found positive relationship between trade openness and FDI inflows. The result of this study strongly in favour of the study hypothesis and the coefficient size found 3.48 indicates that one unit change in the trade openness will bring 3.48 unit changes in the FDI inflow. Also the large coefficient shows that Pakistan would gain more from further opening their economies to international trade and expanding their markets. Multinational corporations are enhanced to the countries to take the location advantages with the motive of exporting their products to large markets. Low trade barriers make imports of raw material, i-e., plants and machinery convenient and the exports of either the intermediate or finished products easily to the World market.

As expected domestic investment found highly significant with positive sign at one percent level of significance. Razin (2003) and Yasmin et al., (2003) also found positive significant results. The result of this study is according to the study hypothesis. The coefficient size 4.82 indicates that one unit change in the domestic investment will bring 4.82 unit increases in the total inflow of FDI. The positively significant effect of domestic investment on FDI shows that the

domestic investment is a complement for FDI. The large coefficient means that domestic/local investors interested to invest in Pakistan that is welcoming for foreign investors. But if domestic investors are unwilling to invest in their own country, it means that the country's investment climate is not suitable and unprofitable for investment. Obviously the domestic investors well know about the climate of investment in their own country.

The effect of indirect tax on FDI has been found significant with negative sign at five percent level of significance. Loree and Guisinger (1995), Wei (1997), and Chakrabarti (2003) also found negative significant relationship between taxes and FDI inflows. This variable favours the study hypothesis and the coefficient size is -2.62 and it shows that one unit change will bring -2.62 unit changes in the total FDI inflow. Infact, the multinationals are profit maximizers, can be assumed to be sensitive to tax factors, since they have a direct effect on their profits. Reduction in indirect tax will increase purchasing power of the people and profit of the multinationals will increase. According to the theory it is some-how clear that indirect taxes increase prices of the manufacturing goods of the foreign firm and reduce purchasing power of the consumers that is deter FDI inflows.

Similarly return on investment has been found statistically significant with expected positive sign at five percent level of significance. Schneider and Fry (1985), and Tsai (1994) also found positive relationship between return on investment and FDI inflows. The coefficient size found 5.93 and it indicates that lower per capita income attracts more FDI inflows because foreign investors would go to those countries where they are paid a higher return on capital.

However, inflation rate have been found insignificant with unexpected positive signs while government consumption has been found insignificant with expected negative sign. But it does not mean that these variables have no effect on FDI but they are equally important in the determination of FDI inflow.

Table 7.2: OLS Estimates of Economic Determinants of FDI for India

Dependent Variable: FDI	
Method: Least Squares (OLS)	
Independent Variables	**Coefficients (t-statistics)**
Constant (C)	42.49 (1.64)
Market size (MKTZ)	14.02 (2.78)**
External debt (DEBT)	-1.71 (-2.47)**
Inflation rate (INF)	0.54 (2.14)**
Government consumption (GC)	0.35 (1.15)
Infrastructure (EEGTC)	15.76 (3.29)*
Domestic investment (DI)	1.68 (2.23)**
Trade openness (TO)	-14.08 (-2.76)*
R-squared (R^2)	0.92
Adjusted R-squared	0.91
S.E. of regression	0.67
Akaike info criterion	2.26
Schwarz criterion	2.61
F-statistic	50.75
Durbin-Watson statistic	1.96
N	35

Note: (i). The asterisks *, **, shows that estimates are significant at 1%, and 5%, level of significance respectively.

(ii). The figures in parenthesis are t-statistics

Table 7.2 shows empirical results of the economic determinants of FDI for India. The results are statistically significant and matched with the results of Table 7.1, except two variables i.e., trade openness (TO) and government consumption (GC). Table 7.3 represents the results of economic determinants of FDI for Indonesia but its results do not match due error in the data with Table 7.1 and Table 7.2 respectively.

Table 7.3: **OLS Estimates of Economic Determinants of FDI for Indonesia**

Dependent Variable: FDI	
Method: Least Squares (OLS)	
Independent Variables	**Coefficients (t-statistics)**
Constant (C)	11.71 (2.5)
Market size (MKTZ)	0.83 (1.34)
External debt (DEBT)	-0.11 (-0.22)
Inflation rate (INF)	0.242 (0.87)
Domestic investment (DI)	-2.03 (-2.22)
Trade openness (TO)	-2.09 (-1.52)
R-squared (R^2)	0.179
Adjusted R-squared	0.037
S.E. of regression	0.87
Akaike info criterion	2.72
Schwarz criterion	2.98
F-statistic	1.26
Durbin-Watson statistic	1.17
N	35

Note: (i). The figures in parenthesis are t-statistics

7.2.2 Empirical Results of the Socio-Political Model of FDI

The empirical results of socio-political model of FDI are reported in the Table 7.4. The estimated regression equation of socio-political model of FDI is given under;

$$FDI = -32.3657 + 4.4137HK - 0.5814Prisk \qquad (7.2)$$

The results indicate that human capital is positively statistically significant at one percent level of significance. Banga (2003) and Ioannatos (2003) also found positive significant relationship between Human Capital and FDI inflows. The coefficient size found 4.413, and it shows that one unit change in human capital will bring 4.413 unit changes in FDI inflow. As multinational locating plant abroad wants the opportunity to choose workers from an educated pool and the level of worker quality is important to a firm that is locating in a host country primarily to use their labour as a less expensive input than the labour in their home country. Further, it has been observed that well trained and skilled workers producing more efficiently that increase revenue of multinationals.

The estimated coefficient size of political instability has found as -0.581 showing an inverse relationship with FDI inflow but statistically insignificant. Loree and Guisinger (1995), Jasperson, et al. (2000) Hausmann and Fernandex-Arias (2000), and Asiedu (2002), also found insignificant results.

Political stability is one of the key determinant of FDI inflow and when there is any political or economic instability foreign investors do not invest in that country. Generally multinational corporations prefer to choose a location that is economically and politically stable for their investment. Therefore, a country's political stability is an important consideration for multinational corporations when choosing the destination for their investment. A safer and more stable environment will help to minimize the risk for the multinational corporations.

Table 7.4: **OLS Estimates of Socio-Political Determinants of FDI**

Dependent Variable: FDI	
Method: Ordinary Least Squares (OLS)	
Independent Variables	**Coefficients (t-statistics)**
Constant (C)	-32.36 (-9.8)
Human capital (HK)	4.41 (12.26)*
Political Instability (Prisk)	-0.58 (-1.50)
R-squared (R^2)	0.83
Adjusted R-squared	0.81
S.E. of regression	1.14
Akaike info criterion	3.18
Schwarz criterion	3.31
F-statistic	77.50
Durbin-Watson statistic	1.69
N	35

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1% level of significance respectively.

(ii). The figures in parenthesis are t-statistics

7.3 EMPIRICAL RESULTS OF ECONOMIC GROWTH

The empirical results of economic growth model are given in the Table 7.5.

The estimated economic growth model is;

Growth = 10.1064 + 0.7164 DI - 1.556 HK + 1.1793 TO +0.1559 FDI (7.3)

The results of economic growth model show that the impact of domestic investment on economic growth i.e., gross domestic product growth rate is positively significant at five percent level of significance. Nath (2004), Alireza et al., (2002) and Athukorala (2003) also found positive significant results between economic growth and domestic investment in their studies. The coefficient size of this variable found 0.716, so this amount of change will occur in the total economic growth rate. It means that due to promotion of domestic investments economic growth of the country would increase.

Another variable that is trade openness has been found positively statistically significant at five percent level of significance. Athukorala (2003) and Eli et al., (2006) also found positive significant relationship between economic growth and trade openness. The coefficient of this variable in this study found 1.179, which is large and indicates that this unit of change will occur in the economic growth. It shows more export and by importing essential input for more production is of course contributing in the process of economic growth. While human capital has been found significant with unexpected negative sign.

Table 7.5: **OLS Estimates of Determinants of Economic Growth**

Dependent Variable: Growth (GDP Growth rate)	
Method: Ordinary Least Squares (OLS)	
Independent Variables	**Coefficients (t-statistics)**
Constant	10.10 (3.86)
domestic investment (DI)	0.71 (2.31)**
trade openness (TO)	1.18 (3.02)*
human capital (HK)	-1.56 (-2.73)**
foreign direct investment (FDI)	0.16 (1.72)***
R-squared (R^2)	0.46
Adjusted R-squared	0.39
S.E. of regression	0.39
Akaike info criterion	1.08
Schwarz criterion	1.31
F-statistic	6.28
Durbin-Watson statistic	1.97
N	35

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1%, 5%, and 10% level of significance respectively.

(ii). The figures in parenthesis are t-statistics

Further, this study found FDI positively significant at ten percent level of significance. Nath (2004), Borensztein, et al., (1998) and Alireza et al., (2002) also found positive statistically significant result between economic growth and FDI. It shows that the impact of foreign direct investment on economic growth is important. While the inflows of foreign direct investment always considered the main channel of technological progress in the theoretical framework. However, the effect of technological progress on growth does not happen immediately after a host country receives the foreign direct investment inflows since the adoption of technology takes some time. Foreign direct investment inflows in lagged period tend to affect the economic growth performance in current and later periods. Therefore, estimated foreign direct investment with one year previous period but the study found insignificant result. The details of results are given in the Table 7.6.

The estimated equation is;

$$Growth = 9.07+0.86DI+0.998TO-1.59HK+0.16FDI+0.05\ FDI_{-1} \qquad (7.4)$$

Table 7.6: **OLS Estimates of Determinants of Economic Growth**[1]

Dependent Variable: Growth (GDP Growth rate)	
Method: Least Squares (OLS)	
Explanatory Variables	**Coefficients (t-statistics)**
Constant	9.08 (3.03)
domestic investment (DI)	0.86 (2.01)**
trade openness (TO)	0.99 (1.81)***
human capital (HK)	-1.60 (-2.65)**
foreign direct investment (FDI)	0.17 (1.44)
FDI_{-1}	0.06 (0.72)
R-squared (R^2)	0.43
Adjusted R-squared	0.30
S.E. of regression	0.39
Akaike info criterion	1.16
Schwarz criterion	1.43
F-statistic	2.67
Durbin-Watson statistic	1.97
Observations (N)	35

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1%, 5%, and 10% level of significance respectively.

(ii). The figures in parenthesis are t-statistics

1. Foreign direct investment inflows in lagged period (i.e., (FDI_{-1})

7.4 EMPIRICAL RESULTS OF SIMULTANEOUS EQUATION MODEL

Table 7.7 presents the empirical results of the simultaneous equation model. As indicated from this Table 7.7, that almost the estimated equations have the expected signs and also many are statistically significant. From the economic growth equation this study found that the impact of domestic investment, trade openness and foreign direct investment are positively significant with expected signs. The human capital measured by primary school enrollment found significant with unexpected negative sign. In particular the result of FDI is more important because foreign direct investment is significant at five percent level of significance by applying Two Stage Least Squares (2SLS) technique and with one percent level by applying Generalized Method of Moments (GMM) technique. While applied here two methods for estimation and the results of GMM technique are somehow more significant if compared with the results obtained be applying the 2SLS technique.

The FDI equation shows that FDI is positively related to growth rate of the host country's economy. The variable is statistically significant at five percent level by applying GMM technique. Similarly the other variable, which has been found statistically positively significant that, is trade openness with one percent level by applying GMM technique. The impact of domestic investment has found also statistically positively significant at one percent level of significance. Further, the external debt has been found significant with expected negative sign by applying both 2SLS and GMM techniques. While however, two important determinants of foreign direct investment which are inflation and infrastructure have found insignificant with unexpected signs. From these results it is clear that those results, which have been obtained by applying the GMM approach is more significant if compared with the results obtained by applying 2SLS approach in this study.

Table 7.7: Estimates of Simultaneous Equation Model (1971-2005)

Growth Equation		
Method: Two Stage Least Squares (2SLS)	Generalized Method of Moments (GMM)	
Independent Variables	Coefficients (t-statistics)	Coefficients (t-statistics)
Constant	9.59 (2.25)	9.54 (2.65)
DI	1.40 (2.40)**	1.36 (3.03)*
FDI	0.41 (2.36)**	0.42 (3.54)*
TO	1.03 (1.96)***	1.48 (3.02)*
HK	-2.18 (-2.22)**	-2.05 (-2.34)**
R-squared (R^2)	0.34	0.33
Adjusted R-squared	0.23	0.21
S.E. of regression	0.44	0.44
D-W	2.10	2.12
FDI Equation		
Constant	4.67 (0.40)	8.01 (2.02)
Growth	1.98 (1.14)	2.44 (2.30)**
INF	0.55 (0.18)	0.47 (0.69)
TO	4.45 (0.99)	6.04 (3.45)*
EEGTC	-0.36 (-0.26)	-0.50 (-1.30)
DI	3.91 (1.45)	3.72 (3.42)*
DEBT	-2.58 (-2.04)**	-2.31 (-2.63)**
R-squared (R^2)	0.89	0.85
Adjusted R-squared	0.87	0.82
S.E. of regression	0.96	1.11
D-W	2.41	2.36

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1%, 5%, and 10% level of significance. (ii). The figures in parenthesis are t-statistics

7.5 LESSON LEARNED FROM THE RESULTS

i. Availability of accurate data for testing theories demonstration is a problem and in many cases proxies have been used which do not adequately capture the actual theories of FDI.

ii. Signs and size of coefficients differ in different studies but as there is no single theories that can explain only a specified model.

iii. There are some empirical findings that are fairly consistent in the empirical literature and theory on FDI and simultaneous equation model that are applicable for policy implications.

Table 7.8: **Comparison of the Estimates of Economic Determinants of FDI of Pakistan, India and Indonesia (1971-2005)**

Dependent Variable: FDI					
Method: Least Squares (OLS)					
Pakistan		India		Indonesia	
Independent Variables	Coefficients (t-statistics)	Independent Variables	Coefficients (t-statistics)	Independent Variables	Coefficients (t-statistics)
Constant (C)	-4.38 (-0.67)	Constant (C)	42.49 (1.65	Constant (C)	11.71 (2.56)
Market size (MKTZ)	5.00 (3.12)*	Market size (MKTZ)	14.03 (2.79)**	Market size (MKTZ)	0.83 (1.34)
External debt (DEBT)	-2.92 (-5.03)*	External debt (DEBT)	-1.71 (-2.47)**	External debt (DEBT)	-0.115 (-0.23)
Inflation rate (INF)	1.70 (0.79)	Inflation rate (INF)	0.54 (2.13)**	Inflation rate (INF)	0.24 (0.87)
Government consumption (GC)	-0.30 (-0.34)	Government consumption (GC)	0.36 (1.15)	.....	.....
Infrastructure (EEGTC)	0.91 (2.94)*	Infrastructure (EEGTC)	15.77 (3.29)*	.....	.....
Tax	-2.62 (-2.59)**	.....	.....	.....	.....
Domestic investment (DI)	4.82 (3.84)*	Domestic investment (DI)	1.68 (2.24)**	Domestic investment (DI)	-2.03 (-2.23)
Trade openness (TO)	3.48 (3.76)*	Trade openness (TO)	-14.08 (-2.76)*	Trade openness (TO)	-2.06 (-1.52)
Return on investment (RI)	5.93 (2.87)**	.....	.....	.....	.....
R-squared (R^2)	0.97	R-squared (R^2)	0.92	R-squared (R^2)	0.17
Adjusted R-squared	0.96	Adjusted R-squared	0.91	Adjusted R-squared	0.03
S.E. of regression	0.50	S.E. of regression	0.67	S.E. of regression	0.87
Akaike info criterion	1.71	Akaike info criterion	2.26	Akaike info criterion	2.72
Schwarz criterion	2.21	Schwarz criterion	2.61	Schwarz criterion	2.98
F-statistic	102.57	F-statistic	50.76	F-statistic	1.26
Durbin-Watson statistic	2.06	Durbin-Watson statistic	1.97	Durbin-Watson statistic	1.17
N	35	N	35	N	35

Note: (i). The asterisks *, **, shows that estimates are significant at 1%, and 5%, level of significance respectively.

(ii). The figures in parenthesis are t-statistics

Chapter 8

CONCLUSIONS AND POLICY IMPLICATIONS

This chapter provides conclusions of the research based on the result obtained in the earlier chapters. It also includes some suggestions for policy implications for policy makers and for further improvement regarding economic, social and political conditions to attract more FDI in order to promote economic growth of the country. The study has been conducted on the basis of certain objectives; therefore, almost more or less the study has achieved its objectives.

8.1 CONCLUSIONS

The present study has been conducted with the aim to find out those factors, which are important in determining the location decision of multinational corporations in Pakistan and factors determining the level of economic growth too. Through estimation some variables have been found highly significant statistically, some lower significant and some insignificant for the attraction of FDI into Pakistan. The lower and insignificant does not mean that these variables have little or no effect on the determination of FDI and economic growth in the research study.

Foreign direct investment can be defined, as it is the amount invested by residents of a country in a foreign enterprise over which they have effective

control. Apparently foreign investors seek long-term profit and are unlikely to withdraw investment in short period due to high transaction costs. Return on FDI, taking form of profits, expansion of business, market development and innovations, are linked to social, economic, political, financial and cultural factors in the host country.

Obviously, host and home/recipient countries taking interest in foreign investment because they both have some objectives. The host countries want to enhance more FDI with the prime objective to boost economic growth in order to improve social welfare of the community. While on the other hand home/recipient countries basically intend to earn maximum profit on their investment and sent it back to their home countries. In addition, there may be many other reasons due to which multinationals undertake FDI in other countries and these may be the raw materials, cheap labour, incentives offer by the host countries, macroeconomic stability, large market, and lower taxes etc.

It has been observed that the central economic goal of any country either developed or developing is to achieve higher level of economic growth. Generally, FDI theories says that FDI has strong effects on the host country economy, since it affects positively production, employment, income, exports, balance of payments, economic growth and general welfare of the recipient country.

In this study relevant theories were reviewed that contribute to the understanding and fundamental motivation of FDI flows. Theories of economic growth also have been reviewed thoroughly. Therefore, reviewed theories on FDI were such as international capital movement theory, product cycle hypothesis, industrial organization explanation, international theory, market size theories, portfolio diversification hypothesis, raw material based theory and

dunning eclectic theory respectively. Even there are a number of theories and hypothesis, which explains FDI, however, none of the individual theories is able to successfully explain in its entirety. It has been observed that various empirical studies on FDI literature have investigated a number of economic, social and political factors but there is no general consensus in the literature on influence of some of these variables on FDI. The empirical evidence on FDI and economic growth is ambiguous, although in theory FDI is believed to have several positive effects on the economy of the host country and in general it is a significant factor in modernizing the host country's economy and promoting its economic growth.

The presence of multinationals in Pakistan are before inception and currently there are almost 30,000 companies, out of which more than 600 have foreign capitals operating successfully and making profit in Pakistan. The global FDI inflow was estimated US$ 916300 million in the year 2005. Such as the inflow of FDI into Pakistan during the year 2004-05 has reached US$ 1524 million is high if compared with US $ 949 million FDI inflows in year 2003-04. A visible increase occurred in the inflow of FDI into Pakistan due to offering incentives, provision of investment friendly environment and macroeconomic stability in the country. Hence, total FDI inflows into Pakistan from 1991-92 to 2004-05 stands at US$ 9089 million, which come to US$ 649.27 million per year. The total FDI inflow into textile sector for the last five years was US$ 138.4 million and this sector attracted US$ 39.3 million during 2004-05, as the amount was US$ 35.4 million during 2003-04. Although the inflow of FDI into the oil exploration sector has slightly decreased but the inflow has highly increased in the power sector as it was US$ -14.3 million in 2003-04 and in 2004-05 it has increased up to US$ 73.3 million. As power sectors during the last five years has enhanced considerable amount of FDI inflow of amount US$ 1007.9 million. Similarly communication (IT & Telecom) is on the top on the basis of more attracted FDI in this sector and such as the inflow was US$ 221.9 during 2003-04 but in 2004-05 it is US$ 517.6 million

and the total FDI inflow during last year is US$ 1090.1 million which is the highest amount in all sectors. Pakistan Telecommunication Authority (2007) reported that direct and indirect 1366698 jobs has been created during 2007 and estimated more 58009 direct and indirect jobs to be created in 2007-2008. The inflows also increased into the financial business sector to US$ 269.4 million in 2004-05, as it was US$ 242.1 million during 2003-04 and the total FDI inflow is US$ 840.1 million in the last five years as well. The share of FDI inflows into Pakistan from different countries i.e., USA, UK, Switzerland, Japan, UAE and Netherlands are estimated sixty percent during the year 2004-05. The inflow of FDI has not yet been increased as much, if compared with incentives offered by the government of Pakistan.

However, in this study in the FDI model the empirical result revealed that the most important economic variable found were market size that shows a country's development levels permit the exploitation of economies of scale which is likely to increase the attractiveness of FDI vis-à-vis alternative forms of internalization. The external debt burden is like a disincentive for FDI as found with negative relationship between this variable and FDI inflow. High debt burden clearly indicates a relatively unfavorable environment for foreign investment and it shows the external imbalances in a country.

Also this study found that the effects of infrastructure facilities are positively significant in explaining inflow of FDI. The availability of electricity, telephones and transportation routes increase the profitability of a firm. As found significant in this study, it means that in Pakistan infrastructure facility is better and it would encourage foreign investors to locate their operations in this country.

The effect of indirect taxes has been found significant with negative sign and the result shows that indirect taxes in Pakistan are high. Obviously multinational

corporations aim to earn more profit, therefore, it can be assumed that they are sensitive to tax factors, because tax has a direct effect on their profit. Moreover, it is some-how clear that indirect taxes make prices high of the manufacturing goods of the foreign firm and reducing purchasing power of the consumers that deters FDI inflow. Domestic investment is an important variable affecting the inflow of FDI into Pakistan, because the domestic/local investors know well about the investment environment of the country. Such as the domestic investment shows a positive significant result and the positive significant relationship means that domestic investors are investing in Pakistan. Another key economic variable that is trade openness measured by export plus import to GDP ratio of Pakistan also shows that the borders of Pakistan are free from restrictions on imports and exports and show liberalization, which are conducive in affecting FDI inflow.

Naturally multinationals would move to those countries where they can make higher return on capital. This study found positive relationship that indicates that in Pakistan return on investment is high which is always welcomed by the multinationals. However, explanatory variables inflation and government consumption have been found insignificant but it does not mean that these variables have no role to affect FDI inflow.

The empirical results of socio-political model show that the important variable human capital is positively significant. Further, the positive significant result indicates that there is more human capital in Pakistan and explicitly multinational locating plant abroad would want the opportunity to choose workers from an educated pool. While political instability has been found insignificant with the expected negative sign and generally multinational always prefer to choose a location that is economically and politically stable for their investment.

It has been observed in the economic growth model that the impact of domestic investment on economic growth i.e., GDP growth rate is positively significant. It means that due to promotion of domestic investment economic growth of the country would increase. Another variable that is trade openness has been found statistically significant. It shows that more export and importing essential input for more production is certainly contributing in the process of economic growth. Human capital has been found significant with unexpected negative sign, while the foreign direct investment has been found significant. Inflows of FDI are considered the main channel of technological progress in the theoretical framework. The effect of technological progress on growth does not happen immediately after a host country receives the FDI inflows as the adoption of technology takes some time. Therefore, using FDI lagged period but the study found insignificant result.

In simultaneous equation model from the economic growth equation the study found that the impact of domestic investment, trade openness and FDI are positively significant. Only the human capital has been found significant with negative sign. While the FDI equation shows that FDI is positively related to growth rate of the host country's economy. The other variables, which have been found statistically positively significant are domestic investment, trade openness and external debt. While however, two important determinants of FDI which are inflation and infrastructure have found insignificant. It has been found that FDI has some favourable effects on economic growth of Pakistan, if FDI increases then economic growth would increase. It has been concluded that some of the results found not desired as well but availability of accurate data for testing theories demonstration is a problem and in many cases proxies have been used which do not adequately capture the actual theories.

8.2 SUGGESTIONS

A few appropriate suggestions are narrated hereunder in the light of findings, which may be implemented in true sense in order to ensure a maximum level and desirable amount of FDI, which of course positively contributing in the process of economic growth and its ultimate result would be increased in the welfare of the Pakistani nation.

- Foreign investment could play a vital role in the promotion of economic growth of the developing countries, if the government plays an active role in attracting and accelerating the benefits of foreign investment. The government not only needs to pursue policies to attract foreign private investment, but they must initially create a sound environment to gain more from such beneficial investment.

- More importantly to reap the benefits of FDI, the authorities of the state should make foreign investment more proficient, and to invest more in tradeable/exportable goods rather than non-tradeable/exportable goods and obviously it will reduce balance of payment deficit and their ultimate result would be improvement in economic growth.

- Make sound and investment friendly environment for foreign investors and economic and political instability respectively should be addressed in Pakistan to ensure stability in the country. Adequate measures should be taken in order to support and encourage domestic investors to enlarge the circle of the domestic investors in Pakistan. Since it is indispensable that domestic investors must come forward and take a lead in investing in different sectors, while, led by the domestic investors this would attract their counterparts paving the way for more foreign investment and economic boost. Policy makers should adopt such policies, which provide incentives,

While higher amount of FDI contributes in achieving higher economic growth. Consequently, high growth performances would attract further capital inflows that is called virtuous circle of capital flows and economic growth. The policy makers needs to encourage FDI in order to promote economic growth.

- The Government of Pakistan should make efforts to improve Pakistan's image in the international community. More attention is required to make the host country Pakistan more progressive. In addition, to say again ensure stable economic and political environment, trained and skilled labour force, provision of quality infrastructure, increasing the capability of workers through technical education, maintaining inflation rate, encourage domestic investment, minimizing external debt burden, fiscal and financial incentives, safety, security, dealing with poverty reduction programs, reduce duties, peace and security, law & order situation and consistency in the government policy because these all are the key factors for potential investors in making investment choices.

- Macroeconomic stabilization policies (fiscal and monetary policies) should be implemented properly in order to enhance FDI and promote economic growth. Of course, their ultimate results would be increasing prosperity and improvement in the welfare of the society.

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Appendix-A

Classification of International Financial Resources		
(a)	Private Public Assistance	
i.a Commercial loans		These primarily take the form of loans by banks to foreign businesses or governments.
ii.a Official flows		This category refers generally to the forms of development assistance given by developed countries to developing countries.
(b)	Private Foreign Investment	
i.b Portfolio Investment		Portfolio investment is the financial investment by private individuals and corporations in stocks, bonds and certificates of deposit, and notes issued by private companies. In portfolio investment, the investors do not take part in the management process and the objectives of portfolio investors are more of a short-term speculative nature: they can quickly reorganize their portfolio through buying or selling, responding only to higher returns offered elsewhere or higher risks in the host economy. That's why portfolio investors are usually regarded by researchers as far more sensitive to changes in the country's investment climate as compared to direct investors.
ii.b FDI		Direct effective control or managerial involvement on investing assets.
	ii.i.b Green-field investment	Green field investment can be defined as the establishment of wholly new operation in a foreign country.
	ii.ii.b Mergers &Acquisitions	Mergers and acquisitions can be defined as the acquiring or merging with an existing firm in the foreign country.

Appendix-B

Cointegration is a statistical property possessed by some time series data that is defined by the concepts of stationarity and the order of integration of the series. A stationary series is one with a mean value, which will not vary with the sampling period. For instance, the mean of a subset of a series does not differ significantly from the mean of any other subset of the same series. Further, the series will constantly return to its mean value as fluctuations occur. In contrast, a non-stationary series will exhibit a time varying mean. The order of integration of a series is given by the number of times the series must be differenced in order to produce a stationary series. A series generated by the first difference is integrated of order 1 denoted as I(1). Thus, if a time series, is I(0), it is stationary, if it is I(1) then its change is stationary and its level is non-stationary.

Cointegration is said to exist between two or more non-stationary time series if they possess the same order of integration and a linear combination of these series is stationary.

REGRESSION RESULTS AND COINTEGRATION

This empirical investigation on the determinants of FDI in Pakistan uses the time series data over the period ranging from 1971 to 2005. First to determine the order of the integration of the variables, for this purpose Augmented Dickey Fuller (ADF) test for units root has used to find out that variables are concluded to be integrated of the same order.

Time series data has the property of non-stationary in levels. First Unit Root Tests are performed for the stationarity in the levels and in first difference of the variables. Results of ADF test for FDI model are presented in the following the table-B1 in detail.

Table: B1 **Results of Augmented Dickey Fuller Test (FDI Model)**

Variables	Level/Difference	Without Trend (Intercept)	With Trend (Intercept & trend)	Conclusion	5% Critical Value (without trend)	5% Critical Value (with trend)
FDI	Level	-1.35	-2.63	I(0)		
	First Difference	-6.14	-6.07	I(1)	-2.95	-3.56
DEBT	Level	-1.19	-4.00	I(0)		
	First Difference	-12.31	-12.18	I(1)	-2.95	-3.56
EEGTC	Level	-2.27	-1.51	I(0)		
	First Difference	-4.08	-4.90	I(1)	-2.95	-3.56
GC	Level	-2.66	-0.96	I(0)		
	First Difference	-3.53	-4.5 6	I(1)	-2.95	-3.56
DI	Level	-1.53	-2.11	I(0)		
	First Difference	-6.10	-6.08	I(1)	-2.95	-3.56
MKTZ	Level	-1.23	-3.52	I(0)		
	First Difference	-7.81	-7.65	I(1)	-2.95	-3.56
TAX	Level	-1.43	-1.78	I(0)		
	First Difference	-5.64	-5.51	I(1)	-2.95	-3.56
INF	Level	-2.32	-3.08	I(0)		
	First Difference	-2.67	-3.62	I(1)	-2.95	-3.56
TO	Level	-7.95	-7.05	I(0)		
	First Difference	-8.23	-9.07	I(1)	-2.95	-3.56
RI	Level	-2.16	-4.06	I(0)		
	First Difference	-3.78	-4.15	I(1)	-2.95	-3.56

Also 95% critical value for ADF statistics for all variables i.e., -2.95 (without trend) and – 3.56 (with trend).

ADF Test demonstrates that almost all variables have sationarity in the levels of 95% critical values with trend and without trend. From the Unit Root Tests it has been concluded that all of the variables are integrated of order I(1).

ESTIMATION OF AN ERROR CORRECTION Mechanism (ECM)

An Error Correction Mechanism can be established to determine the short run dynamics of the regression model.

The following ECM is found to be the most appropriate and fits the data best.

$$\Delta FDI = \alpha_0 + \alpha_1 \Delta MKTZ + \alpha_2 \Delta DEBT + \alpha_3 \Delta INF + \alpha_4 \Delta DI + \alpha_5 \Delta RI + \alpha_6 \Delta EEGTC + \alpha_7 \Delta Tax + \alpha_8 \Delta TO + \alpha_9 \Delta GC + \beta_{10} \Delta R(-1)$$

Where R (-1) is an error correcting term.

The present study was used the Error Correction Model, and the results are presented in the following table-B2.

Table B2: **Estimates of Economic Determinants of FDI (1971-2005)**

Dependent Variable: FDI	
Method: Ordinary Least Squares (OLS)	
Explanatory Variables	**Coefficients (t-statistics)**
CONSTANT	0.17 (0.44)
ΔMKTZ	5.10 (3.21)*
ΔDEBT	-3.07 (-5.54)*
ΔINF	1.28 (0.47)
ΔGC	-0.88 (-0.63)
ΔEEGTC	0.99 (2.65)**
ΔTAX	-3.16 (-3.14)*
ΔDI	6.41 (5.50)*
ΔTO	3.72 (3.63)*
ΔRI	5.68 (2.36)**
ΔR (-1)	1.04 (4.81)*
R-squared (R^2)	0.92
Adjusted R-squared	0.88
S.E. of regression	0.49
Akaike info criterion	1.69
Schwarz criterion	2.17
F-statistic	24.76
Durbin Watson statistics	1.86

Note: (i). The asterisks *, **, *** shows that estimates are significant at 1%, 5%, and 10 % level of significance respectively.

(ii). The figures in parenthesis are t-statistics.

Results show that infrastructure, trade openness and return on investment almost the same level of significance and with the same signs as obtained in chapter-7, Table 7.1. However level of significance declined in case of taxes with the same sign as obtained previously while such as the remaining variables show improvement. R (Residual) also found significant with positive sign.

Appendix-C
Complete summary of OLS, 2SLS, and GMM regression analysis

Details of Table 7.1

Regression Analysis: lnFDI versus lndebt, lnmktz, lninf, lndi, lnto, lntax, lngc, lneegtc, lnri,

Method: OLS

The regression equation is;

lnFDI = - 4.38 + 5.01 lnmktz - 2.92 lndbt + 1.70 lninf - 0.307 lngc+ 0.913 lneegtc - 2.63 lntax+ 4.83 lndi + 3.48 lnto+ 5.94 lnri

Predictor	Coef	SE Coef	T	P
Constant	-4.381	6.448	-0.68	0.503
lnmktz	5.005	1.601	3.13	0.004
lndbt	-2.9228	0.5805	-5.03	0.000
lninf	1.702	2.142	0.79	0.434
lngc	-0.3068	0.8995	-0.34	0.736
lneegtc	0.9133	0.3102	2.94	0.007
lntax	-2.628	1.012	-2.60	0.016
lndi	4.830	1.255	3.85	0.001
lnto	3.4820	0.9253	3.76	0.001
lnri	5.938	2.069	2.87	0.008

S = 0.5065 R-Sq = 97.4% R-Sq(adj) = 96.4%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	9	236.860	26.318	102.58	0.000
Residual Error	25	6.414	0.257		
Total	34	243.274			

Source	DF	Seq SS
lngdp	1	214.634
lndbt	1	1.606
lninf	1	1.438
lngc	1	2.078
lneegtc	1	3.778
lntax	1	2.672
lngdi	1	6.814
lnto	1	1.726
lnri	1	2.114

Unusual Observations

Obs	lngdp	lnFDI	Fit	SE Fit	Residual	St Resid
3	11.3	4.8252	4.1077	0.4611	0.7175	3.42R
4	11.1	0.0000	0.6717	0.3968	-0.6717	-2.13R
13	12.8	6.6981	7.6783	0.2397	-0.9801	-2.20R

Appendix-C

Details of Table 7.4

Regression Analysis: lnFDI versus lnhk, PRISK

Method: OLS

The regression equation is

lnFDI = - 32.4 + 4.41 lnhk - 0.581 PRISK

Predictor	Coef	SE Coef	T	P
Constant	-32.366	3.300	-9.81	0.000
lnhk	4.4138	0.3599	12.26	0.000
PRISK	-0.5814	0.3875	-1.50	0.143

S = 1.141 R-Sq = 82.9% R-Sq(adj) = 81.8%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	2	201.65	100.82	77.50	0.000
Residual Error	32	41.63	1.30		
Total	34	243.27			

Source	DF	Seq SS
lnhk	1	198.72
PRISK	1	2.93

Appendix-C

Details of Table 7.5

Regression Analysis: lnGrowth versus lngdi, lnto, lnfdi, lnhk

Method: OLS

The regression equation is

lnGrowth = 10.1 + 0.716 lndi + 1.18 lnto + 0.156 lnfdi - 1.56 lnhk

Predictor	Coef	SE Coef	T	P
Constant	10.106	2.620	3.86	0.001
lndi	0.7165	0.3106	2.31	0.028
lnto	1.1794	0.3927	3.00	0.005
lnfdi	0.15599	0.09062	1.72	0.095
lnshk	-1.5567	0.5701	-2.73	0.010

S = 0.3903 R-Sq = 45.6% R-Sq(adj) = 38.3%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	4	3.8285	0.9571	6.28	0.001
Residual Error	30	4.5706	0.1524		
Total	34	8.3991			

Source	DF	Seq SS
lndi	1	0.0033
lnto	1	2.5897
lnfdi	1	0.0994
lnSchool	1	1.1361

Appendix-C

Details of Table 7.6

Dependent Variable: LNGROWTH

Method: **Least Squares**

Sample(adjusted): 1972 2005

Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNDI	0.863683	0.429028	2.013117	0.0538
LNTO	0.998089	0.551676	1.809194	0.0812
LNHK	-1.599116	0.602697	-2.653264	0.0130
LNFDI	0.168834	0.117652	1.435028	0.1624
LNFDI(-1)	0.058472	0.080690	0.724648	0.4747
C	9.075048	2.987657	3.037513	0.0051

R-squared	0.423289	Mean dependent var	1.564964
Adjusted R-squared	0.302448	S.D. dependent var	0.447475
S.E. of regression	0.399621	Akaike info criterion	1.162184
Sum squared resid	4.471509	Schwarz criterion	1.431541
Log likelihood	-13.75712	F-statistic	2.675323
Durbin-Watson stat	1.968067	Prob(F-statistic)	0.042494

Substituted Coefficients:

LNGROWTH = 0.8636828346*LNDI + 0.9980899*LNTO - 1.599115762*LNHK +

0.1688340785*LNFDI +0.05847201775*LNFDI(-1) + 9.075048114

Appendix-C

Details of Table 7.7

Simultaneous equation model of FDI and growth
System: UNTITLED
Estimation Method: **Two-Stage Least Squares**
Sample: 1972 2005
Included observations: 34
Total system (balanced) observations 68
Instruments: LNINF(-1) LNDEBT(-1) LNEEGTC(-1) LNFDI(-1) LNDI(-1) LNGROWTH(-1) LNTO(-1) C

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	9.588748	4.260249	2.250748	0.0283
C(2)	-2.185262	0.985420	-2.217595	0.0307
C(3)	-0.415976	0.176505	-2.356730	0.0220
C(4)	1.404886	0.584125	2.405110	0.0195
C(5)	1.028436	0.661335	1.555090	0.1256
C(6)	4.671473	11.48917	0.406598	0.6859
C(7)	-1.984039	1.743784	-1.137778	0.2601
C(8)	0.547070	2.991230	0.182891	0.8555
C(9)	4.445877	4.480745	0.992218	0.3254
C(10)	-0.367784	1.374054	-0.267664	0.7899
C(11)	3.913773	2.703840	1.447487	0.1533
C(12)	-2.580939	1.262436	-2.044411	0.0456

Determinant residual covariance 0.021092

Equation: LNGROWTH=C(1)+C(2)*LNHK+C(3)*LNFDI+C(4)*LNDI+C(5)*LNTO
Observations: 34

R-squared	0.139907	Mean dependent var	1.564964
Adjusted R-squared	0.021274	S.D. dependent var	0.447475
S.E. of regression	0.442689	Sum squared resid	5.683244
Durbin-Watson stat	2.105035		

Equation: LNFDI=C(6)+C(7)*LNGROWTH+C(8)*LNINF+C(9)*LNTO+C(10)*LNEEGTC+C(11)*LNDI+C(12)*LNDEBT
Observations: 34

R-squared	0.894189	Mean dependent var	7.577967
Adjusted R-squared	0.870676	S.D. dependent var	2.669852
S.E. of regression	0.960123	Sum squared resid	24.88956
Durbin-Watson stat	2.418000		

Appendix-C
Details of Table 7.7

System: UNTITLED
Estimation Method: **Generalized Method of Moments**
Included observations: 34
Total system (balanced) observations 68
Instruments: LNINF(-1) LNDEBT(-1) LNEEGTC(-1) LNFDI(-1) LNDI(-1) LNGROWTH(-1) LNTO(-1) C
White Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	9.545621	3.598236	2.652861	0.0104
C(2)	-2.051242	0.875800	-2.342134	0.0228
C(3)	-0.428917	0.077395	-5.541938	0.0000
C(4)	1.364611	0.450960	3.026015	0.0037
C(5)	1.480825	0.489158	3.027293	0.0037
C(6)	8.016269	3.964640	2.021941	0.0480
C(7)	-2.445979	0.461122	-5.304403	0.0000
C(8)	0.470319	0.675747	0.695999	0.4893
C(9)	6.047319	1.754453	3.446840	0.0011
C(10)	-0.500795	0.383562	-1.305643	0.1970
C(11)	3.723058	1.087149	3.424608	0.0012
C(12)	-2.318955	0.880606	-2.633362	0.0109

Determinant residual covariance	0.024193
J-statistic	0.420217

Equation: LNGROWTH=C(1)+C(2)*LNSHK+C(3)*LNFDI+C(4)*LNDI+C(5)*LNTO
Observations: 34

R-squared	0.334394	Mean dependent var	1.564964
Adjusted R-squared	0.215000	S.D. dependent var	0.447475
S.E. of regression	0.444106	Sum squared resid	5.719676
Durbin-Watson stat	2.125516		

Equation: LNFDI=C(6)+C(7)*LNGROWTH+C(8)*LNINF+C(9)*LNTO+C(10)*LN EEGTC +C(11)*LNDI+C(12)*LNDEBT
Observations: 34

R-squared	0.857863	Mean dependent var	7.577967
Adjusted R-squared	0.826277	S.D. dependent var	2.669852
S.E. of regression	1.112795	Sum squared resid	33.43445
Durbin-Watson stat	2.363806		