THE UNIVERSITY OF SHEFFIELD

The Impact of Technological Transfer from Foreign Direct Investment (FDI) on Host Economies – The Case of Albania

M. SKENDERI

Submitted towards the degree of Doctor of Philosophy

2012

School of Management
University of Sheffield, Sheffield, UK

South East European Research Centre
Thessaloniki, Greece

The Impact of Technological Transfer from Foreign Direct Investment (FDI) on Host Economies – The Case of Albania

Mamica Skenderi

A thesis submitted for the degree of Doctor of Philosophy

August 2012

ABSTRACT

THE IMPACT OF TECHNOLOGICAL TRANSFER FROM FOREIGN DIRECT INVESTMENT (FDI) ON HOST ECONOMIES – THE CASE OF ALBANIA

Mamica Skenderi

School of Management
The University of Sheffield

Technological transfer through FDI to domestic companies is at the center of current debates about industrial and economic development. The purpose of this thesis is to investigate the direct and indirect/spillover technological effects through FDI presence in the Albanian manufacturing sector. Thus, it examines whether technology, knowledge and skills are transferred to the domestic companies in Albania, which in turn enable them to learn, innovate and upgrade. The thesis also examines the mechanisms and determinants or conditions necessary for the occurrence of direct effects and spillover process. To serve this aim, we proposed an alternative conceptual framework and an integrated approach using firm level surveys and case studies, in order to find out whether the presence of MNEs stimulates direct and spillover effects. Based on the data provided by survey study, we computed a technological transfer index, which offers important insights on the extent to of technology transfer. In the context of an underdeveloped country like Albania, it is important to investigate the role of FDI. Anyone can imagine that Albania is a technically underdeveloped country and needs technology to stimulate industrialization and development. Ironically, the country has not attracted interest from researchers but constitutes a very interesting case in point given its specific characteristics. Results obtained showed positive direct technological effects from parent company to the subsidiary including direct transfer of technology, knowledge and skills, expertise, training. However, results provided limited evidence on indirect effects. This was as result of limited contact of foreign companies with local suppliers, customers and competitors. Nevertheless, in case that these contacts exist there is evidence of positive spillover effects. Spillover effects are expected to increase in the future. In general, FDI seemed to play an important role in the upgrading of the local manufacturing industry and in the industrialization of Albania.

ACKNOWLEDGMENTS

I would like to express my deep appreciation and thankfulness to my supervisor, Professor Philip Wright, for his intellectual support, invaluable advice and encouragement throughout the duration of my thesis. Similarly, I would like to express my gratitude to my co-supervisor, Dr. Costas Alexiou, for his comments, recommendations and guidance in my work. I would also like to thank Dr. Alexandros Psychogios for his support. Sincere thanks are expressed to South East European Research Centre (SEERC) for hosting me throughout the duration of the entire study, to the secretary and other staff of SEERC for their service and support.

I wish to express my gratitude to the Management School of University of Sheffield for the scholarship donor.

I would like to express special gratitude to the company chief executives, production managers and other staff of the companies that were included in this study. Their cooperation and time was greatly appreciated. I would like also to thank the officers from institutions and associations interviewed. I would also want to thank the Albanian Institute of Statistics and Bank of Albania for providing data on foreign investment.

Finally, I am deeply thankful to my family for moral support, encouragement on my work on this study. I am also thankful to all my friends and all those who in one way or another stimulated me directly or indirectly in the accomplishment of the thesis.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CEEC – Central East European Countries

FDI – Foreign Direct Investment

IMF – International Monetary Fund

INSTAT – Albanian Institute of Statistics

MNE – Multinational Enterprise

MNC – Multinational Corporation

TNC – Transnational Corporation

UNECE – United Nations Economic Commissions for Europe

UNSTAD – United Nations Conference on Trade and Development

OECD – Organization for Economic Co-operation and Development

SEEC – South East European Countries

THE UNIVERSITY OF SHEFFIELD

The Impact of Technological Transfer from Foreign Direct Investment (FDI) on Host Economies – The Case of Albania

M. Skenderi

Submitted towards the degree of Doctor of Philosophy

2012

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND: FOREIGN DIRECT INVESTMENT AND TECHNOLOGICAL TRANSFER

The role of technology has attracted significantly the attention of economic literature. It is believed that technological process is necessary to achieve high and sustained levels of economic development (Narula and Lall, 2006; Lin, 2009; Moran, 2011). This has to be achieved through a steady process of technological accumulation, which enables a continuous and increasing introduction of entirely new processes and new products. The debate on economic d

evelopment is of particular importance to the underdeveloped countries, which are trying to find ways to overcome levels of poverty and low productivity. It is widely considered that accumulation of technology mainly depended on foreign investment into a host country. Foreign investment is thought to result in the transfer of technology and other capital goods.

Foreign direct investment (FDI) is presumed to play an important role in transferring technology from home country into host country. Multinationals are responsible for much of the transfer of advanced technology. They are considered to be powerful and effective means in disseminating technology from developed to developing countries and they are often seen as the only source of new and innovative technologies that are usually not available in the underdeveloped markets (OECD, 2001; UNECE, 2001; UNCTAD, 2005). Technological progress plays a crucial role in the economic growth and can also stimulate economic development and industrialization. Many countries lack the research and development resources and skills required to develop their own indigenous product ad process technology, which is mainly relevant for the less developed economies. Therefore, FDI represents one important way to access advanced technology.

Technology that is transferred through FDI can take two forms, such as hard technology and soft technology (Portelli and Narula, 2003). Hard technology consists of physical investment: plants, equipments, and machineries. Soft technology includes: knowledge, management/organization system, and production processes. This technology is transferred from multinationals and is acquired, learned and diffused to the host/local economy. The concept of technology transfer has already a long and rich theoretical as well as research history. Multinationals posses firm-specific assets in the form of superior technology, as well as improved organizational and production forms, which make performance of foreign affiliates be better than that of domestic competitors (Hymer, 1976; Dunning, 1981; Markysen, 1998; Blomstrom and Kokko, 2002). However, these advantages are not fully internalized by foreign affiliates. Benefits may leak into domestic economy through two ways: intra-industry spillovers (in terms of indirect transfer of technology and organizational practices, as well as upgrading labour skills of domestic competitors) and inter-industry spillovers (transfer of knowledge and technology to suppliers and customers) (Blomstrom and Kokko, 1998). Spillovers to domestic firms will manifest themselves through higher levels of performance, particularly productivity. Though, negative effects of MNEs are acknowledged too by theory. Foreign firms have incentives to minimize information leakage to local economy, which in turn prevents the materialization of spillovers, as they are in direct competition with domestic firms. In addition, local enterprises may loose market share due to competition from superior MNEs, which may also lead them out of the market. Finally, foreign affiliates may prefer to cooperate with foreign suppliers, eliminating in this way local ones.

Literature has devoted a lot of research in direct and indirect/spillover effects through foreign investment. There is a huge controversy in the results provided by empirical evidence. One can conclude that the main reasons for inconclusive results are as follows: different studies have applied different methodologies; different studies have focused on different countries; different studies have studies effects of different multinationals; and finally, the complexity of spillover concept has made research even more problematic.

Evidence has shown that some countries (developed countries) are more successful in acquiring, learning and diffusing technological knowledge compared to other countries (developing and underdeveloped countries). If technological knowledge diffusion is to succeed, developing and underdeveloped countries need a level of technological capability. Even though it is difficult to define technological capability, it usually encapsulates a number of resources involving human resources or capabilities (skills, experience and knowledge) and institutional resources (the internal and organizational structures of a company, and the linkages with other companies and institutions) (Lall, 1996, 2002; Narulla and Lall, 2006). As it is complicated to interpret technological capability given that it is difficult to categorize resources, it is also difficult to understand and explain how it can by acquired by companies, industries and economies particularly in the case of underdeveloped economies. The process of technological capability needs time to take place (Arnold and Thuriax, 1997; Kim and Nelson 2000). Subsequently, the effects of technological transfer through foreign investment need time to emerge, occur and generate themselves.

Independently of the transmission channel through which transfer takes place, technology transfer is not easy. It requires effort and investment in resources on the side of the recipient to facilitate the adaptation of the technology before it is implemented (Tecce, 1977). On the other hand, the benefits of technology transfer are also difficult to determine. The recipient benefits in the short-run by increasing productivity, contributing to the development of new products, and by raising profits. While, in the long run the benefits depend on how much recipients learn from the technology and are able to develop their own capabilities (UNCTAD, 1999).

In this study, we intend to investigate and understand in which ways countries that have low technological capabilities can benefit from foreign investment and its technological transfer. However, this study will not be restricted to firm level analysis which is a common characteristic to most of the previous studies undertaken. Provided that technological transfer is a complex phenomenon, it requires to be examined by a similarly complex approach. While investigating the direct and indirect technological transfer effects, we will not take into consideration only the presence of multinationals, but also: the interactions with other local companies such as local suppliers, customers and competitors; the presence and role of institutions, infrastructure and non-market

collaborations, as well as the role of innovation. This will come out with a conceptual framework that will guide us for the rest of the study.

1.2 OBJECTIVES OF THE STUDY

The objective of this study is to investigate the direct and indirect effects of FDI in the Albanian manufacturing companies, in terms of transfer of "soft" technology (skills, expertise and processes) and "hard" technology (machinery and equipment) to Albania, and in turn how this transfer supports the upgrading of local companies' capabilities, operations, competitive position and performance. Thus, the effect of FDI is expressed in terms of two concerns: direct and indirect effect. The direct effect involves the impact of FDI to its affiliates (subsidiaries), whereas the indirect effect (spillovers effects) refers to the impact on domestic competitors (intra-industry spillovers), suppliers (backward inter-industry spillovers) and customers (forward inter-industry spillovers). By shedding some light on these important issues, the main objective of this study is to understand how multinationals affect Albanian manufacturing industry, and provide to the current literature evidence on FDI technological effects with an interesting case of a country that lacks studies of the sort. The specific study objectives are formulated as follows:

1) To test whether direct and indirect technology transfer is a real-world phenomenon in the Albanian manufacturing industry, and in case yes, to investigate the extent to which there is direct and indirect technology transfer from the presence of multinationals.
2) In case that foreign investment represents a significant channel for technology transfer, to establish the channels (mechanisms) for each type of technological transfer.
3) To determine the respective determinants or conditions under which technological transfer effects take place.
4) To provide some policy implications for maximizing the positive contributions of FDI in terms of direct and indirect technological transfer, and minimizing its negative effects.

1.3 CONTRIBUTIONS OF THE THESIS

The thesis will examine whether technology, knowledge and skills are transferred to the manufacturing companies in Albania, which in turn enable them to learn, innovate and upgrade. This goes beyond the classical spillover literature that tends to measure spillovers only by changes to production. According to spillover literature, production function is considered to be the dominant approach to measure and determine the impact of technological transfer from FDI (Caves, 1974; Globerman, 1979; Blomstrom and Kokko, 2002). As it will be shown at a later stage, production function conceptualizes spillovers as or total factor productivity, rather than learning, capability building, and innovation. The production function neglects for instance the efforts by local companies to learn, imitate production, processing, managerial, marketing and organizational techniques demonstrated to them by the foreign companies. Therefore, production function approach does not measure properly the direct and indirect technological effects from multinationals.

Hence, this thesis intends to fill in this gap in the spillovers literature, and take a more integrated perspective. Based on the conceptual framework that we will formulate, we will go behind aggregate data in order to understand the role of FDI in upgrading the local manufacturing sector. This will done by conducting integrated detailed research of FDI at an enterprise level, by taking detailed information and considering a number of factors and issues that can be involved in spillover estimation. This will in turn enable us to assess the dynamic interactions among foreign companies, domestic companies and institutions/government that result in the generation of technological spillovers. Moreover, based on the data provided by survey study, we will compute a technological transfer index, which offers important insights on the extent to which technology trasnfer occurs in the Albanian manufacturing industry, as well as on the determinants of transfer occurrence. The computation of the technological transfer index is, with no doubt, a unique approach and a very challenging exercise, given the nature of data. The integrated conceptual framework and the approach that will be conducted to investigate technological transfer can be considered as two of the contributions of this thesis.

The investigation will be done in the context of a technologically underdeveloped country like Albania located in the Balkans. Despite the dedication of literature on FDI

direct and spillover effects on both developed and developing countries, there is little extensive research on South East European (SEE) countries, and lack of studies in Albania. This country lacks evidence on direct and indirect technological transfer of FDI to host companies and little if anything is known on the role that foreign companies can play on the country. The lack of studies on FDI effects in Albania gives us a strong incentive to explore and evaluate this topic in this specific country. Thus, the third contribution of the thesis will be the extension of the analysis of the subject to countries where there has been no interest of research so far. FDI inflows have increased in value in the SEE countries in the last decade, showing prospects for increasing importance of this phenomenon in the region. The characteristics of this region, including adverse initial conditions, involvement of some of these countries in the unification process, and limited extensive discussion on the subject, call for more knowledge on the effects that FDI can play on local companies of these host countries. In addition, most of these economies are characterized by fragile economies with small markets, weak companies, poor capital, low levels of traditional skills, non competitive techniques, and with weak infrastructure and institutions. These factors demonstrate that the case of such countries is unique, but ironically have failed to receive any attention in the spillover literature. In this respect, the current study will address the case of one country included in SEE region, and particularly Albania. The results of this research would be of interest to scholars, regional economists, FDI specialists and policy makers in Albania, who design the policies for attracting FDI in the country and for promoting linkages with local companies.

To sum up, this thesis endeavours to be a valuable contribution to the ongoing and rapidly growing relevant literature and can hopefully fill the gap in three ways: first, by contributing to the on going literature by extending knowledge and developing an integrated conceptual framework that includes components that spillover literature fails to include; second, by providing evidence on how and why technology transfer takes place between foreign companies and local companies through detailed firm level survey approach, including sample survey and case studies, as well as by providing insights on the extent of technology transfer occurrence and it's determinants by computing the technological transfer index; and finally, by looking at a Balkan country, particularly Albania, that has not attracted any interest from researchers, but which constitutes a very interesting case.

1.4 DATA COLLECTION AND SCOPE OF THE STUDY

Data collection of the study was designed in three stages. The purpose of the first stage was to collect firm-level data from official sources in Albania in order to conduct econometric analysis and provide empirical evidence on spillover generation in the Albanian manufacturing sector. The first phase that included data collection for empirical analysis was carried out by visiting Albanian national institutions such as National Institute of Statistics (INSTAT) and Bank of Albania in March 2004, April 2005 and January 2006. However, these visits failed to meet the initial ambitions of collecting the firm level data due to problems encountered. First, during the first two visits both institutions declined to cooperate in proving the data due to reasons of confidentiality. Second, after efforts to persuade these institutions to cooperate, the firm level data that could be provided by INSTAT and Bank of Albania was impossible to be elaborated in the study, because there was lack of information on the ownership of the companies included in the database, and hence failed to distinguish local companies from foreign ones. Therefore, even though the initial intentions of the study were to collect the necessary data and produce empirical results on the relationship between FDI presence and productivity of local companies, the quality of data provided by INSTAT was insufficient to meet the objectives, hence it was obligatory to skip this step and move straight to the second stage of the study (see Table 4.2).

The second phase involved a firm level survey. A qualitative survey was conducted through face-to-face interviews in order to collect firm level data. A pilot study was conducted (April 2005) before the actual field work (January-April 2006) in order to pre-test the questionnaire design. This involved a test on the questionnaire by conducting face-to-face interviews with five foreign companies in different manufacturing sectors. This helped to detect some shortcomings that might cause any problems, and refine the questionnaire for the actual survey. The structured interviews with foreign companies including all manufacturing sectors, were carried out during two field trips that took take place by end of 2005 and start of 2006. Interviews were carried out using a questionnaire guided technique.

The third stage involved case studies that were selected based on the survey done in the second stage. Based on the survey sample, some of the companies were selected for a deeper investigation on the generation of technological spillovers by collecting qualitative information. The selection of the case studies was based on a criterion which was biased towards positive information obtained in the survey regarding technological spillovers and linkages of the foreign companies with local economy. Specifically, two most important sectors with FDI were selected, and for each sector there was a selection of two companies. Case studies were carried out during the third fieldtrip in 2006, and were undertaken by face-to-face interviews coupled with company visits to get familiar with production technology and mechanisms in use. Moreover, in order to explore in more depth the impact of FDI companies on local companies, structured questionnaires were addressed to the largest local competitors, suppliers and customers of the foreign companies included in the case study (the case study companies provided lists of their suppliers, customers and competitors, as well as their contacts including address, telephone and mail (when available). This enabled to provide a clearer picture of what was happening to these domestic companies as a result of the presence of foreign companies. Finally, in order to shed further insight in understanding the role of institutions and government in the process of spillover generation, a few institutions and local agencies were selected from businesses associations, government departments and FDI promoting agencies.

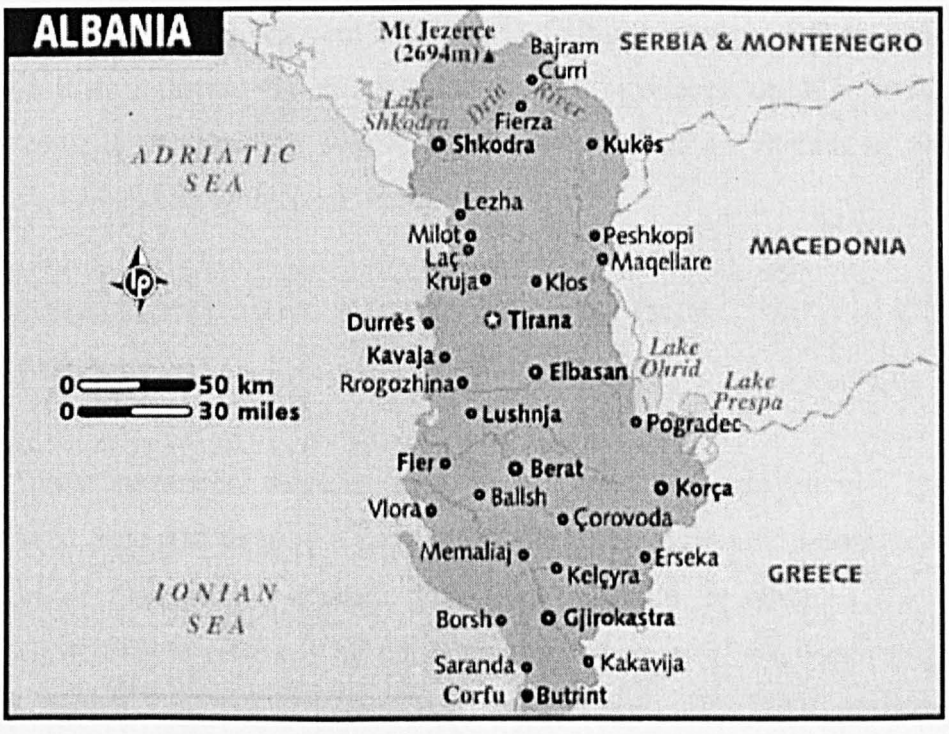
1.5 LIMITATIONS OF THE STUDY

Data inadequacy is the basic limitation of this study. In general, gathering data in Albania is a difficult exercise. The data gathered by national institutions on FDI in Albania were very limited. As mentioned earlier, this study was designed in three stages. The purpose of the first stage was to collect firm-level data from official sources. However, the intentions in this stage as the firm level data that could be provided by local institutions was impossible to be elaborated in the study, because there was lack of information on the ownership of the companies included in the database, and hence failed to distinguish local companies from foreign ones. In order to deal with the Albania's specificity, we decided to go beyond the aggregate data and conduct the next two stages which include firm level interviews with foreign companies, followed by specific case studies to complement the information gathered by surveys.

1.6 THESIS STRUCTURE

The thesis is organized in eight chapters, which comprise an introductory chapter that briefly summarized the thesis (Chapter 1), a chapter on literature and empirical evidence on technological transfer through FDI (Chapter 2), a chapter on the development of FDI in Albania (Chapter 3), one methodology chapter that presents the approach of this study (Chapter 4), one chapter that provides results from foreign company surveys in the Albanian manufacturing sector (Chapter 5), one chapter that provides econometric results based on data gathered from foreign companies' surveys (Chapter 6), one chapter that presents case studies with foreign companies and surveys with local companies (Chapter 7), and a concluding chapter (Chapter 8) which illustrates the summary of the findings, as well as outlines some policy recommendations and suggestions for future research work.

Figure 1.1 Map of Albania



Source: Lonely Planet.com

CHAPTER 2

THEORY AND EMPIRICAL EVIDENCE ON DIRECT AND INDIRECT TECHNOLOGICAL TRANSFER OF FDI

2.1 INTRODUCTION

Chapter 1 presented a brief introduction for the study. It encompassed background on foreign investment and technology transfer, followed by objectives of the study, contribution of the thesis, data collection and scope of study, limitations of the study and finally the thesis structure. This chapter presents analysis of FDI and technological spillover literature, as well as empirical evidence that comes from this literature. Emphasis is put in the critique of this literature and on the methods used so far to investigate the technological transfer through FDI. This chapter begins with background information on foreign investment including definitions, modes of entry, and overall impact of FDI, followed by theory and empirical evidence on FDI technological transfer, critique on previous researches, presentation of an alternative conceptual framework, and ending with conclusions.

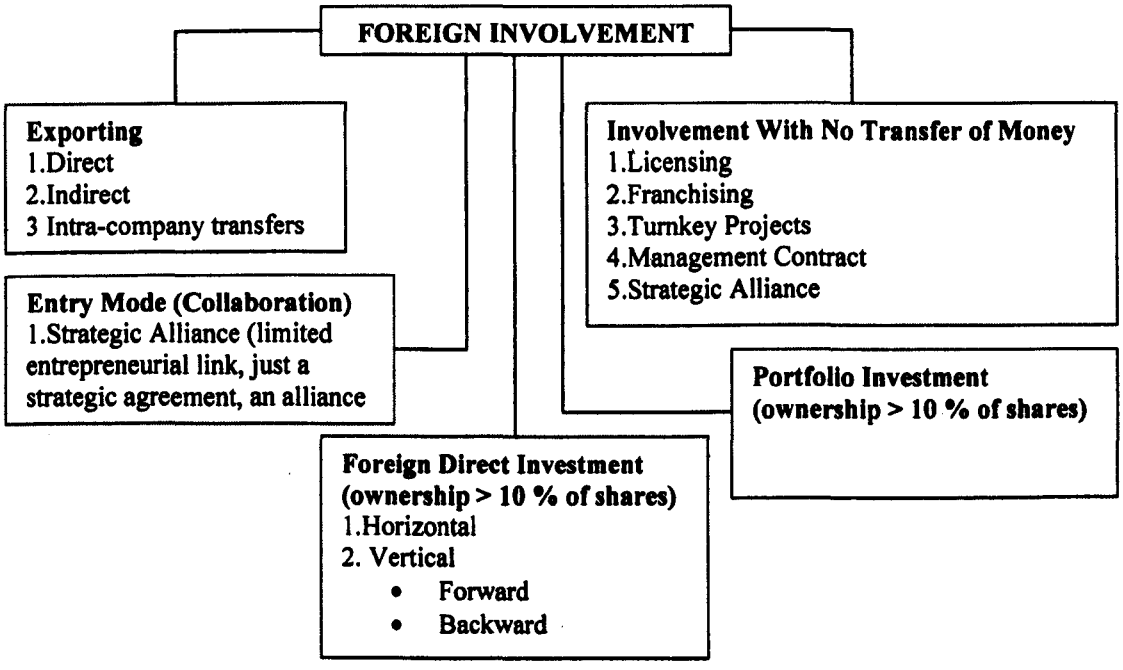
2.2 DEFINITIONS, MODES OF ENTRY, AND IMPACT OF FDI ON HOST ECONOMIES

Foreign Direct Investment has turn out to be one of the main drivers of globalization and has been accorded to have a substantial role in the economic transformation and integration of Central and Eastern European transition economies. The growing importance of FDI is reflected by the continuous increase of its flows in the world economy, which has already dominated that of trade. The FDI phenomenon is accompanied by an increasing interest in scholars, economists, politicians and specialists concentrating on two main areas such as determinants of FDI flows and effects of FDI on host and home countries, measured both at a microeconomic and

macroeconomic level. The focus of the present research is the second area of concern, and more specifically, the examination of FDI impact on host countries.

Foreign investment is one out of various forms of entering a foreign market (see Figure 1.1). Two efficient forms of international flows, vastly analyzed by international theory, are trade and licensing. Several theories have addressed the question of why a firm might decide and why is it profitable to undertake direct investment in a foreign country, rather than exporting or licensing (Horstman and Markusen, 1987; Ethier and Markusen, 1996). A number of scholars have proposed and tested many theories, particularly in the last 40 years, offering their contributions to the development of FDI theory. Consequently, many authors attempted to review, comment and criticize the theories seeking to explain FDI. Among others,[1] Bitzenis (2004) grouped alternative FDI theories as based on: Market Imperfections (Hymer, 1960, 1968; Williamson, 1973), Internalization (Dunning, 1973, 1981, 1993, 1995; Rugman, 1980, 1982; Buckley and Casson, 1985, 1991), Company's Strategic Behavior (Kogut, 1985; Aliber, 1970; Graham, 1978; Knockerbocker, 1973), Trade Theories (Ricardo; Vernon, 1966, 1979 etc.), New Trade Theories (Krugman, 1991; Helpman, 1984).

Figure 2.1 Foreign Involvement



Source: Adopted from Bitzenis (2005)

[1] See also Caves (1996) for a literature review on multinationals and Cantwell (2000) for a thorough presentation and evaluation of various theories.

One of the most quoted and well-known theories with the greatest explanatory power on FDI and MNEs is Dunning' s Eclectic Paradigm. Once an MNE invests abroad, it faces a number of obstacles and incurs some costs such as transportation costs, communication costs and cultural differences. On the other hand, the MNE must possess some advantages over domestic firms that have to outweigh these costs. According to the eclectic theory, a firm's decision to invest in a foreign country is determined by the existence of three different types of advantages: ownership advantage, location advantage and internalisation advantage, therefore the acronym OLI (Dunning, 1981).[2] By ownership advantage, Dunning means that the firm must own some unique competitive advantages that overcome the disadvantages of competing with foreign firms on their home countries. Some examples of this advantage may be firms' unique assets such as technological, marketing, or management know-how; a brand name; the benefits of economies of scale, etc. The explanation offered for the location advantage is that ownership advantages are possible to move between different locations and can therefore be transferred to a foreign country. The firm might combine these unique specific assets with resource endowments or assets tied to the foreign location. Undertaking the business activity in a foreign location must be more profitable than undertaking it in a domestic location. Finally, internalization advantage incorporates that for FDI to take place, the ownership advantage also has to be profitable to internalise by the firm rather than leaving the market to take care of the transaction. The firm must benefit more from controlling the foreign business activity than from hiring an independent local company to provide the service. If an internalization advantage is missing the firm will serve the foreign market through exports rather than through investing in order to produce locally. In order for FDI to take place all three advantages must be present simultaneously. Dunning's theory presents a useful explanation how location factors affect the nature and the direction of FDI.

Before proceeding to the presentation of recent trends and data on foreign direct investment flows, as well it impact on host economies, it is useful to define the term FDI.

[2] Many scholars have discusses Dunning's eclectic paradigm. See, among others, Markusen (1995).

2.2.1 Definitions – Portfolio Investment, Horizontal and Vertical FDI, Backward and Forward Vertical FDI

Foreign investment can be divided into two categories: foreign direct investment and portfolio investment. One can observe that there does not exist a general definition on FDI, however, most definitions share common characteristics that distinguish it from portfolio investment. In his analysis of FDI concepts and trends, Lipsey (2001) pointed out that definitions of FDI have been changing over time and across countries, and different definitions are provided for purposes of balance of payments and research studies. IMF (1993, p. 86) and OECD (1996, p. 2) provide this definition: "Direct investment is the category of international investment that reflects the objective of obtaining a lasting interest by a resident entity ("direct investor") in one economy in an entity ("direct investment enterprise") resident in an economy other than that of the investor. The lasting interest implies the existence of a long-term relationship between the direct investor and a significant degree of influence on the management of the enterprise. Direct Investment comprises both the initial transaction establishing the relationship between the investor and the enterprise, as well as all subsequent transactions between them and among affiliated enterprises, both incorporated and unincorporated". Whereas, UNCTAD (2001) present FDI as: "an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate). FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy".

The key terms common to both definitions that distinguish FDI from portfolio investment are "lasting interest", "long-term relationship" and "significant degree of influence". Putting it in other words, FDI implies the ownership (whole or partial) of a company in a foreign country, other than in home country. A "lasting interest" in foreign entity is identified with at least 10 per cent ownership or control of an enterprise by foreign direct investor. While, the other terms "long-term relationship" and "significant degree of influence" imply that the main interest of FDI is to establish permanent commercial relations and at the same time to exert active managerial

influence and control over the local subsidiary. When a firm undertakes FDI and sets up foreign affiliates, it becomes "multinational enterprise" (MNE).[3] The direct foreign investor may be an individual, a private or public enterprise, a government body, or an associate group of individuals or enterprises (IMF, 1993). FDI is generally alleged to bring in the host country a bunch of productive assets such as long-term foreign capital, technology, skills, entrepreneurship, innovative capacity, as well as organizational, managerial, marketing and export know-how.

On the other hand, portfolio investment involves short-term activities undertaken by institutional investors (individuals, companies, governmental entities) through the equity market (investments in foreign instruments such as government bonds and stocks) (IMF, 1993). In contrast to FDI, portfolio investment is directed towards short-term profits or capital gains and involves a smaller share of ownership (smaller that 10 per cent), aimed at a short time horizon. In general, portfolio investors take a passive role and are not directly involved in the entrepreneurship, management and decision making process of the foreign business entity. Overall, it has been suggested that FDI is the most favorable form of flow due to positive externalities that arise through the dissemination of technology, as well as due to the fact that FDI is less sensitive to global shocks than portfolio investment, since it is more stable and has no fixed interest payments or repayments (UNECE, 2001).

Furthermore, it is necessary to make the distinction between two different types of FDI, which are horizontal and vertical FDI (Caves, 1971; Markusen, 1995; Hanson et al., 2003).[4] Horizontal FDI involves foreign investment in different countries in products or services similar to those that the MNE produces in its home market. Therefore, this category is called horizontal FDI as the firm duplicates the same activity in various countries. MNEs decide to undertake horizontal FDI, rather than serving foreign markets through exporting, because of high costs associated with exports, such as trade barriers and transportation costs. Hence, avoiding these costs is the main motivation lying behind horizontal FDI. Whereas, vertical FDI arises when MNEs separate production chain geographically. In this case, the production process consists of

[3] The terms multinational enterprise (MNE), multinational corporation (MNC) or transnational corporation (TNC) can be used interchangeably.
[4] Caves (1971) was among the first scholars to provide a distinction between horizontal and vertical FDI, even though it is difficult to offer a clear-cut separation between the two forms.

multiple stages with different input requirements and if there are a variety of input prices across countries, then it is in the MNE's interest to split production process. Therefore, as Hanson et al. (2003) argue, the fragmentation of the production process is generally done in order to take advantage of the differences in factor costs (for instance, low-skilled labour intensive and low technology parts of the production process are undertaken in unskilled but plenty labour countries). In particular, the MNE may provide inputs to domestic firms, or it may sell abroad the outputs of domestic firms. Therefore, both these functions can be divided two other groups: backward and forward. Backward FDI occurs when the MNE sources inputs from its own domestic supplier. On the other hand, forward FDI exists when the MNE provide inputs to local customers, which may be final or intermediate customers.

2.2.2 Entry Modes and their Capability to Affect Host Economies

Once a multinational decides to undertake FDI, it has to make important strategic decisions such as the entry mode and the level of control over the local subsidiary. There are various entry modes that a foreign company might pursue (see Table 2.1), however, the dominant ones are greenfield investment, joint venture and acquisition.

Table 2.1 Entry Modes Through FDI

1. **Acquisition** - Acquisition of part or all of an existing company
   - Minority Stake, >10%, <50% of stake
   - Majority Stake, >50% of stake
   - Wholly Owned Subsidiary, = 100 % of stake
2. **Joint Venture** - Partnership with one or more local firms (two or more firms agree to work together and create a jointly owned firm and share business profits, risks and losses)
   - With foreign partners
   - With foreign and local partners
3. **Greenfield FDI** - The foreign firm starts everything from scratch establishing a new entity and providing new facilities
   - Wholly Owned Subsidiary
   - Joint Venture
4. **Brownfield** - Foreign acquisition of an existing company but resources of investment company are combined with those of the acquired with a domination of investment company
   - Wholly Owned Subsidiary
   - Joint Venture
5. **Privatization** - The foreign firm gets involved in privatization deals and acquires state-owned company/companies
   - Minority Stake, >10%, <50%
   - Majority Stake, >50%
   - Wholly Owned Subsidiary, Acquisition of 100 % of stake
   - Joint Venture Acquisition
6. **Strategic Alliance (Joint Venture)**

7. **Merger and Acquisition** (M&A) - The merger of two or more companies, the one usually larger than the other(s) aiming at restructuring of existing capacities, particularly of small companies
8. **Representative Office** - Limited invested funds
    - Wholly owned office
    - Joint venture
9. **Subsidiary (Branch)**
    - Wholly owned
    - Joint venture
10. **Fade Out or Planned Divestment Agreement**

Source: Adopted from Bitzenis (2005)

Entry mode choice is considered as an important element of the strategy followed by MNEs that also influence the extent to which FDI affects the host country. Hence, entry mode choice is recognized as an important impact determinant. Investment modes such as greenfield investments and acquisitions have been viewed to have a significant capability of affecting the host economy, with greenfiled investment having potential for greater impact than acquisition (Williams, 1997). Thus, the impact on the host country will be positively associated with the range of value-added functions undertaken by the subsidiary and the number of strategic decisions taken. Greenfield investments provide new facilities, enlarge supply capacity, and increase competition in the market; whereas acquisitions provide the fastest way of acquiring assets in foreign markets, contribute more to restructuring and upgrading of existing capacities and, most important, offer greater potential for knowledge spillovers as they have more developed linkages with local and regional suppliers (due to existing links of the acquired company) (UNCTAD, 2000; Wes and Lankes, 2001; Mattoo et al. 2002). Further, regional and national politicians believe that greenfield investments create more new jobs than acquisitions, and attracting greenfield investments in regions with high unemployment levels is a desirable solution to their economic problems (Pavlenik, 2004). Others believe that acquisitions can bring better corporate governance mechanisms, including better organizational and managerial skills, which contribute in the facilitation of the efficient functioning of capital markets and promote the efficient allocation of resources (OECD, 2001). Concerning some drawbacks that each form of entry can have, one could say that greenfield investment rely mostly on imported inputs (as it is new in the market) limiting in this way the potential for linkages with local suppliers and customers. On the other hand, acquisitions are often accused that they involve only a change in ownership of the acquired asset with no new addition to the capital stock or the productive capacity of the host country, coupled with the belief that

the acquisitions can increase concentration, leading to anti-competitive behavior and also reinforcing existing monopoly positions (UNCTAD, 2000; Wes and Lankes, 2001).

However, despite the important entry mode choice of greenfield investment versus acquisition, the MNE has also to decide on the ownership and the level of control over the foreign affiliate. Therefore, foreign investors have to choose between joint ventures with local partners or wholly owned subsidiaries. Joint ventures present one popular mean of ensuring technology transfer (OECD, 2001) and are preferable when the company seeks for risk diversification, reduction in capital and in start-up costs (Williams, 1997) whereas in case of wholly owned subsidiaries, the foreign investor can have full control and power over the entity.

Empirical evidence from Central and Eastern Europe shows that entry mode of MNEs into these countries is mainly through greenfield investment, rather than mergers and acquisitions. The latter, takes place mostly in the developed countries, something that is shown by an increasing trend and importance of mergers and acquisitions worldwide (UNCTAD, 2004). Meyer (1998) confirmed the argument that greenfield investment as the preferred entry mode for Central and Eastern Europe. His study of a sample of projects for 1994 showed that about 53 percent of these projects chose green-field investments as entry mode. In contrast to the well-known view that a speedy entry can be achieved via acquisitions, Meyer found that entry into fast growing industries occurs through green-field investments.

Given the impact that these entry modes might have, particularly to transition economies, many scholars have attempted to answer the traditional question of which form of entry can provide the higher potential impact on host economies. However, as Kalotay (2001) argues, the exact question that needs to be is which entry mode provides more positive effects and under which specific conditions or in which specific industries. A number of studies attempted to address these questions. For instance, Zemplinerová and Jarolim (2001) examined the impact of mergers and acquisitions, as well as greenfield manufacturing FDI in the Czech Republic, through a statistical and regression analysis. The authors classified the sample of firms by ownership (domestic and foreign) and by mode of entry (green-field or M&A). The results showed that

greenfield firms were, on average, smaller in size than foreign acquisition firms. Also, the investment rate was found to be higher in case of the acquired firms. Even though the authors showed that both kinds of foreign firms performed well enough, the productivity growth of foreign firms was slightly higher in case of M&A firms. Moreover, both groups of foreign firms affected positively the productivity growth of domestic firms. However, in industries with insufficient import competition, the positive effects from foreign presence could be cancelled out by high market concentration (adverse competition effects).

Furthermore, Wes and Lankes (2001) in their study in a number of countries in Central and Eastern Europe and Central Asia, found that greenfiled projects are larger and more capital intensive than M&A investments. Yet, the authors suggested that host countries could drive benefits from both types of investment. Survey evidence implied that even though M&As may not necessarily create new assets, most M&A companies had capital expansion plans. Both, M&As and greenfield projects can offer access to technologies that local firms cannot do by their own. Moreover, the survey showed that while greenfield enterprises rely more on imported supplies, M&As have a more developed network of local and regional suppliers. Subsequently, greater linkages in the case of M&As provide greater potential for FDI spillovers rather than in the case of greenfield investments.

2.2.3 Impact of FDI on Host Economies

FDI is assumed to play a substantial role and is considered to be an important catalyst in the economic development and growth of host countries, considerably important for the transformation of countries in transition. Governments have liberalized their regimes and pursued various policies to attract foreign investment, focusing on the issue of how to track appropriate domestic policies so as to fully reap the benefits of MNEs' presence in the domestic economy. These issues are particularly essential for the economies of Central and East Europe, as FDI can support their efforts to achieve levels of development comparable to those of western countries and as Hunya (2002, 2005) put it, foreign investment accelerates the transformation process, and improves competitiveness and productivity in the region. A well-established literature has explored the consequences of FDI and has provided that this phenomenon has

significant effects in a host country, recognizing both, positive and negative effects. In other words, countries can take advantage from economic benefits of FDI and in the same time try to minimize the costs associated with this phenomenon. Wells (1998, p. 102) claims, "*...some FDI is good, almost certainly some is harmful*". The most quoted effects of FDI are as follows: the technological-transfer effect, effects on economic growth, effects on social levels and poverty, effects on balance of payments (capital and current account), effects on competition, effects on employment, effects on enterprise development, effects on environment, and effects on national independence (see Table 2.2 for a summary of potential positive and negative effects of FDI in host economies, with positive effects that counterbalance the negative ones, on the whole).

Table 2.2 Potential Positive and Negative Effects of FDI on Host Countries

Potential Positive Effects of FDI	Potential Negative Effects of FDI
Enterprise level	***Enterprise level***
- Transfer of advanced technology, know-how, managerial skills, organizational forms, export behavior	- Limitation of technology leakage, or transfer of too few or wrong kind of technology, resources and assets
- Assistance to human capital formation by injecting new management styles, work cultures and training programs, and through staff turnover from foreign to domestic firms	- Inability to adjust to local needs and business cultures
- Access to investment capital	- Transfer of R&D abroad
- Expanded production	- Limit exports and foreign markets
- Improved productivity	***Wide Economy Level***
- Access to international trade and distribution networks	- Taking away from local companies skilled and semi-skilled workers
- Improved competitive business environment leading to improving overall productivity and efficiency	- Take advantage of cheap local labour
- Increased R&D	- Adverse effects on competition, loss of market share or even exit (crowing-out effect)
- Enhanced enterprise development	- Restricting local production to low-value activities
Wide Economy Level	- Regional specialization in low-skilled, labour-intensive production
- Increased employment by saving of existing jobs and creation of new jobs	- Relying on foreign suppliers rather than domestic ones restricting spillovers
- Improved tax revenue (after tax holiday period) due to higher income	- Lower government tax revenues due to abuse of transfer pricing from foreign companies
- Increased wages	- Higher imports of raw materials and work in process worsen the current account, while repatriation of profits to the parent company and repayment of loans worsen capital account
- Improved growth (GDP) or real income	- Environmental pollution due to increased production and consumption of polluting goods (e.g. extractive and heavy industries)
- Improved exports	
- Improved capital account	
- Increased local investment due to access of foreign capital	
- Labour training	

- Improved environmental and social conditions - Enhancement in institutional system -Technology transfer and spillovers - technological, productivity, wage and export spillovers to local and regional economy -Economies of scale	- Loss of national independence as local economy is controlled externally

Source: Adopted from Dunning (1994), OECD (2001) and Pavlenik (2004)

2.2.3.1 Technological Transfer Effect[5]

MNEs are responsible for much of the transfer of advanced technology. They are considered to be powerful and effective means in disseminating technology from developed to developing countries and they are often seen as the only source of new and innovative technologies that are usually not available in the underdeveloped markets (OECD, 2001). Technological progress plays a crucial role in the economic growth and can also stimulate economic development and industrialization (UNECE, 2001). Many countries lack the research and development resources and skills required to develop their own indigenous product ad process technology, which is particularly true for the less developed economies. Therefore, FDI represents one important way to access advanced technology. The concept of technology transfer has already a long and rich theoretical as well as research history.

The technology that is transferred through FDI can take two forms: hard technology and soft technology (Portelli and Narula, 2003). Hard technology consists of physical investment: plants, equipments, and machineries. Hence, hard technology is supposed to include aspects of embodied knowledge in the machinery and equipment. On the other hand, soft technology includes: knowledge, management/organization system, and production processes. Soft technology is supposed to include aspects of disembodies knowledge as a result of the transfer of operation skills. FDI can affect the enterprises of the host country, by transferring technology, in two ways: directly and indirectly. Foreign enterprises constitute in a direct injection of foreign capital, technology and foreign management sills to their affiliates, which in turn leads to higher productivity. This is referred as the direct effect of FDI. The positive direct effect of FDI is examined

[5] The technology transfer and spillover effects, as well as the empirical findings on this subject will be extensively analysed in Chapter 2, which is even the focus of this research.

and confirmed empirically in a vast number of studies. However, foreign enterprises do not affect only their affiliates, but also other firms in the same sector or even in other sectors. The indirect effects are referred as spillovers or externalities. According to Blomstrom and Kokko (1998), spillovers may take the form of positive and negative externalities arising from inward foreign investment. Spillovers can occur: internally between firms that may be in direct competition with the foreign firms (intra-industry spillovers); and externally (inter-industry spillovers) to other firms in the host economy, which are vertically integrated with the foreign enterprises, such as suppliers (backward spillovers) and customers (forward spillovers).

There have been identified at least four ways in which technology and know-how might be diffused from foreign enterprise to other firms in the economy: demonstration – imitation effect, competition effect, foreign linkage – cooperation effect, and training effect (Teece, 1977; Narulla and Lall, 2006). First, the proximity of local firms to foreign enterprises can sometimes lead to demonstration effect. When foreign firms introduce new products, processes, as well as organizational forms, they provide to other local enterprise a demonstration of increased efficiency and productivity. Second, the transfer of capital and technology stimulates competition in the local market. Domestic enterprises face a greater competitive pressure, which induces them to introduce new products in order to protect their market share and adopt new management methods so as to increase productivity. Third, cooperation between foreign enterprises and upstream suppliers and downstream customers increases spillovers. So as to improve the quality standards of their suppliers, backward linkage channel (vertical spillovers) operates through: direct knowledge transfer from foreign enterprises to their local suppliers, as well as higher requirements regarding product quality and on-time delivery, which in turn provide incentives to domestic suppliers to improve production and technology. Fourth, knowledge can be transferred indirectly through the movement of labour. When MNEs subsidiaries hire domestic workers, the human capital may be enhanced further through organization of training facilities and on-the-job learning. Consequently, indirect effects arise when local personnel trained in the foreign subsidiary decide to leave the firm and move to other domestic firms or help establish new business. Moreover, benefits may arise too if superior management skills of foreign MNEs stimulate local suppliers, distributors and competitors to improve their own management skills. Therefore, human capital can spillover from foreign enterprises

to other enterprises as skilled labour moves to domestic firms or decide to open their own enterprises.

However, spillovers "depend crucially on the conditions for local firms" (Blomstrom, 2002, p. 177). Positive spillovers are realized only if local firms have adequate social capabilities and absorptive capacities to absorb foreign technologies and skills. Thus, for relatively backward countries, it is often difficult to build the necessary social capabilities and absorptive capacities that allow domestic firms to take advantage of the spillovers potentially available in the economy (UNECE, 2001). Literature has found mixed empirical evidence on the existence of spillovers. Though, evidence is strongest in case of vertical linkage, particularly "backward" linkage with local suppliers (foreign firms provide them with technical and financial assistance, training and other support).

There are two major approaches to measure direct and indirect effects of FDI: survey studies (case studies and detailed surveys) and econometrics. Some of the most important studies in the first category are those of PA Cambridge Economic Consultants (1995), Crone and Roper (1999), Mirza, Giroud and Köster (2003), Mirza and Giroud (2004), Ferencikova (2003), Giroud and Mirza (2006) and Blalock and Gertler (2008). Some of these studies provided evidence on positive spillovers (particularly on backward linkages with suppliers) and some others failed to show any benefit of host companies, implying for inconclusive evidence on technology spillovers from foreign firms to the domestic firms.

Taking in consideration econometric studies, some of these studies that have provided evidence for positive intra-industry spillovers are those of Caves (1974) on Australia, Globerman (1979) for Canada and Blömstrom and Persson (1983) for Mexico. Another group of studies is the one suggesting that positive spillovers' generation depend on certain conditions of domestic firms. Among others, Cantwell (1989) Kokko (1994), as well as Kokko, Tansini and Zejan (1996) found that spillovers depend on technology gap between foreign and domestic companies; Girma (2002), Girma, Greenway and Wakelin (2001), and Haskel, Pereira and Slaughter (2002) concluded that spillovers depend on productivity gap; whereas Barrios et al. (2002), Yudaeva et al. (2003) Marin and Bell (2003), Chudnovsky, López, and Rossi (2004), Kolasa (2007) and Sinani and

Meyer (2009) provided for the important role of absorptive capacity in the manifestation of spillover effects. On the other hand, Kugler (2000), Schoor and Van der Tol (2002), Smarzynska (2004), Niccolini and Resmini (2006), Lesher and Miroudot (2008) and Havranek and Irsova (2010) suggested that inter-industry spillover effects exist particularly in the case of backward linkages, which are more important than intra-industry spillovers.

Nevertheless, not all of the foreign enterprise activity leads to positive spillovers. Foreign enterprises can have negative impact to their affiliates and reduce spillovers from FDI when they: limit knowledge and technology leakages; provide affiliates with too few or wrong kind of technology; eliminate domestic suppliers by relying on foreign ones; eliminate competition by "crowding out" local producers; limit exports to competitors and limit production to their needs (Dunning, 1994; Williams, 1997). The most quoted papers on negative intra-industry spillovers are those of Aitken and Harrison (1999) and Haddad and Harrison (1993).

2.2.3.2 Effects on Economic Growth

FDI is considered to be an important catalyst of economic growth.[6] From a theoretical perspective, this view has been supported only by recent developments in economic growth theory, endogenous growth theory. Whereas, according to previous theory, such as neo-classical approach, FDI influences only the level of income (capital per person), but does not influence the long-run output growth rate. However, the effect of FDI on income is only temporary, which in turn leaves long-run growth unchanged (Solow, 1957 and De Mello, 1997). It has been argued that technological progress and accumulation of factors of production, considered as exogenous factors, are the only ways through which long-term growth in output can arise (Saggi, 2001). Therefore, FDI will be positively correlated with output growth only if there is a positive and permanent effect of the FDI on technology.[7] Thus, the recent growth models - endogenous growth theory - emphasize that FDI promotes economic growth in the host

[6] Researchers that have attempted to investigate the relationship between FDI and growth, often use proxies for growth variables such as real GDP and GDP per capita, and in some cases they also use total asset formation, capital formation, productivity and domestic investment.
[7] Grossman and Helpman (1991) have provided a thorough discussion of the role that technology plays in promotion of growth.

countries through variables such as technological improvements (R&D), gains in efficiency and productivity, as well as human capital.[8] The assumption behind this theory is that FDI is responsible for much of the transfer of advanced technology, technical change and learning from developed to developing, as well as transition economies. Growth in the long run can also be sustained via externalities and spillover effects, which enhance returns in production. FDI is considered as an important source of human capital and technology transfer. More specifically, FDI encourage the incorporation of new technologies in the production systems of host economies, introduce new organizational forms, establish new management and marketing processes, bring in new forms of human capital, as well as increase the variety and quality in products. Furthermore, by providing access to finance and to a wider range of products, FDI can also promote growth in productivity (UNECE, 2001). These effects can be created directly (direct impact of FDI to its affiliate) or indirectly (spillovers). The existence of technology transfer and spillovers to local enterprises makes possible long-term growth. To sum up, the endogenous growth models provide a framework in which long run growth in output is a function of technological progress. FDI can promote long run economic growth in the host economy through technology transfer and spillover effects. As Lipsey (2002) claimed, one of the main reasons for examining productivity and technology spillovers, is to figure out impact of FDI on the economic growth of the host country. While Fortainer (2007) asserted that it is through skill and technology and structural effects that multinationals effect economic growth of host countries, however, whether this effect is, positive or negative is a passionately debated question.

A growing theoretical and empirical literature has been encouraged by the possibility that FDI can boost growth in the long run. Nevertheless, there is still a lack of consensus and continuing debate on the role of FDI on economic growth. Even though FDI is believed to be a key ingredient for successful economic growth in developing and transition countries, the results of a rapidly growing number of empirical studies on the relation between FDI and growth remain controversial. Lensink and Morrissey (2000) stress that the evidence on FDI contribution to economic growth is encouraging but not persuasive. Recent studies based on endogenous growth theory point out that

[8] Romer (1986) and Lucas (1998) were among the pioneers contributing on the evolution of endogenous growth theory.

long run growth is positively affected by the transfer of technology and technology spillovers but the size and the extent of such impact varies across countries depending crucially on other factors specific to the local economy, for instance: the level of human capital, absorptive capacity of domestic firms, economic and political stability, trade policies, institutions, infrastructure and domestic investment (OECD, 2001). The following part of the section will refer to some of the most quoted empirical studies that have contributed to the subject. Most of these researches have used traditional causality tests employing time series or panel data.

Balasubramanyam, Salisu and Sapsford (1996)[9], employing endogenous growth model and using cross sectional data for 46 developing countries, resulted in two main findings. First, results showed that positive effects of FDI on economic growth are stronger in those countries that followed an export promotion regime, rather than import substitution policy. This finding suggested the importance of trade policy as a determinant of the magnitude of FDI impact on growth. Second, it was found that in countries with export promoting policies, the elasticity of output with respect to FDI exceeded that of domestic capital investment, suggesting that FDI has a stronger effect on growth, compared to domestic investment. Similar findings were provided by Borensztein, Gregorio and Lee (1998), who applied a cross-country regression in order to analyze FDI flows from industrialized countries to 69 developing countries, covering 1970-1989. Findings strongly imply about the substantial role of FDI as a channel of technology transfer, contributing more to economic growth than domestic investment. However, FDI had stronger effects on economic growth when the host country had a minimum threshold stock of human capital (proxied by the educational level), needed to absorb efficiently superior technology. Effects of FDI on economic growth appeared to be significant only when human capital was included as explanatory variable. Rather than using time averaged cross-sectional estimation approach, like the two above-mentioned authors, De Mello (1999) used time series cross-section panel data to investigate the impact of FDI on capital accumulation and output growth in a sample of OECD and non-OECD countries for the period 1970-1990. The results showed that FDI stimulates growth through technological upgrading and spillovers, however, the size of

[9] The authors tested the hypothesis of Bhagwatti (1978) that the extent FDI affects economic growth depends on the trade policy of the host country.

FDI impact on growth was depending on the degree of complementarity and substitution between FDI and domestic investment.

Taking in consideration developing economies, De Mello (1997) and Dees (1998) found a positive correlation between FDI and economic growth for Latin America and China, respectively. Buckley et al. (2002) found also for China that FDI favors growth in the economically stronger provinces and that the full benefits of FDI are realized when there is a high competition between foreign and local firms. Reichert and Weinhold (2001) showed for 24 developing countries, that the relationship between FDI and growth is highly heterogeneous. However, the impact of FDI on growth was higher in open economies. In general, FDI seems to have a smaller effect on growth in the less developed countries, because developing countries need to have reached a threshold level of development in education, technology, infrastructure, and financial markets (OECD, 2002). Hence, these factors are important prerequisites for positive impact of FDI on economic growth. The absence of a minimum level of development might be serious barriers keeping a country away from reaping the full benefits of FDI. In the same vain, Hood and Young (1993) noted that no clear generalizations are possible from the relationship between FDI and growth in developing countries, neither in regard to the impact of multinationals on national income, nor in respect to other development goals. Rodrik (1999) was among the ones to argue that the effect of FDI on economic growth is weak and supported the idea that the relation between FDI and economic growth is driven by reverse causality, implying that economic growth tends to attract FDI, rather than the other way round. In particular, MNEs tend to locate in the more developed, productive and profitable economies, which is reflected by the basic fact that around three quarters of world FDI inflows are positioned in developed countries (Pavlenik, 2004).

Finally, addressing to transition countries, studies on the impact of FDI on GDP are lacking, given that the time series covering the transition years are still too short for the types of models applied to the developed and developing economies.[10] Notable exceptions are the recent studies of Kroska (2002), Campos and Kinoshita (2002), Majcen and Damijan (2002) and Mencinger (2003). Krkoska (2002) analyzed the role

[10] There is, in general, limited detailed econometric evidence on the macroeconomic impact of FDI in CEE, which is of little surprise given the short period of MNEs presence in the region.

of FDI in financing gross fixed capital formation and its relation to other sources of financing, as well as to the variables describing economic environment. Krkoska used annual data for 25 transition countries (excluding Bosnia and Herzegovina and FR Yugoslavia), which covers 11 years (1989-2000). Empirical results showed that capital formation is positively associated with FDI, along with domestic debt and capital market financing, but negatively correlated with stock market liquidity. No statistical link was found between capital formation and foreign credit or subsidies. The results also showed that FDI is a substitute for domestic credit but is complementary with foreign credit and privatisation revenues. Campos and Kinoshita (2002) tested for the effect of FDI on economic growth of 25 Central and Eastern European and former Soviet Union transition counties, for the period 1990-1998. The authors concluded that, as theory predicts, FDI has a strong impact on economic growth that is positive, statistically significant and unconditional. Majcen and Damijan (2002) investigated the impact of FDI on the gross product of Slovenia during 1994-1998 and found positive relationship between the two variables, however, factors such as initial conditions, structural reforms and macroeconomic environment resulted to be of great significance. Also, output performance turned out to be positively correlated with quality improving exports to the EU countries.

Mencinger (2003) examined the causal relationship between FDI and economic growth through the use of panel data in eight transition countries (EU candidates-Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia), in the post-transition period 1994-2001. In contrast of the previous studies, the results provided evidence for statistically robust negative causal relationship between FDI and growth emerged, implying that FDI has been a barrier for their real convergence with the EU. A possible explanation for this was the form of FDI. Acquisitions were the dominant form of FDI during the period under observation and the profits from the sales were not spent in enhancing productive assets, but on consumption and imports. Results also showed that FDI could not promote competition as it could force small and weak local competitors out of market. Finally, even though, MNEs promoted trade, the net impact was negative as the contribution on imports was higher than that on exports.

At last, Fortanier (2007) provided more recent evidence on the relationship between FDI and economic growth, by examining also factors that could influence in this

relationship such as the role and characteristics of FDI. Using panel data for 71 different host countries covering he period 1989-2002, the results confirmed that the extent of impact on growth from FDI differs by country of origin of multinationals and by host country characteristics.

Taking in consideration the above issues and arguments, one can conclude that effects of FDI on the host countries' economic growth have been much more proposed by theory than confirmed by empirical evidence. There is inconclusive evidence on the causal relationship between FDI and economic growth. Theory has identified the positive impact of FDI to host country' economic growth, however, empirical literature has been unable to establish a significant unconditional positive effects of FDI inflows on economic growth rates. Determinants of the extent of impact of FDI to economic growth refer to variables as income of host country, absorptive capacity and trade regime. Thus, empirical studies intending to establish a relationship between FDI and growth support the argument stated by Lipsey (2002, p. 55) "*In general, the results of these studies indicate that the size of inward FDI stocks or flows, relative to GDP, is not related in any consistent way to rates of growth*" and that pointed out by De Mello (1999, p. 148) "*Whether FDI can be deemed to be a catalyst for output growth, capita accumulation, and technological progress seems to be a less controversial hypothesis in theory than in practice*".

2.2.3.3 Effects on Social Concerns & Poverty

Among the tools available, FDI remains among the most effective ones in the fight against poverty (OECD, 2002). FDI may help improve social conditions and reduce poverty by bringing in capital resources/funding and access to finance, by transferring more advanced technology and organizational forms, by triggering technology spillovers, by contributing to international trade integration, and by enhancing competition, which all lead to economic growth. As Klein, Aaron and Hadjimichael (2001) put it, successful economic development is strongly based in the rapid and efficient transfer, as well as adoption of "best practice" across borders. FDI is considered to be well suitable for this process and as growth is one of the most significant ingredients in affecting poverty reduction, FDI is crucial in achieving this goal. For instance, evidence by Dollar and Kraay (2000) implies that per capita income

of the poor population increase proportionally with overall growth. However, others argue that there are a number of countries where the effects of FDI on poverty did not appear. Further, even though it has been argued that economic growth driven by FDI helps to combat poverty and the social consequences it provokes, FDI alone may not be sufficient for reduction of poverty (OECD, 2001). Moreover, FDI can also worsen differences in income distribution and inequality that in general result from inadequate national policies regarding wealth distribution (e.g. tax policies). Other critics on FDI support that MNEs tend to locate in countries with low wages, low taxes as well as weak environmental and social levels, and these economies are forced to lower their standards in order to avoid loosing investment and jobs (OECD, 2002).

2.2.3.4 Effects on Balance of Payment – Capital Account Effect and Trade Effect

FDI effect on a country's balance-of-payments account is very important and remains a crucial policy issue for most host governments. FDI flows affect balance of payments in two aspects. First, the capital account of the host economy may benefit from capital inflows of FDI, as MNEs are an important source of capital. Host governments have much interest on this FDI effects as they can use these capital flows to cover capital account deficits, as well as foreign debt. On the other hand, FDI may also have negative effect on the capital account, which may be expressed in terms of subsequent outflow of earnings (repatriation of profits) from the foreign subsidiary to the foreign company. The host governments, thus, have to find a way to finance this outflow of foreign exchange.[11]

Second, FDI can affect the current account. In principle, both relationships – positive and negative – between FDI and exports may exist. Evidence has shown that foreign affiliates have a tendency to export more than their domestic counterparts. An increase in exports of products and services in the host economy will provide for a positive effect

[11] According to OECD (2001) the effect of repatriation of profits is not necessarily bad since the FDI project can still be a net gain for the society. It is unlikely for this to be a problem if the investment has been productive and in an export earning foreign exchange. But, if the investment was for example in domestic non-traded services, or in domestic marketing and retailing, such as supermarkets, the foreign exchange demands could be a serious problem.

in the host country' current account. For example, among other, Fry et al. (1995) provided evidence for 46 developing countries that FDI have positive impact on current and capital account deficit but the causality is dependent on the levels of host country's economic growth and foreign exchange rate regime. Moreover, Zhang and Van den Bulcke (1999) and Liu, Wang and Wei (2001) for China and Yamawaki (1991) for Japanese firms in the United States have found that foreign investment has contributed considerably in the export promotion of the country. However, there is also evidence that supports the view that foreign affiliates have also a tendency to increase imports, as they tend to obtain inputs (raw materials and work in process) from abroad, while their domestic competitors do not (Graham and Krugman, 1995). Hence, this trade behavior influences negatively the current account of the host economy, and might also result in a weakening of exchange rates and a reduced demand for products of domestic suppliers (liquidation of domestic suppliers).

Given all of these effects, the major problem that has attracted much attention to researchers is whether FDI and trade are substitute or complement (supplement) to each other. The relationship between FDI and trade has historically been linear, with the former being a substitute for the later. However, recently the relationship between the two variables has become less linear, with FDI and trade behaving as complements. This relationship has been put based on various FDI and trade theories, providing different conclusions for different individual models (Weresa, 2001). Particularly, the traditional view that capital movements and trade are substitutes is based on the Heckscher-Ohlin model. This view was predominant during the 1960s and 1970s and was the basis for the adoption of import substitution policies in those years. On the other hand, later contributions on FDI-trade approaches relaxed some assumptions of the Heckscher-Ohlin model and showed that FDI and trade might be complements, rather than substitutes (for instance, Markusen, 1983; Wong, 1986). This argument, among others, justifies most of the actions of various governments in the recent years to provide incentives in order to attract FDI.

The issue of whether FDI and foreign trade are substitute or complement has been extensively analyzed, with some concluding that these two phenomena are substitute, some others arguing for complementarily, and finally others claiming for the coexistence of the two effects. In general, the early studies on the subject tried to

estimate the elasticities between FDI and trade; however, this method was highly criticized, as it was too simple to determine causality. Recent studies have employed more sophisticated techniques, trying to avoid the problems of the previous studies. Among others, Plaffermayr (1994) applied Granger-causality analysis to examine the relationship between outward FDI and exports in Austria and found that two variables are complement, with causality running in both directions. Using similar methodology, Rubio and Muñoz (1999) pointed out for Spain during 1977-1992, that there is a long-run Granger-causality from outward FDI to exports based on a complementary relationship. Weresa (2001) investigated the trade of Poland with the European Union and found that FDI contributes to export creation, with externalities stemmed from foreign trade having a positive impact on Polish specialization. Even though the most common finding of the recent literature is that FDI and trade are complimentary to one another, one cannot claim that the relationship between the two is clear-cut.

It is often argued that FDI-trade linkage must be seen in a broader context rather than just the direct impact on imports and exports. Foreign subsidiaries tend to engage in trade with parent companies that can facilitate access to foreign markets and can boost to the total trade of the host economy, which in turn can help integrate host economies more closely into world markets (Benacek, et al. 2000). Indeed, this contribution is made possible by boosting foreign trade flows, including higher imports as well as exports. In this context, MNEs facilitate host enterprises' access to exports markets for goods and services, help them switch from domestic to international markets and support the creation of trade networks. However, even in this case evidence on export expansion due to FDI in host countries is not conclusive, and the net impact on the current account is uncertain.

2.2.3.5 Effects on Competition

Competition is one of the ingredients supporting the efficient functioning of markets. The presence of MNEs in a host country may have a significant influence on the levels of competition. FDI may spur the level of competition in national markets, particularly if the market has a limited number of firms relative to its size prior to the foreign affiliates' entry (UNCTAD, 1997). In general, foreign firms are more cost-efficient than local firms and have a tendency to introduce new products based on more innovatory

processes. The entry and operations of foreign firms, therefore, is expected to inject competition by increasing customer choice, resulting in a decline of prices, improvement of quality, increasing variety of products and in a more efficient allocation of resources. Hence, these effects lead to an increase of economic welfare of consumers, as well as to economic development of the country. In other words, "*entry by a foreign subsidiary is likely to produce more active rivalrous behavior and improvement in market performance that would a domestic entry at the same initial scale*" (Caves, 1971, p. 15). Due to increased competition, domestic firms tend to stimulate investments in plant, equipment, and technology. Those firms that do not have the necessary capital to invest in new processes and technologies are pressured to use the existing ones more efficiently so as not to loose market shares and even be forced out of the market. The long-term effects of FDI impact on competition may result in increased productivity growth domestic firms (spillover effect), as well as greater economic growth. The positive effects on competition are more often found in more developed economies, which have well-functioning and healthy markets. This implies that the more competitive the host economy, the higher the likehood of host country to benefit from the increasing competitive pressures of FDI and from the development of spillovers.

Conversely, the entrance of MNEs also tends to raise the levels of concentration in host-country markets, which can, in turn, hurt competition (OECD, 2002). In case that there are only few but large domestic firms operating in the market, the entry barriers are high, or there is a huge gap between the competitive strengths of foreign and domestic firms, then foreign affiliates might assume a dominant position in the market (UNCTAD, 1997). In this case, the market may not function effectively and competition is affected negatively, as foreign firms can drive domestic firms out of business[12] and monopolize the market. If the foreign firms dominate or even monopolize the markets, then they can raise prices above the average level prevailing in the domestic market, leading to harmful effects on consumers and industrial growth.

Empirical evidence suggests that this scenario is more evident in less developed countries, rather than in more mature economies, given that competition effects highly

[12] See among others, Backer and Sleuwaegen (2003) for crowding out effects of FDI.

depend on the industry structure. As Zemplinerová and Jarolim (2001) argue, the negative effects of FDI on competition are potentially more probable in the economies of transition than in other countries as domestic firms often have weak management and are technologically backward. Adding to this, sophisticated protection mechanisms (such as anti-trust policies) are lacking. For instance, Aitken and Harrison (1999), as already mentioned in the sections above, found evidence for adverse competition effects for Venezuela, meaning that weaker firms were forced to exit the market due to fierce competition. Referring to transition countries, Zukowska-Gagelmann (2002) found unfavourable effects of competition in Poland for 1993-1997. These effects tended to differ between groups of firms and industries, with detrimental effects being more evident in highly competitive industries rather than in industries with low competition. In some of the industries with low competition, positive spillovers were found. Covering the same time period, Yudaeva et al. (2003) suggested for Russia that negative spillovers among small firms (rather than large firms) resulted from negative competition effects, as the authors assumed for small firms to operate in highly competitive markets.

Besides the crowding-out effect, other critics on competition effects suggest that foreign firms obtain an "unfair" advantage when they produce in the domestic economy (Williams, 1997). This arises from any direct or indirect subsidies, which might be given to foreign firm (such as government grants) and the propensity to use foreign component suppliers over local firms. Host governments tend to highly support foreign companies, and may sometimes neglect domestic companies. Further, in case of high performance gaps between foreign and domestic firms, may lead to the formation of a dual economy with successful foreign firms and weak local firms striking for survival. Finally, the other principal argument against FDI is the charge that foreign entry will result in domestic overcapacity in case of stagnant or declining demand.

The strategies for avoiding anti-competitive practices and insure a healthy degree of competition include increasing the host country' openness to foreign trade, and tightening the domestic competition rules, practices and enforcement agencies by protecting domestic competitors (UNCTAD, 1997 and OECD, 2002). Regarding empirical evidence on the effects of FDI on competition, one can observe that it is difficult to draw conclusions from a number of studies, as there is not yet a commonly

accepted method to measure the degree of competition in a single market. However, one can observe that positive effects are often found in more developed economies, and the opposite implies for less developed countries.

2.2.3.6 Effects on Employment and Wages

MNEs presence in a host economy has a direct and indirect impact on employment. FDI generates employment and brings new jobs to a host country, which is evident in the case of greenfield investments that necessarily generate employment. Acquisitions, on the other hand, do not create employment; however in the case that the acquired company had gone bankrupt acquisitions can maintain employment (UNCTAD, 2000). The direct impact on host country's employment emerges when a greenfield foreign enterprise employs a number of host country' citizens. Whereas, indirect effects arise when jobs are created indirectly through forward and backward linkages with domestic firms, as well as when jobs are created because of increased local spending by employees of the MNE.

For instance, Aaron (1999) showed for year 1997 that FDI in developing countries created about 26 million direct jobs and about 41.6 million indirect jobs (with a multiplier of about 1.6). Moreover, Blomström, Fors and Lipsey (1997) estimated that Swedish MNEs contribute to growth in employment when investing particularly in high-income countries, acquiring high skilled personnel to engage in R&D and other skill-intensive activities. Altzinger and Bellak (1999) also found strong positive effects of FDI on employment analyzing a sample of Austrian investors in CEE countries. Mickiewicz, Radosevic and Varblane (2000) examined the role of FDI in job creation and job preservation in the Czech Republic, Hungary, Slovakia and Estonia covering 1993-1996 and concluded that the role of FDI in employment creation/reservation has been most successful in Hungary, and then in Estonia. Moreover, findings showed that FDI could operate as complement rather than substitute in employment generation/preservation.

Chen and Ku (2003) showed for Taiwan manufacturing firms that FDI lead to an increase in the domestic employment of managerial and technical workers, but might also reduce the employment available to unskilled workers. Therefore, even though FDI

may lead to creation of new jobs in the host economy, it may also have a detrimental effect on domestic firms by attracting their skilled workers to foreign affiliates. Hence, FDI may also lead to the reduction of demand for unskilled workers. Adding to this, though foreign firms have shown to create employment, the quality of that employment is sometimes questionable; particularly, in case when governments compete to attract FDI, some may tend to be less cautious in enforcing their national laws that promote core labour standards (OECD, 2002). Furthermore, even though foreign firms provide higher wages, in cases where the foreign investor takes over a local enterprise, restructuring can lead to job losses and only the remaining employees are paid higher wages. The effects of MNEs operations on domestic employment have been extensively analyzed however, as OECD (1995) highlighted, it is difficult to come with a general conclusion regarding the sign and the magnitude of the employment effects, due to the complexity of the analysis and various methodology used to examine the subject.

Another important effect relating to the impact of FDI on employment that has attracted much attention is whether there are substitution effects between parent and affiliate employment. Just to mention some of the researches on the area. Brainard and Riker (1997) found weak substitution effect for US firms and subsidiaries that are located close to each other, but strong substitution effects between different subsidiaries in developing countries. Whereas, Hatsius (1998) found for Swedish MNEs, strong substitution effects between parents and affiliate employment. Addressing to European MNEs employment effects in CEE region, Konings and Murphy (2001) found that there is evidence for substitution effects between parent and foreign employment, however, contrary to the traditional belief, the substitution effect was mainly taking place between parents and their European based subsidiaries. Also, the substitution effect depended on whether the firms operated in the manufacturing or non-manufacturing sector, with substitution effect being more evident in the manufacturing sector.

An important way through which FDI influences domestic employment is through wages. Many argue it is common sense that foreign companies "put more money" in the pockets of their employees than domestic firms do. There are various reasons justifying this: foreign firms are inclined to locate in higher wage sectors of the economy, they are keen to hire workers with higher education and higher skills, they are larger and more capital intensive and they often tend to pay higher for a worker of a given quality

(Lipsey, 2002). A number of studies, such as Aitken, Harrison and Lipsey (1996), Girma, Greenaway, and Wakelin (2001), Lipsey and Sjöholm (2001) and Velde and Morrisey (2001) have shown that foreign firms pay higher wages than domestic firms, and in most of the cases the level of wages increases with the level of education. In addition, the presence of MNEs may generate to the creation of wage spillovers, as in case that foreign and local firms use similar types of labour; local firms are in pressure to pay higher wages so as not to lose skilled staff, as well as attract new skilled workers. However, wage spillovers can also be negative in case that there are negative productivity spillovers. For instance, the increase of wages in sectors with foreign enterprises may spill over to sectors with domestic firms, which have a slow growth of labour productivity. This may result to an increase in unemployment and decrease of competitiveness among domestic firms. Aitken et al. (1996) found positive wage spillovers for U.S., but negative spillovers for Mexico and Venezuela. While, Girma et al. (2001) found for the United Kingdom that there are no wage spillovers from foreign to domestic firms, while weak evidence was captured for negative effects on wage growth. The recent study of Driffield and Girms (2003) provided evidence for UK that the higher wages paid by foreign firms generate wage spillovers in the domestic sector, however, this phenomenon was largely confined to the region where foreign investment takes place. Finally, MNEs are often accused of "exploring cheap labour" particularly for the case of backward countries, however, if one considers the low level of local wages, the overall impact of FDI on local wages remains positive (OECD, 2001).

2.2.3.7 Effects on Enterprise Development and Restructuring

Another benefit related to FDI is its potential to stimulate enterprise restructuring and development in host countries. This was particularly important for the economies of Central and East Europe at the outset of transition, as most local firms operating in these regions had major weaknesses compared to Western standards in terms of strategy, structure, product line, production, marketing and finance (Filatochev et al. 1996). One main mode of entry is when foreign firms acquire domestic ones, leading to changes in management, company polices, corporate governance, as well as other changes. The direct impact occurs when synergies arise between the acquiring foreign company and the targeted enterprise, and when efforts are dedicated to raise efficiency and reduce costs in the targeted enterprise, as well as to develop new activities (OECD, 2002).

Besides FDI direct effects on enterprise development, indirect effects may appear too. Other domestic enterprises may also have efficiency gains from MNE presence through technology and human capital spillover effect, with the strongest evidence of development found in industries with economies of scale.

Djankov and Murrell (2000) provided a survey by summarizing the results of 125 empirical studies on enterprise restructuring and development in transition countries.[13] One important issue to be discussed was that of privatization of state-owned enterprises. The authors concluded, that on aggregate, privatization was strongly associated with more enterprise restructuring, with the participation of foreign firms in privatizations consistently improving the efficiency of the acquired enterprises. However, the employees of the acquired firm might be sometimes threatened by privatization, as the later is often associated with job losses. The survey of Djankov and Murrell also documented the effects of different types of owners on enterprise restructuring. Overall, privatization to outsiders was associated with 50 % more restructuring than privatization to insiders (managers and workers). Adding to this, in general, state ownership within traditional state firms was less effective than all other ownership types. Another finding brought by the authors was the one regarding the effect of market competition in enterprise performance, with Eastern Europe benefiting primarily through import competition and Central Europe benefiting through new-entry or de-monopolization.

Furthermore, Rojec (2001) evaluated the impact of the acquisition of privatized firms by foreign investors in Central and Eastern Europe through questionnaires and interviews carried out in a sample of companies from Czech Republic, Hungary, Poland and Slovenia. Overall, the author concluded that sales to foreign investors have been important mostly in the privatization of medium and especially, large-scale companies needing fast and thorough restructuring. Sales to foreign investors had an important qualitative impact through restructuring and improving the target companies, while new domestic owners (from mass privatization schemes) were not able to reach similar restructuring.

[13] For a survey of the literature on enterprise development see also Linz and Krueger (1998).

In general, evidence from transition economies shows positive effects of FDI on enterprise development and restructuring, which is without doubts far more efficient than restructuring from domestic owners (OECD, 2002).

2.2.3.8 Effects on Environment

The growing role of FDI in the world economy have increasingly directed attention toward environmental consequences of this phenomenon, making the impact of FDI on environment be already a topic of high debate. Overall, the activity of MNCs can have significant effects on the environment, including positive and negative effects. FDI effect on environment is generally positive when associated with strong implementation of host-country adequate environmental policies (OECD, 2001/2002). When MNEs invest in developing and transition countries tend use modern environmental management systems, and also tend to transfer more modern and cleaner technologies than the ones that are locally available. In addition, with FDI there is an increase in the performance of firms, which enables them to make investments environmental protection. Also, as mentioned earlier, FDI encourages economic growth, which in turn increases society's willingness and ability to pay for a healthier environment. But, this definitely needs time to take place. Furthermore, positive spillovers may appear when local firms try to improve their environmental management practices, through imitation from foreign firms, worker movement and increased requirements of foreign investment to their suppliers. However, in order to take advantage of the environmental benefits of FDI, domestic firms need to have adequate local capabilities.

On the other hand, arguments put forward for negative effects of FDI on host country's environment claim that MNEs entry leads to increased production and consumption of polluting goods and to expansion in industrial activity. This can, in turn bring an increased environmental pollution. Others highlight that multinationals may also enter a host country just because of less strict environmental protection norms (Bhattacharya, 2002). Developing and transition countries are more vulnerable to these cases are environmental legislation is not implemented effectively. Moreover, many governments, in their efforts to attract FDI, tend to relax their policies so as to make it easier for foreign companies to enter and operate in the country. In addition, there are cases when MNEs bring to host countries technologies considered as outdated and

inappropriate to their home countries, actions that of course are not on the best interest for host economies.

Wheeler (2000) argues that despite the arguments against FDI, the most possible long-run forecast is for rising and not for falling of environmental quality, in both high and low income countries. This is because people are nowadays encouraged with good information about the beliefs and costs of environmental protection and they will act to protect their own interests. Moreover, as their income and education levels improve, they will control pollution more strictly. The author found for US and three developing countries that have received high levels of FDI, such as China, Brazil and Mexico that most dangerous form of air pollution has declined in major cities of all these countries during the era of globalization.

Overall, empirical evidence on FDI effects on environment is provided by statistical analysis, as well as case studies.[14] Most of the studies have found positive evidence, with only little support for adverse effects of MNEs on environment (see Zarsky, 2002 for a review of studies). Nevertheless, many argue that the environmental impact of FDI is still not yet extensively explored, putting emphasis on the problems of methods used to analyze the subject. More systematic research is needed to investigate the impact of FDI on the natural environment, requiring theoretical and empirical developments.

2.2.3.9 National Sovereignty and Autonomy

An important argument against FDI involves the fact that many countries are concerned that this phenomenon is accompanied by some loss of economic and politic independence (Williams, 1997). The parent companies of the foreign affiliates are responsible for most important decisions, which can affect the host country's economy. However, parent companies have no real commitment to the host country, and government of host country has no real control over the parent companies. Moreover, it is argued that particularly through M&As where there is a shift of control from domestic to foreign owners, the risk of foreign domination of the local is increased (UNCTAD, 2000). Despite these concerns, host countries do not appear to be much

[14] Unfortunately, there are too few case studies up to now, so it is difficult to generalize the results.

disturbed of this issue as they are in a real competition with one another to attract high levels of FDI and reap its benefits.

2.3 THEORETICAL FRAMEWORK ON DIRECT AND INDIRECT TECHNOLOGICAL TRANSFER

Having reviewed the overall effects of FDI on host countries, it is essential to proceed and explore in more details the topic that will be the focus of this research. Therefore, this section will provide the theoretical perspective and empirical findings, according to the spillover literature, on the direct and indirect (spillovers) technological transfer of FDI into the host companies, including affiliates (direct transfer), local competitors (indirect horizontal transfer), and local suppliers (indirect vertical transfer or backward spillovers) as well as local customers (indirect vertical transfer or forward spillovers). Technological transfer involves transfer of technology, management/marketing/operating practices, organizational structures, products and processes, skills and cultures.

There are numerous channels through which technology transfer can occur such as trade, technology licensing and FDI. Technology can stimulate economic development and industrialization (UNECE, 2001). Since most R&D takes place in MNEs located in the most advanced economies, these enterprises can play an important role in transferring technology (UNECE, 2001; Hoekman et al., 2004). FDI is considered as the most efficient option or as the best channel for technology transfer across national boundaries, as well as between firms (UNCTAD, 2003; Dunning and Narula, 2004). Multinationals are one of the most important sources of skills and technology transfer across borders. Many countries offer incentives and are actively encouraged to attract FDI into different sectors of economy, based on the belief that FDI improves technological standards along with efficiency and competitiveness of the host economy; brings in the latest technology; and promotes productivity growth by infusing new capital and by improving the average skills. This section will provide insights on how multinationals transfer firm-specific asset to their affiliates and why these affiliates are supposed to be more productive than domestic firms. Multinationals transfer technology within themselves (transfer from parent to affiliate), however an interesting question

arises: Do other domestic firms benefit from the presence of foreign affiliates, how and under what conditions?

2.3.1 Theory on MNEs and Direct Technological Effects

The arguments on FDI advantages are based on the widely accepted assumption of Hymer (1976) about the existence of FDI and MNEs. Hymer introduced the main rationale for FDI as the need to control production and marketing operations in various national markets in order to take fully advantage of the potential returns on corporate assets of skill and knowledge.[15] According to his theory, MNEs possess non-tangible productive assets, which MNEs are able to exploit and make their entry into foreign markets more profitable than other forms such as exporting and licensing. This enables multinationals to offset the costs (for example, transportation costs, cultural differences) of doing operations in a foreign country and compete successfully with domestic companies, which on the other hand have better knowledge and expertise of local markets. The firm-specific assets incorporate: specialized technological know-how about production; superior marketing, management and organizational skills; export related know-how and access to markets, contacts and networks; special skills in distribution and qualified relationships with suppliers and customers; as well as brand names and reputation. These are internalized within the firm and are transferred at low or zero additional cost from parent company to foreign branch plants. Thus, foreign owned plants are part of a multinational network that helps them benefit from new innovations and exploit multiplant economies of scale (Globerman, Ries and Vertinsky, 1994).

MNEs affect directly their subsidiaries by injecting them directly foreign capital, equipments, technology, processes, organizational/marketing/management skills, and know-how. Therefore, due to activities taking place within the subsidiaries, it is strongly suggested that as integrated part of the parent company, foreign subsidiaries have access to specific advantages and resources. If foreign subsidiaries have sufficient absorptive capacities to assimilate this know-how, the direct technological flow will in turn lead to improvement in their performance including output, productivity, efficiency, as well as

[15] The work of Hymer on internalisation approach was extended, among others, by Vernon (1966), Caves (1971), Buckley and Casson (1976), Dunning (1973), Casson (1984) and Buckley (1988).

exports. The technological transfer from parent to foreign affiliate company is the rationalization that scholars provide to explain why foreign affiliates are presumed and expected to do better than local firms; the latter do not have access to such competitive assets. These are also the arguments that support the empirical work on the subject starting with the assumption that foreign firms are considered to have higher productivity and overall better average performance (including profitability) than the domestic ones (as well as higher wages, skills, and growth).[16] The superior performance of foreign firms is already well documented in the literature.

Following Hymer, various theories emerged on FDI, however, they all persisted to focus on specific advantages that an MNE needs to possess in order to be successful in a foreign business environment. For instance, Dunning (1981)[17] noted that MNEs have ownership advantages that support them in competing successfully in the host markets. MNEs possess unique advantages - ownership, location and internalization - and use them both at home and abroad. In order to obtain the greatest returns MNEs transfer and diffuse their capabilities to their foreign subsidiaries on the host countries. Markusen (1998) employed also a similar perspective with that of Hymer (1976) and stressed the intensive role of MNEs in the use of knowledge capital. Compared to other alternatives such as trade, licensing and joint ventures, the author considers FDI as more effective in limiting the dissemination of knowledge specific assets.

Blomström and Kokko (2002) provided another important element in the MNEs framework, according to which, the parent corporation and its subsidiaries constitute a highly integrated organizational unit, within which knowledge-based assets are created. The parent company has the exclusive power to decide about the exploitation of these assets. The possession of such technological assets, makes the foreign subsidiaries be superior related to domestic firms in the host economies. Blomström and Kokko (2002) summarize:

---

[16] Pfaffermayr and Bellak (2000) and Bellak (2004b) addressed to the vast literature investigating empirically the performance differences between foreign and domestic firms and concluded that foreign ownership is not the only explanatory variable; the most important variables explaining the superiority of foreign firms include firm-specific assets and firm characteristics like industry, size, parent country and multinationality.

[17] See above Section 2.2 for a short explanation of Dunning's eclectic paradigm.

> "*It is well known that multinational corporations undertake a major part of the world's private R&D efforts and produce, own and control most of the world's advanced technology. When a MNC sets up a foreign affiliate, the affiliate receives some of the proprietary technology that constitutes the parent's firm-specific advantage and allows it to compete successfully in an environment where local firms have superior knowledge of local markets, consumer preferences and business practices. This leads to a geographical diffusion of technology, but not necessarily to any formal transfer of technology beyond the boundaries of the MNC.* " (p. 10).

Moreover, there are even other interpretations on why foreign-owned plants may be superior. Harris and Robinson (2003) argued that domestic firms, in contrast to foreign firms, are possibly constrained to obtain capital cheaply from abroad, which in turn reduces their ability to invest in superior technology. Another interpretation relates to the entry of foreign firms and its implications for industrial production. Aitken and Harrison (1999) agreed on the competitive advantages of foreign firms over domestic ones and summarized the arguments for the assumed superior performance of foreign firms such as, transfer of better and newer equipment and machinery combined with transfer of intangible assets in the form of technological know-how, management and marketing capabilities, organized networks with suppliers and customers abroad, and trade contracts. However, after this, the authors emphasized that foreign firms may reduce, particularly in the short run, the productivity of domestic firms. The new entry of foreign-owned plants will increase the level of competition. On one hand, the new competitive conditions induce local firms to replace inefficient technologies and organizational practices through imports of capital goods and R&D expenditures, which in turn increase overall industrial productivity. On the other hand, however, if the market expands at a lower rate than the increase in capacity due to new entrants (foreign firms), then this would raise the average costs of domestic competitors as they loose market shares due to foreign entry. Hence, this situation would result in decline in productivity levels of domestic competitors, which are forced to operate at sub-optimal scales. Nevertheless, the other side of the coin exists too. Rotenberg and Saloner (2000) argued that in case that there is increase in the number of firms associated with an

increase in the demand conditions without any loss in market shares, this would result in external economies which shifts cost curves down for all the firms.

However, literature provides also arguments that FDI affiliates may have lower productivity and lack significant advantages as compared to their domestic counterparts. Harris and Robinson, 2003 summarized a number of factors that could lead to lower productivity of foreign firms. Foreign subsidiaries may have lower efficiency, particularly in the short run, as time is needed to assimilate new plants (greenfield or acquired) into the FDI network. This may be also associated with big cultural differences between home and host markets or hostile government policies, which in turn can lead to long-term problems, as well as decline in productivity. Other factors related to the reasons why foreign firms may be less productive refer to the fact that these firms might keep their high value-added operations (R&D and new products) at home, engaging in lower value-added activities in the host country. Hence, lower productivity would result from the use of lower-skilled workers (who get lower wages), as well as older technology. Furthermore, another argument showing that multinationals operate in low value-added plants is that addressing to multinationals operating in oligopolistic markets, and where products are in the mature stage of their life-cycle. The assets used by multinationals operating in such markets may also be in a comparable stage in terms of their life cycle.

Despite the existence of various assumptions and arguments in the relevant literature, most academics argue that positive effects of MNEs outweigh the negative effects, implying that the overall performance of foreign firms is better compared to that of domestic counterparts. To sum up, direct FDI effects relate to the direct transfer, from parent to subsidiary, of foreign capital, equipments, technology, know-how, processes, products and skills. Therefore, it is strongly suggested that foreign affiliates, as integrated part of the parent company, have access to competitive advantages and resources possessed by the parent. Assuming that foreign affiliates use "best practice" technology, performance differences (particularly, superior productivity) arise between local firms and FDI subsidiaries. However, the magnitude of these direct effects depend on a number of factors such as the mode of establishment, the scale of initial investment, the type of technology employed, the number and origin of workers combined with their training and wages, the extent to which the foreign company brings

technology and specialized staff in its subsidiary, and the reinvestment in the subsidiary (Mirza and Giroud, 2004; Arnold and Smarzynska Javorcik, 2009).

2.3.2 Theory on Indirect or Spillover Technological Effects

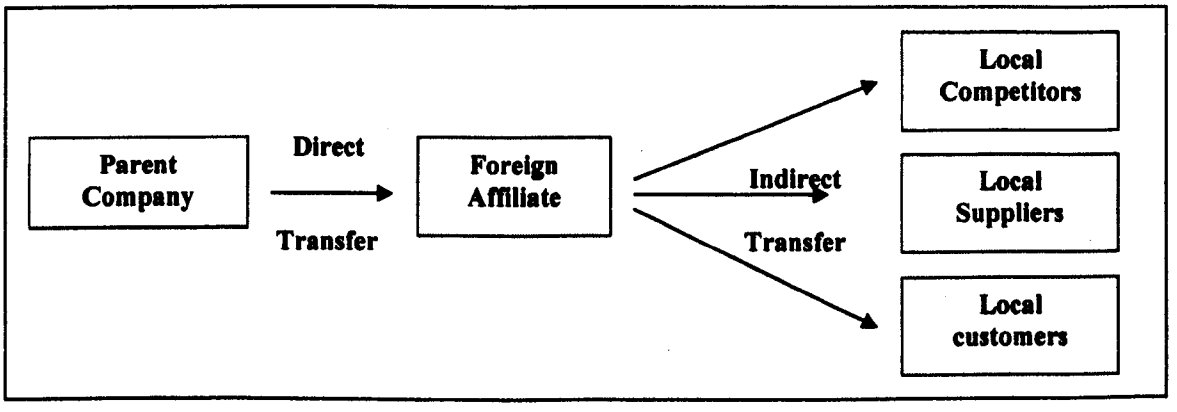
A firm decides to undertake FDI expecting to realize higher returns than a given domestic firm with an equivalent investment and the main source of the higher return is the technological advantage (Görg and Greenway, 2002). Irrespective of its ownership and control, foreign presence can affect the enterprises of the host country in two ways: directly and indirectly. As already mentioned earlier, FDI can affect directly their subsidiaries with transfer of assets taking place within the foreign subsidiary of foreign investors. The positive direct effect of FDI is examined and confirmed empirically in a vast number of studies. However, foreign enterprises do not affect only their affiliates, but also the behavior and performance of other local firms in the same sector or even in other sectors. These indirect effects are referred as spillovers or externalities. If multinationals transfer superior knowledge and technology to their foreign affiliates, it is expected that these firm-specific advantages are not perfectly internalized by the affiliates. It is possible that also other local firms in the host country might benefit from the uncompensated benefits of foreign presence. Some of the superior knowledge of products, processes or markets, technology and management, as well as marketing practices of foreign affiliates would "spill over" to domestic firms, without incurring any costs, through non-market transactions. These indirect effects are called technological spillovers or productivity spillovers.[18] Local firms would be able to internalize these spillovers and absorb them effectively under some conditions, such as absorptive capabilities (skills, knowledge, and experience) and technological conditions[19]. In this case positive spillovers are generated.

> *"The establishment of a foreign affiliate is, almost per definition a decision to internalize the use of core technology. However, MNC technology may still leak to the surrounding economy through external effects or spillovers that raise the level of human capital in the host country and increase productivity in local firms"* (Blomström and Kokko, 2002, p. 10).

[18] Usually, the terms technology spillover and productivity spillover are used interchangeably.
[19] These conditions will be referred in details in the sections below.

The first question that arises, however, is how these spillovers occur in the domestic firms of the host country? Most of the theoretical literature recognizes two types of indirect effects. Spillovers may run in two directions: directly or internally between domestic firms that may be in direct competition with the foreign enterprises (intra-industry or horizontal spillovers); and indirectly or externally to other firms in the host economy that may be vertically integrated the foreign enterprises (inter-industry or vertical spillovers) (see Figure 2.2). In particular, inter-industry spillovers may derive from any backward linkages (suppliers) or forward (customers) between domestic firms and foreign affiliates. Backward linkages (sourcing) are created when foreign affiliates acquire materials, intermediate products, or services from domestic suppliers. Forward linkages (distribution) are created when foreign affiliates sell goods or services to domestic customers or when domestic firms use the final products of the foreign affiliates as raw materials in their local production processes. Even though theory on spillovers highlights the importance of the all types of linkages, forward and backward, in general evidence is strongest and most consistent in case of backward linkages with domestic suppliers. This section will provide a description of the mechanisms by which domestic firms can benefit through each channel (see Figures 2.7, 2.8 in the end of this chapter for a conceptual framework on indirect effects of FDI on local companies and on dynamic effects on the economy). The first mechanism to be described is that of intra-industry spillovers, which has been the focus for much research on the area, irrespectively of the results reached. Subsequently, inter-industry spillovers will be analyzed, followed by negative externalities, given that theory recognizes that spillovers may take the form of positive, as well as negative externalities.

Figure 2.2: Direct and Indirect Transfer of Technology, Knowledge, Processes and Skills



Source: Author's Contribution

2.3.2.1 Positive Intra-Industry Spillovers

Intra-industry spillovers occur when MNEs do not fully internalize the benefits of their competitive advantages and their presence increases the productivity of local competitors in the host economy. Based on the work on the previous scholars, there have been identified at least four mechanisms or channels through which technology might be diffused horizontally from foreign enterprise to other firms in the economy: demonstration – imitation effect, competition effect, training effect and exporting effect (Teece, 1977; Blomström and Kokko, 1998; UNECE, 2001; Görg and Greenway, 2002; OECD, 2002; Schoors and van der Tol, 2002).

First, the proximity of local firms to foreign enterprises can sometimes lead to demonstration effect. When foreign firms introduce new technology, products, processes, as well as organizational forms, they provide to other local enterprise a demonstration of increased efficiency and productivity. In this way, domestic firms may be able to learn simply by observing and imitating the superior technology and products of MNEs. The demonstration effects may be indirect, just by observing MNEs practices and technology, or through direct collaboration. Unsurprisingly, effects are more easily materialized in the case of direct demonstration effects, where direct linkages are created between foreign and domestic firms. Moreover, product and process complexity plays also important role. The assumption is that simple processes are easier to imitate than more complex ones (the same applies for managerial and organizational innovations). When local firms intend to imitate or copy the technology used by FDI subsidiaries but these technologies are not available in the market, than local firms may approach to reverse engineering.

Second, the transfer of capital and technology stimulates competition in the local market and can lead to competition effect. Domestic enterprises face a greater competitive pressure, which spurs them to introduce new products in order to protect their market share and adopt new innovative efforts, acquire new machines and equipments, implement new management methods, in order to increase efficiency and productivity. Therefore, competition serves as a catalyst to increase the speed for adoption of new technology or the speed with which it is imitated. However, even if domestic firms are

unable to adopt new technology and production methods, they are undoubtedly under pressure to use existing technology and resources more efficiently, to improve the quality of their products, and to reorganize the business. Increased competition may also induce local enterprises to search for efficient technologies abroad. This kind of spillover is particularly important in case of industries with relatively low but potential competition, as well as high entry barriers. Even though, there are knowledge and information leakages from MNEs presence that would enhance the performance of domestic firms, the former have a tendency to prevent these spillovers.

Third, knowledge can be transferred indirectly through the movement of highly skilled staff. Human capital can spill over from foreign enterprises to other domestic enterprises as skilled workers move to domestic firms or decide to open their own enterprises. In general, the training provided by MNEs (particularly through effective training programs), may increase the level of human capital stock by increasing the skills and ability of engineers, technicians, as well as workers. As a consequence, positive effects may result in two ways: first, a direct effect on workers that are trained in the foreign affiliate and acquire more skills and experience; second, these workers may move to other enterprises influencing substantially their development or open their own businesses, carrying with them knowledge of new technology, management and organizational technique. This kind of spillovers is particularly important for enterprises that lack the capabilities to compete with foreign affiliates and when there is an increasing demand for skilled labour. This movement of workers may not harm the interest of foreign companies if for instance the new local companies become business partners (for example, suppliers).

Forth, indirect productivity gains may be realized through export spillovers. There is an increasing evidence to suggest that exporting firms have higher productivity levels than non-exporting firms (UNCTAD, 1997; Görg and Greenway, 2002). Domestic firms can learn from foreign companies, most likely through imitation and collaboration, how to export and penetrate export markets from MNEs. Evidence suggests that export-oriented foreign firms motivate local firms to become exporters, and enhance the development of domestic firms' export capabilities by bringing access to buyers to the countries that their products are sold. It is generally argued that spillovers derived from export oriented FDI are larger than domestic market oriented FDI (UNCTAD, 2002).

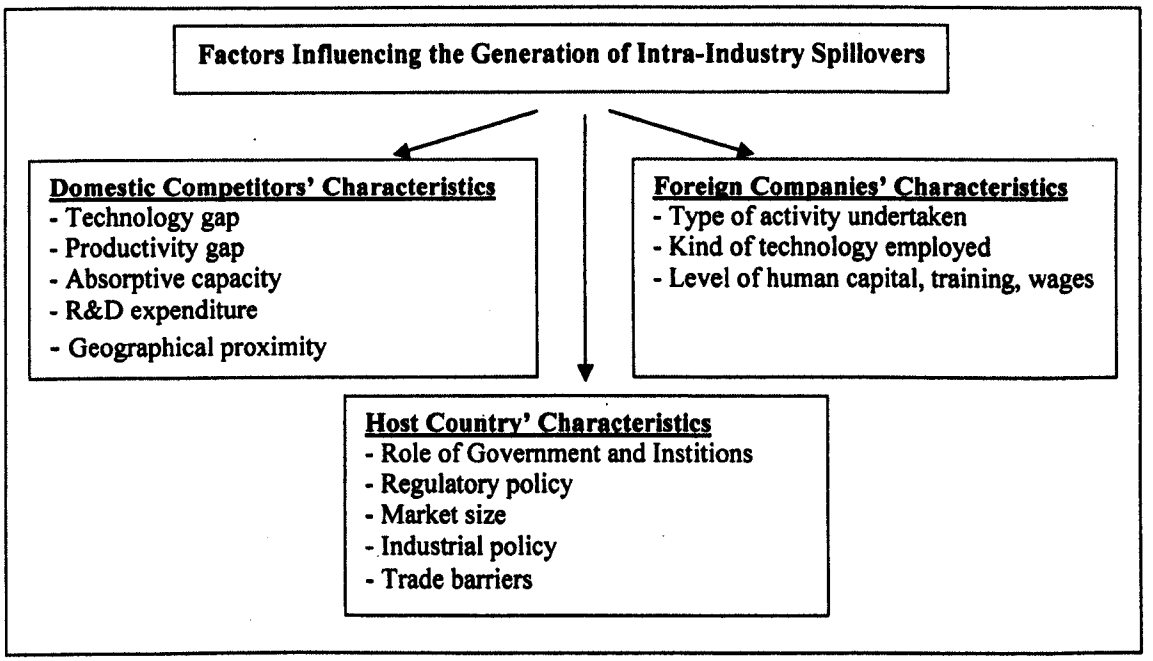
However, spillovers highly depend on the nature or type of activities undertaken by MNEs and the conditions of host countries or the characteristics of local environment (Sinani and Meyer, 2004). More specifically, there is low possibility for spillovers to emerge when foreign firms keep most of their value-added operations at home and concentrate at lower value-added activities at host country (Harris and Robinson, 2003). Therefore, the use of older technology and low-skilled workers (due to low costs) become impediments not only to the generation of spillovers, but can also lead to lower productivity levels of foreign affiliates compared to domestic firms. Concerning the host country's conditions, positive spillovers are realized only if local firms have adequate social capabilities and absorptive capacities to absorb foreign technologies and skills. It is often difficult for relatively backward countries to acquire the necessary social capabilities and absorptive capacities that allow domestic firms to benefit from the spillovers potentially available in the economy (UNECE, 2001).

Another important element is the role of government, infrastructure and institutions in upgrading industrial development through FDI spillovers (UNCTAD, 2005). Institutional environment influences company's structure and conduct that in turn might influence performance, all of which afterall affect each other interactively (North, 1990). The absence of efficient institutions can retard the efficient accumulation and transfer of knowledge (Rodrik et al., 2004; Meyer and Peng, 2005). Government should play an important role in upgrading the domestic sector when focusing on attracting successful foreign companies. In turn, benefits from FDI are maximized when there is government interaction, investment in infrascture and institutional change. On one hand, the opening of financial markets and institutions, and thus resulting inflows of FDI, lead to an increase of total factor productivity through knowledge spillovers, technology transfer and the promotion of linkages with domestic companies (Alfaro, 2009). One the other hand, foreign subsidiaries interact with knowledge organizations such as local universities, public research institutes and business associations that carry out basic or applied research and provide technical services to companies. Foreign companies may cooperate with these insitutions by providing financial support and conducting joint research projects, raise research capabilities of knowledge insititutions, bring them into contact with industrial work and promote spillovers and development (UNCTAD, 2005). However, this process requires resources and time, particularly in the case of

transition economies. Evidence shows the inefficiency of most governments to promote their domestic sector (Narula and Lall, 2006). Recent research shows also little support on the role of government policies (including multirateral trade costs, business costs, infrastructure and insitutions) to encourage FDI (Blonigen and Piger, 2011).

In general, evidence on positive horizontal spillovers from foreign firms' activity is scarce. Positive horizontal spillovers are found only under the conditions mentioned above (see below Section 2.4 on empirical review for more details). Evidence is strongest in case of vertical linkages, particularly "backward" linkage with local suppliers.

Figure 2.3 Factors Influencing Intra-Industry Spillovers



Source: Author's Contribution

2.3.2.2 Positive Inter-Industry Spillovers

Inter-industry spillovers refer to the spillovers taking place due to linkages between foreign firms with their suppliers and customers (distributors or sales organizations). Whereas MNEs have an incentive to minimize technology leakage to competitors, they seek to promote vertical spillovers. The diffusion of technology across customers, and most importantly suppliers, appears to benefit foreign affiliates as their clients and suppliers become more efficient and competitive, by achieving improved levels of

quality, delivery response and lower costs. This effect is referred as foreign linkage – cooperation effect. Cooperation of foreign enterprises with downstream customers and upstream suppliers increases spillovers. Hence, some of the channels of intra-industry spillovers, such as demonstration and imitation effects, and labour mobility between firms, contribute to inter-industry spillovers too. Given that the FDI effect is not limited to the initial direct effect to its subsidiaries, but involves also linkages with other parties in the economy, the later are considered as a multiplier effect of initial FDI effect. In the case of backward linkages with suppliers, the multiplier can be referred as "value-chain multiplier effect" while in the case of forward linkages with customers it is referred as "consumption multiplier effect" (Mirza and Giroud, 2004).

The most quoted vertical spillover is the backward linkage channel with suppliers. In an attempt to improve the quality standards of the suppliers, this channel operates through four ways (Dunning, 1993; UNCTAD, 2001; Smarzynska, 2002; Narulla and Lall, 2006). First, there may be direct knowledge and information transfer, quality control and inventory management, training, technical as well as management/marketing/financial assistance from foreign enterprises to their local suppliers. Second, MNEs may place higher requirements or even provide financial assistance for the improvement of product quality and on-time delivery, which in turn provide incentives to domestic suppliers to improve production and technology. Active spillover effects arise when MNEs put specific requirements to their local suppliers in terms of cost/price, quality and time delivery. On the other hand, passive spillovers take place when MNEs do not put specific requirements to the suppliers, but let them decide on how to improve their performance. The potential for spillovers, according to many researchers, is higher in the case of active assistance of foreign companies on their domestic suppliers. Third, there may be indirect knowledge transfer through movement of labour (similar with intra-industry spillovers). Fourth, there may be a growing demand for intermediate products due to MNEs entry, which provide opportunity to local suppliers to exploit the benefits of economies of scale. Last but not least, MNEs that acquire domestic firms may decide to source intermediates abroad, which would in turn break existing supplier-customer relationships and increase competition in the intermediate products market.

As already mentioned, the focus of researchers, academics and host governments is in the development of backward linkages and spillovers, as they provide benefits to both domestic firms and foreign affiliates, as well as to the host economy as a whole (OECD, 2001). From the local supplier's point of view, the direct effect of linkages and spillovers is manifested in a rise in output and employment, combined with transmission of knowledge and skills between both parties. Further, a dense network of linkages can encourage: productivity and efficiency growth, technological and managerial capabilities, and market diversification for the firms involved. On the other hand, from the foreign affiliates' position, linkages with local suppliers can: lower production costs in the host economies, offer information on local markets, and permit greater specialization and flexibility by adapting better technologies and products to local conditions. At last, for the host economy as a whole, linkages with local suppliers and spillovers can promote economic growth and provide benefits for the balance of payments (when local inputs, used as raw materials, substitute for the imported ones). All these effects are referred as wider effects of FDI on the host economy.

An important issue in the relevant literature is the various factors that influence the generation of spillovers. The host country' characteristics, such as market size, regulations, as well as the size and technological ability of domestic firms may in general, influence vertical spillovers. Spillovers are unlikely to be optimally utilized without the appropriate domestic absorptive capacity (Criscuolo and Narula, 2008). For significant externalities to arise there needs to be an appropriate match between the nature of potential externalities and the absorptive capacities of domestic companies. OECD (2001) stressed the main characteristics of domestic companies affecting the level of linkages with domestic suppliers and one of the main factors appeared to be the availability of domestic supply capacity, with the lack of efficient domestic suppliers being a common obstacle to the creation of linkages, particularly in developing and transition countries. Thus, the decision to choose local suppliers and hence source locally highly depends on: cost/price, quality, reliability, and flexibility of local suppliers compared to foreign suppliers. Increasing competitive pressure forces foreign affiliates to strictly select suppliers that can meet the requirements in cost, quality and time delivery. However, local suppliers many times have difficulties in matching these requirements, particularly in developing and transition countries, which often leads

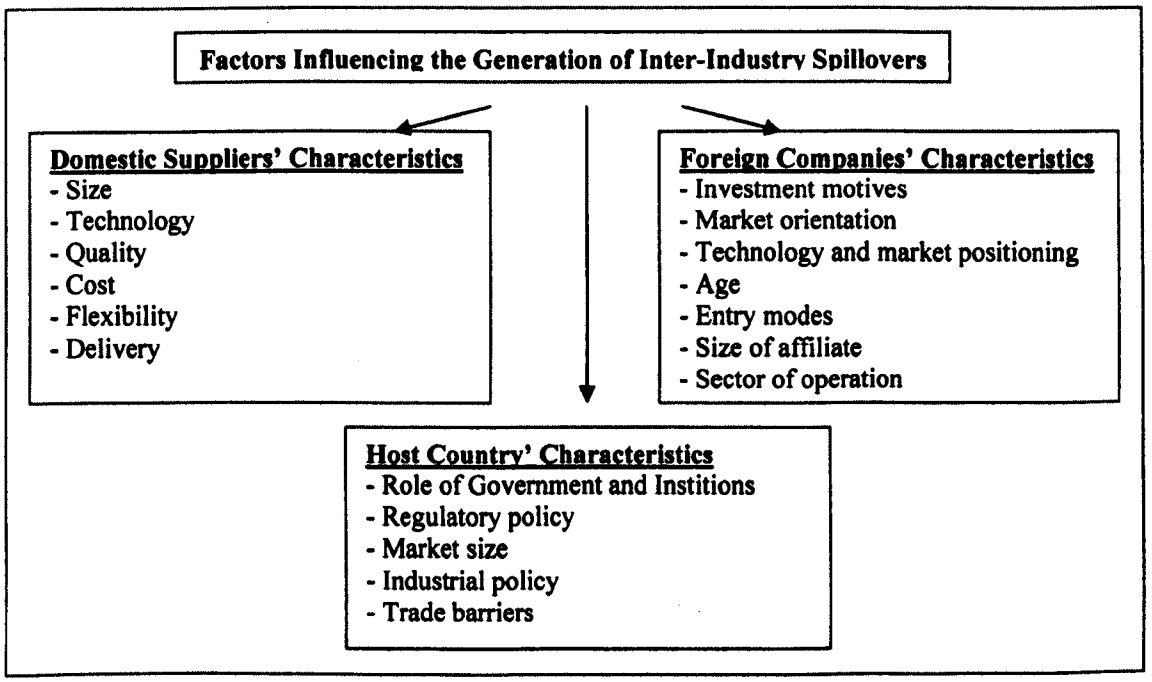
foreign affiliates to use as suppliers other affiliates operating in the host country or use outsourcing.

Similar to intra-industry spillovers, a crucial factor that influences the generation of inter-industry spillovers is the role of government and its istitutions. Government can highly influence the domestic capacity, which either in the form of knowledge infrastructure or in the form of efficient industrial sector remains an important determinant on whether spillovers from FDI will take place or not (UNCTAD, 2005). Government incentices and support imply for greater potential for spillovers. For instance, MNEs may be locked into existing supplier relationships, partnerships and R&D networks (if these exist) in other locations, and may be unwilling to seek and establish relations with new associations, new suppliers that might be local and local universities. Often decisions about local networks and linkages are not done at subsidiary level, but at the parent company at home country, considering the different options available to the MNE worldwide. Hence, local governments need to create appropriate incentives for the MNEs to consider local partners, suppliers and customers, without expecting this to happen on its own. In case those domestic companies are not present, linkages between foreign subsidiaries may represent the only available mode of industrial upgrading and development. However, as long as industrial and technological upgrading takes place and influences indirectly other companies in the host country, it does not count who the beneficiary is, as long as it serves to further embed the foreign subsidiary in the host country. Given the above, in the absence of an efficient government and a feasible domestic sector, linkages between MNEs and domestic companies are less likely to get established, and spillovers are unlikely to arise. In general, the countries that have the highest potential benefits from FDI are the ones that already have a developed domestic absorptive capacity. On the other hand, developing or transition countries need to a great extent industrial development stimulated by FDI, but most of them do not have the necessary condistions that lead to significant externalities from FDI. Hence, there is an urgent need that governments promote domestic sectors and their absorptive capacity so as to take advantage of FDI presence.

Apart from the host country' characteristics, foreign companies' characteristics are also important factors determining the probability of spillovers to arise (Dunning, 1993; UNCTAD, 2001). At the same time, however, the reaction, motives and business

practices of foreign subsidiaries are shaped at a large extent by institutional framework and national innovation system of host economy (Peng et al. 2008). Some characteristics of foreign companies are as follows. First, investment motives and strategies of MNEs: domestic-oriented affiliates generally purchase more locally than do export-oriented affiliates. Second, technology and market position of MNEs: affiliates producing standardized products tend to outsource more to local companies rather than companies producing highly specialized products, which tend to outsource less to local companies. Third, age of foreign affiliate: the higher the experience of MNEs in a foreign country, the higher the number of managers recruited locally and the higher the knowledge of sourcing locally, which lead to lower costs of sourcing locally. Fourth, mode of establishment: foreign affiliates that have entered through M&As tend to have stronger links to local suppliers as they have already established network from the acquired local firm. Fifth, size of affiliate: large affiliates tend not to source locally, as in general local suppliers lack the capability of providing large volumes of raw material. Last but not least, sector in which the foreign affiliate operates: foreign affiliates involved in technology that can be divisible into discrete stages can outsource easier than when involved in a continuous process; thus, the most feasible sectors for outsourcing are those in which products are standardized such as low value-added textiles, electronic components, some automobile components and mining.

Figure 2.4 Factors Influencing Inter-Industry Spillovers



Source: Author's Contribution

2.3.2.3 Negative Intra and Inter Industry Spillovers

Yet, not all FDI is equal in the nature of benefits it provides and not all the foreign enterprises' activity leads to positive spillovers (Narulla and Lall, 2006). MNEs are profit maximizing, and thereby not interested in increasing benefits for others enterprises without obtaining a good price for it (Meyer, 2003). They can prevent spillovers to domestic firms by preventing technology leakage and spillovers from taking place, as both parties are in direct competition (Kugler, 2000; Smarzynka, 2002). In particular, an important feature of the choices made by foreign affiliate' management is the minimization of the probability of imitation. It is unlikely to be in the interest of the foreign firm to share its firm-specific advantages with the domestic firms. Therefore, with imperfect intellectual property rights, MNEs tend to make entry decisions on the basis of limiting knowledge and information leakages as far as possible. Foreign firms can achieve this through formal protection of their intellectual property, trade secrecy, as well as by paying higher wages than local standards (in order to discourage highly trained employees to leave MNEs) or locating in countries or industries where domestic firms have limited innovative capacities to begin with.

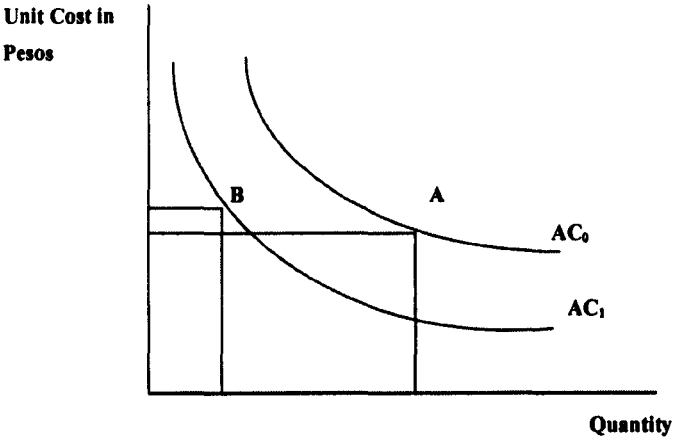
Moreover, even if there is information leakage, foreign affiliates may provide too few and/or wrong kind of technology (even outdated technology) to their domestic counterparts (UNECE, 2001). Further, domestic firms may not have the necessary absorptive capacity and human capital to absorb the latest technology, and/or there may be even skill mismatches when domestic firms hire trained staff by MNEs (Harris and Robinson, 2004). Also, a "brain drain" effect can be created in local firms, when foreign firms attract talented and skilled workers away from local firms (Blalock and Gertler, 2004).

In addition, foreign enterprises can also negatively impact their domestic competitors by reducing the productivity of the former, particularly in the short run. There is a simple story behind this. The entry of foreign firms leads to a more fierce competition. Given increasing costs and the fact that foreign firms can draw the sales and demand away from domestic firms, the latter are forced to reduce production, which in turn causes

decline in the productivity. Aitken and Harrison (1999) modeled these effects in Figure 2.5:

> "*Positive spillovers cause the domestic plant's average cost curve to fall from AC0 to AC1. However, the additional competition forces the plant to reduce output and move back up to its new AC1 curve. The net effect in Figure1 is to increase overall costs of production*" (p. 607).

Figure 2.5 Output Response of Domestic Firms to Foreign Entrants



Source: Aitken and Harrison (1999), p. 607

Hence, the productivity of domestic firms falls as fixed costs are spread over a smaller market. As a result, net productivity of domestic firms can decline in case that the absolute value of the productivity decline is a larger effect than the positive effect due to transfer of technology from foreign affiliate to domestic firms. Frequently, the increased concentration due to the presence of foreign firms and the fierce competition make less efficient and weaker firms loose their market shares or even force them exit the market. This is known as "crowding out" effect.

Negative vertical spillovers may also appear when foreign enterprises eliminate domestic suppliers by relying on foreign ones (there is a tendency of foreign firms to favor foreign suppliers). Hence, competition might be eliminated by "crowding out" local suppliers (UNECE, 2001; Narulla and Lall, 2006). Finally, foreign firms may also limit exports to domestic competitors. All these effects have a negative impact not only on the productivity of domestic firms, but also may have a wider negative impact in the whole economy growth.

2.4 EMPIRICAL REVIEW ON DIRECT AND INDIRECT TECHNOLOGICAL TRANSFER OF FDI

Economic theory has identified both positive and negative effects of foreign presence on host economies. However, the picture becomes less clear when turning from theory to empirical results. Empirical literature, with just few exceptions, usually confirms that affiliates of multinationals in the host country have on average higher productivity levels than purely domestic firms[20] (direct effect of multinationals to their affiliates) (Barrell and Pain, 1999; Pfaffermayr and Bellak, 2000; Harris and Robinson, 2003; Bellak, 2004b; Smarzynska Javorick, 2004; Rasiah and Gachino, 2004; Sabirianou et al. 2005, Yasar and Paul, 2007, and Arnold and Smarzynska Javorcik, 2009). As Conyon et al. (2002) put it; the superior performance of foreign owned firms has already become a fact in the literature. Multinationals outperform their competitors at home as well as in the host countries in terms of productivity (UNCTAD, 2005). Yet, when coming to spillovers, these effects are difficult to measure. In general, there are three methodological approaches that have been assigned the task to measure spillovers. First, due to data limitations, the early efforts to provide evidence on spillovers is provided through case study approach, which has been important in its contribution to FDI theory. Second, initial steps in conducting econometrics for FDI spillovers, are done using industry or sectoral level approach based on cross-sectional database. Third, more sophisticated recent techniques involve the adoption of micro-level analysis or firm level panel data, replacing cross-sectional data, in order to estimate the effects of foreign firms on total factor productivity of domestic ones. Nevertheless, all of these methods have their own advantages as well as limitations.

There are various ways to classify the empirical studies such as: in alphabetical order, in chronological order, in terms of employed methodology, in terms of results or findings, and in terms of countries covered in the research. This study will group the previous empirical findings according to the methodological approaches employed: survey

[20] In general, the empirical studies aiming to examine spillovers, start with an estimation of productivity differences between foreign and domestic firms and most of them find higher levels of productivity in the foreign firms. The next step then, is to determine spillover effects over domestic firms.

studies (including case studies and sample surveys – questionnaires and interviews) and econometrics (industry approach and firm level approach).

2.4.1 Review of Survey Evidence

Surveys dealing with direct and indirect technological effects of FDI include case studies and sample surveys (questionnaires and interviews).[21] Case study approach includes comprehensive and rich descriptions about particular FDI companies or projects in specific countries, providing firm specific estimates on the role of MNEs in changing the productivity of local firms. Case studies were particularly important during the seminal work on FDI spillovers, putting emphasis to linkages, turnover and demonstration effects (Kugler, 2000). As Lipsey and Sjoholm (2005) put it, "case studies offer great flexibility" (p. 31). This is extremely important for the analysis of the specific subject as the nature of technology transfer differs across companies, industries and countries. On the other hand, sample surveys provide detailed information by reporting results from in-depth questionnaires and/or interviews with companies' chief officers or managers. However, in spite of these detailed qualitative information provided by these approaches, they have a number of drawbacks. Generalizations with respect to the results of sample studies and particularly of case studies are not easy. These approaches tend to be limited to the firms covered by the research and positive or negative effects of FDI will not necessarily occur in other firms not included in the sample (UNCTAD, 1997). For example, case studies involve mainly projects of large MNEs, leaving usually aside small investments. Hence, case study and sample surveys send a message that is highly specified to a particular situation and condition. Results from surveys are also difficult to be generalized because they rarely provide quantitative information. This is particularly the case for early surveys, however the most recent ones already provide more sophisticated information. In general, surveys involve a degree of subjectivity; hence their results must be approached with caution. However, many researchers prefer this method even nowadays in case of lack of comprehensive firm level data or even incomplete records of financial performance data, particularly for transition countries. Surveys also provide detailed information on FDI effects and on the mechanisms through which these effects diffuse in the host country, which is a gap

[21] In this section, the term "survey" includes case studies and questionnaires and interviews.

in the econometric studies. This section will present a review of recent case studies and surveys (including questionnaires and interviews) on direct and indirect effects of foreign enterprises on host companies.

2.4.1.1 Direct Technological Transfer of FDI

A bunch of studies have referred in details, by conducting in-depth surveys, the direct effects of foreign companies. To start with, Mirza, Giroud and Köster (2003) conducted an extensive survey in order to investigate the FDI transfer of technology and how this affects local companies of Asian countries (East Asia: Hong Kong, Singapore, South Korea, Taiwan; the ASEAN: Indonesia, Malaysia, the Philippines, Thailand; and China and Viet Nam). Mail questionnaires were sent to parent and subsidiary manufacturing companies. The source countries included 15 members of the European Union, Switzerland and Japan. Overall, results showed the good performance of foreign subsidiaries was related to knowledge, technology and skills transferred from the parent company. Nevertheless, this technology transfer was not automatic and was dependent on certain criteria. Moreover, different types and levels of knowledge were recognized, which imply for different policies, criteria and levels of transfer. When analyzing the parents' commitment, they tended to transfer technology related to production, the supply chain system, and to a lesser extent, "adaptation processes". Though, they were not inclined to transfer knowledge related to R&D, innovation or design. The transfer of knowledge and skills to affiliates was reflected through improved performance of production facilities, which in many cases was coming closer to the level of companies in the home country. Nevertheless, performance gains appeared to be higher on some measures, rather than others. Finally, the results illustrated that foreign subsidiaries were providing benefits to Asian countries in terms of the upgrading of their technological capabilities. This occurred both through a direct business-to-business interface (for example, subcontracting or supplier relationship) and indirectly through various mechanisms such as training, demonstration effects, competitive effects and multiplier effects.

Based on similar concept and procedures, Mirza and Giroud (2004) used semi-structured, but, very detailed questionnaires to interview managers in five ASEAN countries: Cambodia, Malaysia, Singapore, Thailand and Vietnam. Overall, 113

companies were interviewed between 2001 and 2003. A considerable number of these companies were pure regional headquarter companies and all the rest were engaged in manufacturing. For comparison reasons, 10 local companies were interviewed, which were in direct competition with the surveyed foreign companies. The study provided results for all countries included in the study; however, emphasis was put on Viet Nam, which was used as a case study example due to its reasonable sample size. Regarding the direct FDI effects, findings suggested that these effects have been high in terms of employment, training, development of local capital and reinvestment for most of the countries included in the survey. However, the characteristics of subsidiaries in Viet Nam (few, small size, low technology, and market seeking) implied that the country is not capable to potentially benefit from FDI in the same degree as Malaysia and Thailand. These findings pointed out the need of Viet Nam to move towards efficiency-seeking FDI, rather than market seeking, because of the considerable transfer of knowledge from MNEs to suppliers in Malaysia and Thailand (characterized by efficiency-seeking FDI).

In contrast to the fore mentioned studies that focused exclusively on direct and indirect effects of foreign companies, the study of Meyer et al. (2002) intended to compare characteristics of local companies with foreign companies, as well as characteristics of FDI with respect to sectors of investment, entry mode, ownership and market orientation. Moreover, other aims of the study were the foreign firms' assessment of the local companies and the extent to which entry modes affect spillovers of foreign investors to the local economy. In order to reach these aims, a questionnaire survey was conducted in four emerging markets: Egypt, India, South Africa and Viet Nam, including various industries. Results showed different characteristics of FDI across the four countries. Greenfield investments turned out to be the most common mode of entry in Viet Nam and Egypt, joint ventures in India and acquisitions in South Africa. Regarding market orientation, it was found that initially, export orientation was very important in India and Vietnam, in contrast with Egypt and South Africa where more than 50 percent of the foreign investors started with initially serving only the domestic market. Though, when referring to the latest activities, there was a common trend in all countries towards a mixed strategy of serving multiple markets (domestic and foreign). Considering the performance assessment, overall, foreign investors were considerably more satisfied with the productivity they achieved, rather than with other performance

criteria (particularly with profitability in Viet Nam). When performance was compared across entry modes, in Egypt and Viet Nam, managers of joint ventures appeared more satisfied with their performance than mangers in greenfield investments. Though, opposite results were found for India and South Africa, where managers of greenfield investments were more satisfied, which gives indications for post-acquisition problems in these countries. Moreover, when respondents were asked to assess the performance of local firms to their own, the results did not show large variation among the criteria set up. This was a surprising result, given that in general foreign companies are alleged to have considerably better performance than their domestic counterparts.

After presenting a number of researches focusing on direct and indirect technology transfer of foreign investors on developed and developing countries, it is important to refer to studies on the CEE area. Taking in consideration the direct effects of FDI, survey evidence has shown that foreign firms transfer advanced technology, organizational and marketing and management know-how, skills, and promotes exporting. All these effects result to improve in companies' performance (especially, productivity) and can support the country's transition process. As Knell and Radoŝević (2003, p. 45) point "*there is a great optimism in CEE countries that FDI can speed up the process of transformation*".

In their efforts to demonstrate the superior performance of foreign companies, a number of authors have tried to assess the performance differences between foreign and domestic firms in the CEE countries. A wide range of performance indicators is used, including sometimes export performance too. For instance, Zemplinerova (1998) showed for Czech Republic that foreign firms have a far better performance than domestic firms, particularly in terms of productivity and efficiency. It was also found that they have higher improvements in marketing, management, organization, quality control and training; and that they invest more than domestic companies. Though, when profitability was measured, no significant differences were found between foreign and domestic firms. Szanyi (1997) showed that the better performance of foreign companies was much based on the introduction of modern technology. Hunya (1997) also confirmed the higher productivity of foreign firms compared to that of domestic firms in Poland. By comparing post-privatisation performances, it was found that even though sales declined after privatisation, employment remained stable along with an intensive

investment activity. There were signs for a successful restructuring with foreign privatised companies upgrading and expanding existing capacities rather than introducing entirely new activities. Eltéto (2001) compared the competitiveness of domestically owned and foreign-investment enterprises in Hungarian manufacturing sector, covering the period 1993-1999. The results showed that foreign enterprises were more competitive than domestic enterprises in terms of activity (productivity and investment), characteristics (technology and R&D), and external conditions (economic policy towards foreign enterprises). However, in spite of the higher levels of productivity recorded by foreign firms, Eltéto found that most of the foreign affiliates did not reach high levels of profitability, confirming the results of the above mentioned study of Meyer et al. (2002). This often occurs as foreign firms try to indicate lower profits in order to avoid paying high taxes.

Furthermore, various studies have tried not only to compare the differences between foreign and domestic firms, but also to determine the role of FDI on enterprise restructuring, combined with the impact that various entry modes could have on the extent to which FDI affects the domestic. A study of the kind is that of Zemplinerová and Jarolim (2001), who analyzed the role and impact of mergers and acquisitions, as well as greenfield manufacturing FDI in the Czech Republic. The authors noted that foreign affiliates tended to be more than twice as big on average in terms of total sales than domestic firms. In addition, foreign affiliates resulted in higher levels of labour productivity and export shares. Both kinds of foreign firms, greenfiled and M&A, performed well enough, however, the productivity growth of foreign firms was slightly higher in case of M&A firms. Both groups of foreign firms affected positively the productivity growth of domestic firms. Though, in industries with insufficient import competition, the positive effects from foreign presence could be cancelled out by high market concentration. Moreover, Wes and Lankes (2001) in their study in a number of countries in Central and Eastern Europe and Central Asia, suggested that host countries could drive benefits from both types of investment, greenfield investments M&As. These investment projects can offer access to technologies that local firms do not posses. Moreover, the survey showed that while greenfield enterprises rely more on imported supplies, M&As have a more developed network of local and regional suppliers. Subsequently, greater linkages in the case of M&As provide greater potential for FDI spillovers rather than in the case of greenfield investments.

In addition, Rojec (2000, 2001) made a comparative study in the Czech Republic, Hungary, Poland and Slovenia. The author concluded that foreign enterprises demonstrate much better performance indicators than domestic firms, however, it was difficult to identify whether this superior performance was due to their allocative efficiency or industry efficiency. Most enterprises were found to be only moderately profitable, confirming the findings of other researches. Besides tax strategy, another possible reasons is that restructuring is capital and time consuming. Results also indicated that in most of the cases restructuring preceded smoothly and in a deeper manner, particularly in the larger firms. Foreign partners, however, transferred new technology, know-how and finance, as well as supported the company's access to foreign markets. In most of the cases the transfer was in form of machinery and equipment, as well as in form of various skills and training of management and employees. On average, larger companies were more export oriented than smaller ones.

To sum up, survey evidence has shown that most of the FDI projects in developed, developing and CEE region result in technology, knowledge and skills transfer, as well as improvements in quality and productivity. As a result, it is not surprising that foreign affiliates perform better than domestic firms (particularly in the manufacturing sectors which is extensively analysed). Moreover, regarding especially the CEE region, FDI either through M&As, greenfield investments or privatisations, has played important role in the restructuring and upgrading of domestic companies, mostly through increase in quality and productivity.

2.4.1.2 Indirect Technological Transfer of FDI (Spillover Effects)

Lall (1980) [22] was among the first who found case study evidence to support vertical linkages between local firms and MNEs in the study of truck manufacturers in India. The effects were particularly strong towards upstream local suppliers, rather than downstream customers. The author argued that foreign affiliates provide support to domestic suppliers in various ways: by training employees and managers, by helping

[22] Lall was also one of the seminal and major contributors on the literature of FDI and its assistence to economic development in the context of developing countries. His work played an important role in the field and influenced a number of academics.

them in upgrading production facilities, by providing technical assistance in order to improve product quality, and by providing support in purchasing raw materials. Following Lall (1980), a number of case studies emerged covering developed, developing and transition countries. UNCTAD (1997), Kugler (2000), Rhee and Belot (1990)[23], Moran (2001) and Haskel, Pereira and Slaughter (2002) have provided a summary of case studies on developed and developing countries concluding that case studies at firm and industry level suggest that spillover effects from MNCs vary according to technological and managerial capabilities of local firms relative to those of foreign firms, as well as to strategies followed by the latter. Most of the recent studies combine detailed sample surveys with some case studies in order to provide more generalizable results. Some of the most recent surveys on spillover effects of MNEs in developed, developing and transition countries will be presented below.

One of the most detailed and well-researched studies is that prepared by PA Cambridge Economic Consultants on behalf of the UK Department of Trade and Industry (1995), which carried out an exhaustive assessment of the wider effects of FDI in UK manufacturing. The aim of the research was to examine the impact of foreign firms on other UK firms, including the impact on management, operational practices and business performance. The research was conducted during 1994 through case study interviews with a sample of thirty larger inward investors in manufacturing that located in the UK between the mid 1970s and early 1990s. Detailed discussions were carried out with a sample of their competitors, suppliers and customers in order to compare their views with those of foreign investors. The majority of the case study firms were concentrated in the engineering and electronics sectors (mostly in motor vehicles, electrical goods and computers), another part was in the extractive sector (for instance, toiletries and pharmaceuticals) and the remainder produced other products (such as, clothing or paper). The results of the study showed that the need to capture new markets and increase market share were the primary reasons for choosing UK as country to do investment. Regarding the impact of foreign investors to their local competitors, the presence of foreign companies in the UK market lead to significant changes to the strategy and practices of competitors. Both, foreign investors and local competitors

[23] Even though, Rhee and Belot (2000) focused on the export behaviour of firms, based on firm level interviews, they found that the presence of MNEs had a positive contribution on the export potential of local intensive industries, in 11 developing countries.

agreed that a key response to foreign presence has been increased product development activities, quality improvements, as well as reduction in costs and prices. However, these adjustments were much smaller than those found in domestic suppliers. On the other hand, the impact on business performance suggested for adverse impacts from increased competition, including decline in sales of competitors due to foreign presence. The general impact on competitors was somewhere in between positive effects from the adjustments made and the adverse effects from the increased competition. Taking in consideration the impact on local suppliers, both suppliers and foreign investors recognized positive impact on suppliers' practices focusing on the productive processes, delivery methods, and product development activities. Impacts were also identified on suppliers' competitive advantage including product quality, speed of service and price, as well as responsiveness to client needs and reputation in the market. Regarding suppliers' performance, suppliers and foreign investors identified improvements in suppliers' sales, employment, profitability, productivity and investment. In general, the impact of foreign companies on suppliers' practices and business performance (particularly sales) has been greater than the impact on competitors and customers. Finally, the main impact on local customers was a direct improvement of inputs available from foreign investors, which led to improvements in product quality, design and technology, as well as to reduction in prices. Whereas, the impact on business practices has been smaller to that on suppliers. Nevertheless, it included improvements, especially in marketing and products development activities. Overall, the research highlighted the importance of foreign investors' presence in the UK and their significant role in upgrading domestic firms and their competitiveness.

Based on data from surveys carried out by the UK government in 1995, similar with the above mentioned study, Potter et al. (2002), focused on the wider effects of FDI on the UK domestic companies' practices, competitiveness, technologies and efficiency. To serve this purpose, random interviews were held with only with domestic companies, including 184 suppliers, 39 competitors, and 44 customers. The results provided evidence of important positive spillover impact, stemming from the FDI presence. In contrast to other studies that find positive impact being limited only to the linkages of foreign firms with domestic suppliers, this research showed that positive impact also extends to competitors and customers, even though the extent and type of impact differed. The positive impact of FDI was focused on a mix of efficiency effects and

technology spillovers, leading to reduction in X-inefficiencies. However, in the case of domestic competitors, positive effects had to be balanced with adverse effects on competition. Addressing to the main transmission mechanisms, knowledge was mainly transferred through active collaboration, including personal contacts (informal exchange of ideas, visits and staff exchanges). Passive channels were also important, such as demonstration effect, contractual arrangements and competitive pressure, combined with additional sales for suppliers and improved inputs for customers. Emphasizing the positive effects of FDI, the paper suggested that while designing policies for attracting FDI, regional policymakers should seriously consider the wider effects of MNEs.

Rather than examining both, forward and backward linkages, Crone and Roper (1999) focused only on the linkages between MNEs and suppliers in Northern Ireland based on interviews with senior managers of 33 foreign companies. Relying on the perception of foreign investors, the results suggested that MNE plants were using better manufacturing techniques than the domestic competitors and that there was substantial knowledge gap between the foreign companies and their local suppliers. Nevertheless, the research provided evidence that there are active spillovers to local suppliers due to knowledge transfer activities undertaken from a significant proportion of foreign firms with their suppliers. Collaboration of MNEs with suppliers was mainly on product development, quality systems and management issues. The impact on suppliers' competitiveness, as perceived by foreign investors, was significant in terms of improvements in quality, price and service delivery.

Tavares and Young (2002) used a cross-country dataset including 233 subsidiaries for four European Union host countries such as Portugal, Spain, Ireland and the UK. Data from subsidiaries were gathered using questionnaire survey. Key determinants of the choice between local and foreign sources were investigated, and the main ones include variables such as home country, host country, sector, age of subsidiary and entry mode, but also the impact of economic integration. Employing econometric analysis by using foreign inputs and components as the dependent variable, the results showed that economic integration, globalised industries, host country, incentive concession and subsidiary roles are associated with greater import propensities.

Likewise, Meyer et al. (2002) conducted a questionnaire survey in four emerging markets: Egypt, India, South Africa and Viet Nam, including various industries. Foreign investors appeared to be overall satisfied with the level of local suppliers, particularly when referring to the current situation. The scores were on average highest for professional services, but problems appeared with the supply of raw materials and components, as well as with machinery and equipment (especially in Egypt), implying that a weak manufacturing base can become an obstacle for foreign investors. However, the quality of suppliers seemed to considerably improve over time.

Mirza and Giroud (2004) extended the study of Mirza, Giroud and Köster (2003) by focusing mostly on spillover and wide economy effects of FDI, rather than only on direct technology transfer from parent company to subsidiary. Semi-structured, but, very detailed questionnaires were used to interview managers in five ASEAN countries: Cambodia, Malaysia, Singapore, Thailand and Vietnam, including 113 companies interviewed between 2001 and 2003. Findings showed that in terms of spillover effects, neither Malaysia nor Thailand had been very successful in benefiting from spillover gains. Only local suppliers were able to reap the major gains from FDI, through the transfer of "world class" technology, knowledge and expertise in order to maintain quality and efficiency in global standards. This again highlighted the necessity for Viet Nam to promote efficiency seeking investments. Various reasons were provided for the presence of few spillovers, such as the high number of local competitive companies and the lack of local companies' capabilities to absorb foreign knowledge and technology. The findings of the study, overall suggested that Viet Nam could learn and take examples from Malaysia, Thailand and other ASEAN economies so as to stimulate further FDI and maximize the potential benefits.

In addition, Giroud and Mirza (2006) using the above mentioned study, but focusing only on the data gathered from four countries of the ASEAN Cambodia, Malaysia, Thailand, and Viet Nam, and including data from 85 foreign subsidiaries, found that the extent of local input linkages varied directly as a function of how long the local foreign affiliate has been in the country and in general the experience in the host economy. This implies that time is required for TNCs to develop backward linkages. The development of a local supplier base happens neither quickly nor automatically. The other factors that appeared to be strongly linked to local supply linkages were the role of the subsidiary in

the MNEs network and the industry in which the company is operating. Finally, there was indiciation that the host economy itself plays important role in explaining local vertical linkages.

Focusing on Indonesia, Blalock and Gertler (2008) provided anecdotal evidence from interviews with six MNEs that there is a technology transfer through vertical supply chains (backward spillovers) and that their productivity growth is accelerated due to their experience with MNEs. The result implied that apart from generating welfare benefits, FDI can also provide credit liquidity in times of financial crisis.

There are also a number of surveys focusing on indirect technological effects of FDI in the CEE region. To start with, Sass (1996) based on a questionnaire survey of 125 FDI companies with foreign participation, found that most of the companies relied either very much (above 50 per cent) or to a negligible extent (below 10 per cent) on domestic suppliers. Mainly privatised companies could be found in the first group, while in the second group, greenfield investments dominated. This could be explained by the existing/traditional company links in the case of the privatised companies, as well as by the relatively long time needed to build up a local supplier network in the case of greenfield investments. In the group of greenfield investments, there were found companies that did not want to construct relations with local suppliers and these tended to be companies that exported most of their products. On the other hand, companies producing mainly for the local market relied on local suppliers. Moreover, no differences were found in terms of the investing country in the share of local suppliers. Regarding the industries, the food industry and electronics appeared to attract mostly local suppliers, whereas the textile, clothing, footwear industries had the smallest share of links with domestic suppliers (companies in these sectors tended to carry out subcontracting activities, which is a common characteristic for all CEE region). Limited potential for spillovers were found for the Czech Republic by the 1997 CzechInvest survey, showing that 44 % of foreign firms in the Czech Republic had no foreign staff, and 68 % had a Czech managing director. This result had its own implications, which is that there is a restricted potential for transfer of skills, knowledge and experience from foreign managers to domestic personnel.

OECD/OCDE (2000) prepared a detailed study on Lithuania, which among other issues examined the economic benefits of the country from FDI, particularly spillover effects of FDI in the Lithuanian textile, electronics and optical instruments industries. The study involved interviews with nine foreign companies and three local subcontractors. The main motivation for starting business in Lithuania were, according to foreign companies, relatively cheap and skilled labour, as well as access to other countries of the region. Foreign companies claimed that the main criteria for choosing local subcontractors were quality of production and price. On the other hand, according to the local subcontractors, the main motivation was entry to international markets, as well as the presupposed growth in income and improved skills in marketing. Referring to linkages of foreign companies with local subcontractors, it was found that there was no systematic or continuous co-operation in the field of research and development, however, there were found to be frequent linkages in technical and information exchanges. Positive effects were created as linkages with subcontractors resulted in improvements of their quality level due to increased use of high-quality raw materials, improvement of equipment and related technologies, as well as implementation of production systems based on certification. Other positive effects involved improvement in efficiency, increased sales and lower costs. Taking in consideration the linkages of foreign companies with local customers, the major customers of foreign companies were mostly foreign parent companies or other large customers abroad. Local customers included wholesale organizations or large department stores, reflecting the situation of the industries included in the survey, especially the textile and electronic industry. Similar conditions were relevant also for the suppliers of the surveyed companies, which were mostly foreign companies. The two main reasons for not relying on local suppliers were that local suppliers either were not available, or their quality was considered insufficient; and that the operating strategy followed involved the use of raw materials provided by the parent company, eliminating the need for local suppliers. In case of companies with local subcontractors, local suppliers were found mostly on basis of earlier contacts. The major requirement of foreign companies to local suppliers was the quality of products. The resulting spillover effect from quality pressure seemed stronger in case of stronger relationship of foreign investor with subcontractors.

A more optimistic picture is offered by a more recent study of World Bank in Latvia contributing to surveys on transition economy (FIAS, 2003). The study reported that 82

% of the MNEs operating in the country have contact with at least one local supplier. While, when interviewed, 36 % of Latvian suppliers reported that they were receiving assistance from their customers (foreign affiliates in this case).

Ferencikova (2003) conducted a questionnaire survey in 1998 addressed to a sample of 208 foreign subsidiaries in Slovakia (accounting for over 92 percent of all FDI in the country), of which 107 companies responded to the questionnaires. The research concluded that most foreign firms view FDI as a source of positive internal changes in the subsidiaries, including implementation of new technologies, growth of investment, increase in the quality of labour force, and transfer of knowledge (especially managerial know-how). The majority of the firms confirmed the role of FDI as a significant factor for market development and transformation of the Slovakian economy. This has been justified by the importance of FDI in ensuring higher quality of goods and services in the market. Other benefits included growth of employment, capital investment, managerial know-how, turnover and profit, and taxes. Ferencikova examined not only direct effects of FDI, but also spillover effects. The results of the questionnaire survey concluded for Slovakia that foreign companies influenced positively other local companies by transferring technology, know-how and skills.

Finally, one the most recent studies is carried out by Smarzynska Javorcik and Spatareanu (2005), which controlled for spillover effects to domestic competitors through interviews with domestic firms. The survey was based on data collected by the World Bank in Latvia and the Czech Republic in 2003. The research confirmed on the existence of spillovers through knowledge transfer with these effects being slightly different in the two countries. The main mechanisms channeling this transmission were the demonstration effects and the movement of labour. Competition effect was also important, even though adverse effects were found on some firms in the short run.

Whereas the studies presented above were based on in-depth surveys (sometimes coupled with some case studies) to examine the effects of FDI, a number of researches include case studies on single or a number of companies and/or sectors. These provide important information on the subject, however, as already mentioned, case studies are difficult to be generalized. For instance, Altenburg (2000) presented three case studies from manufacturing activities (electronics hardware, automotive and apparel industries)

in developing Asian countries. Even though, many suppliers were eliminated or crowed-out due to their low quality and inefficiency, especially in the manufacturing industry, Altenburg suggested that as spatial proximity to suppliers and customers becomes an important advantage, MNEs are interested in intensifying linkages with neighboring firms. As a result, new opportunities were coming up for specialized local partners and suppliers. Parallel to this, competition pressures, forced MNEs to put higher requirements to their suppliers leading to an improvement in quality, price and time delivery. Pavlenik and Smith (1998) used a case study approach at industrial level for the Czech and Slovak Republic and found some embeddednes but which was created through transformation of existing systems and not from vacuum. Deeper forms of embedded institutional reforms, as well as enrichment of skills, increasing wages and productivity and high levels of cooperation and partnership were largely absent. Using the same approach, Pavlenik (2004) found for Czech automobile industry that FDI had only limited impact on domestic R&D and that the rumours of large-scale technology transfer of industrial R&D by MNEs were exaggerated. In the same line, a more recent study is that Rugraff (2010), which found for the Czech motor vehicle industry limited vertical spillovers from foreign subsidiaries. Local companies are absent from first-tier suppliers and are only linked by casual technologicalk relationships to MNEs. The weak relationship between foreign and local companies leads to limited or weak linkages in the Czech automotive system and may lead also MNEs to relocate in other countries rather than the Czech Republic.

A review of the studies presented above shows that there is no conclusive evidence on technology spillovers from foreign firms to the domestic firms, with some studies providing evidence on positive spillovers (particularly on backward linkages with suppliers) and some others failing to show any benefit of host companies from this phenomenon. As already mentioned the materialization of these effects need time to emerge, combined with the fact that they depend strongly on host country characteristics, host company characteristics, as well as the characteristics of foreign enterprises investing in the economy.

2.4.2 Review of Econometric Findings

The majority of recent literature on FDI spillovers is based on econometric approach. However, due to the fact that spillovers are difficult to measure, the approach adopted in the existing empirical literature avoids the question of how productivity spillovers actually take place (Görg and Strobl, 2001). It rather focuses to a simpler issue of whether or not the presence of foreign companies affects productivity in domestic companies. Blomström and Kokko (1998) conclude, "*the evidence on spillovers from FDI in host countries suggests that such effects exist and that may be substantial both within and between countries, but there is no strong evidence on their exact nature and magnitude*" (p. 24). Whereas, Rodrik (1999) points out "*today's policy literature is filled with extravagant claims about positive spillovers from FDI, but the evidence is sobering*" (p. 37). Finally, Smarzynska (2002) argues, "*it is possible, though, that researchers have been looking for FDI spillovers in the wrong place*" (p. 2).

Table 2.3 (at the end of this chapter) sets out a wide-ranging, however not exhaustive, list of previous econometric studies of technology/productivity[24] spillovers in developed, developing and transition economies.[25] Studies on transition economies have emerged only in recent years. More specifically, the studies focused on econometrical approach will be categorized according to their findings – positive, negative, mixed or conditional.[26] Prior to this, findings will be put in larger groups such as intra-industry (horizontal) spillovers and inter-industry (vertical) spillovers.

Judging from a number of studies, empirical evidence of productivity spillovers through FDI is mixed. The early work of Caves (1974) and Globerman (1979) on FDI spillovers was the starting point for the econometric examination of spillover patterns. Since then, however, their empirical models have been extended and sophisticated (there is an impressive increase in the number of such studies particularly in the last 5 years). Most of the studies on spillovers are usually done at the firm, industry, or sectoral level panel data, since spillovers occur between firms (foreign and domestic). Panel data are taken from the financial statements of individual firms, which are usually provided through

[24] The term productivity spillover and technology spillover can be used interchangeably.
[25] Table 2.1 includes the basic information about the studies on FDI productivity spillovers that have been taken in account in this research. However, the empirical review of the studies presented here should not be considered as exhaustive. Taking in consideration the recent flow in productivity spillovers papers, it is likely that this research misses out papers.
[26] Whereas, Table 2.1 classifies the studies in chronological order according to countries: developed, developing and transition.

industrial surveys carried out by National Tax Offices or Statistic Offices. Panel data are to be preferred as they capture certain country-specific factors (important if host country characteristics matter) that do not appear in cross-country time series data (UNECE, 2001). The drawback of industry level panel data is that they measure only intra-industry spillovers, and cannot measure adequately inter-industry spillovers. Therefore, the difficulty in industry level panel data lies in identifying the appropriate backward linkages (upstream suppliers) and forward linkages (downstream customers). By contrast, firms level panel data capture both intra-industry, as well as inter-industry spillovers.

Given the vast empirical literature on productivity spillovers, it is not surprising to find that some of the studies provide evidence for positive spillovers, others reveal the existence of negative spillovers, while the rest find mixed results or conditional on certain variables.[27] Adding to this, various techniques and methodologies have been applied, considering heterogeneous time periods and using different endogenous as well as exogenous variables (Chudnovsky, López, and Rossi, 2004). Developed, developing, as well as transition countries have been covered in these studies, irrespectively of the received foreign direct investment (FDI) inflows. In general, however, the studies measure short run effects of foreign firms on domestic firm's productivity. In examining horizontal spillovers, output level or productivity or total factor productivity in domestic firms is regressed on various factors (for instance, capital intensity, production scale and skills) supposed to impact productivity, one of which is the extent of foreign firm's presence, which is usually calculated as the share of employment or sales or assets of foreign firms over employment or sales or assets of total industry in a given sector (Görg and Strobl, 2001; Görg and Greenway, 2002). Positive spillovers exist if the coefficient of foreign presence appears to be significant and positive. Most of this econometric literature aiming to investigate FDI spillovers uses Cobb-Douglas production function.

[27] See also Blomström and Kokko (1998) and Görg and Strobl (2001) for a good survey of literature review on FDI horizontal spillovers.

2.4.2.1 Intra-Industry Spillovers

Positive Results

The first group includes a plethora of early industry level studies that examined the existence of intra-industry spillovers and showed positive correlation between foreign presence and domestic productivity. As already mentioned, the pioneer study was that of Caves (1974), which was carried on Australia for the year 1966. This work involved a cross-sectional industry level analysis for the Australian manufacturing sector. Significant intra-industry (horizontal) spillovers were revealed when a foreign presence in employment was included as explanatory variable among other characteristics in total factor productivity. Cave's study was followed by that of Globerman (1979) for Canada and Blömstrom and Persson (1983)[28] for Mexico. Similar to Caves (1974), both studies used cross-sectional data for the manufacturing sector in a single year, 1962 and 1970, respectively. They found positive and statistically significant intra-industry spillovers and used value added as a measure for foreign presence in industry. However, these three studies did not explain how the productivity spillovers take place.

Subsequent studies revealed similar results. Nadiri (1992) examined United Stated foreign investments in the manufacturing sectors of France, Germany, Japan, and United Kingdom from 1968-1988 and found positive spillovers from FDI on the growth of productivity in local firms. Moreover, the study confirmed that the spillover effects were large enough to support the convergence of Mexico local firms towards United States productivity levels for the period 1965-1982. A second study of Mexico is that of Blömstrom and Wolf (1994) for the manufacturing sector, covering the period 1970-1975. The study used a dynamic approach so as to take into account the different economies of scale across industries. The results confirmed that sectors with higher levels of foreign ownership have higher average productivity growth rates and that foreign presence has a positive influence on the productivity growth of domestic firms. In a cross-sectional study for Indonesia in 1991, using data on establishments rather than sectoral data (used in the earlier studies), Blomström and Sjohölm (1999) found that foreign enterprises had positive effects on productivity of labour in the same sector. Finally, the two more recent studies providing evidence for positive spillovers are those on United Kingdom manufacturing firms. The first one is that of Hurbert and Pain

[28] See also Blomström (1986) for similar results.

(2000) that indicated significant positive intra-industry and inter-industry productivity spillovers for the period 1984-1992. The second study is that of Liu et al. (2000) that provided evidence only for intra-industry productivity spillovers covering the period 1991-1995.

The above-mentioned group of industry level studies has generally found positive spillovers of foreign presence on domestic firms' productivity. However, these studies have been strongly criticized by a number of researchers, who emphasize that positive results can be explained by reasons other than the existence of spillovers from multinationals. In particular, the way the research is conducted highly influences the results obtained, as well as the policy implications made. The studies of the first group have used cross-sectional data to examine spillovers. Görg and Greenway (2002) provided an analysis of the disadvantages of cross-sectional data and argued that they impose obstacles to the dynamic analysis of the foreign presence effects. In particular, the authors pointed out that cross-sectional data rely only on one data point, rather than over a long time period (like panel data do) and that cross-sectional data do not take into account the impact of the sectoral composition of FDI. Görg and Greenway concluded that coefficients on cross-section estimates are likely to be biased, meaning that positive and statistically significant relationship would be found between the level of foreign presence and domestic productivity, even though spillovers are absent due to the fact that foreign firms are attracted by high productivity factors. Moreover, Aitken and Harrison (1999) criticized these studies for their simplistic nature and for failing to consider firm fixed effects. The authors identified that positive results of this generation of studies were caused by other reasons, rather than contribution of technology spillovers that assist the enhancement of higher productivity in domestic firms. Therefore, positive externalities appear only due to the fact that multinationals tend to locate in relatively high productivity sectors, and that the presence of foreign firms (which increases competition) might induce the exist of less competitive domestic firms, which in turn raises the average productivity level of the industry. Whereas, Smarzynska (2002) argued that the drawback of most of the studies included in the first group is the difficulty in establishing the direction of the causality. Taking these arguments into account, only few studies, using appropriate data and techniques, report positive intra-industry spillovers. Last but not least, Kugler (2000) noted that much of the industry level studies failed to consider inter-industry spillovers, which it has been

argued to be greater than intra-industry spillovers. Despite the critics, this econometric literature has its own merits; it is considered to be important as it presents the first attempt to quantify the mechanisms documented in theoretical literature.

Negative Results

The second group of studies includes a number of more recent works, which use firm level longitudinal data basis. The later has provided a more accurate approach compared to industry level studies that were characteristic in 1970s and 1980s. The researches of this group are based on firm level panel data techniques in order to investigate whether foreign presence in the sector or region is correlated to the productivity of domestic firms over time. Most of these works make reference to developing or transition countries and find the absence of positive intra-industry spillovers, and even imply that foreign presence is not beneficial to the firms of the host economy. These studies usually suggest for negative spillovers and show that technology dissemination from foreign firms to domestic counterparts did not produce the externalities expected by the spillover model.

The pioneering research of this kind that is worth mentioning is that of Haddad and Harrison (1991). The authors worked on panel firm level data for Moroccan manufacturing sector with assets as a variable used for measuring foreign presence, covering the period 1985-1989. Results showed that even though foreign firms have higher levels of productivity compared to domestic ones, their rate of productivity growth is lower than that of domestic firms. Findings also confirmed that the dispersion of productivity levels in sectors with large foreign ownership is smaller, something that was more evident in sectors with simpler technology. The authors concluded that there are no significant transfers of updated technology from foreign companies, as well as there was no significant effect on total factor productivity of domestic firms from foreign presence.

One of the most careful researches that casts doubt on the existence of spillovers is that of Aitken and Harrison (1999), who used panel data for 4000 establishments in the Venezuelan manufacturing sector for the period 1976-1989. In contrast to the studies mentioned earlier, the study does not consider only intra-industry spillovers, but even

inter-industry spillovers. Adding to this, the most important contribution of this study is the introduction of control variables of sectoral nature into the analysis of spillovers, without which the conclusion for the evidence found on Venezuela would be exactly the opposite. Findings suggested that foreign ownership was associated with higher levels of productivity compared to domestic firms, but domestic firms tended to be less productive in sectors with strong competitors of foreign ownership rather than in other sectors. Consequently, results showed that foreign presence affected negatively the productivity of foreign firms. However, the authors noted that the findings would have been totally opposite (positive spillovers rather than negative) if they would have not taken into account that foreign affiliates tend to locate in high productivity sectors. Based on these findings, as it is already mentioned, it is possible that the positive spillovers found in the fore-mentioned researches of the first group are caused by the fact that these studies have not included control variables of sectoral nature, rather than by authentic productivity spillovers. Thus, Aitken and Harrison criticized these studies for failing to consider firm fixed effects. However, besides the negative net spillovers found, Aitken and Harrison provided for some positive spillovers found for domestic firms located near to the multinationals' affiliates, something that varied between industries.

Similar results are reached for the case of transition economies in the studies of Djankov and Hoeckman (2000), Konings (2000), Damijan et al., (2001), and Zukowska-Gagelmann (2002).[29] More specifically, Djankov and Hoekman (2000) used firm-level panel data, 513 observations included, for the Czech Republic covering the period 1992-1996. The authors performed an econometric analysis of the impact of foreign investment on total productivity using a growth accounting model. The findings provided evidence that foreign owned and joint venture firms have productivity higher than average, however, spillovers associated with foreign firms presence were negatively correlated with domestic firm performance. The results also suggested that domestic industries with the most room for productivity improvements are more able to adopt productivity improvements from foreign firms and that know-how spillovers require a minimum level of technological capacity to be absorbed.

[29] In general, the studies focused in transition countries of Central and East Europe examine spillovers in the manufacturing sector, with the exception of Djankov and Hoeckman (2000) and Konings (2000), who include also non-manufacturing sectors.

In a similar vain with Djankov and Hoeckman (2000), Konings (2000) used firm level panel data to investigate empirically the effects of FDI on the productivity of domestic firms in three emerging economies: Bulgaria, Romania and Poland. Employing a methodology similar to that of Aitken and Harrison (1999), the study covered the period 1993-1997, using data for over 5000 firms in manufacturing and non-manufacturing sectors. The results showed that only in Poland, the more advanced transition economy, foreign firms perform better than firms without foreign participation. While for Romania and Bulgaria foreign firms did not have a clear productivity advantage. This suggested that it might take time for ownership effects to have an impact on performance. The findings also pointed out that FDI may be important for transferring technology to an affiliate, but there is no evidence of positive spillovers to domestic firms. In contrast, evidence is found for negative sectoral spillovers in Bulgaria and Romania, and of no spillovers for domestic firms in Poland. This implied for a negative competition effect that dominates a positive technology effect.

The third study making reference to transition economies is that of Damijan et al., (2001), who applied a dynamic growth accounting approach using firm-level data for eight transition countries to explore intra-industry productivity spillovers from firms with foreign participation to domestic firms. Panel data for the period 1994-1998 were obtained for the eight transition countries: Hungary (134 firms), Slovakia (136 firms), Bulgaria (1233 firms), Czech Republic (1115), Estonia (373), Poland (2199), Romania (1918), and Slovenia (1093). The results confirmed that spillovers are rare in these countries, and that no evidence of positive spillovers is found from foreign owned firms to domestic firms. Results also suggested that for three transition countries foreign presence is found to have significant crowding-out effects for local firms in the same industry, implying for negative intra-industry spillovers.

Finally, the last study confirming for negative effects of foreign presence to local firms in the transition economies, is that of Zukowska-Gagelmann (2002) in Poland, between 1993 and 1997. Nevertheless, the effects tended to differ between groups of firms and industries. It is quite surprising that the author found negative spillovers for the most productive Polish firms (located in sectors with high competition) and positive spillovers for less productive firms. It is very interesting to remark that most researches

done in the transition economies provide for negative spillovers of foreign enterprises to local industries. [30] Overall, the negative effects found in these countries imply that the negative competitive effects of foreign affiliates outweighed any positive technology and productivity improvements from demonstration effect and labour movement effect.

Mixed or Conditional Results

The third group of studies provides remarkable evidence on the determinants of the existence or not of spillovers. Using again panel data techniques, these studies show that productivity spillovers may exist but they are dependent on various factors. A number of studies paid much attention to the role of technological and productivity gaps between local firms and foreign firms. Technology gap appears to be one of the most important conditions favoring a positive impact of foreign investments on the productivity of domestic firms. On the one hand, a large gap between host country firms and foreign-owned firms suggests that there is room for technological learning and imitation in domestic firms. This assumption is based upon the original idea of Findlay (1978), according to which technological progress in backward countries is positively related to the gap between their own technology and that of the developed countries, as well as to the degree to which these countries are open to foreign investment. The technology gap indicates potential for catching—up and hence explains part of the difference in the received spillovers in different countries (Lorentzen, 2005). On the other hand, a too large gap could present an obstacle for spillovers to occur, as local firms would be unable to benefit from transfer of knowledge, as well as to improve competitiveness through modernization of technology.

Some representative studies of the first assumption (spillovers arise when the technology gaps are high) are those of Blomström and Wolf (1994), Sjöholm (1999), Driffield (2001), and Driffield and Love (2003). Blomström and Wolf (1994) for the manufacturing sector, covering the period 1970-1975, confirmed that the local firms' growth of gross output per employee is positively related to the initial labour productivity gaps between local and foreign firms. In line with these results, Sjöholm

[30] One possible explanation for this is that researches focused on transition economies use relatively small datasets and/or short time periods, given the short experience of FDI in these countries.

(1999) found for Indonesia between 1980-1991 that productivity spillovers are positively related to the technology gap between foreign and domestic firms (productivity is higher when the gaps are). In addition, Driffield (2001) argued for United Kingdom between 1989 and 1992 that growth in domestic firms' productivity was positively affected by the increase in productivity gaps between foreign and domestic firms. The more recent study on the subject is that of Driffield and Love (2003), who found also evidence for United Kingdom covering 1984-1995 that spillovers between foreign and domestic firms occur only when the technology differences between the two are high and positive.

In contrast, a number of scholars, such as Lapan and Bardham (1973) support the second assumption, arguing that large technological gaps may hinder spillovers, as technologies developed in industrialized countries may be not compatible for the conditions of less developed countries. Therefore, the expected benefits in terms of technology transfer to the domestic firms highly depend on the size of the technology gap between domestic and foreign firms, with too big gap implying for less spillovers (Lim, 2001). Besides technology and productivity gaps, the extent of spillovers also depends on the capabilities of the domestic firms to absorb foreign technology. The most recent studies make emphasis to the role of the so called "absorptive capacity" or "learning capability" of local firms, suggesting that local firms with higher learning capabilities and higher engagement in innovative activities could be able to reap more benefits from foreign presence. It is widely acknowledged from the scholars that below a certain threshold level of technological capabilities, foreign investment is expected not to have any positive effects on host economies. Castellani and Zanfei, (2001) name this hypothesis as the "technological accumulation hypothesis". The authors argue that it goes beyond the simplistic view of absorptive capacity and places a new emphasis on the capability to absorb and utilize foreign technology as a necessary condition for the likelihood of spillovers to occur. Dunning (1994) emphasized that countries without the capability to assimilate new technology tend to attract mainly market–seeking and/or resource seeking foreign investment, while countries that have this capability tend to attract mainly efficiency-seeking and asset-seeking foreign investment.

Consistent with these views is the original study of Cantwell (1989), who analyzed the response of local firms to the entry and growing presence of US firms in Europe

between 1955 and 1975. It is surprising that in contrast to the previous researches, the analysis of this study is based on the changes of market shares between US firms and European firms, rather than on productivity levels. The results suggested that the response of European to US firms seemed to be superior in the case of firms relying on significant technological capacity, implying that positive impact occurred in industries where technological gap was small. The entry of US firms encouraged competitiveness in those industries in which local firms had some traditional technological strength and in which national markets were large enough to provide room for both kinds of firms (US and European) to operate at efficient scale. On the other hand, the weaker local firms or those being part of too small markets were forced out of business or pushed to market segments disregarded by US multinationals.

A subsequent study in line with Cantwell (1989) is that of Kokko (1994), who focused on 156 industries in Mexico in 1970 and argued that spillovers should not be expected in all kind of industries. The author concluded that spillovers are not evident in industries characterized by large technological gaps (large payments on patents or high capital intensity are used as proxies for technological complexity of foreign firms) and large foreign market shares. Foreign firms operating in these "enclave sectors", as the author identifies them, have not common characteristics with local firms, neither in terms of products nor in terms of technology. Therefore, in such circumstances the possibilities of spillovers to materialize is very low, since there might be little scope for learning. In contrast to this, spillovers are more likely to occur when there is a more direct competition between foreign and local firms and when the market share of foreign affiliates is not too high.

Kokko, Tansini and Zejan (1996) found similar patterns on Uruguayan manufacturing firms with over 100 employees, using cross-sectional firm level data for the year 1988. Positive spillovers were captured only in cases of local firms with moderate technology (technology gaps were measured in terms of differences in labour productivity), and not for firms using very low levels of technology and low-skilled workers. More specifically, the authors noted that small or moderate gaps signal that foreign technologies are useful to local firms, which possess the necessary skills to assimilate new technologies. The opposite occurs, meaning no scope for learning and spillovers, in the case of large gaps, which imply that there are large differences between local and

foreign technologies; hence local firms have nothing to learn or lack the ability to learn. The authors also found that the spillover effects depend on the trade regime and emphasized that import-substituting multinationals bring technologies that are lacking or are weakly developed in the local industry, providing potential for demonstration effects. Export-oriented multinationals, on the other hand, accelerate the sales performance of local companies, but do not have much impact on local productivity.

Rather than using technology gap as a variable for discriminating the existence of spillovers, like in the aforementioned studies, Imbriani and Reganati (1999) used productivity gap to analyze the effects of foreign firms in the Italian manufacturing industry in 1992. They found that when there is a high productivity gap between local and foreign firms, the value added of domestic firms is negatively related to the foreign presence. In contrast, when productivity gaps are low, then positive spillovers are generated. Subsequently, Castellani and Zanfei (2001) used a balanced panel of firm-level data on the manufacturing industry in France, Italy and Spain over the period 1993-1997, in order to examine the impact of foreign presence on the productivity of domestic firms. The authors concluded that there is a positive relation between size of productivity gaps and spillovers, meaning that high gaps tend to favor positive effects of foreign investment on domestic economy. While absorptive capacity, measured by local firms' average productivity levels, did not appear to have any significant effect in explaining the direction and magnitude of foreign firms presence on domestic performance. Opposite results are found by Girma, Greenway and Wakelin (2001) in a panel analysis of United Kingdom manufacturing firms from 1991 to 1996. The presence of foreign firms led to wage and productivity spillovers only when the productivity gaps were low, otherwise no spillovers would appear. Girma (2002) extended the work of Girma, Greenway and Wakelin (2001), covering 1989-1999 again for the United Kingdom. Using data on a large sample, as well as applying more developed regression techniques, the study provided evidence for an inverted-U shaped relationship between absorptive capabilities of domestic firms and spillovers.

Another work is that of Haskel, Pereira and Slaughter (2002), who continued working on United Kingdom and provided a more optimistic picture regarding spillovers on industrialized countries. Their work provided convincing evidence on positive spillovers rising from foreign presence in the period 1973-1992. The variable used for

discriminating the existence or not of spillovers was a combination of technology gap and absorption capacity (measured in terms of skill intensity). Results showed that spillovers take time to infuse to domestic plants. Moreover, the likelihood of positive spillovers to occur was when the gap was higher and they were larger in the cases of U.S. and French owned plants.

Despite the role of technology and productivity gaps as conditions for positive spillovers to occur,[31] a number of more recent studies have focused exclusively on the role of absorptive capacities in benefiting from foreign investment. Absorptive capabilities depend, among other things, on the availability of skills and technical competences, as well as on the magnitude and nature of the innovative activities performed by domestic firms (Chudnovsky, López, and Rossi, 2004). As a consequence, high technology gaps between foreign and domestic firms generally means low absorptive capacity. One of the first studies paying much attention to the role of absorption capabilities is that of Barrios (2000) for Spain covering 1990-1994. The study found mixed spillover results with positive spillovers depending on the absorptive capabilities (measured in terms of R&D expenditure) of the domestic firms. In line with Barrios (2000), Barrios et al. (2002) extended the sample of data by including in their analysis not only Spain, but also Greece and Ireland. Results pointed out that positive effects of foreign presence are highly dependent on the magnitude of absorptive capabilities (measured in terms of R&D expenditure and whether the domestic firms were exporters or not).

Yudaeva et al. (2003) validated the absorptive capacity hypothesis for Russia between 1993 and 1997. In an attempt to evaluate the effects of FDI on Russian manufacturing firms, the paper found contrasting evidence with corresponding studies for Eastern Europe. Results established strong evidence for positive intra-industry spillovers, rather than insignificant and/or negative spillovers found by other studies in Central and East Europe. The size of the positive effects depended on the size of the firms and on the level of the educational attainment in the region (proxied as a measure for absorptive capabilities), confirming the significance of human capital for adoption of technologies and managerial techniques. The authors explained that the difference between the

[31] The researches mentioned above have in general used technology and productivity gaps alone or sometimes even combined with absorptive capabilities.

effects on FDI in Russia and Eastern European countries is caused by differences in the nature of FDI in these countries (in Eastern Europe most FDI consists of acquisitions of the most productive firms, while in Russia, green-field investment is most popular, at least in manufacturing sector). The authors also criticized the previous studies on Eastern European countries for failing to take into account time-specific effects, which might have played important role in biasing results.

Another study examining the role of absorptive capabilities is that of Marin and Bell (2003) for manufacturing firms in Argentine for 1992-1996. The authors employed a different approach compared to that of conventional perspective on technology spillovers. Rather than assuming that technological superiority is initially created outside the local economy, the study suggested it is important to consider an alternative perspective, according to which a substantial part of the potential for spillover is created within local subsidiary. The study found opposite results to the above-mentioned studies, that is absorptive capabilities (measured in this case in terms of skill intensity, technology expenditures and the importance attributed to innovation) play limited role on spillovers from foreign firms to domestic ones. The authors concluded that when they included foreign direct investment motivation as a variable, then significant positive spillovers were detected from foreign presence.

Blalock and Gertler (2005b) found for Indonesia manufacturers using panel data covering the period 1988-1996 that companies with greater absorptive capacity are able to benefit more from the presence of multinational competitors. In the contrary, domestic companies with a narrow technology gap (meaning that they were closer to the international technology frontier) benefit less that companies with weak prior technology competency. In a similar vain, Lai et al. (2006) for China found that absorptive capacity plays an important role in the realized spillovers. Using firm level panel data for the period 1996-2002 the results showed that technology spillovers depend highly on the host country's human capital investment or absorptive capacity.

Nicolini and Resmini (2006) provided a study focusing on three transition countries namely Bulgaria, Poland and Romania. The study utilized unbalanced panel data for the manufacturing sectors of the three countries to analyze inter and intra-industry spillovers, covering the period 1995-2003 for Poland and Romania, and 1998-2003 for

Bulgaria. It was found evidence of positive externalities but which depend on both: the host country's social capabilities and absorptive capacity, and also on the technological content of the production of the foreign subsidiaries (both in absolute terms and relatively to the domestic firms of the host country). This findings result in a number of conclusions. First, positive spillovers are more likely to be exploited by the most productive domestic firms, which highlights the importance of absorptive capacity. However, less productive firms can partially compensate their productivity gap and reap some spillovers by locating in the capital regions. Second, spillovers may occur both within and across sectors. Third, both high technology and low technology foreign firms can generate positive spillovers, however with a different intensity. Domestic firms can more easily take advantage from spillovers originating from low technology foreign companies, while high technology MNEs are able to exert a significant impact in domestic firm's performance only in presence of a large technological gap, which is the case for Bulgaria. In contrast, the Polish case, suggests that spillovers are barely significant when the technological gap between foreign and domestic firms is very narrow.

A more recent study that examines the existence of horizontal and backward spillovers and the role of absorptive capacity in the generation of these externalities is that of Kolasa (2007) for Polish corporate sector using data spanning over the period 1996-2003. The results showed that while local companies benefit from the presence of foreign companies in the same industry, this is highly relevant to the absorptive capacity of domestic companies. In addition, competitive pressures facilitate backward spillovers, while market power boosts the extent of forward spillovers.

Chudnovsky, López, and Rossi (2004) provide a study on productivity spillovers, which takes into account not only technological gaps and absorptive capabilities, but also restructuring features of the Argentina's economy. In an attempt to extend the work of Marin and Bell (2003), analysis is done at firm level for manufacturing sector in 1992-2001. The authors found that domestic firms, on average, received neither positive nor negative horizontal and vertical spillovers from the growing presence of foreign firms in the local economy. However, in contrast to Marin and Bell (2003), results showed that domestic firms that had high absorption capabilities were more likely to receive positive spillovers from multinationals' presence, something that was valid not only for

horizontal spillovers but also for vertical spillovers. Whereas, domestic firms with low absorptive capabilities were more likely to receive negative spillovers. Therefore, the authors highly emphasized that these capabilities are key determinants of the possibilities of domestic firms to benefit from the FDI inflows in the host country.

Coe and Helpman (1995) were among the first ones to provide evidence on another factor that determines domestic spillovers, which is R&D capital. Based on a sample of 21 OECD countries for the period 1971-1990, it was found that both domestic and foreign R&D expenditure highly influence the positive effect of MNEs on total factor productivity of domestic companies. Recently, similar to Barrios (2000) that used R&D expenditure as a variable influencing the existence of spillovers, Kathuria (2000), Kinoshita (2001), Damijan et al. (2001), Sembenelli, and Siotis (2003) used the same measure as a condition for the appearance of FDI spillovers. In particular, Kathuria (2000) for India used firm level panel data during 1976-1989 and indicated that positive effects are derived to local firms from the presence of foreign firms. However, the nature and type of these spillovers varied according to industries in which domestic firms belonged and also on the R&D capabilities of the domestic firms. While, Kinoshita (2000) focused his study on firm level panel data for Czech Republic covering 1995-1998 and indicated similar results with those of Kathuria (2000). Positive spillovers were found only in those sectors that were engaged in R&D or in the production of electrical equipment. Damijan et al. (2001) found insignificant spillovers for a number of Central and Eastern European countries for the period 1994-1998. However, the results appeared to be somehow different when the authors took account of R&D expenditures by domestic firms. Positive results were detected only for Romania, while negative spillovers aroused for Czech Republic and Poland. Barrel and Holland (2000) found an increase in productivity for most of manufacturing sectors of Hungary, Poland and the Czech Republic for the years 1993-1996. However, the improvement in productivity was highly dependent on R&D intensity of the manufacturing sectors. Finally, Sembenelli and Siotis (2003), based on firm level panel data for Spain manufacturing sector during 1983-1996, found a positive long-run effect on productivity of domestic firms but which was limited only to firms belonging to R&D intensive sectors. In contrast to the results brought by the above mentioned studies, Bode (2004) found for Germany in the 1990s that the regions that benefit most from spillovers are those with low R&D density and one reason offered for this was that

when companies are R&D self-sufficient have fewer incentives to become in contact and consult other companies.

Apart of the above mentioned variables that influence the FDI spillovers, geographical proximity seems also to play an important role in the existence of spillovers. The assumption is that local firms located near to foreign ones tend to benefit more from the externalities than the other firms, as transmission costs increase with distance (Görg and Greenway, 2002). Even though Aitken and Harrison (1999) indicated negative spillovers to the Venezuelan economy as a whole, some positive spillovers were generated in domestic firms located close to multinationals. Girma and Wakelin (2001) for United Kingdom showed that positive spillovers are significant only in firms that have low technology gaps and that are located in the same regions with foreign multinationals. Ivarsson (2002) also found a positive association between positive spillovers and geographical proximity based on unique firm-level data for MNEs in Sweden, suggesting the geographical proximity constitutes in increasing business linkages of foreign firms with domestic ones. Smarzynska (2002) investigated firm level data for Lithuania covering 1996-2000 and found no evidence for the existence of intra-industry spillovers. However, positive and significant inter-industry (vertical) spillovers were detected, taking place through backward linkages (suppliers). In contrast to the two studies mentioned earlier, these spillovers were not restricted geographically, as local firms benefited not only from foreign firms located close to their region, but also from foreign firms operating in other regions of the country.

Sinani and Meyer (2004) estimated for Estonia, during 1995-1999, that spillovers depend not only on proximity to foreign firms, but also on factors such as the proxy used to measure the presence of FDI, firm's size, ownership structure and market orientation. The main mechanism for spillover effect were the competition effect, as domestic firms, due to increased pressures from foreign firms, are induced to employ new technologies or even use the existing ones in a more efficient way. However, adverse effects exist when foreign firms attract highly skilled employees away from local firms. Moreover, results showed that state-owned enterprises benefited more from spillovers than non-state owned ones and that the local firms that are closer to foreign ones are also able to reap better the benefits from MNEs presence.

Moreover, besides the variables-determinants mentioned above, some other studies presented other factors that seem to influence FDI horizontal spillovers, such as financial development and FDI penetration. For instance, Alfaro et al. (2004) explored whether countries with better financial systems exploit more efficiently FDI externalities. The study used cross-country data between 1975 and 1995 for 20 OECD and 51 non-OECD countries; the empirical analysis showed that countries with well developed financial markets benefit significantly from FDI and its spillovers. These results were robust to different measures of financial market development. The paper concludes that in order to benefit from the exposure to foreign technology, domestic companies should have access to financing so that they are able to implement the new technology in their production processes. Hence, countries with less development financial systems are less likely to enjoy horizontal spillovers. Regarding the other factor, which is FDI penetration, Geršl (2008) found for manufacturing sector of EU 25 countries that if the host country is already saturated with foreign investments, new foreign investment might have a small impact on domestic companies. In general, the results showed that there are important positive productivity spiilovers to domestic companies, both horizontally and vertically, however, they have a non-linear shape (meaning that the net effect on the productivity of domestic companies changes with the degree of foreign presence). The vertical spillovers seemed to be more important than the horizontal ones, implying for higher benefits of domestic suppliers from foreign presence.

Whereas, some recent studies have come out with some new factors that appear to also affect horizontal spillovers and these are culture similaries and migration patterns. For instance, Crespo and Fontoura (2007) noted that, besides absorptive capacities of domestic companies and regions that are important conditions for incoporating spillover benefits, domestic companies are more likely to adopt foreign technology more easily when the home country of FDI is closer the host country in terms of culture. Hence, a common language and/or similar legal system might represent an important factor for the generation of horizontal spillovers. In addition, a recent interesting study is that of Javorick et al. (2011) on the effects of migrants on FDI, something that has not attracted much attention so far. The paper investigated whether the presence of migrants stimulates FDI by promoting information flows across international borders and by serving as contract enforcement mechanism. The link between the presence of migrants

in the United States and US foreign investments in 56 migrant's countries of origin around the world were examined, taking into account the potential endogeneity concerns. Results showed that migration networks significantly affect FDI flows and horizontal spillovers; US FDI abroad is positively related to the presence of migrants from the host country. The relationship between FDI and migration is stronger in the case of migrant with tertiary education.

At last, in the recent years, literature uses Meta-analysis as a method to determine horizontal spillovers determinants; there are numerous factors that may cause the effects of spillovers to vary in magnitude. Meta-analysis was used initially in medicine to comprehence costly clicinal trials, but recently it has been widely used in economics too in order to investigate the heterogeneity of reported results from different countries and different investment projects, enabling the analysis of hypotheses that are difficult to investigate in single-case countries (Havranek and Irsova, 2011). For instance, Sinani and Meyer (2009) provided a meta-analysis of the empirical literature on spillovers using 66 empirical studies and employing their research designs. These empirical studies accounted for 23 developing countries, 22 transition economies and 21 developed countries. The sample included multiple spillover estimates for many studies that allowed the authors to analyze the firm level data as panel. The results on country heterogeneity supported the view that FDI spillovers are influenced by the size of technology gap, human capital, development income and institutions. Therefore, very poor or very rich countries benefit most from FDI presence.

Compared to Sinani and Meyer (2009), the study of Havranek and Irsova (2011) gathered a more homogenous sample of estimates, and also ten times more estimates of spillovers and investigated three times more factors that might explain more factors of heterogeneity. The data set comprised evidence on FDI spillovers from 45 countries reported in 52 empiricial studies. 1,205 estimates of horizontal spillovers were collected and examined from literature in order to examine the factors that influence spillover magnitude. Bayesian model averaging was employed to identify the most important determinants of spillovers (among 43 collected variables). The results indicated that horizontal spillovers were on average zero; however, their sign and magnitude depended on the characteristics of domestic economy and foreign companies. Technology gap between domestic and foreign companies, and the ownership structure in the foreign

investment project, turned out to be the most important determinants. The largest benefits for the local economy are created by joint ventures created by domestic companies and foreign investors, who originate from countries with modest technology frame.

To sum up, the results provided by empirical literature in the third group confirm the statement of Blömstrom (2002) "*spillovers depend crucially on the conditions for local firms*" (p. 177). These recent studies proved empirically, using firm level panel data and sophisticated techniques that the existence of positive spillovers is dependent on various factors, and the most quoted ones are technological and absorptive capacities. In addition, in contrast to the earlier studies that failed to consider the different kinds of spillovers, as well as the different channels through which spillovers arise, the recent studies of the second and third group made an important contribution in trying to fill this gap in the existing literature.

2.4.2.2 Inter-Industry Spillovers

The examination of inter-industry spillovers represents quite a new area of analysis, with papers written only during the recent years. Despite the intense interest of policy makers in the subject, Blomström, Kokko and Zejan (2000) postulate that there are hardly any empirical papers working explicitly on the existence of vertical spillovers, which might be a forward or backward relationship. It is generally noted that vertical spillovers may be more important than horizontal ones, however, due to data limitations, statistical analysis on these effects was lacking (vertical spillovers were generally examined through case studies). Notable exceptions are the studies of Kugler (2000), Blalock (2001), Batra et al. (2003), Chudnovsky, López, and Rossi (2004), Schoor and Van der Tol (2002), Smarzynska (2002), Smazynska Javorcik et al. (2004), Yudaeva et al. (2003), Nicolini and Resmini (2006), Geršl et al. (2007), Lesher and Miroudot (2008) and Havranek and Irsova (2010).[32] Most of these researchers claim

[32] The seminal work on vertical spillovers is that of Lall (1980) for India, which provided evidence for technology transfer from foreign firms through backward linkages in the trucking industry. However, this study is limited to small samples (the study comprised two principal truck manufacturers in India, the one majority foreign-owned and the other majority domestic-owned, and their suppliers). Various types of backward linkages were identified such as technical, financial, managerial, and diversification.

that inter-industry spillovers' mechanisms are more likely to operate successfully rather than intra-industry spillovers.

To start with, Kugler (2000) used firm level panel data for Columbia between 1974 and 1998 and found that there is no evidence for intra-industry spillovers, while positive and significant inter-industry spillovers are detected. This implied that foreign presence had positive effects on suppliers (backward linkage) and customers (forward linkage); however, the author did not distinguish among these channels through which spillovers occurred (backward versus forward linkages). Blalock (2001), based on firm level panel data for Indonesian manufacturing from 1988-1996, investigated the effect of MNEs on local suppliers productivity. The results confirmed the technology transfer through vertical supply chain, providing support for the often-quoted arguments that while MNEs are inclined to minimize leakages to local competitors, they have incentives to transfer technology to suppliers, which can result in quality improvement and reduction in prices. Batra et al. (2003) provided evidence for technological transfer from MNEs to suppliers in Malaysia and showed that vertical linkages are positively associated with market size and tariffs and negatively associated with technology gap between foreign and domestic companies.

Chudnovsky, López and Rossi (2004), as mentioned even earlier, analysed Argentina's manufacturing sector in 1992-2001. The results showed that domestic firms that had high absorption capabilities were more likely to receive positive spillovers from multinationals' presence, something that was valid not only for horizontal spillovers but also for vertical spillovers (intra and inter spillovers). While, domestic firms with low absorptive capabilities were more likely to receive negative spillovers. To conclude, Harris and Robinson (2004) indicated, for UK manufacturing industries in 1974-1995, that the competition and "absorption capacity" effects outweigh potential benefits, leading to negative spillovers. Results also showed that inter-industry spillovers were generally more prevalent than intra-industry spillovers. The authors concluded that measurement techniques traditionally adopted fail to explain adequately the complex and diverse nature of spillovers; better data and/or case study work are needed to investigate the link between foreign presence and domestic productivity changes.

Schoors and Van der Tol (2002) found for unbalanced panel data of Hungarian firms in 1997-1998 that intra-industry and backward spillovers are positive, whereas forward spillovers are negative. Positive spillovers were dependent on absorptive capacities, human capital, as well as on the extent of sectoral openness.

Smarzynska Javorcik (2004) provided one of the most important studies in the field of inter-industry spillovers, by highlighting vertical rather horizontal linkages resulting in positive spillovers in the host country. The author employed Lithuanian unbalanced firm level data between 1996 and 2000 and constructed input-output matrices to examine the existence of vertical spillovers. Empirical results of the study were consistent with the presence of statistically significant and positive productivity spillovers taking place through backward linkages (linkages with local suppliers in upstream sectors). Results also indicated that these spillovers were not restricted geographically, as local firms benefited from the operation of foreign firms in their own region, as well as in other regions of the country. Surprisingly enough, it was found that domestic market oriented companies provided greater productivity benefits than foreign-oriented companies, something that is in contrast to the common belief that greater benefits are associated with export-oriented firms. However, the study provided no indication for the existence of intra-industry spillovers.

Smazynska Javorcik et al. (2004), using firm level data for Romania during 1998-2000, examined the effect of FDI on downstream and upstream sectors, as well as the influence that the nationality of foreign investors have on the degree of vertical spillovers. The authors found a significant and positive relationship between the presence of American and Asian foreign companies in downstream sectors and the productivity of Romanian suppliers, implying for positive vertical spillover effects. However, opposite results were found for European investors. The results of the study suggested for the importance of MNEs origin as a determinant for vertical spillovers.

Opposite to most of the fore mentioned studies, Yudaeva et al. (2003) found for Russia 1992-1997 strong evidence for positive intra-spillovers, and negative spillover effects on vertically related domestic firms, both upstream and downstream (inter-industry spillovers). The explanation for this was that foreign firms in Russia rarely have Russian partners, and therefore their entry leads to the break-up of production chains.

More specifically, foreign firms are not satisfied from the quality of suppliers and as a result are not interested in building vertical relationships.

Nicolini and Resmini (2006) provided also evidence for inter-industry spillovers for Bulgaria, Poland and Romania, using unbalanced panel data for the manufacturing sectors for the period 1995-2003 for Poland and Romania, and 1998-2003 for Bulgaria. Results showed that positive vertical or inter-industry spillovers were generated. These spillovers depend on host country's social capabilities and absorptive capacity. Spillovers are in average exploited by more productive firms.

Geršl et al. (2007) investigated productivity horizontal and vertical spillovers for CEE countries using firm-level panel data on manufacturing industries for the period 2000-2005. Findings showed that vertical spillovers were higher and thus economically more important than horizontal effects. Productivity spillovers exist in the interaction of local and foreign companies within the production chain, mainly via vertical spillovers when foreign companies intentionally help local suppliers to deliver high-quality inputs and share superior technology with them. Moreover, the study also found that there are cases where spillovers are negative, hence foreign companies might also have some adverse effects on the productivity of local companies (e.g. brain drain or market stealing effects). Results also provided for strong non-linearities in the effect of foreign presence on productivity of domestic companies; spillovers depended on a number of factors such as firm-level characteristics including technology level, absorptive capacity, export orientation and firm size.

Lesher and Miroudot (2008) employed firm level data to identify FDI spillovers accros countries, sectors and time. In contrast to the studies mentioned above, this research included also services sector rather than only manufacturing sector. Most of literature so far tends to focus only on manufacturing industry. The study tested for horizontal, backward and forward linkages from 15 OECD countries for the period 1993-2006. The results suggested that the extent of knowledge spillovers from FDI vary considerably across sectors. Services industries enjoy the strongest productivity-enhancing effects of FDI, particularly through backward linkages. However, there is no strong evidence of horizontal productivity spillovers at the aggregate level. The results also indicate that trade openness is a significant determinant in the extent of productivity spillovers. A

positive correlation is found between the degree of trade openness and output when measuring the impact of foreign presence in the domestic economy. Trade liberalization and productivity spillovers are interacted positively. Hence, the study implies for the importance of trade liberalization as an important component to help countries maximize the benefits that arise from FDI.

Finally, Havranek and Irsova (2010) provide a recent research on technology spillovers using a Meta-analysis employing 57 empirical studies for 47 countries. Results showed that technology spillovers to suppliers appeared positive and significant, in contrast to customers and competititors that were insignificant. Greater spillovers are generated by foreign companies that come from distant countries and that have only soft technological advantages over domestic companies. Moreover, greater spillovers are received by countries that are open to international trade and that have underdeloped financial systems. In general, this study showed that vertical spillovers are important in both statistical and economic terms.

2.4.2.3 Reverse Spillovers

The empirical work reviewed above provides evidence on the existence or not of inter and intra technology/productivity spillovers from FDI. However, recent theoretical literature has presented an important step towards a new area, which is the reverse spillover effect from local to foreign firms. It is worth noting the theoretical work of Fosfuri and Motta (1999) and Siotis (1999), who note that positive spillover effects can arise from local to foreign firms in case that foreign firms are located close to a technological leader in the host country. Indigenous knowledge and technology may spill over from domestic to foreign firms, which in turn can promote foreign firms' productivity. Therefore, this theoretical framework highlights that mutual productivity spillovers can be captured between local and foreign firms in a host economy.

Two representative initial studies of the kind are Driffield and Love (2003), as well as Wei and Liu (2003). More specifically, Driffield and Love (2003) examined empirically for the existence of reverse spillovers a panel of United Kingdom manufacturing industries for 1984-1995 and found that spillovers from domestic to foreign firms are positive only in R&D intensive sectors. Results provided also evidence that spillover

effects were affected by the spatial concentration of industry, and that learning-by-doing effects were restricted to sectors in which technology sourcing was unlikely to be a motivating influence. Wei and Liu (2003) for China provided also evidence to support the concept of mutual spillovers. The results strongly supported that indigenous knowledge (indigenous technology and local knowledge) can contribute to productivity enhancement in foreign firms, which implies for mutual productivity spillovers between foreign and local firms even in a developing country like China.

A more recent work on reverse spillovers is that of Chen, Li and Shapiro (2010) which provided an updated approach of reverse spillovers. The study included 483 EM MNEs from 20 different emerging countries worldwide during the period 2000-2008 and focused on 43 different manufacturing industries. The results provide evidence supporting reverse spillover effect, implying that EM MNEs have subsidiaries in host developed markets richer in technological resources. Technological resourses were measured in terms of R&D investments and R&D employment.

2.4.2.4 China - A Major Player in FDI and Extensive Spillovers

Having reviewed theory and evidence on technology transfer and spillovers, it is interesting to have a look at the leading destination for FDI, among developing countries, and the evidence that studies have provided on spillovers generated through FDI. China is a leader in attracting FDI. Globally, there is an increased competition to attract FDI, which challenges both developing and transition countries. Countries compete internationally based on their competitive advantages, and now that distance is not as much a barrier as it was once, cost advantage is the primary advantage of China. This is enhanced also by the fact that productivity gains in China have grown in the recent decade, partly as a result of its superior technological infrastructure (Kalotay, 2004). The Chinese government has been promoting FDI policies particularly the ones focusing on growth of international joint ventures between a Chinese and a foreign company. The development of FDI in China is spectacular, and offers a great example for other developing countries, and transition countries (including Albania).

Chinese economic growth has been impressive in the last three decades, and FDI has contributed by enhancing growth through technology transfer and spillover effects

(Reenen and Yueh, 2012). A number of studies have focused on investigating these effects, some by considering the extent to which the presence of technologically-superior subsidiaries promote the productivity of local companies and hence promote growth, and others advanced the research by investigating also the conditions under which spillovers are existent, non-existent or even negative. The method used to measure spillovers is like the larger literature mentioned in the section above, employing econometric approach. In general, most studies find that the productivity of local companies benefit from spillovers. For instance, Liu at al. (2000), Chuang and Hsu (2004), Hu et al. (2005), Wang and Zhao (2008), Blake et al. (2009), Qiu et al. (2009), and Banri et al. (2010) provided evidence for positive FDI spillovers. While, Buckley et al. (2002) showed mixed results, where collectively owned enterprises benefit from foreign presence, whereas state-owned enterprises experience negative spillovers. Extenting the previous research, Buckley et al. (2006) found positive effect for state-owned enterprises, indicating that joint ventures with foreign subsidiaries may be an effective way in long-term to implant these local companies in the learning network of multinational companies. However, the results also showed that spillover benefits from China decline over the period, suggesting that productivity spillover benefits via learning from FDI have a life cycle. In the same vain, Reenen and Yueh (2012) found that joint ventures of multinationals with local companies have large effects on productivity especially when combined with a technology transfer component. The most important estimate of the study was that without iternational joint ventures China's growth would have been about one percentage point lower per annum over the last three decades. To sum up, the above brief review on FDI spillovers literature indicates that most studies in China find positive effects

2.5 DEVELOPING THE CONCEPTUAL FRAMEWORK

The sections above presented a detailed discussion on earlier approaches to investigate spillovers, pointing out the weaknesses mainly of econometric studies and their simplistic treatment of spillovers. In the contrary, the characteristics of technological spillovers are not easy to be noticed, are often highly complex in nature, and are not perfectly understood. Therefore, they require to be examined by a similarly complex approach. In order to serve this aim, we seek to build a conceptual framework, which will guide us for the rest of the study, and incorporates everything from spillover

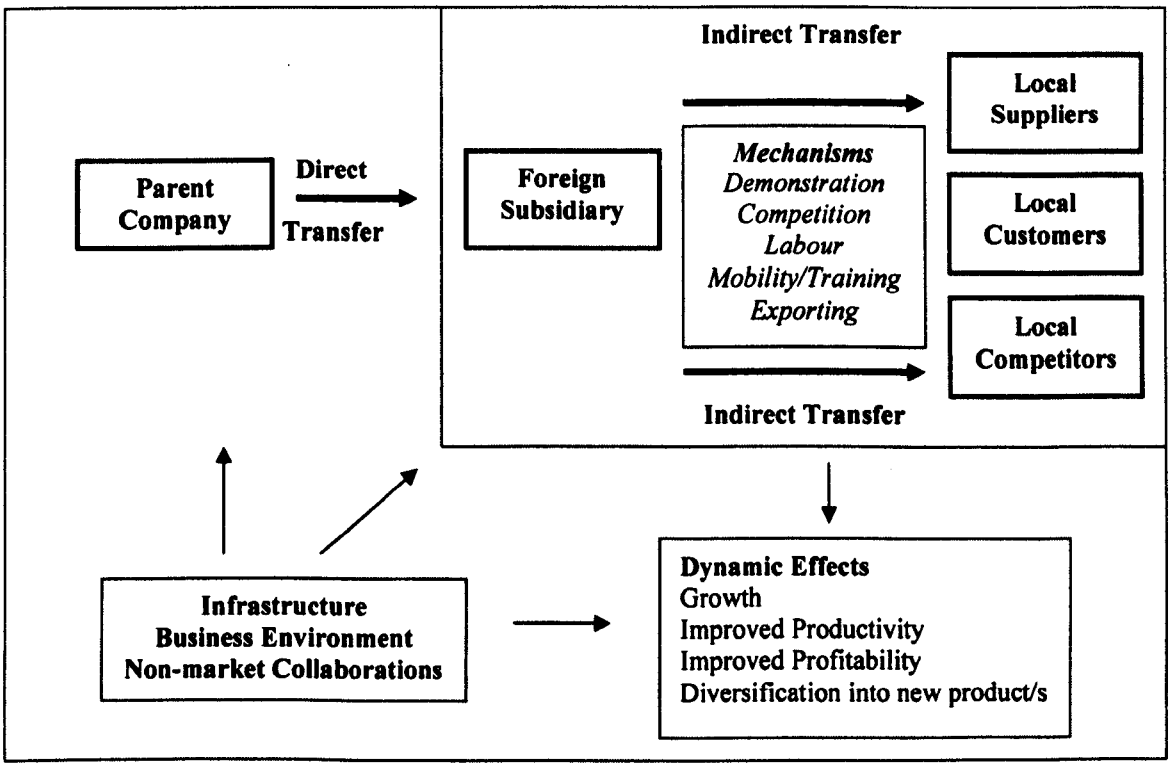
literature, but also add few other elements that need to be integrated. While investigating spillovers, previous studies take into consideration only the role of foreign companies but ignore the presence and role of institutions, infrastructure and non-market collaborations, as well as the role of innovation; improving technological learning and innovation, leads to improvement in productivity. This will come out with a framework set that is unique. In contrast to the majority of previous studies that are concentrated to developed countries, this conceptual framework will be adjusted to Albania, a country that is underdeveloped. The conceptualization framework is in line with pioneering evolutionary work of Freeman (1982) and Rosenberg (1982) among others.

The conceptual framework points out the importance of foreign investors' purchases, sales and competition. Foreign companies put pressures on suppliers to improve quality, provide customers with new inputs of better quality, delivery and prices, greater technological content and spur competition. All these mechanisms have the potential to improve the whole industry. However, these effects do not arise automatically only by the presence of foreign companies, but from a combination of several factors. The framework highlights the important role of infrastructural, institutional and governmental support systems, implying that technological spillovers result from interactions of foreign companies with local companies and government policies. Institutional environment influences foreign company's structure, conduct and performance, all of which in turn affect each other dynamically and interactively (North, 1990). Figure 2.6 sets out a simplified version of the conceptual framework, figure 2.7 at the end of this chapter sets the complete version of the conceptual framework, and figure 2.8 presents the dynamic effects of FDI (these figures can be found at the end of this chapter).

Based on the above issues, it is necessary to go behind quantitative data in order to test whether spillovers arise and what are their effects. This can be done by conducting integrated detailed research of FDI at an enterprise level, by taking detailed information and considering a number of factors and issues that can be involved in spillover estimation. Some of the factors that could be involved are the company's size, age, skill level (education of labour and training), innovation (introduction of new products), the capacity to absorb new technology, and the support from government and institutions.

Other factors to be considered are also for instance the technology gap between the foreign companies and the local ones, the type of company's activity, trade orientation and labour market conditions. In technically developed countries the spillover estimation is done using quantitative data. However, in underdeveloped countries this method is not available usually due to lack or inadequacy of data, but even if data exist, limiting the study to aggregate level data would not be enough to assess the dynamic interactions among foreign companies, domestic companies and institutions/government that result in the generation of technological spillovers. This requires a deeper investigation and knowledge in order to understand how the linkages work between foreign companies and their local suppliers, customers and competitors, along with the role and importance of local infrastructure and local support systems in the spillover process. To conclude, in the context of an underdeveloped country like Albania, a detailed firm level survey with an integrated conceptual framework is necessary to understand the reality about spillovers and their effects, as well as the real mechanism of how they occur.

Figure 2.6 Simplified Conceptual Framework Model



Source: Author's Contribution

2.6 CONCLUSIONS

As outlined in this section, MNEs posses firm-specific assets in the form of superior technology, as well as improved organizational and production forms, which make performance of foreign affiliates be better than that of domestic competitors. However, these advantages are not fully internalized by foreign affiliates. Theory states that benefits may leak into domestic economy through two ways: intra-industry spillovers (in terms of indirect transfer of technology and organizational practices, as well as upgrading labour skills of domestic competitors) and inter-industry spillovers (transfer of knowledge and technology to suppliers and customers). There is a general agreement that spillovers to domestic firms will manifest themselves through higher levels of performance, particularly productivity. Though, negative effects of MNEs are acknowledged too by theory. Foreign firms have incentives to minimize information leakage to local economy, which in turn prevents the materialization of spillovers, as they are in direct competition with domestic firms. In addition, local enterprises may loose market share due to competition from superior MNEs, which may also lead them out of the market. Finally, foreign affiliates may prefer to cooperate with foreign suppliers, eliminating in this way local ones.

Even though the empirical literature on productivity spillovers is already settled, it becomes evident that there is huge controversy in the empirical results and there is little conclusive evidence to support the beneficial effects of FDI to the host economy. Thus, there is limited econometric proof to support the reasoning behind using incentives to attract FDI. Despite the fact that economic literature has not reached general consensus, it is obvious that pioneer studies on productivity spillovers provided evidence of positive spillovers effects, using cross-sectional industry level data. However, one can disentangle that the positive results reached in the earlier generation of studies hardly exist in the recent generation. Recent empirical research on spillovers strongly suggest for mixed results, applying not only for developed countries, but also for developing and transition economies. Some of them revealed negative productivity spillovers, while others showed that spillovers may exist but they are highly dependent on various conditions of domestic firms, such as technology and productivity gaps (perhaps the most important factors), absorptive capabilities, as well as geographical distance.

Empirical literature on the subject has emphasized the importance of using panel data as the correct way to detect for spillovers. Scholars have offered various explanations on mixed results. One of the most convincing ones is that of Gorg and Strobl (2001), who stressed that mixed findings on spillovers result from the fact that these studies use different techniques and methods, as well as different proxies for foreign presence. Adding to this, Smarzynska (2002) emphasized the role of the difficulties associated with separating different effects at play and data limitations, which prevent researchers from providing conclusive evidence of positive externalities resulting from FDI. Other reasons may refer to the heterogeneity of host economies included in the researches, as well as to the limitations of the production function.

Apart from econometric studies, a number of qualitative surveys, including case studies and sample surveys (questionnaires and interviews) have been conducted in various countries so as to examine the direct and indirect effects of FDI. Even though the results are mixed, depending on host countries conditions and characteristics of domestic firms, further in-depth and careful analysis might be effective in determining the impact (positive and negative effect) that FDI has on host economies. Through the use of surveys and case studies the problems faced by econometric studies can be eliminated and most importantly, a more detailed and in depth examination of the mechanisms through which direct and indirect effects occur can be made possible. This is, therefore, the main distinctive feature of the thesis and the main aim of this research, which intends to provide a comprehensive investigation of FDI technological effects and how these effects come out in the context of a non developed country such as Albania by using the conceptual framework presented in this chapter. The following chapters of this study will present the country under investigation, the methodology approach and the empirical results coming out from the study.

Table 2.3 Empirical Studies on FDI Technology - Productivity Spillovers (in chronological order)

	AUTHOR/S	COUNTRIES	YEAR/S	DATA	*AGGREGATION*	MAIN RESULTS
	1. Developed Countries					
1	Caves (1974)	Australia	1966	Cross-Sectional	Industry	Positive intra-industry spillovers
2	Globerman (1979)	Canada	1962	Cross-Sectional	Industry	Positive intra-industry spillovers
3	Cantwell (1989)	Europe	1955-1975	Panel	Firms	Positive intra-industry spillovers depending on technology gap
4	Nadiri (1992)	France, Germany, Japan, United Kingdom	1968-1988	Cross-Sectional	Industry	Positive intra-industry spillovers
5	Barrel and Pain (1997)	United Kingdom and West Germany	1985-1995 1972-1995	Panel	Industry	Positive intra-industry spillovers
6	Imbriani and Reganatti (1999)	Italy	1992	Panel	Firms	Positive intra-industry spillovers depending on productivity gaps
7	Barrios (2000)	Spain	1990-1994	Panel	Firms	Mixed spillover results, positive effects depend on R&D
8	Girma and Wakelin (2000)	United Kingdom	1988-1996	Panel	Firms	Non significant results
9	Hurbert and Pain (2000)	United Kingdom	1984-1992	Panel	Industry	Positive intra-industry and inter-industry spillovers
10	Liu, Siler, Wang, and Wei (2000)	United Kingdom	1991-1995	Panel	Industry	Positive intra-industry spillovers
11	Castellani and Zanfei (2001)	France, Italy, and Spain	1993-1997	Panel	Firms	Positive and significant effects for Italy, but non significant for Spain and France. Positive results depend on productivity gaps and absorptive capacity
12	Driffield (2001)	United Kingdom	1989-1992	Cross-Sectional	Industry	Positive Spillovers
13	Girma and Wakelin (2001)	United Kingdom	1980-1992	Panel	Firms	Non significant results
14	Girma, Greenaway and Wakelin (2001)	United Kingdom	1991-1996	Panel	Firms	Mixed spillover results, positive effects depend on technological gap
15	Barrios and Strobl (2002)	Spain	1990-1994	Panel	Firms	Non significant results
16	Barrios, Dimelis, Louri, and Strobl (2002)	Greece, Ireland, Spain	1993-1997	Panel	Firms	Positive but non significant results, positive effects depend on absorptive capabilities
17	Castellani and Zanfei (2002)	Italy	1992	Panel	Firms	Positive spillovers depending on productivity gap
18	Dimelis and Louri (2002)	Greece	1997	Cross-Sectional	Firms	Positive but non significant results

20	Driffield and Love (2003)	United Kingdom	1984-1995	Panel	Firms	Mixed spillover results depending on foreign direct investment motivation
21	Girma (2002)	United Kingdom	1989-1999	Panel	Firms	Non significant results
22	Girma and Gorg (2002)	United Kingdom	1996	Panel	Firms	Positive spillovers depending on absorptive capacity and geographical distance
23	Görg and Strobl (2002a)	Ireland	1973-1996	Panel	Firms	Mixed spillover results depending on industry (high tech or low tech)
24	Haskel, Pereira and Slaughter (2002)	United Kingdom	1973-1992	Panel	Firms	Positive spillovers depending on absorptive capabilities and technology gap
25	Ruane and Ugur (2002)	Ireland	1991-1998	Panel	Firms	Positive but non significant results, positive effects depend on alternative measure of industry foreign presence
26	Harris and Robinson (2003)	United Kingdom	1974-1995	Panel	Firms	Non significant results
27	Keller and Yeaple (2003)	USA	1987-1996	Panel	Firms	Positive spillovers depending on alternative measure of industry foreign presence
28	Sembenelli and Siotis (2003)	Spain	1983-1996	Panel	Firms	Positive spillovers depending on R&D intensive sectors
	2. Developing Countries					
29	Blömstrom and Persson (1983)	Mexico	1970	Cross-Sectional	Industry	Positive spillovers
30	Blömstrom (1986)	Mexico	1970/1975	Cross-Sectional	Industry	Positive spillovers
31	Hadddad and Harrison (1993)	Morocco	1985-1989	Panel	Firms and Industry	Negative spillovers
32	Blömstrom and Wolf (1994)	Mexico	1970-1975	Cross-Sectional	Industry	Positive spillovers
33	Kokko (1994)	Mexico	1970	Cross-Sectional	Industry	Positive spillovers depending on productivity gaps and large foreign market share
34	Kokko (1996)	Mexico	1970	Cross-Sectional	Industry	Positive spillovers
35	Kokko, Tansini and Zejan (1996)	Uruguay	1988	Cross-Sectional	Firms	Non significant results
36	Blömstrom and Sjöholm (1999)	Indonesia	1991	Cross-Sectional	Firms	Positive spillovers
37	Sjöholm (1999)	Indonesia	1980-1991	Cross-Sectional	Firms	Positive spillovers
38	Aitken and Harrison (1999)	Venezuela	1976-1989	Panel	Firms	Negative spillovers to economy as a whole, but positive spillovers to some domestic firms located close

						to foreign firms
39	Chuang and Lin (1999)	Taiwan	1991	Cross-Sectional	Firms	Positive spillovers
40	Kinoshita (1999)	China	1990-1992	Panel	Firms	Non significant results
41	Kathuria (2000)	India	1976-1989	Panel	Firms	Positive spillovers depending on industries and R&D capabilities
42	Kugler (2000)	Columbia	1974-1998	Panel	Firms	No evidence for positive intra-industry spillovers but positive and significant inter-industry spillovers
43	Patibandla (2000)	India	1989-1999	Panel	Firms	Positive but non signinficant results
44	Blalock (2001)	Indonesia	1988-1996	Panel	Firms	Positive inter-industry spillovers
45	Kokko, Tansini and Zejan (2001)	Uruguay	1988	Cross-Sectional	Firms	Non significant results
46	Görg and Strobl (2002b)	Ghana	1987-1996	Panel	Firms	Positive but non significant results
47	Banga (2003)	India	1993-1994 1999-2000	Panel	Firms and Industry	Positive spillovers
48	Marin and Bell (2003)	Argentina	1992-1996	Panel	Firms	Positive but non significant results, positive spillovers depend on foreign direct investment motivation
49	Wei and Liu (2003)	China	2000	Panel	Firms	Positive spillovers
50	Chudnovsky, Lopez and Rossi (2004)	Argentina	1992-2001	Panel	Firms	Neither positive nor negative inter and intra industry spillovers
51	Görg and Strobl (2004)	Ghana	1991-1997	Panel	Firms	Positive but non significant results
52	Alfaro et al. (2004)	71 OECD & non-OECD countries	1975-1995	Panel	Firms	Positive horizontal spillovers depending on financial development
53	Blalock and Gertler (2005b)	Indonesia	1988-1996	Panel	Firms	Positive spillovers effects depending on absorptive capacity and education of employees
54	Blake et al. (2009)	China	2000	Panel	Firms	Positive horizontal and vertical spillovers depending on export propensity, R&D expenditure, employee training and ownership
55	Qiu et al. (2009)	China	2000-2005	Panel	Firms	Positive horizontal and vertical linkages, however no evidence for forward linkages
56	Banri et al. (2010)	China	2000-2007	Panel	Firms	Positive horizontal and vertical spillovers depending on innovation

57	Javorick et al. (2011)	56 Developing Countries		Panel	Firms	Positive horizontal spillovers depending migration networks
	3. Transition Countries					
58	Holland and Pain (1998)	Czech Republic	1994	Cross-Sectional	Firms	Non significant inter-industry spillovers
59	Djankov and Hoekman (2000)	Czech Republic	1992-1996	Panel	Firms	Negative spillovers
60	Kinoshita (2000)	Czech Republic	1995-1998	Panel	Firms	Positive but non significant effects depending on R&D
61	Konings (2000)	Poland, Bulgaria, Romania	1993-1997	Panel	Firms	Negative spillovers for Bulgaria and Romania, no spillovers for Poland
62	Bosco (2001)	Hungary	1993-1997	Panel	Firms	Negative spillovers
63	Damijan and Knell (2001)	Slovenia, Estonia	1993-1997	Panel	Firms	Positive spillovers
64	Damijan, Majcen, Knell and Rojec (2001)	Bulgaria, Czech Republic, Estonia, Hungary, Poland, Romania, Slovakia, Slovenia	1994-1998	Panel	Firms	Non significant or negative intra-industry spillovers, positive results only for Romania
65	Sgard (2001)	Hungary	1992-1999	Panel	Firms	Positive spillovers depending on export orientation and geographical proximity to EU borders
66	Sinani and Meyer (2002)	Estonia	1995-1999	Panel	Firms	Positive spillovers depending on the proxy used as a measure for spillover, on the recipient firm's size, ownership structure and trade orienation
67	Schoors and Van der Tol (2002)	Hungary	1997-1998	Panel	Firms	Mixed spillover results; positive effects depend on absorptive capacities, human capital, and sectoral openness
68	Zmarzynska (2002)	Lithuania	1996-2000	Panel	Firms	Positive backward spillovers but lack of intra-industry spillovers
69	Zukowska-Gagelmann (2002)	Poland	1993-1997	Panel	Firms	Negative spillovers
70	Yudaeva, Kozlov, Melentieva and Ponomareva (2003)	Russia	1993-1997	Panel	Firms	Positive intra-industry spillovers depending on firms size and human capital; negative inter-industry spillovers
71	Kolasa (2007)	Poland	1996-2003	Panel	Firms	Positive intra-industry spillovers

						depending on absorptive capacity , and positive inter-industry spillovers depending on competitive pressure (backward spillovers) and market power (forward)
72	Nicolini and Resmini (2006)	Poland, Romania, Bulgaria	1995-2003 1998-2003	Panel	Firms	Positive intra and inter-industry spillovers depending on absorptive capacity
73	Geršl et al. (2007)	CEE Countries	2000-2005	Panel	Firms	Positive intra and inter-industry spillovers depending on technology level, absorptive capacity, export orientation, and firm size
74	Geršl (2008)	25 EU Countries		Panel	Fiems	Positive intra-industry spillovers depending on FDI penetration
75	Lesher and Miroudot (2008)	15 OECD Countries	1993-2006	Panel	Firms	Positive inter-industry spillovers depending on trade-openess
76	Sinani and Meyer (2009)	66 Countries		Meta-Analysis	Firms	Positive horizontal spillovers influenced by technology gap, human capital, development income, and institutions
77	Havranek and Irsova (2010)	47 Countries		Meta-Analysis	Firms	Positive backward spillovers, but lack of forward and horizontal spillovers
78	Havranek and Irsova (2011)	45 Countries		Meta-Analysis	Firms	Positive horizontal spillovers depending on technology gap and ownership structure of foreign project

Source: Extended and updated from Görg and Strobl (2001) and Görg and Greenway (2002)

Figure 2.7 Conceptual Framework Model - Direct and Indirect Technological Transfer through FDI
Source: Author's Contribution

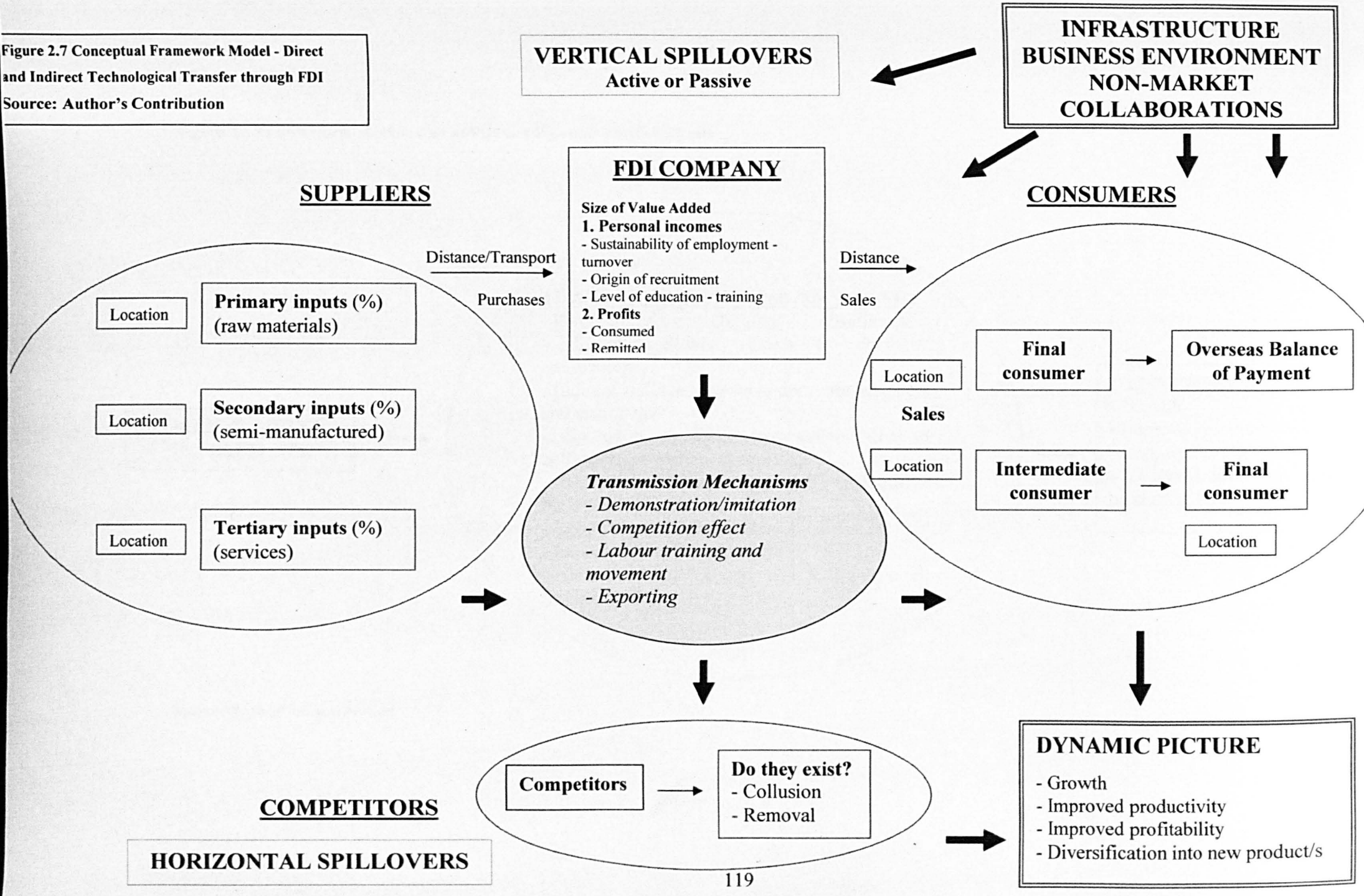
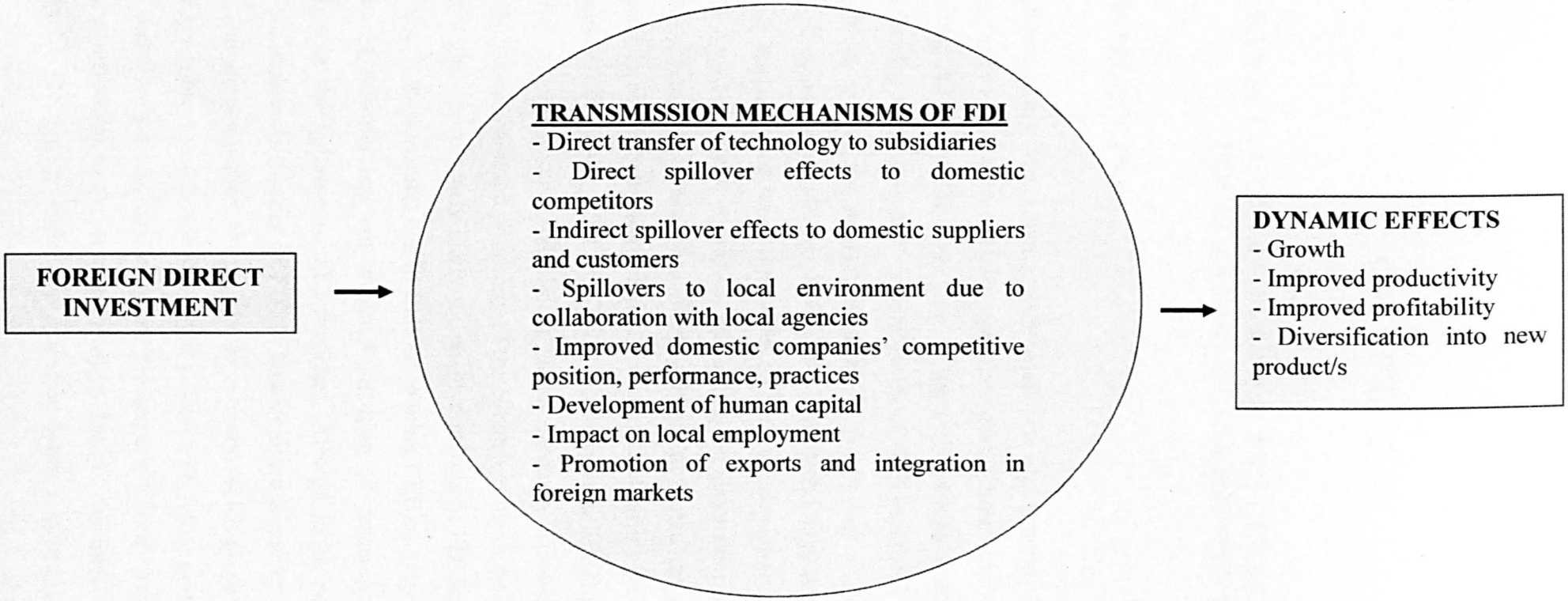


Figure 2.8 Transmission Mechanisms of FDI and Dynamic Positive Effects



Source: Author's Contribution

CHAPTER 3

ALBANIA - COUNTRY PROFILE AND DEVELOPMENT OF FOREIGN DIRECT INVESTMENT

3.1 INTRODUCTION

A transition country like Albania, with small size and strategic location, constitutes a very interesting case for investigating the direct and indirect impact of FDI. Anyone can imagine that Albania is far away from being a technological advanced economy and need technology to stimulate competitiveness, industrialization and development. Indeed, being one of the poorest countries in South-East Europe and struggling to improve its economic conditions, FDI could bring technology and could play a critical role in the upgrading of local companies and in the development of the country. The Albanian government and politicians feel optimistic about the benefits that the country can enjoy from FDI, which has already been attributed an imported role in the transformation of the transition economies, combined with high expectations of local governments (UNCTAD, 2001; UNECE, 2001; Hunya, 2002). Adding to this, the availability of a low cost and skilled labour force in Albania (inherited from the communist regime) and the proximity of the country to developed European economies makes it a place particularly likely for positive effects of FDI to manifest themselves. Despite this, it is interesting that in contrast to other CEE countries, the impact that FDI can have in Albania has not attracted attention of researchers and is a missing component in the voluminous FDI literature. Albania lacks evidence on direct and indirect technological transfer of FDI to host companies and little is known about the role that foreign companies can play in the country, which gives us strong incentive to examine the subject in this specific country. Given its future potential for FDI growth, Albania constitutes a real challenge for researchers. This research endeavors to be a valuable contribution to the rapidly growing, but yet, inconclusive literature and can hopefully fill the gap by looking at a Balkan country where, so far, there has been

absolutely no attempt to explore and evaluate the benefits that local companies could have from foreign presence.

Nevertheless, before examining the FDI impact in Albania, it is important to provide information on country background and development of FDI. Therefore, this chapter discusses the Albanian economic and provides an overview of investment profile and FDI flows in the country.

3.2 COUNTRY BACKGROUND

Albania is a small country located in the western part of the Balkan Peninsula with an area of 28,748 sq. km and a population of approximately 3.2 million in January 2011 (INSTAT, 2011). After World War II, the country emerged as a communist state in November 1944. Albania experienced the most extreme form of communism and consequently the economic distortions resulting from this system were much more prominent than in the other communist countries. The collapse of the socialist regime in Albania took place over a longer period of time compared to the other East European countries. The fall of the communist regime opened the way for democratic transformations and created the premises for the transformation from a centralized towards the free market economy in the early 1990s.

The period between the fall of the old and the establishment of the new system was characterized by a serious dislocation of economic order, provoked by widespread vandalism, destruction and theft of public and state property. Since the disintegration of communism, Albania has experienced two periods of social and political unrest and violence, which caused much damage to its economy and reversed many of the earlier gains. The first period of social unrest is the one in 1989, which brought the fall of communism and the next is the one following the collapse of the pyramid schemes in 1997. The collapse of several informal financial institutions (pyramid schemes) and the loss of the life savings of a large segment of population aggravated social and political unrest, violence and destruction. These extraordinary events precipitated the country into a five-month situation of anarchy and civil unrest, resulting in deterioration of macroeconomic situation, rising inflation and unemployment, as well as depreciating currency. This chaos resulted in new parliamentary elections in mid-1997 and the

government of former president Sali Berisha was heavily defeated in the elections. The reformed communist party called as Socialist Party, benefited in power continuously since 1997 until 2005. In the elections of 2005, the Democratic Party gained the majority of votes and remained in power till 2009. Albania held parliamentary elections on June 2009, and for the first time in the country's history a coalition government was created by the Democratic Party and LSI (The Socialist Movement for Integrations). The coalition government rules Albania since 2009 up to nowadays.

3.3 ECONOMIC PROFILE

Albania has been under the most conservatory model of centralized economy. The ruling communist country, before 1991, directed the country through a series of five-year plans. All means of production were under state control, agriculture was fully collectivized and industry nationalized, and private enterprise was strictly forbidden. Moreover, a provision of constitution prohibited the government to from seeking foreign aid, accepting loans, or allowing foreign investments. The failure of command economy and investment in heavy industry made Albania one of the poorest economies, according to European standards. Political and economic reforms of 1990-1992, that later led to the transition period, were negatively influenced by the fact that the Albanian economy had inherited from the late 1980's crisis a high foreign debt (about USD 500 million).

Albania's economy, already the smallest in Europe in both absolute and per capita terms, shrank by more than half during the period 1990-1992. The huge decline in GDP (GDP fell by 30 % in 1991 and about 25 % in 1992) was associated by a significant decline in standards of living – from a level of around USD 1,500 in 1989 the GDP per capita plummeted to USD 700 in 1992 (Bank of Albania, 2003). Albania's economy was far more in common with the Third World rather than with the West. After the large output collapse in 1991-1992, the country enjoyed strong economic growth (around 10% %) in the period 1993-1996. Albania seemed to have gone through the early stages of transition to market economy with relative speed and success bearing little resemblance to the isolated condition in the early transition. At the macro level, there was a dramatic reduction of inflation and budget deficit and a returned growth path in the economic growth. While at micro level, there was a rapid progression of

privatization process. However, Albania entered a period of social and political instability in 1997 due to the collapse of pyramid schemes followed by a decline in economic growth to -7 %. Nevertheless, with the strong support of the international community, the economy has been recovering since then, reflecting progress in macro-economic stabilization and structural reforms, as well as improvements in most of the sectors, especially construction, trade and services. At the end of 2000 Albania reached the production level of the pre-transition period. Due to tight monetary policy, tariff cuts and relatively strong exchange rate, GDP growth has remained steady. Standards of living improved and recovery was reached in 2002 (USD 1,521) when the income per capita approached the levels of 1989 (Bank of Albania, 2003). In addition, inflation has been maintained stable, with an average inflation rate for 1998-2002 of 3.5 %. Structural reforms have also carried on, in particular in the area of privatization. Over the years growth averaged close to 6% for 2005 and the real GDP growth rate reached 5.5%. In addition, in these years the country has experienced a dynamic sectoral development. The factors that are the major components of GDP are the services and the agricultural sectors. Table 3.1 presents the general economic indicators in Albania for the period 2002-2005.

Table 3.1 General Economic Indicators in Albania (2002-2005)

Indicators	2002	2003	2004	2005
GDP per capita, EUR	1,364	1,433	1,723	1,821
Real GDP Growth Rate (%)	4.7	6.0	6.0	5.5
Annual Inflation Rate (%)	2.1	3.3	2.2	2.0
Annual Unemployment Rate (%)	15.8	15.0	14.6	14.2
Average Monthly Gross Salary , EUR	145.3	158.8	190.8	218.8
Gross External Debt Stock, Eur mln	999.7	n/a	1,518.0	1,039.0
Exhange Rate for All for 1 EUR	132.4	137.5	127.7	124.2

Source: Ministry of Economy, Bank of Albania, INSTAT (2005)

More recent indicators of the Albanian economy are indicated in the Table 3.2. During the last years, major changes took place in Albania, which led to a significant economic shift (Bank of Albania 2011; KPMG, 2011). Construction and services replaced agriculture and outdated industry as main contributors of gross domestic product. The macroeconomic picture has been characterized by rising exports and increasing trade gap financed by remittances, receipts from privatizations, few concessions and FDI. The local economy has been influenced by the global economix crisis; however, its impact

was reduced by the boost in public spending especially during the period 2008-2009. Economic development is characterized by fast pace of economic growth which peacked in 2008 accounting for 7.5%. In the years to come, macroeconomic developments in Albania are onsiderably impacted by the slowed economic growth world-wide; hence there is a drastic fall of GDP growth rate to 3.3%, 3.5% and 2.7% for 2009, 2010, and 2011 respectively. The economic growth has been supported by both foreign and domestic demand for goods and services; it also continued to be supported byu private sector credit. The labour market conditions have been improved in the last three years, with increased employment being associated with a lower unemployment rate, 13.3% in 2011 compared to 13.7% in 2009. In terms of financial intermediation, its level has grown substantially in the recent years, rising from 15% credit the economy in 2005 to 41% in 2010, indicating a strengthening of the financial system. However, there is still inadequate access of small and medium enterprises to credit.

Table 3.2 General Economic Indicators in Albania (2006-2011)

Indicators	2006	2007	2008	2009	2010	2011
GDP at market prices (All billion)	896	980	1,086	1,125	1,180	n/a
Real GDP Growth Rate (%)	5.4	5.9	7.5	3.3	3.5	2.72
Annual Inflation Rate (%)	2.4	2.9	3.4	2.3	3.6	3.5
Annual Unemployment Rate (%)	13.5	13.2	12.7	13.7	13.5	13.32
Budget Deficit	29,372	34,119	60,254	80,361	38,033	n/a
Exhange Rate for All for 1 EUR	123.08	123.6	122.8	132.1	137.8	140.34

Source: Ministry of Economy, Bank of Albania, INSTAT (2011)

3.4 INVESTMENT CLIMATE IN ALBANIA, THE ROLE OF INSTITUTIONS AND GOVERNMENT

Assessing a country's economic and political stability is a crucial element in a foreign company investment decision-making process. Any negative perception of the host country's investment climate can put at risk the implementation of investment plans and negatively affect the project's perceived profits. Some important factors that affect the particular investment location are: political and investment stability, legal climate, effective and strong institutions, presence of qualified labour and industrial strengths, communication systems, privatization programs, and an acceptable fiscal regime. Moreover, investors prefer stable, transparent, and reliable legal and regulatory

framework with a judicial system that can enforce laws and contracts effectively, and a minimum amount of bureaucracy.

3.4.1 The Role of Institutions in FDI Flows and FDI Effects

Among the above mentioned factors, institutions play a leading role in the amount of FDI that a host country can attract, as well as on the extent of the benefits that might arise from this FDI. Institutions play a significant role in reducing transaction costs, uncertainty and in producing collective benefits that come up from coordination of market activities (Seyoum, 2011). Studies show that important determinants in attracting foreign investment flows include the crucial role of formal institutions (legal and regulatory) and informal institutions (norms based on trust and reputation). Globerman and Shapiro (2003) and Seyoum (2009) investigated the role of formal institutions and FDI, and resulted that countries with strong formal institutions, including transparent legal system and good protection of property right, influence positively FDI flows and in general tend to attract more FDI. Whereas, Seyoum (2011) explored the role of informal institutions in investment flows, and found that: informal institutions based on trust and reputation have a signigicant and greater effect on inward FDI flows than formal institutions; informal institutions and formal institutions are positively related; and that the relation between informal institutions and inward FDI flows is partially mediated by formal institutions. In contrast to these studies, Blonigen and Piger (2011) found only little support for institutions to be FDI determinants.

Besides the influence that institutions have on FDI flows, there is also a relation between institutions and the extent of benefits that arise from foreign investments. In general, literature emphasis the role of institutions in achieving high levels of income, but without indicating the mechanisms through which this occurs. However, a recent study of Alfaro et al. (2008) indicates that FDI might be the channel through which institutions affect long-run development. The results of the paper suggested that policymakers should put a priority to policies aimed at strengethening the protection of property rights, reducing corruption, increasing government stability, bureaucratic quality, as well as law of order. Furthermore, institutions and particularly financial development play also an important role on economic growth, through FDI. For instance, Alfaro et al. (2004) found that local financial institutions are important in

channelling the contributions of FDI to economic growth, and Durham (2004) provided evidence that countries with well-developed financial or institutional markets gain significantly from FDI in terms of economic growth. Moreover, financial opening and inflows of FDI resulting from this, lead to an increase of total factor productivity through knowledge spillovers, technology transfer and the promotion of linkages with domestic companies (depending on local conditions). This argument was supported by Alfaro et al. (2009) who examined the effect of FDI on growth via financial markets, and found that financial markets play an important role in allowing host countries to harvest the benefits of foreign investments through total factor productivity gains. Some implications driven from the research were that more prudent policies should be established, which involve the elimination of barriers that prevent domestic firms from establishing adequate linkages, improving domestic companies' access to inputs, technology and financing, and streamlining the procedures associated with selling inputs, and also improving domestic conditions.

All the above mentioned studies highlight the importance of institutions in attracting FDI and harvesting the benefits that might arise from FDI; results suggested important policy implications for the government which could enable host economies to maximise the benefits of foreign investments. The section below describes the incentives and barriers in Albania; it is interesting to check, among other factors, whether institutions present a barrier or an incentive for foreign investors.

3.4.2 Incentives and Barriers of FDI in Albania

This section will present Albania's main impediments and comparative advantages to FDI. In a study "Albania Diagnostic Study" conducted by Foreign Investment Advisory Service (FIAS) in 2000 and 2002, the major impediments to the growth of private investment and FDI were attributed to:

- The slow process of privatization of state lands, buildings and enterprises, as well as of strategic sectors such as electricity, water and transportation.
- Low interest of foreign investors due to perception of Albania as high-risk country due to past violent social and political changes in Albania as well as instability in the Balkans and Kosovo.

- Weak governance capacity – frequent changes of laws and decisions causing instability in the "rules of game" – that is result of lack of accountability and institutional capacity.
- Weak rule of law – ineffective implementation and enforcement of laws and regulations, as well as weak judiciary due to lack of information, poor education, political influence, illicit payments, inadequate physical infrastructure, low salaries, lack of inspection.
- Poor infrastructure, lack of low cost and efficient infrastructure for export oriented FDI and tourism.
- Weak and overburdening tax administration, especially income tax, VAT (Value Added Tax) and the customs; as well as unsupportive tax system for export oriented FDI.
- Weak financial sector and insufficient availability of financial services to the private sector (high real interest rates, lack of long-term financing and leasing, poor payment and depository services, low quality services for international trade and weak banks supervision).
- Weak legal and administrative framework to record and protect property rights and land use in urban areas for tourism, as well as for commercial and industrial uses. Problems in access to land and construction due to slow clearance of conflicting title rights and long bureaucratic procedures for property rights registration, zoning and construction approvals.
- Rising labour costs, lack of managerial expertise, lack of workers applied with advanced degrees in business and management, as well as increasing competition from other low labour countries in the region.
- Delays, unpredictability, and high costs of acquiring licenses, permits, and other government approvals required starting and operating a business.
- Street crime, organized crime and corruption.

In the same line with the above, according to Xhepa and Agolli (2004) and Xhaferaj (2006) some of the most critical constraints to business development in Albania are the ones related to the legal and regulatory framework, as well as infrastructure.

Corruption and a general lack of transparency are considered as the most persistent impediments to business in Albania and to MNEs that might invest there. Although

corruption was more problematic in the previous years, it continues to impede economic and social development. Bribery is a common practice. For instance, it makes the process of obtaining licenses as very long and costly process. Based on public perception, the most corrupted institutions in Albania are considered the customs and tax authorities, the police and the public health system. Transparency is further inhibited by the fact that much industrial activity in Albania is not part of the formal economy. Albania is ranked as one of the most corrupted countries in the region. According to TI 2004 index, which ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians, Albania scores 2.5 out of 10 (10 refers to highly clean and 0 refers to highly corrupted). Out of a total of 146 countries, Albania is one of the 60 countries that score less than 3 out of 10, indicating uncontrolled corruption levels (Transparency International, 2004).

Informal economy is another critical element characteristic for the Albanian economy. Even though there is an intense debate on the correct definition of the informal economy, in general informal economy comprises both hidden and illegal economic activities, of which the revenues are not reported to the tax authorities (Olters, 2004). In contrast to most other tradition countries, for which a number of studies have been focused and provided estimates of the size of their informal sectors, very little research has been done to approximate the magnitude and the composition of the black or informal economy in Albania. Hence, little is known too on the extent of fiscal evasion "contributed" by informal economy. The report prepared by the OECD (2004) and the study provided by Olters (2004) are notable exceptions. According to OECD (2004) the informal economy is an important contributor to employment and production in Albania but also is responsible for fiscal and regulatory evasion. The positive impact to employment and production comes with significant costs in terms of lost tax revenues, lack of employee protection and unfair competition among enterprises. The estimation of the OECD in the report was that informal production over the last 5 years contributed between 24%-28% of total gross value-added. Besides this official estimation, there are optimistic anecdotal estimates from the Albanian media that suggest that one-third of total economic activity is informal, while other estimates range higher from 50-60 per cent of the total economy (for instance, this estimate was mentioned in the daily newspaper *Dita* in December 16, 2002). At last, Olters (2004) based on the examination of several important macroeconomic indicators, concluded that Albania's informal

sector represents a considerable share of economic activities, and could easily put in danger the realization of Albania's goals of socio-economic development and European integration. On one hand, budgetary revenues (relative to the performance of Albania's economy) is weak, and on the other hand private sector activities are discouraged by a number of factors: strained taxpayer relations and poor public services, inadequate tax enforcement, excessive permit and licensing requirements, existence of a competitive disadvantage relative to informal market participants, and a weak public infrastructure. Serious efforts are required by the Albanian government to move the country away from this situation, by adopting measures aimed at improving governance, and strengthening of public institutions, including customs and tax administrations. However, in practice little is done so far to face these problems. A recent fact indicates that black economy still is an eminent issue in the Albanian economy is the difference in figures that Tax Office and INSTAT declared for 2010 regarding the number of companies operating in Albania, with 82.000 declared by the vice-director of the Tax Office and 103.000 declared by INSTAT. Moreover, preliminary resuls of CENSUS (2011) (research on demographics on Albania) indicated for possible falcification of balance-sheets by companies; a considerable number of companies operating in Albania show that they have either no employees at all, or 1-2 employees (in order to avoid employee's social security), as well as very low or zero profits (in order to avoid taxes).

Poor physical infrastructure, including transportation and communication create a barrier to business and economic development. Despite the fact that recent steps have been taken to improve the transportation infrastructure, Albania has a limited network of roads, generally in poor conditions, very few railway lines, and no reliable public transportation. Though there is no regular commercial air service between domestic destinations, it is possible to charter a small plane or helicopter.

Finally, inefficient and weak institutions seem to be another important impedipent to development in Albania. Even though, the appareance shows that institutional set up seems to be simple and straightforward, however in essence they lack capacities to carry out their functions. Some of the institutions in Albania are not well equipped to perform their duties and carry out their responsibilities. There are no clear lines of responsibilities and targets within the organization structures, which implies for an urgent need to strengthen responsibilities within the various units of the Ministry of

Economy and other Agencies. Some problems within institutions are those with stuffing (lack of motivation) and financial resourses.

Given the above-mentioned constraints, which are considered as strong impediments for FDI, Albania is making serious efforts so as to successfully attract foreign investors. Albania seeks to compete regionally on the basis of its two primary advantages: low labour costs and skilled labour force, and recently with an additional advantage as "potential candidate country" for EU membership since 2009. FDI promotion remains a strategic objective for the Albanian government. Moreover, with its literate and low-cost labour as well as its proximity to European markets, Albania has good potentials for attracting FDI. The following main competitive advantages have been identified:

- Favorable natural conditions and under exploited natural resources
- Liberal economic policy/regulation and legal framework for FDI
- Proximity to EU markets for technology transfer, sub-contracting; access to Adriatic and Mediterranean Seas
- Low cost but relatively educated and technically trained work force, with strong work culture
- Light manufacturing and agro processing
- Political will for promoting FDI
- Advancing bi- and multilateral trade negotiations (e.g. WTO, EU, regional FTA s)
- Contributions of the Stability Pact to the economic development in Albania
- Opportunities in the privatization
- Progress in banking sector reform

Table 3.3 presents the Characteristics of investment climate and FDI in Albania.

Table 3.3 Characteristics of FDI in Albania

Characteristics of Albania	Barriers for FDI	Competitive Advantages
- Isolated country -Small size - Strategic location - Transition economy - Labour-intensive economy - Major investors originate from neighboring countries, Italy	-Relatively insecure investment environment - Poor infrastructure, heavy administrative procedures, high level of taxes - Ineffective and poor implementation of law - Weak institutions - Ineffective support agencies for FDI - Corruption	-Favorable natural conditions and under exploited natural resources - Proximity to EU markets - Low cost of property and labour force - Progress in the privatization

- Availability of low but skilled labour force	- Black economy		process

Source: Authors Contribution

3.5 DEVELOPMENT OF FDI IN ALBANIA[33]

It is important at this point to provide information on developments of FDI in the country. Since the beginning of its restructuring, the FDI attracted by the Albanian economy has been increasing through the years, particularly after 1998. However, FDI in Albania stays far below the volume experienced by other Central and Eastern European Countries. FDI in Albania remains limited mainly due to a relatively insecure investment environment, poor infrastructure, heavy administrative procedures, corruption in the public administration and the judiciary and relatively high taxes. Nevertheless, there are potentials for FDI growth in Albania due to countries main competitive advantages such as favourable natural conditions, proximity to key EU markets, relatively low cost but skilled force and progress in the privatisation process.

In 1995 and 1996, FDI annual inflows to Albania were nearly twice as large as the period from 1997 to 1999. This decline in FDI was certainly the consequence of a series of crisis that affected the country, starting with the 1997 civil disturbances that followed the collapse of the pyramid schemes, the coup attempt in September 1998, and the Kosovo crisis in 1999. The level of FDI during 1998-1999 amounted only 1% of GDP. However, its level has increased substantially since then; in 2000 the volume of FDI has been estimated to be around USD 143 million, which is three times higher than in 1999. In 2000, FDI activity increased not only in terms of volume but also in terms of number of foreign companies investing in Albania. The number of registered joint ventures and foreign wholly owned firms increased by about one-third, between 1999-2000. Most of the increase in FDI activity came as a result of privatization programs undertaken in the telecommunication and banking sectors. The FDI level continued to increase for 2001 and can be estimated around USD 207.0 million. This progress was notably the result of successful privatizations, such as: AMC (Albanian Mobile Telecommunication), Vodafone and Albkrom (Chromium Albanian Industry), and Albcooper (Cooper

[33] The information provided in this section is based on data published by INSTAT and Bank of Albania.

Albanian Industry privatized by the Italian company DARFO). For the year 2002 the FDI estimated has been USD 150.0 million. Compared to that of 2001, the FDI figure has decreased as a result of the delays in privatisation deals for strategic objects such as Albtelecom, Savings Bank, etc. For 2003, FDI amounted USD 178.2 million, where the privatisation of the Savings Bank by the Austrian Raiffeisen Bank had the major contribution. Estimated FDI figures for 2004 and 2005 are USD 341.8 million and USD 264.5 million, respectively.

There is a continous significant increase of FDI inflows in the recent years, for the period 2006, 2007 and 2008 rising to USD 325 million, USD 656 million and 988 million, respectively. Inflows to South East Europe fell for 2009 and 2010, following the global trend. For 2009, in dollar terms FDI inflows to Albania declined slightly to USD 979 million, due to the appreciation of dollar with respect to the euro and the Albanian Lek. However, FDI inflows to Albania for 2010 developed independently to the global and regional trends showing a continuous increase by 23 percent compared to 2009 reaching for USD 1,097 million in 2010, and more than double the level in 2006. Again, this developlement has been the result of various successful privatizations in sectors of banking, energy and telecommunictions. More specifically, 24 percent of the FDI inflows during the period 2004-2008 were due to privatizations and rised to 26 percent in 2009. Important privatizations, concessions and investments that influenced the level of FDI inflows included among others: the sale of part of the shares in the second largest mobile company AMC to Cosmote; the sale of majority stake of the Albanian Power Company to CEZ; investments in the energy sector by Statkrat, EVN and Verbund, investments in the cement industry by Antea Cement, Colacem Shqiperia and Cementos Aguila (KPMG, 2011). Moreover, in the recent years, an important development targeting investors has been established on the Law on Concessions in order to create a favourable framework to promote and fascilitate the implementation of privately financed concession projets in the development of infrastructure and public service areas in a number of sectors.

Table 3.6 and Figure 3.1 and Figure 3.2 illustrate FDI inflows in Albania for the period 1992-2005 and more recent period 2006-2010 based on data provided by the Bank of

Albania and UNCTAD. Other organizations, such as EBRD and IMF, provide slightly different statistical data on FDI inflows, implying for the difficulties faced in the exact measurement of FDI inflows. Nevertheless, the data that are presented in this section for FDI flows, sectors of investment, location etc. are based on national sources, such as National Institute of Statistics (INSTAT, 2011) and Bank of Albania (2011).

Table 3.4 FDI Inflows in Albania 1992-2010 (in USD million)

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	32.0	45.0	53.0	70.0	90.1	47.5	45.0	41.2	143.0	207.0	150.0	178.2	300.0	264.5

Year	2006	2007	2008	2009	2010
Total	325	656	988	979	1,097

Source: Bank of Albania (2011), INSTAT (2011) and UNCTAD (2011)

Figure 3.1 FDI Inflows in Albania 1992-2005 (in USD million)

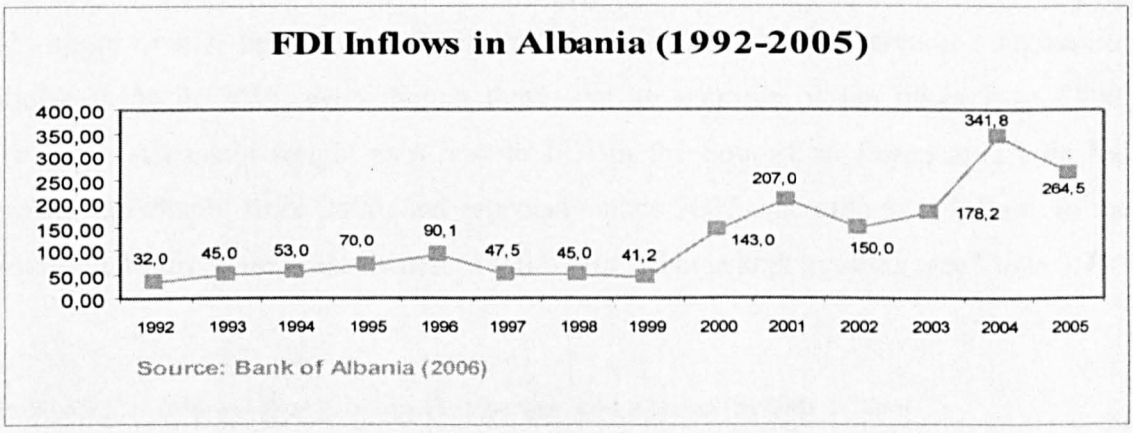
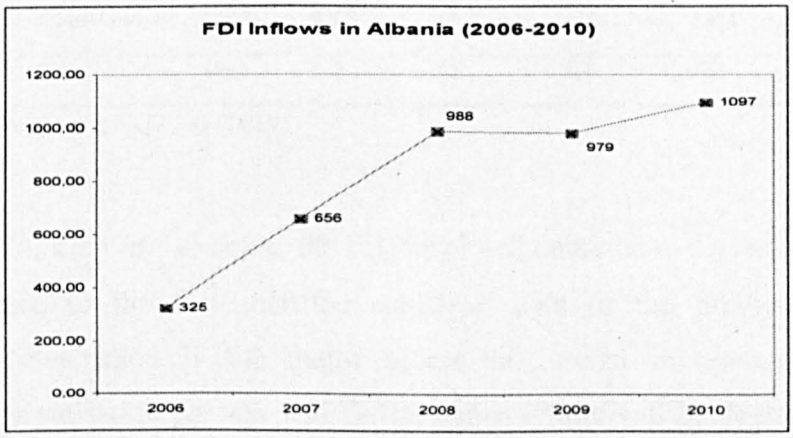


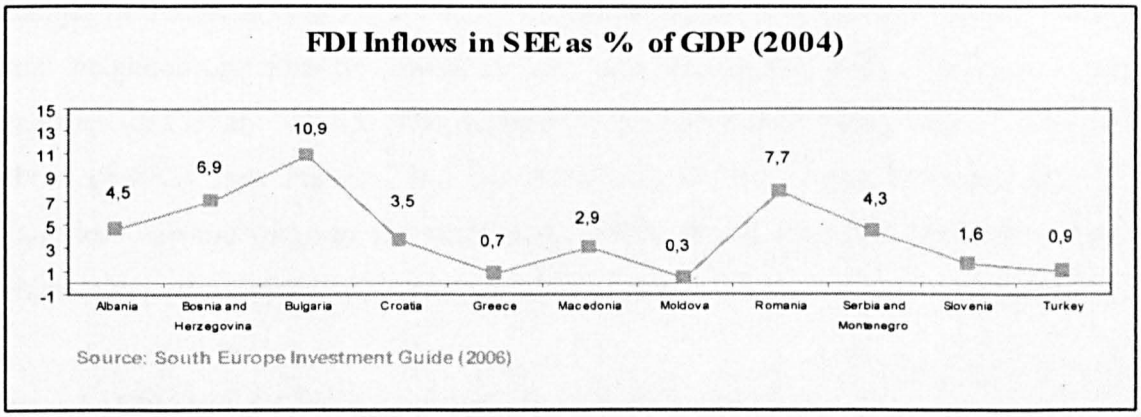
Figure 3.2 FDI Inflows in Albania 1996-2010 (in USD million)



Source: Bank of Albania (2011), UNCTAD (2011)

Nevertheless, Albania continues to attract less foreign investment in comparison with other countries in the region. Until 2004, FDI as percentage of GDP remains low compared to other countries of the region, suggesting that the government should undertake more aggressive policies to attract foreign capital and to keep it (Figure 3.3).

Figure 3.3 FDI Inflows in SEE as % of GDP (2004)



The share of FDI inflows to Albania in the world total inflows remains marginal, at almost 0.1% in 2010, even though there was an increase of ten times from 2000. However, Albania's weight as a host to FDI in the South-East European region has grown remarkably since 2006, and especially since 2007 when the total inflows to the South-East Europe decreased whereas inflows to Albania kept growing (see Table 3.7).

Table 3.5 FDI Inflows: World, South-East Europe, and Albania (in USD million)

Host Economies	2005	2006	2007	2008	2009	2010
World	982,593	1,461,863	1,970,940	1,744,101	1,185,030	1,243,671
South-East Europe	4,877	9,875	12,837	12,601	7,824	4,125
Albania	264.5	325	656	988	979	1,097

Source: UNCTAD (2011)

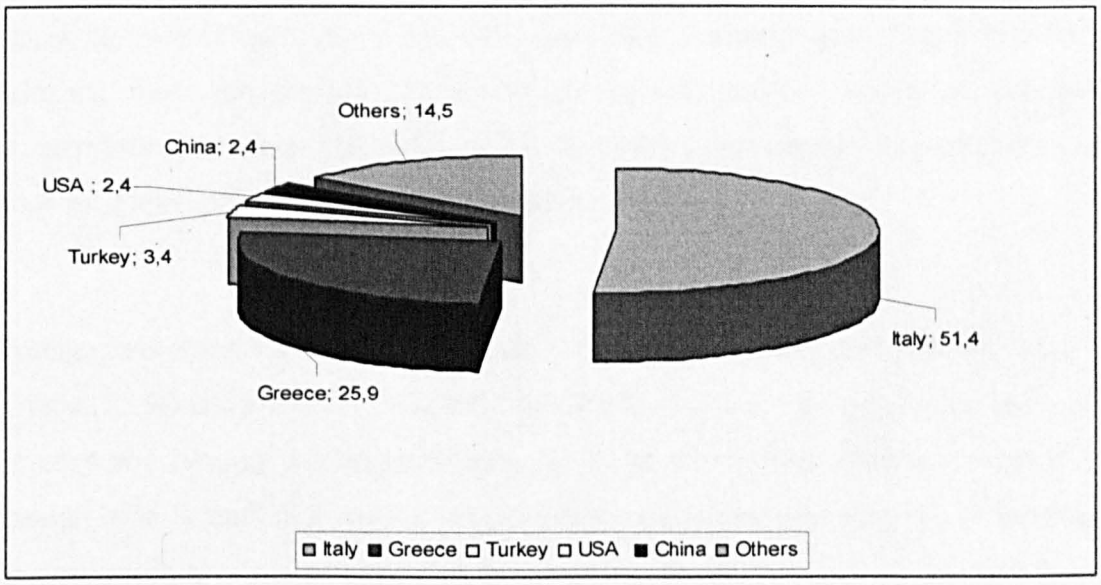
For the years to come, the FDI level will continue to depend on the privatisation process due to the fact that the statistical data of the previous years demonstrate that privatisation is the major source of foreign investments in Albania. When the privatisation process will finish, major efforts will be dedicated in attracting FDI with

100% foreign capital and in promoting form of cooperation consisting in foreign capital as well as domestic one.

3.5.1 FDI in Albania According to Country of Origin

In countries of CEE, predominant are global investors. This section presents FDI in Albania according to source country for the years 2005 and 2008, highlighting the changes in trends. In contrast to other CEE countries, FDI in Albania originates mainly from neighbouring countries, such as Italy and Greece for 2005. The main origin countries for FDI are Italy (51.4%), Greece (25.9%), Turkey (3.40%), USA (2.40%) and China (2.40%) (see Figure 3.4). The remaining is from other European and US countries. Albania receives the main part of FDI (87%) from the European Union, which is even the major trade partner for the country.

Figure 3.4 FDI Stock in Albania According to the Source Country (2005)



Source: Bank of Albania (2006)

The Italian investments are mostly located in West of Albania, close to the Adriatic Sea. The majority of the Italian investments are small and medium enterprises (SMEs), engaged mainly in construction (35%), textile and shoes production (21%), trade and services (16%), and agricultural food processing industry (8%). Italian companies take advantage and make profits from the Albania' comparative advantage in low cost

quality force; Albanian wages are ten times lower than those in Italy. Moreover, Italian investors take advantage of the Italian Government grants and subsidies designed to promote Italian investments in Albania. According to the statistical data provided by the Bank of Albania (2002), there are approximately 500 Italian companies operating in Albania in forms of joint ventures and wholly owned companies. The private Italian investments are estimated to have a value of above USD 400 million. The most important Italian companies are: DARFO in the area of chrome industry: ENEL, ESSEGEJ, BEGHETTI in the area of Hydropower.

Greek investments are mostly concentrated in Tirana and in the south and southeast of Albania, close to the Greek border. In general, Greek investors in Albania are concentrated on trade and recently on telecommunications, banking and construction, and only less than 2 % are involved in other branches of industry such as textiles, garments, manufacturing of leather products and tobacco processing. More than 60 % of Greek foreign investors benefit from grants offered by the Greek governments to the Greek companies operating in the Albanian market. Actually, according to the Bank of Albania, there are around 213 Greek companies, making 34.2% of the foreign investments in Albania. The major part of the Greek investment is concentrated in cities such as: Tirana, Korca, Gjirokaster, Devoll and Fier.

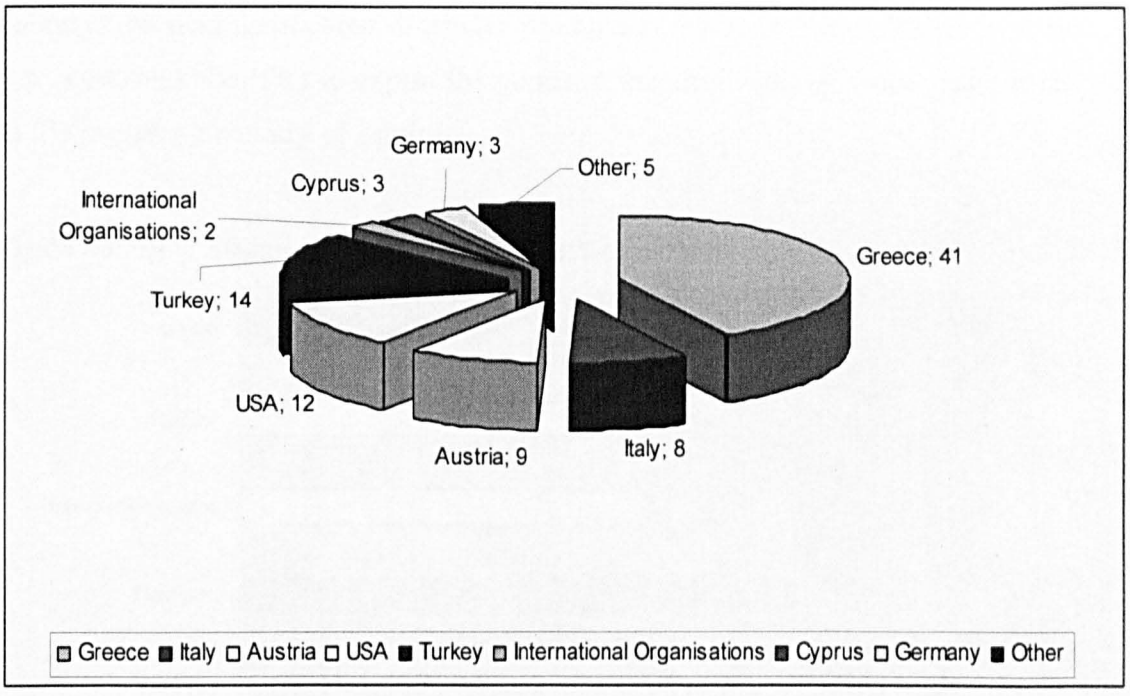
Foreign investments are mainly concentrated in the main districts of Albania, which are Tirana (55 %) and Durres (12%) (INSTAT, 2005). These are the two largest cities in the country and account for approximately 67 % of the total companies operating with foreign or joint capital. Durres is responsible for the largest port handling of the import-export activities. On the other hand, Tirana as the capital city of Albania is more exposed to investor and is becoming the country's business centre. Other Albanian cities that have attracted FDI are Korca (9%), Gjirokastra (6%), Shkodra (4%), and Vlora (3 %).

However, the picture for FDI inflows according to source countries changes for 2008 (see Figure 3.5). Albania continues to receive the largest part of its FDI from neighbouring countries (usual for small countries), but Greece is already the major

player and the most important home country. FDI inflows from Greece accounted for 41% of the FDI stock in 2008, 15.1 percent more than in 2005. Yet, only 26% of the investors in Albania came from Greece which indicates a high concentration of Greek FDI and its focus on capital intensive activities. Foreign investments in Albania from Greece remain mainly in telecommunications (61%) and financial intermediation (22%) (Bank of Albania, 2010). After Greece, Turkey is the second in importance as source-country for FDI inflows with 14% of the stock in 2008. There were 40 Turksih investors with FDI concentrated in non-financial activities.The third largest source country for 2008 is the United States with 12% of the FDI stock. In 2005, the United States accounted only for 2.4% of the inward FDI stock. Investors from United States are not the ones among the top foreign investors in Albania except for The Albanian-American Enterprise Fund which invested in several projects including the American Bank of Albania that merged with the Italian Intesa San Paolo Bank. The fourth place is taken by Austria with 9% of the FDI inflows stock for 2008. The largest part of the Austrian investment is in the banking sector, resulting mainly from the purchase of the Albania Savings Bank by Raiffeisen International, becoming the leading bank in Albania with 30% of banking assets in the country.

While in 2005 Italy was the leader source country in terms of FDI inflows, in 2008 it came fifth in importance, with only 8% of inward FDI stock. The decline of Italian investments is striking compared to 2005. Foreign investments from Italian investors concentrate mainly on manufacturing and construction. They are also present in the services sector and mainly in financial intermendiation, however, not evidently in finance sector (oppostive to the other major source countries). However, a particular charactistic of Italian investments is that it is distributed among a large number of companies. To sum up, these main five source countries account together for 84% of the FDI stock and 80% of the foreign subsidiaries in Albania for 2008. Greece, Turkey and the United States are the major FDI player. Eventhough Germany represents an important source country for other South-East European countries, there is limited presence of German FDI in Albania, probably due to lack of investment opportunities in manufacturing sector.

Figure 3.5 FDI Stock in Albania According to the Source Country (2008)



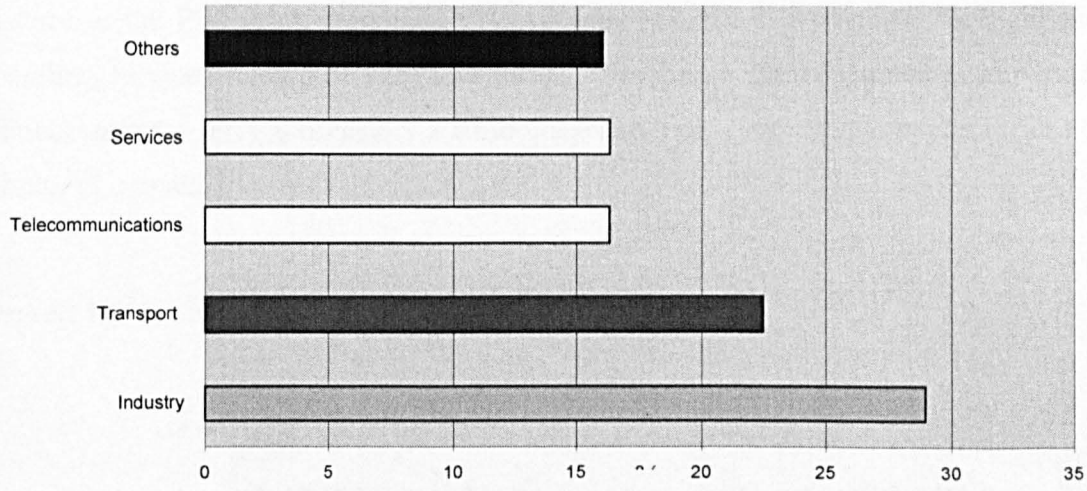
Source: Bank of Albania (2010)

3.5.2 FDI in Albania According to Economic Sectors

Figure 3.6 shows the distribution of FDI according to sectors for 2005. Besides the fact that there are a large number of foreign enterprises involved in trade, there are only few amounts of FDI inflows in this sector. FDI in agriculture remains low due to small and fractured land plots, restrictions on foreign ownership, of rural land, and weak roads and transport links to major national and regional markets. Sectors that attract more foreign investments in agriculture and related industries include fisheries, fish processing and canning, food processing, olive oil refining, beverages production, and wood processing. Regarding services, FDI is concentrated in banking, retail and construction. In the construction sector, FDI has grown in terms of the number of enterprises and volume of activity. The origin countries of most of the foreign investors in construction are from Turkey, Italy, and Greece. Based on the flow of resources from donor countries and in response of the significant rural to urban migration, there are prospects for FDI to expand in this area, as there is growth in investments in infrastructure and buildings. Finally, the majority of foreign enterprises operating in manufacturing industry are involved in re-exporting finished and semi-finished goods, such as garments, small leather articles, and shoes. Re-exporting takes place when foreign

affiliates in Albania import raw materials from abroad (usually the investor's home country), process them using intensive production methods that capitalize in Albania's low cost, and after that re-export the goods at various stages of processing (often back to the investor's country of origin).

Figure 3.6 FDI in Albania According to Economic Sectors (2005)

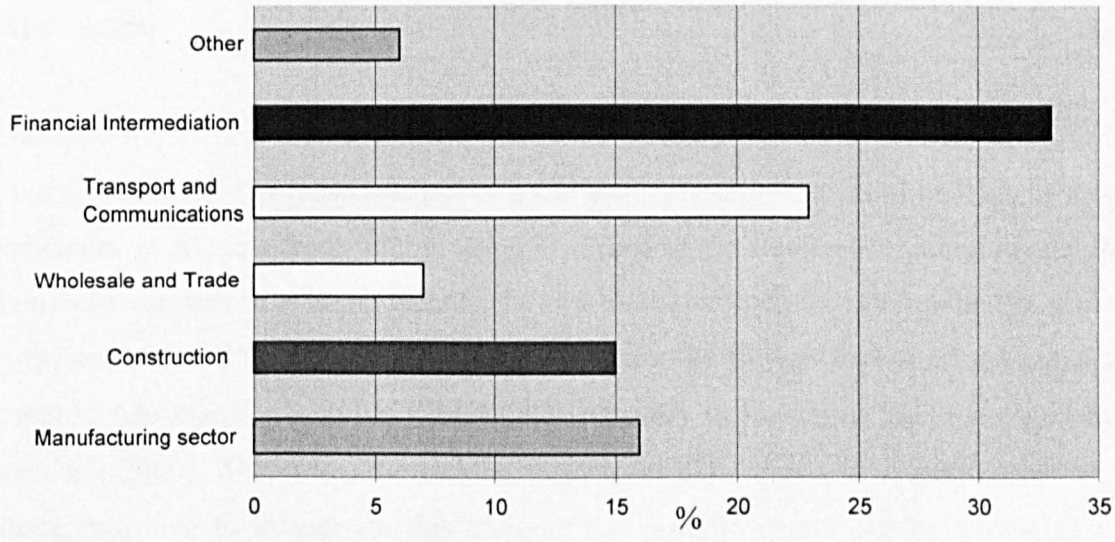


Source: Bank of Albania (2006)

However, for 2008 there is a change in structure for FDI according to economic sectors (see Figure, 3.7). Only 16% of the FDI stock was concentrated in the manufacturing sector (Bank of Albania, 2010). Most of the FDI stock is accumulated in the basic heavy industries such as construction material and metals, whereas more sophisticated manufacturing is missing in the foreign sector as well as domestic sector. The construction sector accounts for 15% of the inward FDI stock indicating that it is almost as important as the manufacturing sector. The boom in buildings, partically financed from remitted income, resulted in a general boom in construction for the period 2004-2008. The greatest proportion of the FDI stock in Albania corresponds to services. Wholesale and retail trade activities continue to account for a low share of FDI with only 7% of the total stock in 2008, given that foreign supermarket chains have not been established yet in a large scale. Following, transport, storage and communication accounted for 23% of the FDI stock in 2008, a result coming from foreign investments in fixed-line and mobile telephone services.

The most important FDI target has been financial intermediation with one third of the stock in 2008. The privatization of the banking sector from foreign banks and investors has resulted in large inflow of capital through which banks have been restructured and credit activities expanded. The hotels and restaurants sector account only for 1% of the FDI stock. This is surprising given that Albania has great potential for attracting tourism. Real estate sector and other business services are underdeloped and have a low presence in the FDI stock compared to developed countries. Invetsments in legal and consulting services remain at very low levels, eventhough their presence is important and necessary for foreign investors. FDI in these services is expected to expand with the increase of demand.

Figure 3.7 FDI in Albania According to Economic Sectors (2008)



Source: Bank of Albania (2010)

3.6 CONCLUSIONS

To sum up, Albania was the only country in the Balkans that experienced communism in its more severe form, being highly isolated from the rest of the world throughout the regime. However, escaping from the communist regime, Albania has gone through a period of transformation from a centralized to a market economy, since the early 1990s. Despite its delay in the economic development, an on-going privatization process and a significant potential for increasing FDI inflows characterize the country. FDI levels in

Albania remained low compared to other countries of the region till the period 2005-2006, however, country's weight as a host to FDI in the South-East European region has grown remarkably since 2006, and especially since 2007 when the total inflows to the South-East Europe decreased whereas inflows to Albania kept growing. FDI already constitutes an important component of the private sector development, and consequently a critical component of the Albania's economic development. According to the legal framework with incentives for foreign investors, the Albanian government has created a legal framework with incentives for foreign investors, and has undertaken a number of measures to support foreign investors As a result of this, combined with macro-economic and politic stabilization, the FDI inflows into the country have increased sharply since 1998, with major investments from Italy and Greece until 2006, and for the period 2007-2010 from Greece, Turkey and Austria. Hwever, it is unknown how efficient are the policies towards foreign investment and to what extent they are implemented.

Undoubtedly, there is a large number of studies focusing on CEE countries; however, a missing component in these researches is the examination of potential benefits of local companies in Albania from foreign investors. Most of the studies that intend to analyze foreign investment in Albania refer to the underlying reasons for the low levels of FDI in the country and to the major factors influencing the foreign investors' decisions to invest in Albania (FIAS, 2003; EBRD 2002; Ministry of Economy, 2002; Bitzenis and Szamozi, 2006). Therefore, the lack of studies on FDI effects in Albania gave us a strong incentive to investigate this topic in this specific country. After providing an overall view on foreign investments in Albania in this chapter, in the next chapter we will proceed with the methodology approach that will be used to investigate the role of foreign companies in Albania and whether they transfer technology to the local economy.

CHAPTER 4

METHODOLOGICAL APPROACH

4.1 INTRODUCTION

Having reviewed the literature and examined how foreign direct investment is deployed in the Albanian economy, we are now in a position to consider the methodological approach of our requiry in the technological transfer created by foreign investors in the Albanian economy. Since the early work on spillover effect the results of spillovers from foreign presence are surrounded by controversy and still remain inconclusive in terms of the overall direction and magnitude of spillovers. Criticism on these findings is incorporated in the previous chapters. Therefore, given the problems, weaknesses and limitations of purely econometric studies, a unique conceptualization of spillovers was formulated and proposed to be used in order to investigate the nature and influence of foreign companies on local companies, and overcome the limitations of purely econometrics. Subsequently, this Chapter uses the analytical framework designed in Chapter 2 to examine the extent of direct and spillover occurrence in the Albanian manufacturing sector. The kind of spillovers occurring will be examined as well as the channels through which technological spillovers occur. The data used have the merit of being original primary data coming from a survey undertaken in the Albanian manufacturing industry covering all sectors: textiles; shoe and leather; wood and furniture; food, beverages and tobacco; electrical materials; paper, printing and publishing; construction materials; and others. The sample size was designed to provide generalizable results. This chapter is organized as follows: methodology design, design of the stages of the research and data collection, questionnaire development and design, and conclusions.

4.2. METHODOLOGY DESIGN

The thesis seeks to examine the nature of the foreign companies present in Albania, whether and to what degree there is direct and indirect transfer of technology from their presence to local companies in Albania. So far, there are no studies that have tried to see what is going on with the impact from foreign companies in the country. In addition, pure quantitative studies have many weaknesses. Therefore, in order to fill these gaps this thesis designed a unique conceptualization of spillovers (see Chapter 2). This conceptual framework enabled us to design an appropriate study to investigate the impacts of FDI in Albania, which in turn will allow us to have a clear detailed picture about FDI impact, drive conclusions and make policy implications for the government and institutions. The focus of the thesis will be on FDI in the manufacturing sector, despite the fact that there is a considerable share of FDI in the services sector. This will take place for three reasons. First, Albania is a manufacturing-base transition country struggling to upgrade its economy. Second, the manufacturing sector is regarded as more significant in terms of its potential to promote economic growth and development through spillovers and externalities. In addition, in the manufacturing sector linkages between MNEs and domestic companies are more "traceable" rather than in the services sector. Third, a siginicant part of the demand for services results from manufacturing activities e.g. producer related services such as banking, consulting, design etc.

To serve this purpose, the initial intentions of the study were to utilize an empirical approach that starts with quantitative approach (firm level analysis using official data for the period 1998-2005) providing only preliminary indications on FDI direct effects (differences in performance between foreign and domestic firms) and indirect effects (spillover effects of foreign presence on the productivity of domestic firms), and then go beyond that in order to get more detailed data on how and why the impact takes place, by employing qualitative approaches such as survey studies and case studies. Direct and indirect effects of FDI are difficult to measure and a review of the literature (see Chapter 2) indicated that the studies that tried to calculate these effects through econometrics, a method that has been largely dominating FDI literature, provide chiefly evidence on whether there are any gains and/or losses from FDI. Even though the econometric approach offers an important picture of the potential direct and indirect FDI effects by providing a correlation of the productivity of domestic firms with the

presence of foreign firms in the local economy, this approach lack details on the process of technological transfer and the factors leading to this transfer. Thus it ignores to show how and why technology is transferred from foreign to domestic firms and how spillovers are generated (Gorg and Strobl, 2001; Lipsey and Sjoholm, 2004). Survey study approach, on the other hand, is superior to econometric studies as it provides comprehensive description and rich data on FDI effects and on the mechanisms through which these effects diffuse in the host country (Van de Ven, 1992), offering answers to the questions that econometric analysis fails to provide. This thesis intends to eliminate the pitfalls of econometric approach, by going beyond simple aggregate data, and extending the study by employing as a main approach an explanatory study on the basis of the conceptual framework developed in Chapter 2. The explanatory study includes detailed surveys of different industrial sectors. Moreover, the sample would be a stratified one reflecting the size distribution of the companies and would include around 100 foreign companies. The approach involves also case studies at a third phase. Foreign companies participating in the survey study would be picked up to conduct case studies, and based on their information on their local suppliers, customers and competitors surveys would be conducted with these local companies (see for details the sections below).

However, the original intentions of the study to incorporate both quantitative and qualitative approaches failed due to data inadequacy from INSTAT and Bank of Albania (see section 4.3 Data Collection for more details). Doing research in Albania can be referred as "doing what you can" approach. Hence, it was mandatory to adjust to the Albanian reality and pass over the first step of the study, and move straight to the second stage of the study, which consists on surveys with foreign companies.

Figure 4.1 Research Methodology of the Thesis - Achieved

PHASE 1

SURVEYS

1. **Data sources**: Secondary data from government survey and National Institute of Statistics (INSTAT)
2. **Sample**: All manufacturing industries including all sizes, entry modes, nationalities operating in four regions that have attracted more FDI (target group = 115 foreign companies; participants = 80 companies; response rate = 69 %)
3. **Vehicle**: Questionnaires with FDI companies
4. **Output**:
   a) Direct effects of FDI and indications for indirect effects of FDI according to the perception of foreign investors
   b) Sectors and companies for detailed analysis in phase 3
   c) Technology transfer index and determinants of transfer

Filtration Process 1

↓

PHASE 2

CASE STUDIES

1. **Data sources**: Secondary data from government survey and National Institute of Statistics (INSTAT)
2. **Sample**: e.g. 2 most important sectors with FDI, food & beverages and wood & furniture, and for each sector a selection of three companies
3. **Vehicle**:
    a) Closed and open-ended questionnaires to the 6 FDI companies
    b) Detailed Questionnaires addressed to the largest local competitors, suppliers and customers
4. **Output**: Indirect Effects including horizontal spillovers (competitors) and vertical spillovers (backward/suppliers and forward/customers)

Filtration Process 2

The surveys serve three purposes: 1) To test whether direct and indirect transfer of technology through FDI is a real-world phenomenon in Albania, and in case yes, to provide evidence on this direct and indirect FDI impact; 2) To answer to the questions how and why technological transfer takes place through FDI, by establishing the channels for each type of technology transfer and the respective determinants for the host country; 3) To provide data, based on which we will compute a technological transfer index; this will offer important insights on the extent to which technology transfer occurs in the Albanian manufacturing industry, as well as on the determinants of transfer occurrence and 4) To provide policy implications for maximizing the positive contributions of FDI and minimizing its negative effects. Thus, the major contribution of the thesis is that, through the survey research, will attempt to hopefully extend knowledge and to offer a better approximation of the issue, by providing extensive and accurate information in order to answer the research questions and explain why direct and indirect technological transfer has been more effective in some industries than others, as well as to assess whether these successes have transferable lessons for other industries. In implementing this methodology, the study will be in line with the studies of Crone and Roper (1999), Mirza, Giroud and Köster (2003), Mirza and Giroud (2004), Ferencikova (2003), Smarzynska Javorcik and Spatareanu (2005) and Hafiz and Mirza (2006).

Surveys, which are the main approach of the thesis, are conducted through structured interviews or standardized interviews or interviewer-administered questionnaires with a

sample of foreign companies. Structured interviews can be used to find out what is happening and why (Saunders et al., 2000). These can serve in collecting data and information that will be then evaluated through quantitative analysis. Structured interviews are questionnaires where the interviewer physically meets the respondents and the questions are posed face to face. The schedule of questions is defined and the interviewer cannot deviate. Interviewer-administered questionnaires were selected as the best method to approach this study as compared to other types of questionnaires; they provide higher quality and reliability of the data (Saunders et al., 2000). They usually have a higher response rate than self-administered questionnaires, and enable the interviewer to ensure that the respondent is the person wanted to answer the questionnaire and to avoid any misunderstanding and confusion with reference to questions (the interviewer can clarify on the spot ambiguous questions). Moreover, establishing personal contact is of high importance. It is found that in general, managers tend to agree more to be interviewed rather than completing questionnaires. Looking it from the interviewer's side, although interviews are time consuming for the researcher, they can help the latter to discover what is on a person's mind and to find out things that cannot be prima facie observed (Arksey and Knight, 1999).

In order to provide even more qualitative insight on FDI effects, particularly on indirect or spillover effects, survey studies will be followed by case studies, which are used as a another method for the study. Case studies are selected according to the relative importance of the sectors, e.g. thwo sectors. Three foreign companies are selected for each sector, and the former covers different typologies. Case studies include detailed questionnaires with foreign companies along with their competitors, suppliers and customers. Case study approach is considered to be a very good method in identifying the upgrading of the domestic companies through FDI technological transfer and particularly in answering the explanatory questions of how and why (Yin, 1994). This is because case study analysis, through the use of multiple sources of evidence (allowing for quantitative and qualitative analysis), is thought to explain a contemporary phenomenon within its real-life context when there are no clear-cut boundaries between the phenomenon and the context and when the researcher has little control over events (Yin, 1992, p. 123). "Case studies offer great flexibility" (Lipsey and Sjoholm, 2005, p. 31), which is of high importance for the analysis of our specific issue as the nature of technology transfer differs across companies, industries and countries. In contrast to

surveys that are based on statistical generalization, case studies are based on analytical generalization, which implies that results from case study approach should be treated with caution given that often the sample cases chosen for the analysis are not representative (Yin, 1992).

Survey studies however, apart from their advantages, have their own limitations. Sample studies are often accused for being biased and relative, while cases studies for lack of quantitative data, lack of statistical conclusion and difficulty for making generalizations (Saunders et al., 2000). In order to overcome these deficiencies, a technology transfer index is computed from survey data with foreign companies. This index is considered as the measure of technological transfer, and is used in quantitative analysis including determinants of transfer effect. Some econometric tests are conducted to examine the determinants of the technology transfer in Albania and in the context of the selected industries. Some hypotheses were identified based on the results from the quantitative analysis. These hypotheses are formulated in order to determine the influence of several paremeters on the process of technology transfer. This is another contribution of the thesis as it intends to go beyond the data acquired from surveys, and generate an index out of it. The purpose of doing this is to answer empirically to the question on which are the variables that play role on the transfer of technology.

This research can be a valuable contribution to the ongoing literature by using the above mentioned approach. To our knowledge, there are no studies that have attempted to do this, which is a missing component on the FDI empirical literature. Moreover, another contribution of the thesis is the extension of the analysis of the subject to countries where there has been no interest of research so far. FDI inflows have increased in value in the CEE countries in the last decade, showing prospects for increasing importance of this phenomenon in the region. The characteristics of this region - adverse initial conditions, involvement of some of these countries in the unification process, and limited extensive discussion on the subject - call for more knowledge on the effects that FDI can play on local companies of these host countries. This thesis will extend analysis to a CEE country, particularly Albania, which lacks evidence on direct and indirect technological transfer of FDI to host companies and not much is known on the role that foreign companies can play on the country. The lack of studies on FDI effects in

Albania gives us a strong incentive to explore and evaluate this topic in this specific country.

4.3 RESEARCH DESIGN AND DATA COLLECTION

To examine the extent of direct and spillover occurrence from foreign companies to the local Albanian economy, the study was designed in three stages (see in the section above Table 4.1). The purpose of the first stage was to collect firm-level data from official sources in Albania in order to conduct econometric analysis and provide empirical evidence on spillover generation in the Albanian manufacturing sector. This data would be necessary to use existing quantitative approaches to indicate characteristics of each manufacturing sector, levels of FDI companies in each sector and their activities. Likewise, these data would be used to determine whether foreign companies have a better performance compared to local companies, and if so examine whether local ones take something from over performing foreign companies. Therefore, it would be feasible to examine relationships between productivity growth and foreign participation by manufacturing sector, and hence establish a preliminary indication of the gains and losses from FDI, by identifying which sectors benefit more.

The first phase that included data collection for empirical analysis was carried out by visiting Albanian national institutions such as National Institute of Statistics (INSTAT) and Bank of Albania in March 2004, April 2005 and January 2006. However, these visits failed to meet the initial ambitions of collecting the firm level data due to problems encountered. First, during the first two visits both institutions declined to cooperate in proving the data due to reasons of confidentiality. Second, after efforts to persuade these institutions to cooperate, the firm level data that could be provided by INSTAT and Bank of Albania was impossible to be elaborated in the study, because there was lack of information on the ownership of the companies included in the database, and hence failed to distinguish local companies from foreign ones. Therefore, even though the initial intentions of the study were to collect the necessary data and produce empirical results on the relationship between FDI presence and productivity of local companies, the quality of data provided by INSTAT was insufficient to meet the objectives, hence it was obligatory to skip this step and move straight to the second stage of the study.

The second phase involved a firm level survey. Despite the fact that the first stage would have been necessary to present some quantitative results on whether local companies would have benefited from the presence of foreign companies, still these results would have not be able to answer the questions why and how spillovers generate. Therefore, a qualitative survey was conducted through face-to-face interviews in order to collect firm level data. A pilot study was conducted (April 2005) before the actual field work (January-April 2006) in order to pre-test the questionnaire design. This involved a test on the questionnaire by conducting face-to-face interviews with five foreign companies in different manufacturing sectors. This helped to detect some shortcomings that might cause any problems, and refine the questionnaire for the actual survey.

To start with, the sample survey covered all foreign companies operating in the four cities that have attracted more FDI in Albania (based on data from the survey conducted by INSTAT and Bank of Albania during 2005 the amout of FDI in these four cities account for approximately 80% of FDI in Albania).[34] The foreign companies included in the sample had a minimum employment of 10 persons and a minimum of 10 % foreign ownership. Albania applies the usual definition of FDI firms provided by IMF (1993) and OECD (1996), where FDI firms are defined as firms with foreign share equal to at least 10 % of ordinary shares or voting power. A list of foreign companies was compiled based on the information provided by INSTAT, taking into account all operating foreign companies during 2005 in the four cities. As such, the sample is representative of foreign investment in Albania, including different structures of foreign companies and different countries of origin. The total sample of companies incorporated in the survey by INSTAT included 191 foreign companies in the sector of manufacturing in all cities and regions of Albania. Out of these 191 companies, 115 companies were selected (the ones operating in the four cities selected for the research). This presented a population sample of 60% of the total sample of foreign companies in the manufacturing sector. However, from the initial sample of 115 companies operating

[34] In general, there is limited detailed information on FDI companies in Albania, with main institutions failing to provide information on important figures such as the contribution of FDI on sales, output, and employment in the Albanian economy. In 2005, it was the first time that INSTAT conducted survey on FDI companies in Albania. Until this period, there was only a database including both local and foreign companies, without distinguishing though the ownership of the companies.

in the Albanian manufacturing sector in the four selectec cities, 80 firms were successfully surveyed. This represented a response rate of 69% of the total firms initially sampled. Information from 2 companies (2% of the initial sample) was rejected for incomplete information. Some of the companies refused to cooperate in the survey (17% of the initial sample), while the rest (12% of the initial sample) could not be found due to incorrect or incomplete addresses or telephone numbers, changed addresses or were shut down during 2005. Given the nature of the data collection method through face to face in-depth interview, the sample size of 80 companies is large (particularly for Albania which has a small market size) and comparable to or even larger than similar studies (for example, PA Cambridge Economic Consultants, 1995; Crone and Roper, 1999; Mirza, Giroud and Köster, 2003). The sample size of 80 companeis, accounted for 64% of total employment (implying that the rest of companies that were not included in the sample are mainly small-sized), and 43% of total sales of the foreign companies in the manufacturing sector included in the survey of INSTAT (total 191 foreign companies).[35]

Interviews were carried out with chief executive officers (CEOs), director, manager or any equivalent staff of the foreign companies that had adequate knowledge on the activities and performance of the company. The foreign companies were interviewed using a structured questionnaire. The information gathered was mainly in form of words rather than statistical numbers. The qualitative data was coded being grouped into different conceptual categories, according which the analysis was undertaken. The structured interviews with foreign companies were carried out during a number of field trips (two out of a three in total) that took take place by end of 2005 and start of 2006. The interviews were normally one to one-and-a-half hours in length. In most of the cases the questionnaires were delivered in advance either through e-mail.

Conducting surveys in Albania was not an easy thing to do and particularly when looking for technology and knowledge oriented data as companies hardly document it.

[35] These percentages were calculated based on the database with the balance sheets of all foreign companies in the manufacturing sector collected during the survey of INSTAT during 2005, combined with the data gathered during our field work with the foreign companies included in our sample. However, these figures should be treated with cautious given that falsification of balance sheets in Albania is a common exercise, and most companies keep two versions of balance sheets, one for their use and one for the tax office or government institutes. Hence the percentages of sample's employment and sales over total number of foreign comapneis can be considered as rough estimates.

Given the nature of the study, it was necessary to speak with company managers (especially production managers) or CEOs, which was not easy for each case respectively. In order to get an interview from the manager permission would have to be sought first from the CEOs, and on the other hand managing to gain an interview from CEOs was difficult due to time limitations. Moreover, a number of other difficulties were also faced, including distance walk to reach many companies that could not be easily reached by transportation means. In the case of companies that were located far from the centre of Tirana, information regarding the exact location of the foreign companies was provided by one local employee of INSTAT that had a good knowledge of the location of the companies. Other difficulties included the necessity to visit some of the companies more than once in order to make possible the interviews with the respondents, and also the unwillingness of some of the respondents to provide information, particularly on financial data, due to their confidentiality. This tended to make the interviewing procedure longer. However, in most of the cases the cooperation of the managers was impressive, along with the interest they showed during the interviews. Often the interview proceeded to open discussion on various issues regarding the company, the economic situation on the country, the general role of foreign investments on the local economy, and the role of the government to promote foreign investments. On many occasions managers offered a visit around to view their factory to get familiar with their technology and production process. Most of the participants were contacted by telephone prior to interviewing and the time was scheduled.

The third stage involved case studies that were selected based on the survey done in the second stage. Depending on the status of things in the specific country, we decided to follow subjective sampling for case studies (rather than random sampling), selecting few good cases of foreign companies in order to illuminate some important points in terms of indirect effects to domestic companies. Hence, based on the survey sample, some of the companies were selected for a deeper investigation on the generation of technological spillovers by collecting qualitative information. The selection of the case studies was based on a criterion which was biased towards positive information obtained in the survey regarding technological spillovers and linkages of the foreign companies with local economy. Specifically, two most important sectors with FDI were selected, and for each sector there was a selection of three companies. This will be

discussed in detail in Chapter 6. Case studies were carried out during the third fieldtrip in 2006, and were undertaken by face-to-face interviews with general managers or production managers consisting of both closed and opened questions (that allow for more accurate information regarding the indirect effects of FDI), coupled with company visits to get familiar with production technology and mechanisms in use. Permission was asked for the recording of interviews and guarantee for anonymity was provided. Moreover, in order to explore in more depth the impact of FDI companies on local companies, structured questionnaires were addressed to the largest local competitors, suppliers and customers of the foreign companies included in the case study (the case study companies provided lists of their suppliers, customers and competitors, as well as their contacts including address, telephone and mail (when available). This enabled to provide a clearer picture of what was happening to these domestic companies as a result of the presence of foreign companies. An important issue was to compare and contrast the views on the issue of technological transfer as perceived by foreign investors included in the second stage (surveys) with the views of their local suppliers, customers and competitors included in the third stage (case studies). The initial expectations were to conduct around 6-10 case studies, and we achieved to carry out 6 case studies.

Finally, in order to shed further insight in understanding the role of institutions and government in the process of spillover generation, a few institutions and local agencies were selected from businesses associations, government departments and FDI promoting agencies. Interviews and discussions were carried out with personalities including government officials, professionals and academics, in order to explore their awareness on the issues of technology transfer through FDI companies, to check their perception on the role that foreign investment has played so far in Albania, as well as establish their approach on how to further stimulate the positive effects of FDI not only at a firm level, but also to the wider economy.

4.4 QUESTIONNAIRE DEVELOPMENT AND DESIGN

Foreign companies transfer technology in a variety of ways, direct and indirect. This issue is particularly complex and needs to be examined in a very careful manner. Having reviewed the extensive research of the literature on technology transfer, we

developed the conceptual framework provided in Chapter 2 which incorporates additional issues that were missing in the studies conducted earlier. The conceptual framework sets out the transmission mechanism for direct and indirect effects from FDI to local companies, which in turn has potential to improve the whole industry. The structure of the questionnaire goes according to the conceptual framework. The questionnaire was carefully designed over a period of time of 8 months. It addressed a number of issues that needed to be addressed, along with a list of background and descriptive information In order to compose the structured interviews there was support on theory, as well as on previous survey studies mentioned in the sections above (Crone and Roper, 1999; Mirza, Giroud and Köster, 2003; Mirza and Giroud, 2004). The questionnaires and interviews were prepared in both languages, Albanian and English, in order to allow for flexibility.

The structured interviews cover the following lines: the activity of foreign companies and their characteristics; the extent to which they bring with them technology; the impact of the foreign companies on the practices and performance of local competitors, suppliers and customers; the mechanisms through which technology is transferred to local companies; the factors on which technology transfer depends, foreign companies and non-market collaborations, and the wider effects of FDI on the local economy. Figure 4.2 summarizes the main issues and topics on transfer and indirect transfer addressed in the questionnaire, as well as a list of background and descriptive information of the company (see a copy of the questionnaire directed to foreign investors in Appendix A). The data regarding the general information on companies were either provided by surveys conducted by national statistics office such as INSTAT, coupled with annual reports and balance sheets of the companies included in the sample, or were collected through the self-administered questionnaires and then be verified and complemented by information provided by national statistics office. However, many of the foreign companies declined to provide financial information due to issues of confidentiality.

Figure 4.2 Summary of the Issues Incorporated in the Questionnaire Survey with Foreign Companies

1. General Company Information

Main activity; year of establishment; legal form; entry mode; percentage of foreign capital; origin of foreign investor; size of investment; main source of finance; investment intentions; existence of parent company; existence of sister company; activities in other countries.

2. Direct Effects of FDI on Local Subsidiaries

2.1 Human Resource Development and Labour Mobility

Number of employees according to each category; the education level of employees; training; labour mobility; policy of the company regarding employment of skilled qualified workers

2.2 Existing Technology/Capital

Type, age and origin of technology; introduction of new products (innovation); introduction of new machinery; comparison of technology with that of parent company and other companies in the country.

2.3 Direct technological transfer to foreign subsidiary

The extent of transfer of technological transfer from parent company to the foreign subsidiary in terms of 6 categories: products; production processes; technology and innovation; supplier and customers system; human resource management, training and reporting system; and financial management, marketing and organizational structure.

3. Indirect Effects of FDI on Local Suppliers

3.1 Information on local suppliers

The origin of inputs; the reasons for relying on local suppliers; the reasons for not relying on local suppliers; relationship with local suppliers; specific requirements put to local suppliers; the main transmission mechanisms for actively influencing suppliers.

3.2 Indirect technological transfer to local suppliers

The extent of transfer of technological transfer from foreign company to the local suppliers according to the perception of foreign investor, in terms of 6 categories: products, production processes, technology and innovation; supplier and customers system, human resource management, training and reporting system; and financial management, marketing and organizational structure.

4. Indirect Effects of FDI on Local Customers

4.1 Information on local customers

The destination of outputs; the reasons for selling products on local customers; the reasons for not selling products to local customers; relationship with local customers; specific requirements put to local customers; the main transmission mechanisms for actively influencing customers.

4.2 Indirect technological transfer to local customers

The extent of transfer of technological transfer from foreign company to the local customers according to the perception of foreign investor, in terms of 6 categories: products, production processes, technology and innovation, supplier and customers system, human resource management, training and reporting system; and financial management, marketing and organizational structure.

5. Indirect Effects of FDI on Local Competitors

5.1 Information on local competitors

Direct competitors of the company; type of competition; origin of competitors; characteristics of competition; competitive advantages and disadvantages of competition; how does the company face competitive pressures; collaborations with competitors; crowding out of local competitors.

5.2 Indirect technological transfer to local competitors

The extent of transfer of technological transfer from foreign company to the local customers according to the perception of foreign investor, in terms of 6 categories: products, production processes, technology and innovation, supplier and customers system, human resource management, training and reporting system; and financial management, marketing and organizational structure.

6. Demonstration Effects

Introduction of products or techniques of other companies observed from the foreign company; and from which type of companies.

7. Infrastructure, Business Environment and Non-Market Collaborations

Provision of infrastructure; technical support from private agencies; involvement of the company into non-market collaborations; the extent that the company benefited from formal and informal interactions; the role of government in promoting and supporting foreign companies and their impact on local companies; wider effects of the foreign company in the local economy – dynamic impacts.

Regarding the guide to case studies, the issues were on the same line with those of the questionnaires to foreign companies; however they consisted of both closed and opened questions to that allow for more space to the respondents to provide their opinion and also provide even more detailed information regarding the indirect effects of FDI. Finally the questionnaire addressed to local companies (suppliers, customers, competitors) encompassed the same information to that of foreign companies regarding the indirect transfer of technology, however according to their perception, which is necessary in order to compare and contrast their views to the ones of foreign investors (see a copy of the case study guide and questionnaires of directed to local companies at the end of this chapter).

4.5 CONCLUSIONS

After pointing out the weaknesses of econometric studies and their simplistic treatment of spillovers, we presented an alternative conceptual framework presented in Chapter 2. As already mentioned at earlier sections, the characteristics of technological spillovers are often highly complex in nature, and are not perfectly understood and measured. This implied that it is required that they should be examined by an equally complex and integrated approach. And particularly, in the context of an underdeveloped country like Albania, that lacks adequate data, detailed firm level data through surveys and case studies were considered as crucial in order to investigate technological transfer through FDI. The study was designed in three stages that were presented in this Chapter. The following chapter present the empirical results provided by the analysis of the data gathered during a number of fieldworks in Albania.

CHAPTER 5

FOREIGN COMPANY SURVEY: TECHNOLOGICAL TRANSFER FROM FOREIGN DIRECT INVESTMENT TO LOCAL COMPANIES

5.1 INTRODUCTION

Given the problems, weaknesses and limitations of purely econometric studies identified in the previous chapters, a unique conceptualization of spillovers was formulated and proposed to be used in order to investigate the influence of foreign companies on local companies. It permits a rich examination of spillovers in terms of their type, the mechanisms they take place, and their determinants. Subsequently, this Chapter uses the analytical framework designed in Chapter 2 to examine the extent of direct and spillover occurrence in the Albanian manufacturing sector. The types of spillovers occurring will be examined as well as the channels through which technological spillovers occur. The data used comes from a survey undertaken in the Albanian manufacturing industry covering all sectors: textiles; shoe and leather; wood and furniture; food, beverages and tobacco; electrical materials; paper, printing and publishing; construction materials; and others. The research design and data collection were presented in Chapter 4. This Chapter is organized in a number of sections as follows: sample characteristics, descriptive statistics, direct technological transfer, indirect/spillover technological transfer, and conclusions.

5.2 SAMPLE CHARACTERISTICS

This study comprises data that come from a survey undertaken in Albania during the period 2005-2006. The survey covered all manufacturing sectors located in four largest and most industrialized cities in the country that have attracted more foreign investments such as Tirana, Korca, Elbasan and Durres. A list of 115 foreign manufacturing companies, covering all companies operating in the selected cities, was

drawn from a database created by the Albanian government including the yearly data of 800 foreign companies for 2003 (251 in manufacturing sector) and only 600 foreign companies for 2004 (198 in manufacturing sector), the ones that were active in Albania since 1998. The database was made available by the Albanian Institute of Statistics (INSTAT). The criteria used was that all companies had to operate in the manufacturing sector and that foreign companies would have a minimum employment of 10 persons and a minimum of 10% foreign ownership. Albania applies the usual definition of FDI companies provided by IMF (1993) and OECD (1996), where FDI firms are defined as firms with foreign share equal to at least 10 % of ordinary shares or voting power.

In our survey, from an initial sample of 115 companies operating in the four major cities in Albania, 80 firms were successfully surveyed. This represented a response rate of 69% of the total firms initially sampled. Information from 2 companies (2% of the initial sample) was rejected for incomplete information. Some of the companies refused to cooperate in the survey (17% of the initial sample), while the rest (12% of the initial sample) could not be found due to changed addresses or were shut down during 2005. The sample survey is representative with foreign companies accounting for % sales, % employment, hence the results attained would be reliable for further policy recommendations. Instead of using the terms "MNCs" or "MNEs" or "TNCs", the term "foreign company" is preferred. This is as result of a number of foreign companies in Albania identified as "stand alone" companies that did not have parent companies abroad. There were identified 19 "stand alone" companies, which accounted for 23.7. Only 7.5% of the companies had a sister company in Albania and 3.8% had activities even in other countries except Albania.

The survey sample included these companies: 19 textile (23.7%), 9 shoe and leather (11.3%), 7 wood and furniture (8.7%), 12 food, beverages and tobacco (15.0%), 8 electrical materials (10.0%), 6 printing and publishing (7.5%), 6 construction materials (7.5%), 6 metals (7.5%), and 7 others (8.8%). The textile and shoes and leather industries play a significant role in the Albanian economy (Begaj, 2003). Their history goes back to 1960-1990 period, where they represented two of the leading industries of the country. These two industries were state-owned enterprises; after 1990s went through privatization process and a large part of them did not change their destination. Activities of these sectors consist on production under Outward Processing Trade

Regime (OPT) of clothes and footwear uppers, comprising the majority of Albania's exports. Wood and furniture processing industry is another important industry of the manufacturing sector with long tradition of wood processing in Albania (Begaj, 2004). The transitional period of the 1990s brought significant changes to the sector not only in terms of ownership but also in the production chain.

The table below provides the breakdown of the surveyed companies. In our sample two industries had more than 10 firms; 19 (23.75%) for textile industry and 12 (15%) for the food processing industry. Companies with 100% of their equity share owned by a foreign company were treated as wholly foreign owned, while any company with shared equity was regarded as joint venture. Going by this classification, 60% were wholly foreign owned companies while 40% were joint ventures. Interestingly, the predominant mode of investment of the companies included in the sample is in the form of wholly foreign owned companies. This is in contrast to the general characteristic of FDI in Albania, which takes place mostly in the form of joint ventures. The main reason behind this is that foreign investors do not feel confident enough to invest their capital in wholly foreign owned companies and try to minimize the investment risk by investing in joint ventures (Nakuci and Zizo, 2006). In our sample the food industry (9 joint ventures) and the shoes and leather industry (6 joint ventures) had the main joint ventures. Surprisingly enough, textile industry included the most wholly foreign owned companies (17). A possible explanation for this is that a number of foreign companies in the textiles industry started their operations as joint ventures and then preferred to break up their partnership and increase control to wholly foreign owned given the improving business conditions in Albania and the decreasing risk of investment. This was the case of 4 companies in our sample.

Table 5.1 Ownership structure

Industry/Sector	Wholly Foreign	Joint Venture	Frequency/ Percentage
Textiles Industry	17	2	19 (23.75)
Shoe & leather Industry	3	6	9 (11.25)
Wood & furniture Industry	2	5	7 (8.75)
Food & Beverages & Tobacco Industry	3	9	12 (15)
Electrical materials Industry	6	2	8 (10)
Paper, printing and publishing	5	0	6 (7.5)

Construction materials	3	3	6 (7.5)
Metals	2	4	6 (7.5)
Others (chemicals, pharmaceuticals & plastic)	2	5	7 (8.75)
Total	**48**	**32**	**80 (100)**

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent percentages

Regarding the equity stakes, it is remarkable that 26.3% hold majority shares and 60% hold full ownership on the company. This indicates for positive effects of FDI liberalization policies in Albania, which possibly led to higher equity shares. Similar trend was observed in Eastern Europe by Meyer and Estrin (2001) where foreign investors were increasing their equity shares within few years from minority to wholly owned company. Only 5% of the companies hold minority shares and 8.8% were held as 50% joint ventures. The later requires for cooperation of both partners, however, it is commonly considered as the ownership structure with the most conflicts among managers (Meyer et al. 2002).

Table 5.2 Foreign Share

Foreign Ownership	Frequency	Percentage
Minority (>10%, <50%)	4	5.0
Joint Venture (=50%)	7	8.8
Majority (>50%, <99%)	21	26.3
Wholly Owned (100%)	48	60.0
Total	**80**	**100.0**

Source: Tabulated from author's field survey (2005/2006).

In line with our expectations, greenfield investments are the most common mode of entry in Albania accounting for 79% of survey companies, while only 21% engaged in acquisitions. These results imply that majority of foreign companies in Albania have started everything from scratch by establishing new entities. This supports an earlier empirical evidence from Central and Eastern Europe, which shows that greenfield investment is the preferred entry mode (Meyer, 1998). Entry mode choice is considered as an important element of the strategy followed by foreign companies that influence the extent to which FDI affects the host economy. Greenfield investment has been considered to have a significant capability of affecting the host economy, which is greater than that of acquisition (William, 1997). Greenfield investments provide new facilities, enlarge supply capacity and create more new jobs than acquisitions, however,

they rely mostly on imported inputs (as they are new to the market) limiting the potential for linkages with local suppliers and customers. On the other hand, acquisitions offer greater potential for knowledge spillovers as they have more developed linkages with local suppliers (due to existing links of the acquired company) (UNCTAD, 2000; Wes and Lankes, 2001; Matoo et al. 2002).

5.3 DESCRIPTIVE STATISTICS OF THE SAMPLED COMPANIES

Origin Country. The main origin of FDI companies included in the sample comes from neighboring countries such as Italy and Greece, accounting for 55% and 31.3%, respectively. The rest 3.8% comes from Austria, 2.5% from Germany, and 7.4% from other European countries, Lebanon and USA. Italian companies are engaged mostly in textiles sector and shoe and leather sector, while Greek companies are focused on textiles sector and food and beverages sector.

Table 5.3 Origin Country

Origin Country	Frequency	Percentage
Italy	44	55.0
Greece	25	31.3
Austria	3	3.8
Germany	1	1.3
France	2	2.5
Macedonia	1	1.3
USA	1	1.3
Bulgaria	1	1.3
Serbia	1	1.3
Lebanon	1	1.3
Total	**80**	**100.0**

Source: Tabulated from author's field survey (2005/2006).

Company size. An important company characteristic is company size in terms of employment size. Small-sized companies with a range of 10-20 employees constitute 18.8% of the sample, medium-sized companies with 21-80 employees 32.5% and large companies with above than 80 employees 48.8%. The average employment level for all manufacturing sectors is 122, belonging to large-sized companies according to Albanian standards. The smaller-sized company includes 10 employees (food and beverages

sector) and the larger-sized company includes 1200 employees (shoes and leather industry). The major part (64%) of the large-sized companies is wholly owned. The foreign companies are larger in the shoes and leather industry employing an average level of 376 employees, followed by the textiles sector with 121 employees. The increasing number of employees in these sectors reflects the attractiveness of foreign investors towards the Albanian cheap labour force, where most of the employees are women. In general the foreign companies operating in Albania are larger than domestic companies. Similar findings are arrived for the Czech Republic by Djankov and Hoekman (1998) where it was observed that companies with foreign ownership tended to have large size. Foreign firms have more resources than local firms to invest in big companies abroad or to expand existing local firms once they have merged or acquired them. This is consistent with the literature on MNCs, which postulates that foreign firms have ownership advantages, which enable them to invest internationally (Hymer, 1960; Kindleberger, 1969; Dunning, 1973; Caves, 1974; Buckley and Casson, 1976).

Company Age. The average age of all the companies in all the industries is 8 years, implying for quite young companies. This could be expected since the experience of the foreign investments in the Albanian market is relatively short, only about 13 years. As it is well known, Albania has been largely inaccessible under the communist regime, which had isolated the country from any foreign influences. The earliest company was established in 1992, while the most recent one in 2004. Interestingly, foreign companies in the textiles and wood and furniture industry had a similar average age of 9 years, while companies in the shoes and leather industry were the oldest with an average age of 11 years. This is not surprising given that early foreign investments in Albania were mainly in the shoes and leather industry and textile sector. The youngest companies were those in the paper, printing and publishing house sector with average of 6 years of experience. The average age of wholly owned companies was older than that of joint ventures, which is in contrast to the fact that most of the initial foreign investments in Albania took place through joint ventures. Considering the fact that foreign companies in general have been operating for less than a decade in Albania, on average, it is expected that these companies are not yet well embedded in the host economy and did not have considerable amount of time to establish long-term linkages with the local economy.

The majority of the foreign companies (64%) were established in the period 1992-1997 where Albania enjoyed strong economic growth (around 10%) and was going through the early stages of transition to market economy with relative speed and success. The rate of foreign investments declined tremendously in 1997-1998 due to the collapse of pyramid investment schemes followed by economic and institutional crises. Only 23% of the companies were established during 1998-2000 and the rest 13% during 2001-2004. The company's age is an important factor, as it tends to influence the extent of subsidiary's contact and relations with the local economy. The older the company, the more likely it is to be involved in technology transfer and to have better established mechanisms to support this (Mirza et al. 2001).

Age of Technology. The company's age factor is likely to be related to the age of the core production machinery and to the technology transfer to the local subsidiary. The average age of the production machinery of the survey companies was 10 years, with the oldest machinery of 25 years and the youngest of 1-year-old. More than 33% of the companies use machinery that are above 10 years old. These results indicate that foreign companies have the tendency to use new production technologies, but not always the most recent ones. The latest partly implies that foreign companies in Albania do not replace or introduce new production machinery and technology regularly.

Moreover, 43% of the companies have purchased 100% new machinery for their activities, 19% have invested in 100% second hand machinery, while the rest 38% consist in investments of both new and second hand machinery. It was interesting to note that although a number foreign companies started their activity with second hand machinery, due to increasing competitive pressures and increasing expectation of the local market, decided to introduce new ones. The age of machinery is different according to different sectors. The oldest machinery belongs to the textiles sector with an average age of 13 years. Only 16% of the companies have invested in totally new machinery. These results contradict the argument in the literature that foreign companies would tend to use relatively new production machinery. This could be explained by the nature of the textile manufacturing activity undertaken, which is of little value added. The machinery covers processes such as cutting, sewing and pressing (in general packaging is handled manually); however machinery for special technological processes is missing, confirming the labour-intensive nature of the textile

sector. Whereas the food industry consists in the latest technology of 7 years, where 92% of the companies have purchased only new machinery implying for significant investments in this sector.

Foreign companies relied heavily on parent companies or home country for their production machinery, which implies for positive effects in terms of direct technology transfer. All foreign companies have purchased their production machinery from abroad, in most of the cases from their origin country. In general, the latest technology came from Italy and Greece. However, in general local companies seemed to have a lower technology than parent companies at home countries, implying that parent companies prefer to keep high technology inside the parent company and they are still suspicious or not too confident to transfer technology to local subsidiaries.

Source of Finance. In general, the companies themselves have financed the original investment in the foreign companies and there is limited intermediation of local and foreign banks. A significant part of foreign investors, covering 81% of the total sample, rely on their own money to invest in the local subsidiaries, only 9% used loans from domestic banks, 6% used loans from foreign banks and the rest 4 % took special government credit and other sources. These findings indicate constrained access to capital in local financing institutions, which could be explained by the fact that even though the banking system has evolved there is a high cost of credit and high bureaucratic barriers. This is consistent with a survey conducted by Cani et al. (2000), which concluded that bank lending in Albania is in low levels accounting only for 11% of the businesses and that informal market is playing an equal role with the banks regarding the finance of the large businesses. This implies for limited opportunity for promotion of private businesses in Albania, including the foreign ones. It is not surprising that 86% of the cases that used loans from domestic banks, 80% of the cases that used loans from foreign banks and 100% of the cases that used government credit were joint ventures. The possible reason for this is that local partners have easier access and already established relations with local institutions.

Amount of investment. The size of the original investment differs across sectors, however it is important to be cautious about the figures provided by the companies given that 45% of the companies reported the minimum level of investment allowed by

the Albanian Law. The range of the size of the investment is vast, from 100.000 Lek to 1.300.000.000 Lek. The average level is 77.766.845 Lek, with the sector of electrical materials having the lowest level of investment with 118.750 Lek, followed by the textiles sector with 18.872.632 Lek. The later confirms the labour-intensive nature of the sector. On the other hand, the food and beverages sector records the highest level of original investment with an average of 218.090.070 Lek implying for serious and successful investments in the sector.

Investment intention. Future investment intentions are a good indicator for the likehood of the technology transfer in the near and more distant future. 64% of the companies are likely to make future investments in the subsidiary implying for the serious intentions of these companies in the country and the optimistic perception about prospects for the Albanian economy. 36% of the companies had no future intentions for investments. It is likely that a part of them have already made their investments or already have excess capacity in their facilities.

Absorptive Capacity. The proportion of staff with university, technical and vocational training is considered as an indicator of the company's absorptive capacity. The average level of all industries is 13.8%, and the highest levels of 19.5% and 17.8% belonged to the food sector and to the wood and furniture industry, respectively. This observation is not surprising since both industries require special technological activities and processes and thus implying for engagement of skilled labour force – managers, engineers and vocationally trained technicians. Shoes and leather industry had the lowest level of 8.1% followed by the textiles industry of 11.2(%). The textiles and shoes industry have a long experience of several decades that has resulted in the generation of a qualified workforce in specific operational processes (such as sewing, cutting, ironing etc.) (Begaj, 2003). This class of employees has been further qualified under the development of private sector and the operations of foreign companies. However, the same does not apply for higher qualified work force. The management consists of engineers, production managers, financiers, and sales managers, who concentrate on production and investment rather than on demand and market analysis given the characteristics of the production process. This is in contrast to the European industries empowered by expertise with rich professional qualification, which undertake innovation and research and development. Moreover, in Albania there is insufficient

number of institutions that prepare qualified workforce and the level of wages is too low to maintain the high quality workforce in these industries (Begaj, 2003). Nevertheless, most of East European countries face similar situation.

Human resource development. The employment level in Albania is divided into two categories: administration (direction, production) and non-administration (qualified workers, non-qualified workers). Administration consists in 14% of total employment in the company at an average level. As expected, the textiles sector is the one with the lowest administration level consisting in 6.5% of total employment followed by the shoes and leather sector with 8.2%, confirming the low percentage of qualified managing staff in the sectors. This is also related to the fact that these sectors carry out outward processing productions. Surprisingly, the paper, printing and publishing house sector holds the main percentage with administration level accounting for 19.3%, implying for a large level of educated journalists and reporters for publishing houses.

It is impressive that in 63.8% of the survey companies the owner is also the manager of the company, indicating involvement of ownership in the management and administration of the foreign companies in Albania, something that takes place even in local companies. However, only 58.8% of the owners of the foreign companies have high education and only 24% of the companies have foreign staff in the administration, suggesting for limited potential for human capital transfer from foreign expertise to the local staff.

Training. It is surprising that the majority of the companies, including 92.5% of the sample, offer training to the employees. However the kind of training, the training period offered and the type of employees included in training differed substantially between companies among sectors.

Foreign companies provide different ways of training to their employees. First, the most common method of training is on-the-job training offered to employees through learning by doing/performing and learning by demonstration. Second, external staff sent by parent company offer training to employees particularly when the subsidiary company acquired new machinery and new designs. Most of the foreign companies benefit from site visits of external staff, depending on the type and needs of the

company. Third, training is offered externally outside the country, in most of the cases in the origin country of the foreign company, Forth, some of the companies offer external training to employees by participating in training seminars organized by training institutions and business associations. The third and forth training methods involved staff holding the position of director, manager, engineer and technician.

Most of the companies in the textile industry and shoes and leather industry offered simple in house training, which was usually done on ad hoc basis. While in the case of food industry and wood and furniture industry training was routine, internal and often external including training offered internationally (most often to the parent company). In general, the newcomers had to go through a training period of more than 2 months, depending on the company and type of employee.

The training in 93.6% of the companies was compulsory and in 94.5% of the companies was within working hours, implying for limited voluntary training and training out of working hours. 55% of the companies provide training that lasts 1-4 weeks, 18.6% for 5-8 weeks, 17.3% for 9-12 weeks, and the remaining 9.3% for 13-24 weeks. The companies train 75.6% of their employees at an average level. Almost half of the companies including 43.8% of the sample train only simple workers; 11.3% train managers and simple workers; 20% train technicians, engineers, and simple workers; and only 21.3% train managers, technicians, engineers and simple workers.

As mentioned earlier, there is a limited number of foreign managers in the survey companies, which implies for limited effects of human capital transfer. However, this can be counter balanced by other modes of transfer such as training courses provided to local managers in the parent company and expertise brought from parent company in the local subsidiary. 52.5% of the companies send their managers and expertise in the parent company at the origin country, involving an average number of 2 employees per year. On the other hand, 67.5% of the companies receive visits of expertise and managers sent by the parent company for training, introduction of new machinery and modification of existing ones, introduction of new products and processes. There is an average of 2 employees coming from parent company to visit the subsidiary.

It is interesting to remark that only 2% of the companies had a separate training department and only 12.5% of the companies have training costs, which range from 1% to 4%.

Research and Development (R&D). R&D activities are extremely low. Only 8.75% of the foreign companies conducted R&D belonging to the sectors of shoes industry (1 company), wood and furniture industry (2 companies), food, beverages and tobacco industry (3 companies) and pharmaceutical industry (1 company). The R&D expenditure ranged from 1% to 11% (the case of Coca-Cola) and averaged 3.35%. As noted from the survey done, only few foreign companies in Albania conduct R&D. This was expected for three reasons. First, foreign companies have not enough resources to spread over R&D and to engage skilled scientists and engineers, which supports the argument that foreign companies usually concentrate their R&D in their home countries and conduct very little abroad. Second, most of the foreign companies in Albania tend to confine their operations into low-value added activities (textiles and shoes industry). Third, there is lack of adequate institutions and agencies to support this activity and most foreign companies lack trust.

Advertising and Promotion (A&P). Compared to R&D activities, foreign companies included in the survey seem to be more involved in A&P, where 18.75% of the companies are recorded to induce A&P expenditure. It is not surprising that the sector involved most in A&P is the food, beverages and tobacco sector (5 companies). The A&P expenditures ranged from 1% to 28% (the case of Coca-Cola) and the average level is 5.8%. The companies with the highest involvement in A&P are the ones that are domestic oriented and sell their products locally, which explains their tendency to promote the sales of their product/s in the country.

Imports. As expected a very high proportion of foreign companies participated in imports, supporting the argument that foreign companies in Albania rely on foreign suppliers rather than on local ones. 82.6% of the companies were importers, while 17.4% were sourcing their input from the local market and relying only on suppliers operating inside Albania. Among the importers, 68.8% of the companies were sourcing their inputs only from foreign suppliers outside the country and 13.8% combined both foreign and domestic inputs by relying on foreign suppliers as well as local suppliers.

16.3% of the foreign companies were relying totally on local suppliers and the rest 1.3% on other foreign companies operating in Albania. These findings imply for limited contact of foreign companies with local suppliers, given that they do not import only their machinery from abroad, but also a major part of their raw materials. However, the results differ substantially among sectors. Textiles industry, shoes industry, electrical materials industry and metals industry have almost no contacts at all with local suppliers by importing 100% of their raw materials from outside the country, which is however explained by the type of activities carried by the companies participating in these industries which involve OPT. The food, beverages and tobacco industry, the wood and furniture industry and the leather industry seemed to attract more local suppliers, which reflect the increasing reliance of these industries on local companies.

Moreover, there is a difference in the origin of inputs among wholly foreign owned companies and joint ventures, where 75% of wholly owned companies and 59% of joint ventures were relying on outsourcing. These results indicate that local partners have a tendency to rely on local suppliers and/or they already have established links with local suppliers. The limited role of local suppliers implies for immediate intervention from the Albanian government in order to increase the contacts and linkages of foreign companies with local suppliers and overall the role of the suppliers. This in turn might lead to overall improvement of the local economy.

The origin of imports is primarily from Italy and Greece. 82.6% of the companies were importers, relying on the parent company for inputs, or even in the case that the companies were stand alone they were relying on the home economy (country of origin). Therefore, foreign companies remained heavily reliant on the parent company or home economy for supplies, which has a significant positive impact on the issue of direct technology transfer from the parent company to the local subsidiary. 68% of the importer companies were bringing their supplies only from one country, while the rest 32% were importing their supplies from more than one country. 57.6% of the importer companies were totally or partly importing their supplies from Italy, and 36.4% from Greece, while the rest 18% from other countries such as Germany, Austria, Serbia, Sweeden, Netherlands, Fyrom, and Bulgaria, China and Russia.

Table 5.4 Origin of Inputs

Industry/Sector	Local Suppliers	Foreign Suppliers	Local & Foreign Suppliers	Other Foreign Companies in Albania
Textiles Industry		19 (23.75)		
Shoe & leather Industry	2 (2.5)	7 (12.72)		
Wood & furniture Industry	1 (1.25)	2 (2.5)	4 (5)	
Food Industry	2 (2.55)	5 (6.25)	5 (6.25)	
Electrical materials Industry		7 (8.75)	1 (1.25)	
Paper, printing and publishing	2 (2.5)	4 (5)		
Construction materials	5 (6.25)	1 (1.25)		
Metals		5 (6.25)		1 (1.25)
Others (chemicals pharmaceuticals & plastic)	1 (1.25)	5 (6.25)	1 (1.25)	
Total	**13 (16.25)**	**55 (68.75)**	**11 (13.75)**	**1 (1.25)**

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent percentages

Exports. The majority of foreign companies participated in exports supporting the general argument that foreign companies tend to be primarily export-oriented. This goes opposite of the evidence from foreign investors in Central Europe, which indicates that foreign investors are market rather export oriented (Benacek et al. 2000). More specifically, 81.3% of the foreign companies were exporters, while 18.7% were selling their products only to domestic customers inside Albania. Among the exporters, 58.8% of the companies were selling their outputs only to foreign customers outside the country and 22.5% chose both domestic and foreign destination for their outputs. Moreover, 70% of the foreign companies were exporting more than 90% of their products. The results suggest that foreign companies in Albania are strong exporters, which plays undoubtedly an important positive role in the trade balance of the country. However, similar to imports, these findings imply for limited contact of foreign companies with local customers, given that they export the majority of their products.

Again, the results differ substantially among sectors indicating for a different behavior of foreign companies in different sectors. Textiles industry and shoes and leather industry, have almost no contacts at all with local customers by exporting 100% of their output outside the country to the parent company, which is however explained by the OPT activities carried by the companies participating in these industries. The food,

beverages and tobacco industry, the wood and furniture industry and the construction materials industry seemed to be more domestic market oriented, which reflect the increasing reliance of these industries on local customers. Moreover, there is a difference in the destination of outputs among wholly foreign owned companies and joint ventures, where 65% of wholly owned companies and 50% of joint ventures were relying only on foreign customers. These results indicate that local partners have a tendency to rely more on local customers and/or they already have established links with local customers.

81.3% of the companies were exporters, and the final output was primarily destined for the local markets of the parent companies, and in case of the stand alone companies it was destined to the country of origin. The majority of the companies had an export orientation towards Italy and Greece. 53.8% of the exporting companies were exporting totally or partially their output to Italy, 27.6 to Greece, and the rest 13.8% to other countries such as Fyrom, Kosovo, Montenegro, Serbia, Croatia, Spain, UK, France, USA, Hong Kong, Iraq. 87.6% of the exporting companies were selling their products only to one country, while the rest 12.4% were exporting to more than one country.

Table 5.5 Destination of Output

Industry/Sector	Domestic Customers	Domestic and Foreign Customers	Foreign Customers
Textiles Industry			19 (23.75)
Shoe & leather Industry			9 (11.25)
Wood & furniture Industry		4 (5)	3 (3.75)
Food Industry	5 (6.25)	5 (6.25)	2 (2.5)
Electrical materials Industry	1 (1.25)	1 (1.25)	6 (7.5)
Paper, printing and publishing		3 (3.75)	3 (3.75)
Construction materials	3 (3.75)	2 (2.5)	1 (1.25)
Metals	2 (2.5)	2 (2.5)	2 (2.5)
Others (chemicals pharmaceuticals & plastic)	4 (5)	1 (1.25)	2 (2.5)
Total	**15 (18.75)**	**18 (22.5)**	**47 (58.75)**

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent percentages

Infrastructural and Institutional Support, and Non-Market Collaborations. The foreign companies included in the sample rated the provision of infrastructure as poor. This is not surprising in Albania since a number of studies find poor infrastructure to be

one of the major barriers of FDI and a big obstacle to the economic development in Albania. The power supply, water supply, and the transport services rated very low levels.

Table 5.6 Provision of infrastructure

Category	Nr of Companies responding to the question	Average response
Transport services (e.g. roads)	80 (100)	2.3
Water supply	80 (100)	2.0
Electricity/power supply	80 (100)	1.4
Telecommunication network	80 (100)	2.9
Public health facilities	80 (100)	2.0

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = poor; 5 = excellent

56% of foreign companies are involved in non-market collaborations, and more specifically 31.5% in sponsorships, 100% in the chamber of commerce, 26.25% in charities, and 22.5% in seminars.

There was not a single case of companies that would benefit from technical and institutional support from government, business associations and private sources. This is an expected case in Albania where most of the institutions are supposed to support the performance of foreign companies in Albania, however they perform below expectations and miss to reach their goals. The problem was and is still compounded by poor policies and lack of coordination among the existing institutions meant to promote industrialization in Albania.

Table 5.7 Technical support that the company received from private agencies

Category	Nr of Companies responding to the question	Frequency		
		Government	Business Associations	Private sources
Information	80 (100)	2.5	0	2.5
Financial services	80 (100)	0	0	0
Training	80 (100)	1.3	1.3	1.3
Quality control	80 (100)	0	0	0
Advertising	80 (100)	0	1.3	1.3
Others	80 (100)	0	0	0

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.

In general, the level of benefit reported from interacting formally and informally with institutions and business associations is extremely low. This was expected for two

reasons. First is that the level and frequency of interactions are usually low. This links to the second that most of the institutions or business associations to interact with are often faced with major drawbacks such as inadequate physical and human resources, finance and working capital. Third, lack of adequate support and facilitation from the government to institutions as most of them remain inefficient. Moreover, the government has also failed to offer an appropriate institutional and legal framework to provide entrepreneurs with the required guidance, which would promote interactions and foster knowledge spillovers in the industry. To site an example, which emerged during the interviews, most foreign companies interested in investing in Albania were affected by the immature structure and inefficient state of institutions and business associations. For instance, they were faced with lack of comprehensive information on the existing research institutions and their specific capabilities, operations of the judiciary and legal system, business partners with whom they can match make as well as on how to conduct business in Albania. This made foreign companies stay away or shy from full engagement in the industry.

Only 45 companies out of 80 companies are involved into non-market collaborations such as sponsorships, chamber of commence, charities and seminars. However, the amounts spent in these non-market collaborations are minimal, with the exception of three companies that were involved in sponsorships of 40.650, 1.500 and 1.000 Euros respectively.

Table 5.8 Involvement of the company in non-market collaborations

Category	Nr of Companies responding to the question	Amount (Euros)	Total Number of Collaborations
Sponsorships	25 (31.3)	1.878	2.5
Chamber of commerce	74 (75.0)		
Charities	21 (26.3)	123	1.6
Seminars	18 (22.5)		1
Others	0	0	0

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.

Table 5.9 The extent that the company benefited, from both formal and informal interactions

Category	Nr of Companies responding to the question	Average response
Machinery suppliers and consultants	80 (100)	3.1
Raw material suppliers	80 (100)	3.2

Clients and distributors	80 (100)	3.2
Competitors	80 (100)	3.1
Other participants during local exhibitions and trade fairs	80 (100)	3.1
Government and private institutions	80 (100)	3.0
Universities and technical training institutions	80 (100)	3.0
Industry and business association	80 (100)	3.1
Investment and export promoters	80 (100)	3.1
Others (please specify)	80 (100)	0

Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = no benefits; 5 = very high benefits

5.4 DIRECT TECHNOLOGICAL TRANSFER

Foreign companies were asked their perception of technology transfer from their parent company. As already mentioned, 60 companies (out of 80) had a parent company, the rest 20 were stand alone. Therefore, this section involves the answers of 75% of the total sample. Foreign companies were asked to assess the transfer of technology across 6 categories (products; production processes; technology and innovation; supplier and customers system; human resource management, training and report system; and financial management, marketing and organizational structure).

The results indicate that there is transfer of technology, knowledge and skills from parent company to the foreign subsidiary in terms of products, processes and technology each of them averaging 4.2, 3.9 and 3.4 respectively. Under each category, the companies seem to have benefited more in terms of introducing new products, quality assurance, purchasing new equipments and in terms of adopting new technology and skills (for further details see chapter 6 and table 6.3.3).

Table 5.10 The extent of transfer of technology, knowledge and skills from parent company to the foreign subsidiary

Category	Nr of Companies responding to the question	Average response
Products	60 (75) *	
Current product development activities	60 (75)	3.9
Improving existing products	60 (75)	4.1
Introducing new products	60 (75)	4.4
Production processes		
Production process organization and technologies	60 (75)	4.1
Process control systems	60 (75)	3.7

Quality assurance systems	60 (75)	4.4
Inventory control systems	60 (75)	2.9
Cost control/value engineering	60 (75)	3.4
Facilitates/equipment maintenance system	60 (75)	4.0
Upgrade existing equipment	60 (75)	4.1
Buy new equipment	60 (75)	4.3
Technology and innovation		
Adoptive technology and skills	60 (75)	4.2
Technological innovation	60 (75)	3.7
Research and development	60 (75)	2.4
Supplier and customers system	60 (75)	
Sales and delivery distribution methods	60 (75)	3.7
Purchasing practices	60 (75)	2.4
Human resource management, training and reporting system		
Recruitment system	60 (75)	2.7
Employment system	60 (75)	2.8
Promotion and innovation system	60 (75)	2.9
Payment system	60 (75)	3.1
Training activities and skill levels	60 (75)	2.9
Team working	60 (75)	2.7
Reporting system	60 (75)	4.0
Financial management, marketing and organizational structure		
Financial and accounting procedures	60 (75)	2.5
Management practices	60 (75)	4.2
Marketing and sales activities	60 (75)	3.0
Organization structure	60 (75)	3.9

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = not transferred; 2= transferred on a case by case basis; 3 = transferred if criteria is met; 4 = largely transferred; 5 = complete transfer
***The companies that did not respond the question are the ones without parent company**

5.5 INDIRECT/SPILLOVER TECHNOLOGICAL TRANSFER

In the conceptual framework presented in Chapter 2, two types of indirect effects were identified, which included effects of foreign companies to domestic companies that are in direct competition with them (intra-industry or horizontal spillovers) and to domestic companies that are vertically integrated with them (inter-industry or vertical spillovers). Inter-industry spillovers include effects of foreign companies to domestic suppliers (backward linkages) and domestic customers (forward linkages). Descriptive analysis resulted in the following findings.

5.5.1 Indirect Effects to Domestic Suppliers

Out of all foreign companies included in the sample, 76.25% of inputs are brought from outside the country and only 23.75% are bought from inside the country mainly from local companies and there was only one case from foreign companies operating inside Albania. It is not surprising that all foreign companies had brought their machinery from abroad (mainly from their origin country), while they relied locally for their services (consultancy, legal services, accounting etc).

Foreign companies relying on local suppliers formed about 31.2% of the total sample, among which 17.4% were purchasing their inputs only from local suppliers, while 13.8% combined both foreign and domestic inputs by relying on foreign suppliers as well as local suppliers. The low average share of local suppliers is not suprising considering the industries or sector of operation that foreign companies are concentrated, as well as the length of operation (age of foreign company).

The import of inputs from abroad and the existence of many local foreign-owned suppliers means that there is limited effect on local suppliers and hence there is limited effect on their quality, technology, prices etc. Foreign companies had a limited number of local suppliers. However, in case that there was contact with local suppliers, the later benefit from foreign companies. The time that the foreign company is operating in the country influences vertical spillovers. Given the fact that the average time is less than a decade, the foreign companies in Albania need more time to become fully integrated in the host economy's business networks and to establish links with local suppliers. However, the foreign companies with more years of experience in the country seemed to be more familiar with the local networks and had established some links with local suppliers. In addition, the sector in which the foreign company is operating influences the extent or level of supply linkages. In general, the textiles, clothing and footwear industry experience a low level of domestic linkages (UNCTAD, 2001). Foreign subsidiaries operating in these industries have a strong tendency to import their inputs, and only few-limited local linkages are created (Tavares and Young, 2002). The findings from the survey support these views. The majority of the companies included in the textiles, clothing and footwear sector were predominantly engaged in manufacturing for export markets, with almost no sales at all at the local market. On the

other hand, within the sectors of food and beverages, wood and furniture, and electrical industry, the level of local purchasing is limited but there is an increased propensity for linkage creation between foreign companies and local suppliers. These manufacturing sectors in Albania are dominated by foreign companies which hence creates opportunities for companies to purchase inputs (supplies) from other foreign companies in the sector, as well as from domestic companies.

The results from the survey study are as follows:

- Main reasons for selecting local suppliers: low price of raw materials, practical and geographical proximity/low transport cost, and nature of business (in case of subcontracting companies)
- Main reasons for not selecting local suppliers: lack of availability of local suppliers, low quality and low technology of products, type of company's activity and low volumes of products
- Where local suppliers are used, all foreign companies maintain relationships with local suppliers
- The majority of foreign companies do not take raw materials only from one local location, but from more than one.
- The majority of companies make contracts with local suppliers that range from 6 months to one year.
- Foreign companies were actively involved by putting specific requirements to suppliers in terms of quality control of raw materials, price, technical standards and speed of delivery.

Foreign investors were asked their perception about the extent that their company has helped to improve the performance of their local suppliers. As already mentioned, 26 companies (out of 80) were relying on local suppliers, the rest were selling their products outside the country. Therefore, this section involves the answers of 33% of the total sample. Foreign companies were asked to assess the impact across 4 categories (business performance; operating practices; competitive position and export potential). The positive impact of foreign companies on local suppliers, as perceived by foreign investors, was concentrated on product quality, cost control, price, products, and production processes, technologies, delivery and distribution methods.

There was also evidence of active supplier development by some of the foreign firms including quality audits of supplier products, collaboration with suppliers on product development and quality systems, and advice to suppliers on strategic or management issues. More than half of the foreign companies interviewed claimed to have induced a significant improvement in product quality, price and delivery performance. The greatest impacts were on suppliers in food and beverages industry, and wood and furniture industry. However, according to the foreign companies local suppliers still had a lot of room for improvement.

Regarding the key mechanisms supporting transmission of effects, foreign companies placed more emphasis on active mechanisms such as cooperation effect through site visits on technical aspects of production and quality issues, as well as informal sharing of views and ideas.

Table 5.11 The reasons why the company rely to local suppliers

Category	Nr of Companies responding to the question	Frequency in %
Low cost/price raw materials	80 (100)*	25.0
Local market access	80 (100)	8.6
Resources access	80 (100)	3.8
Geographical proximity/low transport cost	80 (100)	16.3
Other	80 (100)	13.8

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. Note also that the companies could pick up to 3 reasons.

Table 5.12 The reasons why the company does not rely to local suppliers

Category	Nr of Companies responding to the question	Frequency in %
Lack of availability of local suppliers	80 (100)	28.7
Low quality of products	80 (100)	26.3
High price/cost	80 (100)	2.5
Low technology/lack of suitable products	80 (100)	25.0
Unreliable supply/low volumes	80 (100)	2.5
Packaging is not good	80 (100)	0
Strategy provided by parent company or government	80 (100)	23.8
Type of company's activity	80 (100)	37.5
Other	80 (100)	0

Source: Tabulated from author's field survey (2005/2006). Note that the companies could pick 3 reasons.

Table 5.13 The extent of specific requirements put to local suppliers

Category	Nr of Companies responding to the	Average response

	question	
Quality control of raw materials and components	26 (33) *	4.7
On time delivery (speed of delivery)	26 (33)	4.4
Technical standards	26 (33)	3.8
Price	26 (33)	4.4
Penalties for delivery failure	26 (33)	2.6
Production procedures	26 (33)	3.6
Documentation procedures	26 (33)	3.0
Invoicing	26 (33)	2.7
Transportation standards	26 (33)	3.0
Insurance	26 (33)	2.9
Packaging	26 (33)	3.0
Flexibility	26 (33)	3.0
Efficiency	26 (33)	2.9

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = no specific requirements; 5 = highly specific requirements
*** Only 33% of the companies had local suppliers, a number of them were subcontracting companies while others took their supplies from outside the country**

Table 5.14 Main transmission mechanisms for actively influencing local suppliers

Category	Nr of Companies responding to the question	Average response
Cooperation effect through site visits on technical and quality issues	26 (33) *	4.5
Networking (e.g. conferences/seminars, trade associations)	26 (33)	1.8
Informal sharing of views and ideas	26 (33)	4.7

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = not important; 3 = important; 5 = very important
*** Only 33% of the companies had local suppliers, a number of them were subcontracting companies while others took their supplies from outside the country**

Table 5.15 Companies perceived impact on the performance of domestic suppliers

Category	Nr of Companies responding to the question	Average response
Business performance		
Sales	26 (33)*	3.8
Nr. of Employees	26 (33)	3.1
Investment	26 (33)	2.7
Productivity	26 (33)	3.9
Profitability	26 (33)	3.2
Wages	26 (33)	3.0
Operating practices		
Management philosophy and practices	26 (33)	3.1
Products and marketing	26 (33)	4.0
Production processes	26 (33)	4.1
Technology processes and innovation	26 (33)	4.3
Labour management and training	26 (33)	3.8
Financial management and organizational structure	26 (33)	4.2
Competitive position		

Product quality	26 (33)	4.4
Price	26 (33)	3.9
Cost	26 (33)	3.4
Lead time performance/speed of service	26 (33)	3.2
Delivery	26 (33)	4.5
Inventory control	26 (33)	2.8
Product design	26 (33)	3.0
Marketing and promotion skills	26 (33)	2.8
Specialized expertise or products	26 (33)	3.1
Professionalism	26 (33)	3.0
Established reputation	26 (33)	2.7
Distribution Methods	26 (33)	4.2
Export Potential		
Export capability	26 (33)	2.7
Opportunity to secure new markets and customers	26 (33)	2.6

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = no improvement; 2= limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement
*** Only 33% of the companies had local suppliers, a number of them were subcontracting companies while others took their supplies from outside the country**

5.5.2 Indirect Effects to Domestic Customers

Foreign companies included in the survey had a limited number of local customers. Out of all foreign companies included in the sample, 63.97% are sold outside the country while 36.03% are sold inside the country, and of these, 6.27% are sold to intermediate local customers and the rest 29.76% are sold to final local customers. However, the level of imports (76.25%) is higher than that of exports (63.97%), the local value added (direct wages, salaries, local inputs) and large-scale production ensures that a high level of income stays in Albania.

Moreover, 81.3% of the foreign companies were exporters, while 18.7% were selling their products only to domestic customers inside Albania. Among the exporters, 58.8% of the companies were selling their outputs only to foreign customers outside the country and 22.5% chose both domestic and foreign destination for their outputs. Export orientation is important for economic development of a country. However, Albania needs to foster domestic oriented development.

Similar to local suppliers, the low average share of local customers is not suprising considering the sector of operation that foreign companies are concentrated, and the length of operation. Most companies included in the sample are export oriented and thus do not establish forward linkages in the domestic economy. However, in case that there is contact with local customers, the later benefit from improved quality of product inputs provided by foreign companies and reduced prices. Similar to linkages with local suppliers, the industry that foreign company operates, conditions the level of linkages with local customers. The industries of textiles, clothing and footwear in general tend to bring most inputs from outside the country and also tend to export all outputs, hence the industry experience a low level of linkages with local suppliers and local customers. While the sectors of food and beverages, wood and furniture, and electrical industry, show a slightly different experience. There is a tendency to create linkages with the local customers even though the level of local purchasing is limited.

The results from the survey study are as follows:

- Main reasons for selecting local customers: local market access and high purchasing volume.
- Main reasons for not selecting local suppliers: insured market from parent company, access in foreign market, low purchasing volume.
- Where local customers are used, all foreign companies maintain relationships with local customers
- The majority of foreign companies do not distribute their products to customer located only to one local location, but to more than one.
- The majority of companies make contracts with local customers that range from 6 months to one year.
- Foreign companies were actively involved by putting specific requirements to customers particularly in terms of prices and purchases.

Foreign investors were asked their perception about the extent that their company has helped to improve the performance of their local customers. As already mentioned, only 12 companies (out of 80) were selling their products to local customers, the rest were selling their products outside the country. Therefore, this section involves the answers of 15% of the total sample. Foreign companies were asked to assess the impact across 4

categories (business performance; operating practices; competitive position and export potential). Regarding the impact of foreign investors on local customers, as perceived by foreign investors, the main benefits were enhanced product quality (improved product inputs), improved product design, lower purchase prices, and improved purchasing practices. Impacts on business performance and operating practices were limited, especially when compared to those on local suppliers.

Similar to local suppliers, foreign companies placed more emphasis on active mechanisms such as cooperation effect through site visits on technical aspects of production and quality issues, as well as sharing of views and ideas. The greatest impacts were on customers in food and beverages industry, and wood and furniture industry (where the contact of foreign companies with local economy was higher).

Table 5.16 The reasons why does the company sell its products to local customers

Category	Nr of Companies responding to the question	Frequency in %
High price	80 (100)	3.8
Local market access	80 (100)	31.3
High purchasing volume	80 (100)	28.9
Other	80 (100)	11.3

Source: Tabulated from author's field survey (2005/2006). Note that the companies could pick 3 reasons.

Table 5.17 The reasons why the company does not sell its products to local customers

Category	Nr of Companies responding to the question	Frequency in %
High price	80 (100)	2.5
Not satisfactory payment system	80 (100)	1.2
Low purchasing volume	80 (100)	7.5
Access in foreign market	80 (100)	23.8
Insured market from mother company	80 (100)	50.0
Type of firm's activity	80 (100)	43.8

Source: Tabulated from author's field survey (2005/2006). Note that the companies could pick 3 reasons.

Table 5.18 The extent of specific requirements put to local customers

Category	Nr of Companies responding to the question	Average response
Purchases	12 (15) *	4.4
Prices	12 (15)	4.6
Technical skills	12 (15)	3.5
Professionalism	12 (15)	3.4
Innovation	12 (15)	2.5
Long term relationship	12 (15)	4.4

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = no specific requirements; 5 = highly specific requirements
*** Only 15% of the companies had local customers, a number of them were subcontracting companies while others were selling their products outside the country**

Table 5.19 Companies perceived impact on the performance of domestic customers

Category	Nr of Companies responding to the question	Average response
Business performance		
Purchases	12 (15)*	3.6
Nr. of Employees	12 (15)	3.0
Investment	12 (15)	2.5
Productivity	12 (15)	2.9
Profitability	12 (15)	2.7
Wages	12 (15)	2.9
Operating practices		
Management philosophy and practices	12 (15)	2.6
Products and marketing	12 (15)	2.5
Production processes	12 (15)	2.8
Technology processes and innovation	12 (15)	2.4
Labour management and training	12 (15)	2.3
Financial management and organizational structure	12 (15)	1.8
Competitive position		
Product quality	12 (15)	4.3
Price	12 (15)	3.9
Cost	12 (15)	3.2
Lead time performance/speed of service	12 (15)	2.8
Delivery	12 (15)	2.7
Inventory control	12 (15)	2.5
Product design	12 (15)	3.6
Marketing and promotion skills	12 (15)	2.8
Specialized expertise or products	12 (15)	3.0
Professionalism	12 (15)	3.1
Established reputation	12 (15)	2.9
Responsiveness to client needs	12 (15)	2.4
Export Potential		
Export capability	12 (15)	2.5
Opportunity to secure new markets and customers	12 (15)	2.6

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = no improvement; 2= limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement
*** Only 15% of the companies had local customers, a number of them were subcontracting companies while others were selling their products outside the country**

5.5.3 Indirect Effects to Domestic Competition

The foreign companies were asked whether they have competitors domestically and 76.3% confirmed that they faced competition domestically. 33.8% of the foreign companies face a moderate competition, while some of the foreign companies faced stiff and very stiff competition, 27.5% and 13.8% respectively. Main competition came from local companies as well as from black market. Companies operating as informal ones are usually unlicenced micro-entreprises that are not registered and avoid paying taxes (given their small-size it is more difficult for the government to control them). This permits them to put lower prices, and hence compete with formal companies in terms of cheaper products, which in turn leads to unfair competition. Morever, in a wider sense, these types of activities are a problem of fiscal evasion that represents a fundamental challenge to the government According to the estimation of foreign companies, black market or informal economy is a major concern, but still the Albanian government has not taken yet any serious measures to face this problem. The formal estimation of OECD (2004) was the informal production over the last 5 years contributed between 24%-28% of total gross value-added.

However, some of the managers interviewed claimed that it would take the country sometime before the local companies could effectively compete with foreign companies, given their low technology and capital. Domestic competitors were competing mostly in cheaper products. Most of the foreign companies were expecting more competition in the years to come, from both local and foreign companies.

Foreign companies were asked to compare their position with that of local competitors, where most of the companies confirmed their advantages in terms quality, design, technology, specialized expertise, established reputation, and export capabilities. However, as expected local competition was superior in prices by offering lower prices of their products.

A high proportion of foreign companies had a strategy of diversifying their products and processing technology due to competitive pressures. This included acquiring new technologies, improving the existing technology, improving market strategies and improving management, marketing and organization of the company. These overall helped in improving the quality of their products and decline in prices that in turn

improved the competitiveness of their company. However, this is was more evident in case of wood and furniture industry and food and beverages.

Only 11.3% of the foreign companies collaborate with local companies, indicating for limited effects on local competition through cooperation. There were cases were foreign managers provided evidence of assistance given to local companies by selling them primary or secondary inputs.

The impact of foreign investors to local competitors includes an improvement in competitive position from reduction in prices due to increased competitive levels in the market given the presence of foreign companies, also some improvements in operating practices such as production processes technology and training. But, it also included adverse effects in business performance, from decline in sales. Other adverse effects due to increased competitive pressures caused by the presence of foreign companies involved crowing-out effect. 37.1% of the foreign companies presented cases of local companies that had gone out of business due to high competitive pressures. Even though, it was difficult to estimate an exact number of companies that have been crowed out due to competitive pressures, the numbers provided ranged from 1 to 4. The overall impact of foreign companies on local competitors appears to be a balance between the positive effects particularly on price reduction and improvement in operating practices, and the negative effects due to increased competitive levels.

Table 5.20 Characteristics of competition

Category	Nr of Companies responding to the question	Frequency in %
Less complex products	58 (72.5)*	8.6
Cheaper products	58 (72.5)	55.2
Better technology	58 (72.5)	15.5
Better quality	58 (72.5)	15.4
Other	58 (72.5)	19.2

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. Note also that the companies could pick up to 3 reasons.
***The 22 companies that did respond where the ones that did not face local competition.**

Table 5.21 Competitive advantages of the company compared to local competition

Category	Nr of Companies responding to the question	Average response
Price	58 (72.5)*	2.5

Cost	58 (72.5)	3.4
Products quality	58 (72.5)	4.7
Product design	58 (72.5)	4.5
Marketing (advertising and promotion)	58 (72.5)	4.1
Technology	58 (72.5)	4.7
Reliability of services provided to customers	58 (72.5)	4.6
Volume capacity (scale of production)	58 (72.5)	4.5
Specialized expertise	58 (72.5)	4.5
Efficiency & flexibility (speed of delivery, ability to adjust to customer needs)	58 (72.5)	4.2
Established reputation	58 (72.5)	4.4
Export capabilities	58 (72.5)	4.3

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = important disadvantage 3 = the same as local competitors 5 = important advantage
***The 22 companies that did respond where the ones that did not face local competition.**

Table 5.22 Application of the following strategies due to local competitive pressures

Category	Nr of Companies responding to the question	Average response
Diversity into other products	58 (72.5)*	3.3
Acquire new processing techniques	58 (72.5)	3.6
Improving the existing techniques	58 (72.5)	3.5
Undertake workers training	58 (72.5)	3.0
Improve market strategies	58 (72.5)	3.2
Improve organization, management, marketing	58 (72.5)	3.6
Form joint ventures with local companies	58 (72.5)	1.8

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = never applied; 5 = applied very often
***The 22 companies that did respond where the ones that did not face local competition.**

Table 5.23 Companies perceived impact on the performance of domestic competition

Category	Nr of Companies responding to the question	Average response
Business performance		
Sales	58 (72.5)*	1.9
Nr. of Empoyees	58 (72.5)	2.1
Investment	58 (72.5)	2.3
Productivity	58 (72.5)	2.0
Profitability	58 (72.5)	1.9
Wages	58 (72.5)	2.6
Operating practices		
Management philosophy and practices	58 (72.5)	3.0
Products and marketing	58 (72.5)	2.9
Production processes	58 (72.5)	3.2
Technology processes and innovation	58 (72.5)	3.0
Labour management and training	58 (72.5)	3.1
Financial management and organizational structure	58 (72.5)	2.8
Competitive position		

Product quality	58 (72.5)	3.6
Price	58 (72.5)	3.4
Cost	58 (72.5)	3.1
Lead time performance/speed of service	58 (72.5)	2.7
Delivery	58 (72.5)	2.8
Inventory control	58 (72.5)	1.9
Product design	58 (72.5)	2.9
Marketing and promotion skills	58 (72.5)	2.5
Specialized expertise or products	58 (72.5)	2.4
Professionalism	58 (72.5)	2.
Established reputation	58 (72.5)	2.0
Responsiveness to client needs	58 (72.5)	2.8
Export Potential		
Export capability	58 (72.5)	2.3
Opportunity to secure new markets and customers	58 (72.5)	2.0

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = no improvement; 2= limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement
*** The 22 companies that did respond where the ones that did not face local competition.**

5.5.4 Demonstration Effects

The foreign companies were asked if other companies ever introduced or adopted new products and new techniques observed from them and 67.5% of the foreign companies recognized that demonstration effects existed. The foreign companies were also asked to identify the kind of companies that enjoyed the demonstration effects. Domestic competing companies seemed to benefit more from demonstration effects by 50%, followed by competing foreign companies with 13.8%, by domestic suppliers with 1.3% and finally by domestic customers with 1.3%. This was expected given the foreign companies' capacity (financial resources and human capital); foreign companies are technically advanced and can employ skilled workers more than the local companies. It was expected that domestic companies would be the ones to benefit more from demonstration effects given that they try to imitate superior products and technology. One can conclude that demonstration effects exist and hence technological spillovers exist too.

Table 5.24 Companies that benefit from demonstration effects

Category	Nr of Companies responding to the question	Frequency in %

Competing domestic companies	80 (100)	67.5
Competing foreign companies	80 (100)	62.5
Local suppliers of the company	80 (100)	22.5
Local customers of the company	80 (100)	1.3
Local distributors of the company	80 (100)	1.3

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.

5.5.5 Labour Mobility

Labour mobility is one of the channels through which spillovers can occur between and among firms. Labour mobility is an extremely difficult thing to determine empirically since firms hardly maintain databases on workers movement. Firms did not keep record of where staff joined from or where they left to join. In order to investigate mobility at firm level and at the same time examine the occurrence of spillovers through labour mobility, both workers lost to other firms and employed from other firms, are considered. The firms were asked whether they had lost any of their workers to other firms in the past and if they could identify the kind of firms they went to join. The firms were asked about whether the caliber of workers lost included some of their skilled and technically trained workers (such as professionals, managers, and or technicians, engineers). This is important since this category of employees is believed to comprise skilled personnel who have acquired skills from their firm by participating on job training and through experience at work. This makes them acquire experiential tacit knowledge and thus their mobility is likely to result in occurrence of knowledge spillover to the firms, which they leave to join. Analysis of workers lost to other firms by calibre of workers lost showed that 30% of firms had lost managers and professionals, 18.8% had lost engineers and technicians, and 57.5% had lost simple workers. The kind of firms they joined were foreign firms 37.5%, local firms 53.8%, and start their own business 15%. It is not surprising that the later is not high given the difficulties to start the business in Albania.

Similar to the above, the firms were also asked whether they had employed workers from other firms in the past, their skill level and the kind of firms they came from. In general, a high proportion of 78.8% of foreign firms had employed skilled and technically trained workers from other firms in the past. Analysis of workers gained from other firms by calibre of workers showed that 42.5% of firms have gained

managers, 23.8% have gained engineers and technicians, and 71.3% have gained simple workers. Regarding the kind of firms the workers were coming from, 40% of foreign companies were receiving workers from foreign firms and 67.5% were receiving from local firms. Lower caliber workers such as simple workers came from local firms. This supports the argument that low waged exists in this kind of countries.

As a conclusion to this section one notes that mobility of skilled workers exists in Albania's manufacturing industry and thus spillovers are likely to occur.

Table 5.25 The policy of the company regarding employment of skilled qualified workers

Category	Nr of Companies responding to the question	Average response
To employ graduates from poly-technique institutions	80 (100)	2.9
To employ fresh university graduates	80 (100)	3.6
To employ experienced workers from local companies	80 (100)	3.1
To employ experienced workers from other foreign companies	80 (100)	3.4
To employ experienced workers from outside the country	80 (100)	3.1

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = weak policy; 5 = very strong policy

5.5.6 Conditions Influencing the Impact of foreign companies on Domestic Companies

The main determinants that seem to influence the impact of the foreign companies on domestic companies are the technology gap that exists between foreign and domestic companies, along with absorptive capacity and geographical proximity. These are some factors that are confirmed by previous empirical literature using aggregate firm level data.

Table 5.26 Conditions influencing the positive impact of your company on domestic companies (suppliers, customers, competitors)
(Use a scale of 1-5 in each of the below categories, where 1 = not important and 5 = very important)

Category	Nr of Companies responding to the question	Averages response
Technology gap between foreign and domestic firms	80 (100)	3.7
Productivity gap between foreign and domestic firms	80 (100)	3.2
Absorptive capacity (human capability or skills)	80 (100)	3.4
Cultural gap	80 (100)	2.7
R&D expenditure	80 (100)	1.8
Geographical proximity of domestic firms to foreign ones	80 (100)	3.1

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = not important; 5 = very important

5.5.7 Wider Impact of Foreign Companies on the Local Economy

Foreign investors were asked about their perception on their companies on the local economy. As expected, they claimed that there were key impacts in terms of direct impact on local employment, provision of technology in the host market, development on skilled workforce, productivity and quality of suppliers, quality of business customers and an overall support on the transition of the country. The effect on competition was averaging a neutral impact implying for positive and adverse effects that balanced each other.

Regarding the role that government has played so far in promoting and supporting foreign companies, and in turn their impact on local companies, it was impressive that the majority of the foreign companies claimed that the Albanian government has not done much to support and promote their activities. Financial incentives were missing, and also high taxes were quite a big burden to perform business in the country.

Table 5.27 Companies perceived impact on the local economy

Category	Nr of Companies responding to the question	Average response
Direct impact on competition	80 (100)	3.1
Direct impact on local employment	80 (100)	4.2
Indirect impact on local employment	80 (100)	3.6
Development on skilled workforce (training provision, supply)	80 (100)	3.9
Provision of technology in the host market	80 (100)	4.3
Productivity, quality and overall performance of domestic competitors	80 (100)	3.0
Productivity and quality of suppliers	80 (100)	3.6
Productivity and quality of business customers	80 (100)	3.3
Environmental impact	80 (100)	2.6
Final customers (product awareness)	80 (100)	2.9
Business conduct	80 (100)	3.2
Collaboration with local/regional agencies	80 (100)	3.2
Tax Revenues	80 (100)	3.3
Overall transition of the country	80 (100)	3.7

Source: Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample. 1 = strongly detrimental impact; 2 = detrimental impact; 3 = neutral impact; 4 = beneficial impact; strongly beneficial impact)

Table 5.28 The role of the government in promoting and supporting foreign companies and their impact on local companies

Category	Nr of Companies responding to the question	Average response
Taxes	80 (100)	1.2
Financial Incentives	80 (100)	1.0
Others (please specify)	0	0

Tabulated from author's field survey (2005/2006). Note the numbers in parenthesis represent the percentage of companies responding to the question compared to the whole sample.
1 = no support at all; 5 = very strong support

5.6 CONCLUSIONS

This chapter presented evidence of direct and indirect technology transfer from foreign companies to local companies in Albania, resulting from a survey study with foreign investors. The findings resulted in positive direct technological effects from parent company to the subsidiary including direct transfer of technology, knowledge and skills, expertise, training and a wider effect on employment. The companies seem to have benefited more in terms of introducing new products, quality assurance, purchasing new equipments and in terms of adopting new technology and skills.

However, evidence on indirect effects seemed to be more restricted. In general, there was limited contact of foreign companies with local suppliers, customers and competitors. Nevertheless, in case that this contact exists there is evidence of spillover effects. Overall, the impact of foreign companies on local suppliers was more evident than in case of local customers and competitors particularly in terms of improved quality and prices, and in terms of business performance (particularly sales), even though customers benefited to a large extent from improved product inputs This was done through active requirements put to suppliers and customers. The impact included also some adverse effects and particularly on competitors, which provided evidence of crowding out effects.

More specifically, with regard to local suppliers, foreign companies put specific requirements to suppliers in terms of quality control of raw materials, price, technical standards and speed of delivery. According to the perception of foreign companies, they had positive impact on their local suppliers which was focused on product quality, cost control, price, products, and production processes, technologies, delivery and

distribution methods. There also some evidence on active supplier development including quality audits of supplier products, collaboration with suppliers on product development and quality systems, and advice to suppliers on strategic or management issues. Foreign companies claimed to have induced a significant improvement in product quality, price and delivery performance. By sector, the greatest impacts were on suppliers in food and beverages industry, and wood and furniture industry (where the contact of foreign companies with local economy was higher). Considering the key mechanisms supporting transmission of effects, foreign companies placed more emphasis on active mechanisms such as cooperation effect through site visits on technical aspects of production and quality issues, as well as informal sharing of views and ideas.

Turning to local customers, foreign companies put specific requirements to customers particularly in terms of prices and purchases. With regard to the impact of foreign investors on local customers, as perceived by foreign investors, the main benefits were enhanced product quality (improved product inputs), improved product design, lower purchase prices, and improved purchasing practices. Impacts on business performance and operating practices were limited, especially when compared to those on local suppliers. Similar to local suppliers, the main mechanisms for the impact were active mechanisms such as cooperation effect through site visits on technical aspects of production and quality issues, as well as sharing of views and ideas. The greatest impacts were on customers in food and beverages industry, and wood and furniture industry.

Competition was relatively high in the Albanian manufacturing industry. Most of the foreign companies were forced to diversify their products and processing technology due to competitive pressures, which overall helped in improving the quality of their products and decline in prices that in turn improved the competitiveness of their company. Again the sectors that were engaged more in strategic changes were wood and furniture industry and food and beverages. There was little if anything collaboration of foreign companies with local companies indicating for limited effects on local competition through cooperation. There was also evidence of adverse effects such as crowing out effect. There were a number of cases of local competitors that went out of market due to increased competitive pressures caused by the presence of foreign

companies. It appeared that the overall impact of foreign companies on local competitors was a balance between the positive effects and the negative effects.

Examination of spillovers mechanisms showed that the highest level of technological spillovers is generated by workers mobility and demonstration effects. Determinants influencing the positive impact were: technological difference between foreign and local companies; absorptive capacity; and finally geographical proximity between foreign and local companies.

As a conclusion, FDI overall directly promotes technological transfer in Albania's manufacturing industry, however the effects are limited for the indirect transfer to local suppliers, customers and competitors.

CHAPTER 6

QUANTITATIVE ANALYSIS FROM FOREIGN COMPANY SURVEYS

6.1 INTRODUCTION

While the previous chapter presented detailed descriptive characteristics, this chapter presents some empirical/econometric analysis. The chapter begins with a brief section on chapter's framework. This is followed by a section on computation of technology transfer index for all the industries. Lastly some econometrics tests are conducted to examine the determinants of the technology transfer in Albania and in the context of selected industries. Given the nature of data, the calculation of a technological transfer index, is with no doubt, a very challenging exercise. The results provided are particularly noteworthy, as they provide insights on the determinants of technology transfer as no study has done particularly in Albania, where no sufficient attention is paid so far on FDI and its impact.

6.2 FRAMEWORK OF ANALYSIS

In this section we outline albeit briefly how the technology index was computed. This is done using simple arithmetic average. The technology transfer index was to be determined using several industries and taking six key components of technology (using details in question 2.2.18 of the questionnaire directed to foreign companies).

The six components are:

- Products
- Production processes
- Technology and innovation
- Supplier and customers system
- Human resource management, training and reporting system

- Financial management, marketing and organizational structure

Under each of these components there are sub-components considered. For example under products we have:

- Current product development activities
- Improving existing products
- Introducing new products

The table below represents a matrix of how the various technology components connect. It also shows how the computation is done.

First, technology transfer index is computed by each major component and industry. The overall index however can be computed as follows:

$$TT - Index = \frac{1}{6}(IND - AVGPRD + IND - AVGPPOT + IND - AVGTI + IND - AVGSCS + IND - AVGTR + IND - AVGFMO)$$

Taking IND –AVGPRD as an example, we can see from the table that it is computed from taking the average of all the components in the context of products. At the same time the score for each sub-component is computed in the same way – taking simple arithmetic.

The INDEX will assume an ordered framework ranging between 0 and 5 on a Likaert scale as follows:

$TT - INDEX = 0, \quad 1, \quad 2.....5$

Where
TT-INDEX = 1 represents *"Not transferred"*
TT-INDEX = 2 represents *"Transferred in a case by case basis"*
TT-INDEX = 3 represents *"Transferred if criterion is met"*
TT-INDEX = 4 represents *"Largely transferred"*
TT-INDEX = 5 represents *"Complete transfer"*

Table 6.1 Computation of Technology Transfer

	Industry 1	Industry 2	...	Industry N	**Industrial Average**
Products					
Current product development activities	PRD-11	PRD-21	...	PRD-N1	IND-PRD1
Improving existing products	PRD-12	PRD-22	...	PRD-N2	IND-PRD2
Introducing new products	PRD-13	PRD-33	...	PRD-N3	IND-PRD3
PRD Average	PRD-AVG1	PRD-AVG3	...	PRD-AVGN	IND-AVGPRD
Production processes					
Production process organization and technologies	PPOT-1	PPOT-21	...	PPOT-N1	IND-PPOT1
Process control systems	PPOT-12	PPOT-22	...	PPOT-N2	IND-PPOT2
Quality assurance systems	PPOT-13	PPOT-23	...	PPOT-N3	IND-PPOT3
Inventory control systems	PPOT-14	PPOT-24	...	PPOT-N4	IND-PPOT4
Cost control/value engineering	PPOT-15	PPOT-25	...	PPOT-N5	IND-PPOT5
Facilitates/equipment maintenance system	PPOT-16	PPOT-26	...	PPOT-N6	IND-PPOT6
Upgrade existing equipment	PPOT-17	PPOT-27	...	PPOT-N7	IND-PPOT7
Buy new equipment	PPOT-18	PPOT-28	...	PPOT-N8	IND-PPOT8
PPOT Average	PPOT-AVG1	PPOT-AVG2	...	PPOT-AVGN	IND-AVGPPOT
Technology and innovation					
Adaptive technology and skills	TI-11	TI-21	...	TI-N1	IND-TI1
Technological innovation	TI-12	TI-22	...	TI-N2	IND-TI2
Research and development	TI-13	TI-23	...	TI-N3	IND-TI3
TI Avg.	TI-AVG1	TI-AVG2	...	TI-AVGN	IND-AVGTI
Supplier and customers system					
Sales and delivery distribution methods	SCS-11	SCS-21	...	SCS-N1	IND-SCS1
Purchasing practices	SCS-12	SCS-22	...	SCS-N2	IND-SCS2
SCS Average	SCS-AVG1	SCS-AVG2	...	SCS-AVGN	IND-AVGSCS
Human resource management, training and reporting system					
Recruitment system	HTR-11	HTR-21	...	HTR-N1	IND-HTR1
Employment system	HTR-12	HTR-22	...	HTR-N2	IND-HTR2
Promotion and innovation system	HTR-13	HTR-23	...	HTR-N3	IND-HTR3
Payment system	HTR-14	HTR-24	...	HTR-N4	IND-HTR4
Training activities and skill levels	HTR-15	HTR-25	...	HTR-N5	IND-HTR5
Team working	HTR-16	HTR-26	...	HTR-N6	IND-HTR6
Reporting system	HTR-17	HTR-27	...	HTR-N7	IND-HTR7
HTR Average	HTR-AVG1	HTR-AVG2	...	HTR-AVGN	IND-AVGHTR
Financial management, marketing and organizational structure					
Financial and accounting procedures	FMO-11	FMO-21	...	FMO-N1	IND-FMO1
Management practices	FMO-12	FMO-22	...	FMO-N2	IND-FMO2
Marketing and sales activities	FMO-13	FMO-23	...	FMO-N3	IND-FMO3
Organization structure	FMO-14	FMO-24	...	FMO-N4	IND-FMO4
FMO Average	FMO-AVG1	FMO-AVG2	...	FMO-AVGN	IND-AVGFMO
Technology Transfer Index TT-Index	**TT-IND-AVG1**	**TT-IND-AVG2**	...	**TT-IND-AVGN**	**TT-IND-AVG1**

After computing the technology transfer index we can then make econometric analysis in order to investigate drivers or determinants of technology transfer. We can pick independent variables from each of the items in the conceptual framework as follows:

Tech-Index = function {firm age, firm performance, absorptive capacity, innovative products, demonstration effects, institutional support}

6.3 TECHNOLOGY TRANSFER: A DISCUSSION OF RESULTS GENERATED BASED ON THE TECHNOLOGY TRANSFER INDEX

Employing the above framework, the technology transfer index is computed in this section for the Albanian manufacturing sector. The index indicates the extent of technological transfer from MNEs to their local subsidiaries. This serves one of the aims of the study, which was to determine the extent of technological transfer in the local subsidiaries operating in the Albanian manufacturing industry. In addition, technology transfer index was computed for each industry separately, which enabled us to identify which industry had benefited more from transfer of technology.

6.3.1 Technology Transfer into the Albanian Industry

Table 6.2 provides the results of technology transfer index computed for all sectors included in the survey. The computed index was 3.5. Based on the framework developed with a range from 1 (not transferred) to 5 (complete transfer), the technology transfer index computed indicated that technology was transferred if criterion is met, or otherwise an "average" technology transfer occurrence. Following the criterion set the technology transfer index is in the range between 3 and 4.

6.3.2 Technology Transfer by Technology Component

Among the six components of technology transfer considered in this analysis, products (4.2) generated the highest levels of technology transfer, followed by production processes (3.9) and finally technology (3.4) generated the highest levels of technology transfer. This indicated that products, processes and production technologies resulted in more technological changes. This also indicated particularly, that MNEs are more

concerned on product technology than any other elements, while supply and customers system appears to be the least of their concern. This is a result that was expected given the limited contact of the foreign companies with local suppliers and customers. MNEs are likely to transfer production and process knowledge, as well as technology to their local subsidiaries; however they are less likely to transfer knowledge on suppliers and customers systems. Moreover there is an average transfer on other components such as human resource management and financial management/marketing/organizational structure.

Taking all the components separately, introducing new products (4.4) is the area where there is more transfer in terms of products. This might reflect that the local subsidiary does not undertake any research on new products, neither introduces new products on its own, and all the process is left to the parent company in the home country. With regard to the next category, which is production processes, there is a significant technology transfer in terms of quality assurance systems (4.4), implying for the complete involvement of the MNEs in the quality of processes. Taking in consideration technology and innovation, as expected, MNEs seem to be interested more in adaptive technology and skills (4.1) rather than technological innovation and research and development. This is not surprising as Albania is an underdeveloped country where companies do not undertake any research and development in contrast to the developed economies. Taking in consideration suppliers and customers systems, sales and delivery distribution systems (3.4) seem to concern more MNEs rather than purchasing practices. In addition, training activities and skill levels (3.9) seem to enjoy more technology transfer in the section of human resource management. This implies that MNEs engage their local subsidiaries in various trainings inside the company and outside the company. Finally, management practices (4.1) seem to benefit more, implying that MNEs are particularly interested and involved in the management of their subsidiaries for involvement and responsibility of MNEs

6.3.3 Technology Transfer by Manufacturing Industry

With regard to the industry with the highest technology transferred, as expected, food and beverages industry (3.8) seems to have enjoyed the highest transfer of technology, followed by wood and furniture industry (3.7).

Table 6.2 Extent of Technology Transfer (Index)

Products	Ind. 1	Ind. 2	Ind. 3	Ind. 4	Ind. 5	Ind. 6	Ind. 7	Ind. 8	Ind. 9	Ind. Avg.
Current product development activities	3.7	4.0	4.1	4.1	4.1	4.0	3.5	3.6	4.3	3.9
Improving existing products	3.8	4.0	4.5	4.4	4.4	4.1	4.2	3.9	4.2	4.2
Introducing new products	4.4	4.3	4.8	4.6	4.1	4.5	4.2	4.0	4.5	4.4
PRD Avg.	4.0	4.1	4.5	4.4	4.2	4.2	3.8	3.8	4.4	4.2
Production processes										
Production process organization and technologies	4.1	4.2	4.5	4.4	3.4	4.2	3.5	4.2	4.4	4.1
Process control systems	3.6	3.8	3.9	3.9	3.3	3.9	3.3	3.7	4.2	3.7
Quality assurance systems	4.1	4.5	4.5	4.7	4.0	4.5	4.5	4.5	4.7	4.4
Inventory control systems	2.6	3.1	3.0	3.3	2.6	3.0	2.7	3.1	3.5	3.0
Cost control/value engineering	3.1	3.6	3.5	3.8	3.2	3.0	2.8	3.5	3.9	3.4
Facilitates/equipment maintenance system	3.6	4.6	4.4	4.3	3.6	3.7	4.0	4.0	4.5	4.1
Upgrade existing equipment	3.8	4.4	4.2	4.4	4.0	3.9	3.7	4.2	4.5	4.1
Buy new equipment	4.3	4.6	4.7	4.4	4.0	4.0	3.8	4.4	4.5	4.3
PPOT Avg.	3.7	4.1	4.1	4.2	3.5	3.8	3.5	4.0	4.3	3.9
Technology and innovation										
Adaptive technology and skills	4.2	4.3	4.2	4.5	4.0	4.3	2.8	4.4	4.6	4.1
Technological innovation	3.4	3.9	3.5	4.0	3.8	3.7	3.2	3.7	4.2	3.7
Research and development	1.9	3.0	2.6	3.1	2.4	2.4	1.7	2.5	2.7	2.5
TI Avg.	3.2	3.2	3.4	3.9	3.4	3.5	2.6	3.5	3.8	3.4
Supplier and customers system										
Sales and delivery distribution methods	2.2	2.5	3.2	3.1	2.5	2.5	2.3	2.7	3.3	3.4
Purchasing practices	2.1	2.6	3.5	3.4	2.7	2.7	2.5	2.9	3.4	2.7
SCS Avg.	2.2	2.6	3.4	3.3	2.6	2.6	2.4	2.8	3.4	2.8
Human resource management, training and reporting system										
Recruitment system	2.6	3.2	3.0	3.1	3.1	3.0	2.7	3.0	3.0	3.0
Employment system	2.9	3.5	3.2	3.4	2.8	3.4	2.3	3.4	2.9	3.1
Promotion and innovation system	2.4	3.0	3.0	3.5	3.1	3.1	2.8	2.5	2.9	2.9
Payment system	2.8	2.7	2.9	3.1	2.6	2.9	2.2	2.2	2.4	2.6
Training activities and skill levels	4.1	4.1	4.3	4.1	3.7	3.8	4.0	3.8	3.5	3.9
Team working	2.3	3.2	3.4	2.9	2.8	2.6	2.8	2.9	2.7	2.8
Reporting system	2.3	2.2	2.7	2.7	1.8	2.4	2.3	2.6	2.4	2.4
HRMTRS Avg.	2.8	3.1	3.2	3.3	2.8	3.0	2.7	2.9	2.8	3.0
Financial management, marketing and organizational structure										
Financial and accounting procedures	2.0	3.0	2.8	2.5	2.5	2.2	2.5	2.3	2.7	2.5
Management practices	4.2	4.5	4.0	4.5	3.7	3.9	4.0	4.1	4.2	4.1
Marketing and sales activities	2.4	3.0	3.6	3.4	2.7	2.8	3.2	2.8	3.5	3.0
Organization structure	3.8	4.2	3.8	4.2	3.5	4.0	3.7	3.6	3.6	3.8
FMMOS Avg.	3.1	3.7	3.6	3.7	3.1	3.2	3.4	3.2	3.5	3.4
TT-Index	**3.2**	**3.5**	**3.7**	**3.8**	**3.3**	**3.4**	**3.1**	**3.4**	**3.7**	

Source: Tabulated from author's field survey (2005/2006)

6.4 Determinants/Drivers of Technology Transfer

Following the presentation of technology transfer index, we intend to investigate which are the drivers of technology transfer. Thus, we decided go beyond the transfer index and ask an additional question, which is as follows: what are the determinants of technology transfer? Guided by the analytical framework established in Chapter 2, we formulated a number of hypotheses in order to help us examine what are the determinants of technology transfer in the context of the Albanian manufacturing industry.

On the basis of the spillover literature and the analytical presented in Chapter 2, the process of technological transfer is highly complex and is supposed to be determined by a number of factors. The determinants of technology transfer in Albania can be as follows: firm age, firm performance, firm size, absorptive capacity, innovative products, demonstration effects and institutional support. This can be outlined in a broad hypothesis:

Hypothesis 1: In a technically underdeveloped country like Albania, the transfer of technology from parent companies to their local subsidiaries will depend on subsidiaries age, performance, size, absorptive capacity, innovative products, demonstrations effects and systemic structure (support from institutions and government).

6.4.1 Hypothesis for Determinants of Technology Transfer

From this broad hypothesis, we formulated separate testable propositions presented in the following section.

6.4.1.1 Firm Age

The company's age is an important factor, as it tends to influence the extent of subsidiary's contact and relations with the local economy. The older the company, the more likely it is to have been involved in technology transfer and to have better established mechanisms to support this (Mirza et al. 2001). Investigating the influence

of age with the transfer of technology, we hypothesize that companies with longer experience are supposed to enjoy greater experience and knowledge. Therefore, the older the company is, the more the technology transfer is likely to occur. This leads us to formulate the hypothesis that occurrence of technology transfer increases with the age of the company. The age of the company is established based on the year the company was established in Albania.

Hypothesis 1a: Technology transfer increases with company age; technology transfer tend to occur more in older companies.

6.4.1.2 Firm Performance

Firm performance seems to be another determinant in the technology transfer into the Albanian manufacturing sector. A company is able to perform well if it has developed a substantial amount of technological capability, and is characterized by utilization of high capacity, high output and high sales, and subsequently high profits (Scherer, 1980). The implications of this are that a company with high performance provides more room for learning, acquiring knowledge and technology. Such a company in Albania, would be in a position to undertake dynamic strategies, recruit skilled and trained professionals, undertake human resources development and continuously update technology. Therefore, we hypothesize that technology transfer tends to increase with the company's performance. We used company's annual sales as proxies for company's performance.

Hypothesis 1b: Technology transfer increases with company's performance.

6.4.1.3 Firm Size

With regard to company size, a large size company may be in an advantageous position in terms of technology transfer, as they are able to have access to certain skills, information and credit facilities, can have more specialized staff obtained from various trainings and use external sources for technological expertise. Large companies usually have more networks with institutions that provide training and in turn enable exchange and diffusions of information, skills and knowledge. Thus, we hypothesize that the level

of technological transfer is influenced by company size. We measure the influence of size by considering the employment level in the company.

Hypothesis 1c: Occurrence of technology transfer increases with firm size.

6.4.1.4 Absorptive Capacity

Literature recognizes that one of the most important factors that influence technological transfer is absorptive capacity (Borensztein, Gregorio and Lee, 1998). Knowledge transfer, in particular, depends on the ability and effort of the recipient part to acquire and exploit new knowledge and technology. The higher the abilities of the staff to absorb knowledge, the higher would be the transfer of knowledge from the parent company to the subsidiary. This is particularly important in technologically underdeveloped countries like Albania. A company's internal absorption capacity can be considered the accumulated technological knowledge over time, reflected by the age of the company. Absorptive capacity can be determined by considering the share of personnel with university and technical schools in total employment of the company.

Hypothesis 1d: Occurrence of technology transfer is unlikely to occur when there is a weak absorption capacity in the local subsidiaries

6.4.1.5 Innovative Products

Innovation is another important determinant that is considered to influence the technology transfer. The nature of innovation taken in underdeveloped countries differs significantly from that undertaken in developed countries, where major-radical innovations are undertaken that are considered revolutionary to the world. Companies in underdeveloped countries have not yet accumulated the adequate and necessary resources to result in such breakthrough innovation. Therefore, we regard innovation in the Albanian manufacturing industry as the new products that have been introduced, and new processes that are more efficient.

Hypothesis 1e: Occurrence of technology transfer stimulates further technological innovations at the company level in the Albanian manufacturing industry.

6.4.1.6 Demonstration Effects

The foreign companies can provide demonstration effects to other local companies operating in the market. Local companies can introduce or adopt new products, new processes and new techniques observed and imitated from foreign companies. Foreign companies are technically advanced and can employ skilled workers more than the local companies, thus local companies benefit from superior products and technology demonstrated from foreign companies. Therefore, we hypothesize that the chances for technology transfer are higher, the higher the observation and imitation of local companies from foreign companies.

Hypothesis 1f: Occurrence of technology transfer is likely to occur when demonstration effects exist.

6.4.1.7 Systemic Support

Literature recognizes the importance of infrastructural and institutional support structures in technology transfer. Some examples of these include government agencies, business association, productivity centers, institutions providing finance and technology transfer and playing active role towards facilitation of innovation. If infrastructure and institutions play an effective role, then the extent of technology transfer is maximized. We will measure the role of infrastructure and institutions by the technical and financial support that foreign companies have received from the existing technical and financial institutions in the Albanian industry.

Hypothesis 1g: The probability for occurrence of technology transfer increases with the presence of strong support from infrastructure and institutions.

6.4.2 Initial Results for Determinants of Technology Transfer

The first test was correlation. No variables reported any significant correlation. Since the data was not time series there was no need of testing serial correlation. The data also

did not demonstrate heteroschedasticity problem. As per the diagnostic statistics the general fit of the model was fine.

We tested for the determinants of technology transfer by using the index on technology transfer. The p-values show the variables which turned out to be significant and hence had an influence on the extent of technology transfer. Table 6.3 shows that the most important drivers for technology transfer are firm performance and technological innovation based on products. Both firm performance and technological innovation were significant at 10% with a coefficient of 0.228 and 0.218 respectively. It makes sense that if a company is performing well then it is most likely it will have resources to spread over cost of buying and transferring technology in order to maintain its performance drive. Similar goes for innovation, if a company is introducing new products and processes, it stimulates the transfer of technology transfer.

Demonstration effect also had a significant influence on technology transfer. It had a coefficient of 0.221 which was significant at 10 %. This implies that companies in Albania observe and imitate what foreign companies are doing, and when demonstration effects exist the chances for technology transfer are high. This was expected given the high capacity of foreign companies in terms of financial resources and human capital which can be observed and imitated.

Although we had expected absorptive capacity, firm age, firm size and industry sector to be significant according to the discussion in the sections above, surprisingly, none of them seemed to play any crucial role. All of them were statistically insignificant.

As expected, the systemic support in Albania did not have any influence. The coefficient although positive was statistically insignificant. Most of the foreign companies included in the study reported infrastructure to be poor, had problems with water supply, electricity and power supply, rudimentary telecommunication network and weak health facilities. To them this were major barriers to their expansion goals and in their words a big obstacle to the economic development in Albania.

Table 6.3 Determinants of technology transfer

Variables	Coefficient	Standard Error	T	P-value
Firm Age	0.014	0.019	0.76	0.448
Firm Performance	**0.228**	**0.116**	**1.97**	**0.053**
Firm size	0.019	0.159	0.12	0.903
Absorptive Capacity	0.009	0.007	1.24	0.220
	0.003	0.004	0.70	0.489
Innovative Product	**0.218**	**0.119**	**1.82**	**0.073**
Demonstration Effect	**0.221**	**0.131**	**1.68**	**0.097**
Systemic Support	0.005	0.014	0.37	0.713
Sector Dummy	0.032	0.024	1.34	0.185
Constant	2.591	0.349	7.42	0.000
No. of Observations	80			
LR chi2(9)	15.53			
Prob>chi2	0.0774			
Pseudo R2	0.1164			

Source: Tabulated from author's field survey (2005/2006)

6.4.3 Final Results for Determinants/Drivers of Technology Transfer – Taking into Account Weights

While the previous section presented determinants of technology transfer, this section continues the analysis by taking into account weights. The weight considered was age of the machinery, while the determinants were kept the same as in the previous analysis. When deciding about weight, since we are dealing with technology transfer, a variable more related to this would be ideal. Hence, a relevant variable relating to the subject (technology transfer) was considered, which is age of machinery. If the machinery is very old, then there would be more desire to replace or acquire a new machinery and technology. This relates well to the transfer of technology, wheather at a company level or at industry level. The fact that there is a different number of companies per each industry does not necessary imply that number of companies would be ideal as weight. The results taken when including age of machinery as weight, are the ones we go by and interpret below.

Table 6.4 presents the results and shows that all variables, except firm size, turned out to be significant. The most important drives for technology transfer are firm age, firm performance, mobility, innovative products, demonstration and sector dummy, which are significant at 1 percent. Systemic support is significant at 5 percent. At last, absorptive capacity is siginificant at 10 percent. The results presented in this table are different to the ones of Table 6.3 and showed that results turn out better when a weight is included. All the hypothesis presented in Section 6.4.1 were confirmed, except the one related to the size of the company.

Hypothesis 1a is confirmed: technology transfer increases with company age; technology transfer tend to occur more in older companies. This result is not surprising; it makes sense that the length of time a foreign company operates in the host economy is strongly and positively related to the degree of technology transfer. The older the company, the more likely it is to have been involved in technology transfer and to have better established mechanisms to support this.

Hypothesis 1b is confirmed: technology transfer increases with company's performance. We found a strong positive relationship between performance of company and technology transfer, implying that a company with high performance provides more potential to undertake dynamic strategies, recruit skilled and trained professionals, undertake human resources development and continuously update technology. If a company is performing well then it is most likely it will have resources to invest in technology so as to maintain its performance drive.

Hypothesis 1c is not confirmed: occurrence of technology transfer increases with firm size. We found no significant relationship between the size of the company and transfer of technology.

Hypothesis 1d is confirmed: occurrence of technology transfer is unlikely to occur when there is a weak absorption capacity in the local subsidiaries. The results showed that indeed, the higher the ability of the staff to absorb knowledge and technology, the higher is the transfer of knowledge from the parent company to the subsidiary.

Hypothesis 1e is confirmed: occurrence of technology transfer stimulates further technological innovations at the company level in the Albanian manufacturing industry. If a company is introducing new products and processes, it stimulates the transfer of technology transfer.

Hypothesis 1f is confirmed: occurrence of technology transfer is likely to occur when demonstration effects exist. Hence, these results imply that companies in Albania observe and imitate what foreign companies are doing, and when demonstration effects exist the chances for technology transfer are high.

Hypothesis 1g is confirmed: the probability for occurrence of technology transfer increases with the presence of strong support from infrastructure and institutions. This was a surprising result contrary to our expectations given that the majority of the companies included in the study reported weak support from governemtn and institutions, as well as poor infrastructure: problems with water supply, electricity and power supply, rudimentary telecommunication network and weak health facilities.

At last, as expected, sector dummy appeared to be significant implying that the sector or industry where the company is operating plays role in the technology transfer.

Table 6.4 Determinants of technology transfer – Taking into Account Weights

Variables	Coefficient	Standard Error	T	P-value
Firm Age	0.020	0.007	2.99	0.003
Firm Performance	0.190	0.039	4.92	0.000
Firm size	0.069	0.055	1.24	0.215
Absorptive Capacity	0.003	0.002	1.92	0.055
Mobility	0.007	0.003	2.63	0.009
Innovative Product	0.265	0.015	6.34	0.000
Demonstration Effect	0.181	0.045	4.06	0.000
Systemic Support	0.010	0.004	2.25	0.025
Sector Dummy	0.037	0.008	4.67	0.000
Constant	2.545	0.101	25.14	0.000
No. of Observations	80			

LR chi2(9)	154.71
Prob>chi2	0.0000
Pseudo R2	0.1067

Source: Tabulated from author's field survey (2005/2006)

6.5 CONCLUSIONS

This chapter used data provided by the survey with foreign companies in the Albania's manufacturing industry; first to examine technology transfer and second to test the role of various elements in technology transfer, such as: firm age, firm performance, firm size, absorptive capacity, innovative products, demonstration effects and institutional support. Analysis done using the index on technology transfer, showed that on average MNEs are involved in the transfer of technology. Manufacturing sectors that benefit more are those of food and beverages, and wood and furniture. By technology component, MNEs seem concerned by product technology more than any other, while supply and customers system is the least. Adding to this, using some econometric testing, in the first phase we found that both firm performance and technological innovation based on product and process were key drivers of technology transfer. Demonstration effect also had a significant influence on technology transfer. Interestingly, absorptive capacity, age of the firm, size and industry sector did not seem to matter. As expected the systemic support in the country did not have any influence. While, in the second phase, when weights were taken into account, and particularly the weight considered was age of machine, the results showed that all variables, except firm size, were significant. The most important drives for technology transfer are firm age, firm performance, mobility, innovative products, demonstration, sector dummy, systemic support and absorptive capacity. The results taken while including weights are the ones we consider as final ones. We can therefore conclude that foreign direct investment is involved in the transfer technology in Albania.

CHAPTER 7

CASE STUDY RESULTS: TECHNOLOGICAL TRANSFER AND LOCAL COMPANIES

7.1 INTRODUCTION

In the previous chapters we provided a review of empirical findings on technological transfer through FDI, criticizing the quantative econometric approach due to its deficiencies in explaining the spillover process (Chapter 2) and a different approach was used which provided an extensive examination of direct and spillover effects of foreign companies (Chapter 5). This chapter presents firm level case studies of foreign companies operating in the Albanian manufacturing sector. Case studies intend to provide a more comprehensive and qualitative investigation on the generation of technological spillovers, by collecting qualitative information and hence complement the results obtained from survey results in Chapter 5. On the basis of survey data with foreign companies in the first phase of the fieldwork conducted in Albania, six foreign companies were selected for a deeper analysis in the form of case studies. The data used comes from a research undertaken in the Albanian manufacturing industry and covering only two manufacturing sectors such as food, beverages and tobacco; and wood and furniture materials industries. These two industries were chosen to reflect differences in the experiences of foreign companies in these two sectors, differences in the level of technology transfer, the extent of linkages with local companies, and hence the level of embeddedness of foreign companies in the local economy. Given the specific situation in Albania, we decided to follow subjective sampling for case studies instead of random sampling, by picking some good cases of foreign companies in order to illuminate important points in terms of indirect effects and linkages with domestic companies. Three foreign companies were selected from each sector making in total six foreign companies. Based on the information provided by these companies, their local suppliers, customers and competitors were contacted, comprising in total six local

suppliers, six local customers and five local competitors. Thus, the overall number of local companies included in this survey is seventeen local companies. Case studies were selected according to the relative importance of the sectors in terms of contact with local companies and their impact in terms of technological transfer, as resulted from Chapter 5. In addition, the two industries are the most dynamic in the manufacturing sector in terms of FDI presence growth rate levels and employment generation. This chapter consists in the following sections.

7.2 ANALYTICAL FRAMEWORK

This chapter intends to particularly shed more insight in the spillover process by employing a more qualitative approach based on individual company level. As shown in the conceptual framework in Chapter 2, spillovers generate from dynamic interactions of both foreign companies and local companies, and result in changes in activities in both parties. Therefore, it is important to investigate spillover process from both sides, providing information on both foreign and local companies. It is crucial to mention that the intention of this approach is not to provide quantitative results on the amount of spillovers, but to provide qualitative picture on the spillover process and the main mechanisms that make possible the transfer of technology from foreign companies to the locals.

The key theme in the interviews with the case study - companies and their suppliers, customers and competitors is what the impact of the foreign company had been on these local companies in terms of their performance, practices, competitive position and export potential. In order to examine this issue, the approach undertaken in this chapter incorporates four main elements that are considered important mechanisms in the spillover process, and were extensively discussed in Chapter 2 and 5. These are human resource development (training), linkages between foreign companies and local suppliers and customers, competition between foreign companies and local companies, demonstration effects. Looking at these elements is itself a contribution to literature as it is shedding light in a way that was never thought and done before particularly for a region like Albania.

It is important to examine each of the above mentioned elements separately and explain why each of them is important in the spillover process. First, human resource development (training) in foreign companies is examined extensively given its important role in the technological transfer process and generation of spillovers. Spillovers are expected to occur in case that there is mobility for foreign companies to local companies. Foreign companies are supposed to provide more training to staff than local companies. Thus, we intended to examine the training modes and the results these have on the upgrading of personnel skills. Four forms of training were examined in the interviews: on the job training, training offered inside the company but at a training department, training offered externally at institutes or training agencies, external training outside the country. The technological skills acquired in foreign companies could be transferred to local companies, through mobility from foreign companies to local ones, or when they leave become their own entrepreneurs. As a result, foreign companies play supporting role in the human capital development of local companies. Investigations have been done to provide evidence on this issue, and have that indeed mobility result in technological spillovers (Pack 1993; and Lin and Rasiah 2003).

Second, linkages between foreign companies and its local suppliers and customers are believed to be an important instrument in the spillover process (Lall, 1980; Rasiah, 1995; UNCTAD, 2002; Smarzynska, 2002 and Hafiz and Mirza, 2006). Foreign companies rely on local suppliers for their inputs and other raw materials, and on local customers to sell their products. The demand created and purchases made by the foreign companies, opens opportunities for local suppliers and customers to make improvements, investment and expansion, and in general helped stimulate growth. Linkages could arise among these parties, and in case yes it was important to examine what kind of backward linkages (with suppliers) and forward linkages (with customers) exist, as well as the content, extent and strength of these linkages. Linkages are likely to be on the benefit of both local suppliers and customers, when the foreign company actively influences its local suppliers and customers by putting specific requirements particularly in terms of quality, prices, and time delivery. Foreign companies can also provide technical assistance to their suppliers, as well as capital and finance. To the local companies the feed back obtained through these linkages are important in that they

help them introduce changes on their processes, products and even marketing techniques. Further than this, we tried to examine which were the mechanisms (or ways) that the foreign companies actively influenced their suppliers and customers, and the factors that could influence the efficiency of this influence. All these, along with assistance from local support systems such as institutions, business associations and government agencies, can results in improvements of the local suppliers and customers' products, processes, technology, management and marketing. We attempted to examine linkages formed by each of the companies included in the case studies, examining also the interaction of these companies with local institutions, associations and government agencies. This aspect was examined from the angle of foreign case-study companies, and also from the angle of their local suppliers and customers (in case that they existed and were available to contact)

Third, the existing competition between foreign companies and local competitors was also investigated. In order to examine this aspect, we examined the local companies operating in the same sector with the foreign companies, the intensity of competitive pressure, what characterized where they competed, where did they purchase their raw materials, which markets did they serve and finally whether they were exporters. This information was important as it indicated the intensity of local competition and effect of competitive pressure. Due to the presence of foreign companies, local ones face a greater competitive pressure which in turn trigger them to upgrade, make them learn, introduce new technology and products in order to protect market share (Caves, 1982; Wang and Blomstrom, 1992; Saggi, 2001). We examined the changes in activities applied by foreign companies due to competitive pressures from local companies, and on the other hand we explored the same aspect with local companies investigating how did they react to competitive pressure from foreign companies, any technological changes undertaken, whether they were forced to learn anything from foreign companies, and in case yes what and which way, and finally whether they cooperate with local companies and in what. However, competitive pressure from foreign companies can have adverse affects, such as crowing out. Hence, we examined whether local competitors of foreign companies did go out of business due to competitive pressure. The competition effect was examined according to the perception of foreign companies included in the case studies, but also according to the perception of their local competitors included the survey. It was important to get both angles of perception

in order to compare and contrast, as well as get a better picture of reality. The investigation of this issue according to the angle of local competition was important, as it enabled us to understand how these local competitive companies reacted due to competitive pressure, whether they survived competition or not, whether they were forced to introduce changes due to competitive pressure or not.

Fourth, demonstration effects work when local companies benefit from foreign companies simply by observing or imitating their machinery, technology, products, processes and organizational form (Lall, 1996; and Ernst, Mytelka and Gianatsos, 1998). These effects may be indirect just by demonstrating or through direct collaborations. Demonstration effects are believed to take place more in underdeveloped countries, and were expected to arise also in our investigation in the Albanian industry. Hence, we examined whether foreign companies provided direct and indirect demonstration to other companies (local or foreign), and whether the latest introduced or adopted new products, new production techniques, new management and organization and marketing techniques observed and imitated from the foreign company. We also attempted to examine what were the main transmission mechanisms for effective demonstration effects. As in the above mentioned elements that are considered as important mechanisms for the technology transfer, demonstration effects were examined from the angle of both foreign companies included in the case studies as well as from the angle of their local companies identified. In case that demonstration effects exist, then foreign presence can stimulate spillovers.

Nevertheless, it is necessary to mention that it is rather difficult to collect this kind of data in context of long time series, as it is difficult for the respondents to know over time what the technology, machinery and equipment was, who their suppliers and customers were, and also have time series data on human resource and movement. Also, it is difficult to know which other companies joined stuff that left the foreign company, as well as which companies they left to join the foreign company. The same applies for information demonstration effects, as well as on local competition, and particularly on which local companies have improved their activities due to competitive pressures, or which have left the business due to loss of market share.

Before we proceed to the presentation of the case study companies, it is necessary to provide some information on how these case studies were conducted. The foreign companies included in the case studies were selected on the basis of the analysis done based on data collected during survey studies. Six companies were selected in total, 3 in the food and beverages industry, 2 in wood and furniture industry, and 1 in construction materials industry. The selection was done based on the technology as well as the positive information obtained in the surveys regarding the contacts, interactions and linkages these companies had with local companies.

Case studies included detailed open-questioned interviews with foreign companies, complemented with structured questionnaires with their local competitors, suppliers and customers (the guide for case studies directed to foreign companies is shown in Appendix A). The representatives of the foreign companies were interviewed at first, and according to the information and contacts they gave about their local suppliers, customers and competitors, the latest were indentified. Structured questionnaires with local companies took place either though face-to-face interviews (or personal contact) or interviews through the phone (in case that there was difficulty in getting an appointment or the company was operating in other city rather the ones where the field work was conducted). Questionnaires with local companies were carried out in order to look at the way that these companies perceive the presence of foreign companies and the potential effects on their company, as well as compare and contrast the views of the foreign companies with the views of local their suppliers, customers and competitors, and validate their responses. This enabled to provide a clearer illustration of what was the benefit or loss of these domestic companies as a result of the presence of foreign companies. The views particularly on the extent of impact were subjective; therefore we were careful in identifying the most appropriate representative in each company, following initial discussions with the managing director or CEO. Regarding the case study companies, interviews were held with the same respondent as in the first phase with the survey questionnaire, while in case of the local companies with the production manager or with other stuff that had responsibilities on finance, sales, purchasing or production. Quantifying the impact of foreign company on local companies is not easy, particularly when the impact performance and practices is addressed. The respondents could overestimate or underestimate the impact. For instance, some respondents of the

foreign companies put significant importance on their impact. On the other hand, some supplies, customers or competitors did not acknowledge any impacts, or were not able to.

7.3 CASE STUDY COMPANIES AND TECHNOLOGICAL TRANSFER TO THEIR LOCAL COMPANIES

This section presents the interviews with case study companies, along with results from questionnaires directed to their local competitors, suppliers and customers. It starts with the sector of food, beverages and tobacco sector, following with the wood and furniture sector and finishing with the sector of production of construction materials.

Table 7.21 shows the foreign companies selected with their corresponding local ones included in the case studies. The six case study companies included Drinks and Beverages and Tobacco Foreign 1 (DBF1); Drinks and Beverages and Tobacco Foreign 2 (DBF2); Drinks and Beverages and Tobacco 3 (DBF3); Wood and Furniture Foreign 4 (WFF4); Wood and Furniture Foreign 5 (WFF5); Wood and Furniture Foreign 6 (WFF6).

Table 7.1 Characteristics of Local Companies Included in the Case Studies

Local Companies	Local Suppliers	Local Customers	Local Competitors
DBF1	1	2	1
DBF2	1	1	1
DBF3	2	0	0
WFF4	1	2	2
WFF5	1	1	1
WFF6	0	0	0
TOTAL	**6**	**6**	**5**

Source: Tabulated from author's field survey (2006)

7.3.1 Manufacturing of Food, Beverages and Tobacco Sector

7.3.1.1 Case Study 1 – DBF1

DBF1 is one of the most successful large scale beverage-processing foreign companies in Albania. It was established in Albania in 2000 with 100% of private capital invested over Joint Venture with the Bulgarian partner. It is considered as a large scale company according to the Albanian manufacturing industry standard, enjoying the highest production power in the market, with modern conditions and consequently low cost of production. The company is located in the main part of the new industrial zone of Tirana and is equipped with a number of production facilities such as: plant of large variety types and capacity plastic bottles production, plant of fruit juices treatment, plant for mineral natural water and carbonated soft drinks. The company is involved with the production and distribution of a wide range of products: mineral natural water, carbonated orange juice, Albanian coca-cola, pit bull, a variety of fresh fruit juices without gas, a variety of fruit juices with gas, fruit juices Aferdita and Ekselent, plastic bottles and stamps. The fresh products of the company are produced according to the designed recipes with fresh and natural ingredients according to European standards and recommendations. DBF1's products quality is approved from authority of Ministry of Health.

DBF1 is a joint venture company 50% foreign owned, and 50% Albanian owned. The capital invested from the Bulgarian partner was a credit provided from the European Union under a program for the promotion of foreign investors in Albania, and is controlled by the branch of National Bank of Greece operating in Albania. The foreign partner provided the company with technical advice on production technology, management and organization expertise, marketing skills and human resource development. It also contributed in technology and staff training.

Table 7.2 Background Information and Characteristics of DBF1

Category	
Main Products	Juices & carbonated drinks (60%) production of bottles (40%)
Year of Establishment	2000
Source Country	Bulgaria
Location in Albania	Tirana
Type of Ownership	Join-Venture (50%)
Mode of Establishment	Greenfield
Location in Albania	Tirana
Number of Employees	92
Nr of staff with univ. and tech school	26
Parent Company	Yes (Bulgaria)
% of Capacity Utilized	40%
Technology	Age – 1 year; Source = Italy, Bulgaria, Belgium, Turkey
Training	Compulsory training to workers, managers and technicians

Movement	Yes
Suppliers	95 % Bulgaria, 5 % Albania
Customers	90% in all cities in Albania, 10% FYROM and Kosovo
Competitors	Stiff competition from black market and foreign companies

Source: Tabulated from author's field survey (2006)

Technology. With regard to technology, DBF1 was the most advanced in its sector. It used completely new foreign technology, machinery and equipment for its manufacturing activities. Technology was a German patent bought from the Bulgarian partner. All traditional and newly introduced products released in the market, were characterized of a high quality, particularly to the novel technology applied. The technology was totally new imported during 2004 from Italy and Bulgaria, Belgium and Turkey. It was totally computerized and automatically controlled for all operational parameters. The machinery particularly was coming from Italy. However, the company utilized only 40 % of its total capacity installed according to the demand from the market, expecting that it would increase in the coming years.

Direct Transfer from Parent Company and Training. The company noted that the parent company in Bulgaria was the main source for technological transfer, confirming for direct impact from parent company to local subsidiary. The company did not involve in itself any serious search in product or process technology. The search activities to introduce new products and technology were totally left with the parent company. The company did not have R&D department, whenever new products or technology had to be launched it relied on parent company. Even though, the foreign company did not have any training department either, the parent company had sent six technological experts from Bulgaria that were responsible for the machinery effectiveness and quality management. They also contributed in the training of workers, on how to manufacture the products given that the machinery and equipment was totally new and innovative. Given that the technology was highly technically advanced training the staff was inevitable. The experts spent more than two weeks to explain to the local workers all the stages, particularly the production operations, through formal trainings but also in the form of discussions. It was claimed that training was in line to the international standards of best practise. This helped the locals enhance their skills and learning; after some time they were capable of handling different types of trouble shootings, do maintenance and make modifications and repair. This indicates that technological

spillovers occurred as a result of training provided by foreign expatriates. Finally, the company had offered external training outside the country, and particularly to its production manager in the parent company in Bulgaria, and in Italy.

Mobility. Company's training has positive and direct relation with spillover process. The implication in this is that if staff should leave the foreign in future, to join local companies they would share skills and knowledge they have acquired from training. We examined mobility in the company, however it is necessary to point out that in general companies do not document information on workers mobility, hence details on this issue are rare. We had to rely on the information provided by the respondent of the interview. It was confirmed that there were 2 cases of local staff that left the company, one manager and one simple worker. On the other hand, there were many cases of gained employees from other companies, and particularly from other foreign competitors (these included engineers) and local competitors (managers).

Linkages with Local Suppliers and Local Customers. With regard to its local suppliers and customers, we attempted to investigate the technological transfer from DBF1 to due to the purchases and supply created. The foreign company was importing all its supplies from the parent company in Bulgaria, and only 5 % in Albania, and particularly sugar. The reasons for not relying on local suppliers was that the strategy of the parent company involved supplying the local subsidiary with supplies from the country of origin, as well as the fact that it was difficult to identify local suppliers with high quality raw materials. DBF1 supplied sugar from an Albanian supplier, a big size company operating in Durres that was supplying also other companies in the food-beverage sector. However, it was confirmed that the company developed limited backward linkages with the local sugar supplier. Even though they were cooperating for a four year time period, their contact was limited. Given the type of raw material supplied, sugar, their relationship was confined only on the orders of the foreign for specific amounts of sugar and time delivery of the product. The foreign company put specific requirement to the local supplier on terms of time delivery, delivery method and packaging, which implies for spillover effects in terms of improvements in these aspects. The local supplier benefited also from demand created from DBF1 that had enabled it to grow and expand.

In order to see it from the angle of the local supplier, we contacted the sugar supply company, which confirmed the same with the foreign company, pointing out the important impact on delivery methods and packaging, as well as increase in profitability due to increase in demand, and reduction in cost The local supplier claimed also that demand on its product consisted mainly from foreign companies rather than from their local competitors.

Turning to the customers of DBF1, the company reached very good results for a quite short period of time, four years of operations, to distribute all around Albania and in neighboring countries. More specifically, the foreign company distributed 90% of its products in all cities of Albania, and exported 10% of products in Fyrom and Kosovo. However, it intended to expand its export capabilities in the future The reasons for relying more on local customers were the entrance in local market and the high purchasing volume. The foreign company was using ten distribution companies to distribute the products in 15 different locations in Albania. It was confirmed there was no change in quality in the products sold inside the country and the ones outside the country. The foreign company was keeping close relationship with its local customers, and was renovating its sales contract every year with the local customers. It was noted that it maintained forward linkages with local customers for the purpose of marketing their products. DBF1 was putting specific requirements to its local customers in terms of prices, technical skills and professionalism. Nevertheless, it was claimed that each of the local customers was struggling for exclusivity and putting prices to the market according to their choices. In addition, even though specific requirements were put to local customers also in terms of on time payment of the inputs, there were many cases of delays. And this was an issue that it needed improvement. The overall impact on local customers was a direct improvement of inputs from the foreign company, reduced prices, and availability of high quality products. However, the impact on local customers' business practices appeared to be limited. The only impacts were in on marketing and sales activities, and purchasing practises. These positive impacts were transmitted through enhanced quality products, informal sharing of views and various discussions, as well as visits to main customers on technical standards.

In order to investigate the views of the local customers on the issue, we contacted two customers of DBF1, one operating in Tirana and the other in Korca. The views of the

local customers addressed were quite close with that of the foreign company. The local customer in Tirana was supplying all its products from DBF1, while the local customer in Korca 70% of its products. Both local customers confirmed that the higher quality products available from DBF1 led to higher sales and reduction in prices. They recognized that DBF1 had competitive advantages compared to local companies in terms of its lower costs and prices, better quality, very advanced technology and precise time delivery. Therefore, they were benefiting from improved inputs from DBF1 including reduced prices, improved quality, enhanced technology and availability of a wide variety of products. They claimed that they benefited in terms of purchasing practices, profitability, costs and prices. Both local customers shared the same idea with the foreign company, that the main mechanism that direct effects took place was the informal sharing of ideas and exchange of views.

Competition Effect. The foreign company confirmed that it faced a stiff competition in the local market, and particularly from the black market. There were local companies operating in local market without licence and without guarantee. Even though the quality of these products was very low, they were competing in terms of lower prices (as they do not pay taxes to the government which gives room for decrease in prices), consisting in a real problem for DBF1. Taking into consideration legal competition, the foreign company was facing foreign and local competitors. It claimed that competition from foreign companies was stronger than that from local companies, in terms of quality and technology. However, it expected local competition to increase in the coming years. The foreign company claimed to have many competitive advantages compared to its local competitors in terms of prices, costs, design, technology, quality, professional staff, and volume capacity. With regard to changes undertaken by the foreign company due to competitive pressure, it undertook strategies like diversifying in new products that were new for the local market, and improvements in management. In order to examine the negative effects due to high competitive pressure put the foreign company, we asked whether the foreign company was aware of any local competitor that was forced to leave the market. It was confirmed that one local competitor producing carbonated drinks in Tirana closed its operations one year ago, and four cases of local companies that were producing bottles were shut down in the last two years. According to the information provided by the foreign company, these local firms did not manage to survive the highly competitive market.

DBF1 confirmed that its higher competition was coming from illegal local companies and other foreign companies operating in the sector, while the competition coming from legal local companies was at a lower level, as even the percentage of market they possessed was lower. We contacted the major local competitor operating in Tirana producing carbonated drinks. It claimed that is was difficult to operate and be successful in the Albanian market, as the business environment was very competitive, with competition coming mainly from foreign companies particularly in terms of high quality products and lower prices. The bottom line of this is that competition in the food and beverages sector was headed by foreign companies, and this could serve as a trigger for the local companies to introduce technological changes and learn in order to face intensive competition and survive the market. Similar to the view of DBF1, the local competitor investigated, identified changes to its strategies and practices in response to increased pressure from the pressure of foreign companies. However, it stressed more reductions in costs and prices as primarily need to survive the market.

Demonstrations Effect. Investigation of demonstration effects in DBF1 indicated that demonstration effects took place and had created opportunities to local companies. There was a particular case of a well known local company operating in the market that claimed for a possible cooperation with DBF1 by producing its product in the plants of DBF1. The local competitor had visited two times the foreign company for discussions; however the cooperation never took place. DBF1 claimed that the intentions of the local competitor were to visit the foreign company in order to observe, copy and imitate its technology and products. The foreign company confirmed also the case of a local competitor that had imitated and copied its stamps. These cases support the argument that foreign companies bring knowledge, technologies and skills and local companies observe and imitate them, implying for spillover occurrence. However, DBF1 stated that while local companies can try to imitate their technology, they cannot imitate their high quality products and their low prices, indicating that foreign companies try to limit the demonstration effects. In contrast to the view of DBF1, the local competitor interviewed for the purposes of the case study confirmed that there were no direct or indirect demonstration effects from the foreign company.

Infrastructure, Institutions, Associations and Government Agencies. DBF1 confirmed a total dissatisfaction from the local infrastructure and the role of the government to promote foreign investments in the country. Due to low levels in basic infrastructure, the foreign company was forced to bring its own solutions regarding transporting, electricity and water supply. These in turn loaded the overall cost of the company. With regard to the linkages of the foreign company with the local support systems such as business associations, private and public institutions, we identified some interactions with the American Chamber of Commerce, which organized often seminars and trainings. Through these interactions, knowledge and skills were shared. The foreign company confirmed that the American Chamber of Commerce was in very supportive to the foreign companies operating in Albania, and among others by publishing on a yearly base a list of all foreign companies and promoting them. Moreover, DBF1 was an active member of the Albanian Chamber of Commerce, and has been once involved in a sponsorship. However, in general the foreign companies' interaction with institutions and governmental agencies appeared to be very limited, implying that the government should provide more support for the institutions that offer finance and industrial promotion to FDI, that would in turn enhance the interactions with foreign companies and support spillover process.

7.3.1.2 Case Study 2 – DBF2

DBF2 is a relatively old company operating in Albania since 1996, located in the region of Korca. It as joint venture with a Greek partner, however it is a stand alone company without a parent company. It is considered as a medium size company according to the Albanian industry standard, employing 31 employees. When it started its operations initially as a Greenfield investment, it was a small company manufacturing only fresh juices. There was an expansion of the company during 1999, when it introduced new products which included six different types of carbonated fresh drinks and production of bottles. Similar to DBF1, the fresh products of DBF1 were produced according to the designed recipes with fresh and natural ingredients according to European standards and recommendations.

DBF2 is a joint venture company with 85% of foreign capital, and 15% local capital. The capital invested was 40% of private source, and 60% credit from local banks. The

foreign partner was responsible for all management and organization of the company. It also provided the main contribution in terms of technology, staff training, technical advice, marketing skills and human resource development.

Table 7.3 Background Information and Characteristics of DBF2

Category	
Main Products	Fresh juices & drinks (90%) plastic bottles (10%)
Year of Establishment	1996
Source Country	Greece
Location in Albania	Korca
Type of Ownership	Join-Venture (85% foreign; 15% local)
Mode of Establishment	Greenfield
Location in Albania	Korca
Number of Employees	31
Nr of staff with univ. and tech school	26
Parent Company	No
% of Capacity Utilized	20%
Technology	Age – 2 years; Source = Sweden, Greece
Training	Compulsory training to managers and technicians
Movement	Yes
Suppliers	98 % Greece, Sweden, Germany; 2 % Albania
Customers	95% in all cities in Albania, 5% in Greece and FYROM
Competitors	Severe competition from black market and local companies

Source: Tabulated from author's field survey (2006)

Technology. The technology used in DBF2 was sophisticated, fully foreign originating from Sweden and only 2 years old. As a result of high technology used, the foreign company was one of the most competitive ones at least in the region. The local partner did not involve itself into search of products and technology, improve or introduce new products, everything was left to the responsibility of the foreign partner. The company utilized only 20 % of its overall capacity installed due to low demand in the market, expecting this to increase in the future.

Direct Technology Transfer and Training. It was confirmed that the foreign Greek partner was the main source for technological transfer in the company. The company did not have R&D department. The foreign partner was responsible for the launch of new products or technology. However, local staff was involved in the entire process from plant installation to operation. The local personnel involved one general director, one production manager, one marketing director, one financer, one chemical engineer, three technicians, and the rest simple workers. The engineer was sent in Greece twice for training to acquire experience. In addition, the foreign partner brought two experts from Greece for an intensive training program lasting for one week, to introduce to

locals the technology and machinery mainly through formal trainings inside the company. The intention of this training was to insure efficient production operation. Emphasis was put to the stages of operations, routine maintenance, and trouble shooting. All staff was trained, and in particular managers and technicians. This helped local staff enhance acquire skills and accumulate the necessary technological capability to manage and operate the fresh drinks line and the bottling line. Finally, the foreign company in actively involved in the training provided by the Chamber of Commerce in the city including 4-5 training a year, as well as trainings provided by Ministry of Agriculture including 1-2 trainings a year.

Mobility. With regard to mobility, as already mentioned, training is directly related to spillover process and if trained high skilled staff would leave the company, they would share knowledge in the new company they join. In the case of DBF2 it was noted there was only one case of a technician, and three simple workers that had left the company in the last two years. There was missing information about the reasons the technician and the workers left and what company he did join, however it was suggested that it was probably due to personal reasons. In general, it was confirmed that the local staff is very satisfied from the company and had no strong reasons (other than personal) to leave the company. In addition, there were some cases of gained employees from other companies particularly during the period of company's expansion in 1999. The employees gained included managers and simple workers and were coming from local companies.

Linkages with Local Suppliers and Local Customers. With regard to its local suppliers and customers, DFB2 shares common characteristics with DBF1, however the impacts on local suppliers tended to be even smaller given the more limited purchases and contact with them. DBF2 imported 98% of its supplies and raw materials from Greece, and only 2 % of its supplies (involving sugar supplies) in Albania. The reason for relying on foreign suppliers was lack of availability of local suppliers, which has many implications for the strategies that should be considered by the Albanian government in order to support local suppliers and promote their potential so that they can meet the needs of foreign as well as local companies. DBF2 purchased sugar from an Albanian supplier, a medium company competitive with the sugar company that supplied sugar to DBF1. The reasons for choosing a local company to supply sugar

were low cost and geographical proximity/low transport costs. It was confirmed that the relationship with the local supplier was very serious and professional; however the foreign company developed limited backward linkages with the local sugar supplier. This occurred given the fact that their contacts and interactions were very limited. The only aspects that the local supplier benefited from its cooperation with the foreign company were increased purchases, as well as improvements in time delivery. The foreign company put very specific requirements in terms of time delivery. To sum up, given that the foreign company relied mainly on foreign suppliers for production technology and raw materials, local links with local suppliers were very limited.

In order to identify even the perception of the local supplier on the issue, we contacted the sugar supply company. Its views were quite close with those of the foreign company. It confirmed the specific requirements put by the foreign company in terms of speed of service, delivery methods but also price. However, the local supplier explained due to the kind of product they supplied, there was no room for active involvement of their customers (such as DBF2) into their process, product or technology.

Turning to forward linkages and the customers of DBF2, the company was selling 95% of its products all around Albania (at least one customer at each city) and only 5% in neighboring countries such Greece and FYROM. However, the intentions of the company were to expand its exports in other neighbouring countries such as Kosovo. The key problem indentified was the lack of availability of distribution companies it intended to expand its export capabilities in the future. The foreign company distributed the products its self in some of the cases. It was confirmed that the company intended in the coming year to provide support to some of its distributors to become a supplier of its products, by asking for minimum purchase quantities and enough capital to start up the distribution. This would be a very good advantage for the local business, because in doing so, the local entrepreneurship would be promoted. Similar to DBF1, the main reasons for relying more on local customers were the entrance in local market and the high purchasing volume. Nevertheless, it was noted that there was a decline in demand the last two years due to the high competition the company saved from black market, and particularly from products that illegal companies bring from Italy and FYROM without paying customs. DBF2 kept close long-term relationship with its local customers, with cases of local customers that were clients for more than 7 years. With

regard to specific requirements put by DBF2 to its local customers, they included prices and professionalism. Turning to the overall impact on local customers, there was a direct improvement of inputs from the foreign company, reduced prices, and availability of high quality products. The foreign company perceived that due to improved quality products and lower purchase prices offered to their local customers, the former had benefited also from increased sales, productivity and profitability. In order to control the sales of its major customers, the foreign company had assigned a manager for each of its major clients, who was following closely the developments and activity of local customers. Finally, it was noted that the main mechanisms for the linkages created between the foreign company and its local customers, and any of the positive impacts transmitted, were through informal sharing of views, discussions, and site visits.

We turn now to the view of the local customers on the issue. We contacted one local customer of DBF2, operating in Berat. The products supplied from the foreign company consisted in 80% of the total products of the local customer. The local customer shared almost the same view with that of the foreign company. The local customer identified impact on productivity and profitability however lower impact on sales compared to the one perceived by the foreign company. The main benefits recognized were improved inputs from DBF2, in terms of reduced prices, improved quality, enhanced technology and availability of high capacity of products, as well as a wide range of products. The local customer confirmed the idea of the foreign company, that the main mechanism through which direct effects took place was the informal sharing of ideas and exchange of views.

Competition Effect. Similar to the case of DBF1, the foreign company noted that it faced high levels of competition in the local market, particularly from the black market and local companies that were importing products illegally from neighbouring countries, such as Italy and FYROM. This had a negative effect on demand, resulting on decline in sales during the recent years. Turning to legal competition, the foreign company claimed that it was facing a moderate competition and mainly from foreign competitors given the highly sophisticated technology and the high variety in products that characterized foreign competitors. It expected competition to increase in the coming years, with foreign companies still being in the lead of competition. The foreign company claimed to have many competitive advantages compared to its local

competitors in terms of prices and costs, technology and quality. However, compared to other foreign companies operating in the market, it claimed that the level was almost the same, with exception on prices and costs that were much lower. Considering the changes undertaken by the foreign company due to competitive pressure, it undertook strategies like introduction of new technology in the last two years, engagement in training, diversification into new products (four new flavours were introduced in the fresh drinks, as well as the bottling line), and improvements in marketing and management. Investigating the negative effects due to high competitive pressure put by the foreign company, we identified the same case mentioned by DBF, which referred to one local competitor producing carbonated drinks in Tirana that left the market one year ago.

We contacted the major local competitor of DBF2 operating in Gjirokaster, a medium size company, which produced carbonated fresh drinks. In order to respond the pressure from the high competition it was facing, the local competitor has improved the existing technologies and improved market strategies. It intended also in the future to purchase some new machinery, however this was part of a future strategy it intended to implement in the coming years. The changes done due to competitive pressures led to product and price improvements, however the overall increase in sales was relatively moderate. The local competitor expressed its concern about the unfair competition from black market, which brought an overall decline in the market demand.

Demonstrations Effect. With regard to demonstration effects, DBF2 claimed that according to their knowledge there were limited cases of demonstration effects. It was difficult for local companies to imitate its highly sophisticated technology and high quality product, however some imitation occurred in terms of flavours introduced and bottling.

Infrastructure, Institutions, Associations and Government Agencies. DBF2 noted that the level of basic infrastructure was very low, with main problems focusing on water supply and electricity. Moreover, regarding the role of government, it was confirmed that despite the fact that DBF2 had done a big investment, there was neither support nor any kind of interest from the government or its agencies. In general, the politics followed by the government did not stimulate foreign investments in the

country, including many bureaucratic barriers and yet not a specific low on foreign investments. According to the view of the foreign company, these were the prior issues and problems that needed to be solved urgently in Albania, and then the rest of the issues. It concluded that Albania had a low economic potential and most of the foreign investors have regretted for investing in the local market. Opportunities offered in neighbour countries such as FYROM were greater, as the companies pay low amounts in customs, while in Albania the high cost for importing materials through the customs was a really big burden to perform business. Taking into consideration the linkages of DBF2 with the local support systems such as business associations, private and public institutions, we identified some interactions with United States Agency for International Development (USAID) and the Rational Agency for Development (ARZH), which organized free seminars and trainings. These interactions supported and helped diffusion and sharing of knowledge and skills. The foreign company was an active member of the Albanian Chamber of Commerce, however it was not involved in any other form of non-market collaboration such as sponsorships or charities.

7.3.1.3 Case Study 3 – DBF3

DBF3 is the most successful large scale tobacco-processing foreign company in Albania. More specifically, Albania has the tradition and potential for high quality oriental tobacco manufacturing, which is much in demand on export markets (Albania Investment Guide, 2007. The state owned company was privatized in Albania in 1993 through Joint Venture between Greek partner and Albanian partner. After its privatization, the company started its operations as a private joint venture in 1994. According to the Albanian manufacturing industry standard, DBF3 is considered a large scale company with 350 employees, enjoying a high production power, and 80% capacity utilization. The company is located in industrial zone of Korca and is involved with the gathering and processing of tobacco.

DBF3 is a joint venture company 64.5% foreign owned, and 35.5% Albanian owned. The capital invested consisted in 60% credit from local banks and 40% private capital. Similar to the previous case studies presented, the foreign partner provided the company with experts that helped with machinery and training for local staff, provided with

technical advice on production technology, management and organization expertise, marketing skills and human resource development.

Table 7.4 Background Information and Characteristics of DBF3

Category	
Main Products	Manufacture of tobacco
Year of Establishment	1993
Source Country	Greece
Location in Albania	Tirana
Type of Ownership	Join-Venture, foreign capital=64.5%, local capital=35.5%
Mode of Establishment	Privatization
Location in Albania	Korca
Number of Employees	350
Nr of staff with univ. and tech school	27
Parent Company	Yes (Greece)
% of Capacity Utilized	80%
Technology	Age – 5 years; Source = Greece
Training	Compulsory training to all staff
Movement	Yes
Suppliers	100 % Albania
Customers	100% Greece
Competitors	Moderate competition from one local company

Source: Tabulated from author's field survey (2006)

Technology. When it started its operation as a joint venture, DBF3 used the technology and machinery inherited from the old state-owned company. During 1999 the foreign partner purchased entirely new technology, machinery and equipment. It was confirmed that the purchase of machinery was a continuing process. Technology was purchased and imported from Greece.

Direct Transfer from Parent Company and Training. DBF3 confirmed that the parent company in Greece was responsible for complete transfer of technology to its subsidiary, indicating for direct impact from parent company to local subsidiary. The main impact was in terms of product development activities, improvement of existing product, quality control systems, cost control, purchase of new technology and machinery, purchasing and sales method, as well as marketing and management process. As everything was left to the parent company and foreign partner, the local partner was not involved by itself in any search in product or process technology. The company did have neither an R&D department nor a training department, which is a common characteristic with the other two case studies. The local personnel involved one general director, one production manager, one marketing director, two financers, two engineers, five technicians, and the rest simple workers. The foreign partner brings every year two or three experts for training that last usually 2 weeks. These training

programs provide support and help local stuff with the production process and operations of machinery. Staff of all levels is engaged in the training. It is also important to mention that the general director and managing director of the foreign company are both from the home country, sent by the parent company to have more efficient direction on the company, as well as provide support and assistance to local staff. In addition, the foreign company had provided external training to 3 of its staff and particularly to one local manager and two engineers in the plants of the parent company in Greece. Finally, DBF3 is actively involved in the training provided by the Chamber of Commerce in the city including at least one training a year.

Mobility. Despite the positive relation of training with spillover process, we examined mobility in the company, however it is pointed out that there were no cases of staff that left the foreign company at least in the recent years. It was argued that local staff is very satisfied with the working conditions and wages, and there were no reasons for them to leave the company. Similar to this, there were no cases of any gained employees from other companies, implying for old staff staying with the company for long time.

Linkages with Local Suppliers and Local Customers. We turn now to the linkages of the foreign company with its local suppliers and customers. DBF3 was relying for all of its supplies to local suppliers, which means that it was supplying 100% of the raw material to local farmers. The reasons for purchasing raw material in the local market were low cost of raw material, as well as good climate conditions for growth of tobacco plant. The foreign company purchased its supplies from three different destinations which were Korca, Elbasan and Berat. Local suppliers included 2500 families of farmers that produced tobacco plants. We discovered that the foreign company maintained strong backward linkages with its farmers. There was knowledge and technology transfer to from DBF3 to its farmers. In the beginning the quality provided by the farmers was quite low, so the foreign company had to put high requirements in terms of quality and stimulate production. In order to achieve this, the foreign company used field managers (particularly two) to deal with the growers of the tobacco plants, to discuss and plan strategies and input processes. The foreign company had prepared booklets on agronomical practises that were made available to the farmers. Moreover, the farmers were actively encouraged to adopt best farming practices by paying higher prices for high quality tobacco. The farmers were also provided with supporting

materials, and high quality of tobacco seeds imported from Greece. The two managers that were supervising the farmers were responsible for the improvement in performance of local farmers. More specifically, one manager was responsible for 18.000 farmers in Elbasan and Berat, and the other one for 2.000 farmers operating in the region of Korca, Progradec and Bilisht. The activities and measures that were undertaken by DBF3 resulted in an increase in quality of tobacco. However, it was argued that there was still room for improvements, given that the farmers worked in quite primitive conditions, which did not support the enhancement in quality. DBF3 planned to take even other measures in the future in order to support its suppliers to improve their quality; however it noted that they insist to keep the same suppliers due to favourite climate conditions. In addition there were other benefits that local farmers enjoyed from the presence of DBF3 in the market, which was the increase in demand for tobacco plants from DBF3 and the opportunities opened for the local farmers who enjoyed the market created from DBF3. This can be viewed as an important benefit in terms of sales, productivity and profitability of local farmers.

In order to provide an enriched picture of the linkages of the foreign company with its suppliers, our initial intention were to visit local farmers and see get an idea of the tobacco plant growing process, however this was difficult to realize due to distance problems. Thus, we decided to contact one of the managers or agricultural officers of DBF3 who was responsible for the 2.000 farmers in the region of Korca, Pogradec and Bilisht. The manager confirmed the information on technological transfer and linkages provided by DBF3 to its local farmers, and helped us contact with two of the farmers operating in the region of Korca. Through a short discussion, both farmers pointed out the difficult conditions to cultivate tobacco plants, particularly the process of drying tobacco leaves, which directly influences the quality of the final tobacco supply. However, they identified increase in their quality since they started to cooperate with DBF3, confirming for the high quality requirements put by the foreign company, as well as the support and guidance offered regarding their practices. Finally, they confirmed their increase in demand for their supplies and increase in sales due to purchases from DBF3.

With regard to the customers of DBF3, the foreign company was exporting its entire production in the country of origin, Greece. The parent company was then distributing

the final product to different destinations in Greece. The reason for exporting its product outside the country was the secured market from the parent company and the low purchasing power in the Albanian market. It was noted that the foreign company does not intend to change its export strategies at least for the next five years. Given that DBF3 had no contact with local customers, there were no linkages or technological transfer effects identified in this case.

Competition Effect. DBF3 noted that it faced a moderate competition in the local market. There was only one foreign competitive company operating in the region of Elbasan that processed tobacco. There were no local competitive companies in the market. The foreign company claimed that it outperformed the foreign competitor, as it had many competitive advantages in terms of cost, prices, technology, quality of products, volume capacity, skilled and well trained staff and finally export capabilities. The foreign competitor produced only 30% of the total scale of production provided by DBF3. Regarding the changes undertaken by the foreign company, DBF3 confirmed that it undertook strategies like introducing new technology and improving organization, management and marketing; however these were not as a result of competitive pressure, but the strategy of parent company in order to upgrade its local subsidiary.

Demonstrations Effect. Even though the foreign company did not have any local competitors, we still investigated the demonstration effects with regard to the foreign competitor of DBF3. It was confirmed that there were some indirect demonstration effects. It was claimed that the foreign competitor had made efforts to copy and imitate the machinery and the drying technology by informal company visits.

Infrastructure, Institutions, Associations and Government Agencies. Similar to the other foreign companies operating in the food beverages and tobacco sector, DBF3 was totally dissatisfied from the local infrastructure and the role of the government to promote foreign investments in the country. With regard to non-market collaborations, the foreign company was involved in sponsorships (including a number of three sponsorships), charities (two charities), and four seminars organized by the Albanian Chamber of Commerce, where the foreign company was an active member. The linkages of DBF3 with other local institutions or supporting agencies were limited,

implying again for more active role that should be played by the government to maintain FDI in Albania and promote the benefits that local companies can have from foreign companies' presence.

7.3.2 Manufacturing of Wood and Furniture Sector

7.3.2.1 Case Study 4 – WFF4

WFF4 is the leader of the Albanian bedroom market starting its operations in the Albanian market in 2001 as a joint venture between Italian partner and Albanian partner. The foreign company is located in the industrial zone of Tirana. Produced with the latest Italian technology, the foreign company is specialized in bedroom furniture and offers a high quality range of bedroom models with highly competitive prices. WFF4 exports its products in a diversity of country such as Italy, Montenegro, Serbia, FYROM, Kosovo, Romania, Bulgaria, Croatia, Russia, Algeria and Morocco. It intended to broaden its exports even in other countries.

WWF4 is a joint venture company with 25% local capital and 75% foreign capital from the Italian partner. The capital invested was 93.5% private capital and 6.5% credit from Emporiki Bank, a Greek bank operating in Tirana. It was pointed out that the foreign partner was responsible for the management of the company, provided strategic directions, and offers part of staff training.

Table 7.5 Background Information and Characteristics of WFF4

Category	
Main Products	Production of furniture (bedrooms)
Year of Establishment	2001
Source Country	Italy
Location in Albania	Tirana
Type of Ownership	Join-Venture; foreign capital=75%; ;local capital=25%
Mode of Establishment	Greenfield
Location in Albania	Tirana
Number of Employees	100
Nr of staff with univ. and tech school	17
Parent Company	Yes (Italy)
% of Capacity Utilized	70%
Technology	Age – 2 years; Source = Italy
Training	Compulsory training to all local staff
Movement	Yes
Suppliers	90 % Bulgaria, 10 % Albania
Customers	60% in Albania, 40% FYROM, Kosovo, Serbia, Croatia, Iraq

Competitors	Severe competition from local companies

Source: Tabulated from author's field survey (2006)

Technology. WFF4 used completely new foreign technology, machinery and equipment purchased in Italy during 2003. Technology consisted in very sophisticated machinery for wood processing, totally computerized and automatically controlled. The use of high technological levels made possible for the foreign company to provide products of very high quality and a wide range of models.

Direct Transfer from Parent Company and Training. The foreign company pointed out that the parent company supplied WFF4 with the new technology from Italy and in general it was responsible for main technological transfer in the local subsidiary, confirming again for direct impact from parent company to local subsidiary. The parent company in Italy was responsible for the most important decisions and changes on management, marketing, and organization; on product development activities; on new products and processes; and on quality assurance. It was confirmed that there was an extensive technological transfer from the parent company to its local subsidiary in all categories. The parent company was also taking decisions on the catalogues that were prepared each year and the models of the product that would be exported in Italy. It is important to mention that the models of bedrooms exported was more sophisticated than the ones sold in the local market, given that the demand in the local market was on simple models contrary to the demand in Italy. With regard to training, the foreign company organized one training programme every year, which lasted for one month. Four experts visited the company every year for the purpose of training the local staff. Training was compulsory including all levels of employees, but focused mainly on learning of new production technology. Simple workers were trained on production operations and use of machinery so that they could manage any trouble shooting and maintenance of machinery. Nevertheless, whenever the foreign company had any serious problem or default with machinery that local workers could not repair, the parent company did send expatriates to face and remedy the problems. At last, the foreign company provided external training to one manager and three local experts in the plants of the parent company in Italy, particularly on management and direction issues, as well as technological issues.

Mobility. The local personnel of WFF4 consisted in 20 employees included in the administration of the company; two out of these were managers, one account executive, five technicians, six storekeepers, and the rest simple workers. All local staff was trained, which implies that if staff should leave the foreign company, there were possibilities of spillovers to arise through movement. In examining mobility in the company, we identified that there were cases of personnel that left the company, including 15 simple workers that left the company in order to start their own business or to join local companies. Besides, there were also cases of gained staff including simple workers coming from local companies and foreign companies. However, the high level staff working at the administration was with the company for a long time. The movement was more evident in case of simple workers.

Linkages with Local Suppliers and Local Customers. WFF4 imported 90% of its raw materials from the parent company in Italy and the rest 10% in Albania. The inputs purchased in Albania included packaging material. When the company initiated it operations, the packaging material was imported from Italy, as the rest of the raw material, however due to low costs and low transportation distances; the company changed its suppliers and decided to rely on local suppliers, located in Durres. On the other hand, the reasons that the company imported the majority of raw material from outside the country were the low technology of local raw materials and supplies, as well as their low quality. WFF4 purchased packaging material in a local supplier located only 30 minutes away from the plants of the foreign company. The demand from the foreign company occupied 90% of total sales of the local supplier. Both parties signed a purchasing contract every year on quality and prices. The foreign company noted that they keep close and good relations with their local suppliers and are very satisfied from the quality and their cooperation overall. It was confirmed that the company developed backward linkages with the local sugar supplier. WFF4 was actively involved in improving the quality of the local supplier by putting specific requirements on the quality of raw materials, costs and also on time of delivery. These elements had major improvements over time, which indicated for active spillover effects. The main mechanisms for transmission of the positive effects were through informal sharing of views, discussions and site visits. Evidently, the local supplier benefited also from increased demand created from the presence of WFF4 in the market as the foreign company was its major customer.

We contacted the local supplier who shared the same views with that of the foreign company, identifying the active involvement of WFF4 to improve the quality and reduce the costs of supplies and the mechanisms through which this took place. The local supplier confirmed that the foreign company was its major customer occupying 90% of demand, and that sales and productivity have been improved since it started to cooperate with the foreign company.

Taking into consideration the customers of the WFF4, it was selling its products 60% in the local market and 40% outside the country, exporting in a variety of countries such as Italy, Montenegro, Serbia, FYROM, Kosovo, Romania, Bulgaria, Croatia, Russia, Algeria and Morocco. The reasons for selling in the Albanian market were local market access and high purchasing volume. The final customers of the company were located in the seven major cities of the country, and included small firms with three or four employees. The intentions of the company were to expand its exports even in the United States. The reasons of exporting were access to foreign market. The foreign company is very satisfied from its cooperation with local customers. WFF4 confirmed that it was actively involved in the activities of at least 50% of its local customers and was making sales contracts every year with its local customers. Forward linkages with local customers were evident. WFF4 was putting specific requirements to its local customers in terms of prices, on time payment and purchasing practises. The positive impacts were transmitted through improved quality products, informal sharing of views, and visits time by time to the main customers on various issues such as technical issues. Besides this, there was an overall impact on local customers in terms of direct improvement of inputs from the foreign company, reduced prices, improved design, availability of high quality products and availability of a wide range of models.

In order to compare and contrast the views of the foreign company with those of its local customers, we contacted two customers of WFF4. One local customer was located in Tirana and the other in Korca. The views of the local customers were very close with that of the foreign company, confirming the positive impact and the active involvement of the foreign company in their practices. Both local customers were purchasing products exclusively only from WFF4.

Competition Effect. Considering the competition that WFF4 was facing in the local market, it was noted that there was a high competition in the market coming mainly from local companies but also other foreign companies operating in the sector. The foreign company claimed that it had competitive advantages compared to its competitors in terms of lower prices, higher quality products, sophisticated and new technology, design of the products, scale of production, specialized staff and export capabilities and established foreign markets (local competitors were addressed only to local market). However, it recognized that local competitors had more advantage in terms of the range of products they offered. WFF4 was producing only bedroom furniture. We investigated the strategies that the foreign company applied or planned to apply in the future due to competitive pressures, and it was confirmed that the company was trying to do apply different strategies such as improving existing products, improve existing technologies, improve organization and management of the company, but most importantly to increase its exports in foreign countries and increase its sales. In order to achieve this, the company tried to exploit the opportunities provided by different expositions organized with foreign customers in the country and out of the country. With regard to negative effects due to high competitive pressure, we identified the cases of two small sized local companies that went out of the market the last year. According to the information provided by WFF4, they were forced to shut down due to their high costs and consequently couldn't resist the competitive market.

We contacted two major competitors of WFF4 operating in the same region, Tirana city. The first one was a local big-sized company manufacturing a wide range of products, and the second a medium-sized company manufacturing only living room furniture. Both local competitors agreed that they were facing a strong competition from the foreign companies in the market given their high technology; however in contrast to the views of the WFF4, the prices they were providing were lower. The first local competitors also felt that it had other advantages compared to the foreign company in terms of the variety of wood furniture it produced as well as to its sales in the local market. Both local competitors stated that they had already done changes in their strategies and practices in response to competitive pressures in terms of diversifying into new products and improve existing technology. They also intended to undertake changes in terms of their exporting capabilities, to expand their sales even in other market particularly in neighbour countries such Italy, Greece and FYROM.

Demonstrations Effect. With regard to demonstration effects in WFF4, it was confirmed that local companies try to imitate and copy the design of the models, and there are local competitors that have introduced bedroom models that are very similar to the ones of WFF4. It was claimed that it was impossible to stop the imitation effect from the local companies. Usually the mechanisms through which these effects occur are observations through site visits or local competitors purchase different models of bedrooms, dismantle them and try to imitate. Other opportunities offered to local competitors to observe and imitate were in the various exhibitions organized by the local insitutions. Therefore, demonstration effects took place and had opened new opportunities to local companies.

Infrastructure, Institutions, Associations and Government Agencies. Similar to all foreign companies included in the case studies, WFF4 confirmed the poor levels in basic infrastructure stressing the lack of power supply, which presented a real problem. With regard to non-market collaborations, the foreign company does not have any linkages with any business associations or private agencies. The only interactions identified were the ones with the Albanian Chamber of Commerce where the company is an active member, and the participation is some seminars organized by the Ministry of Economy.

7.3.2.2 Case Study 5 – WFF5

WFF5 operates in the region of Korca manufacturing furniture and providing a wide range of wood products, and is particularly specialized in bed room, living room and kitchen. It started its operations in the wood and furniture sector in 1993 as a joint venture between Greek and Albanian partner, and in 1996 the foreign partner bought all the shares and the company turn into a wholly owned foreign company. In contrast to the first case-study foreign company, WFF4 used more simple technology as most of the tasks are done handmade. The foreign company did not have a parent company; however the foreign owner was the main contributor for the management and organization of the company, for the products and processes, for investment in technology and training of workers.

Table 7.6 Background Information and Characteristics of WFF5

Category	
Main Products	Production of furniture (bed-room, living room, kitchen etc)
Year of Establishment	1993
Source Country	Greece
Location in Albania	Korca
Type of Ownership	Wholly foreign owned
Mode of Establishment	Greenfield
Location in Albania	Korca
Number of Employees	96
Nr of staff with univ. and tech school	3
Parent Company	No
% of Capacity Utilized	60%
Technology	Age – 15 years; Source = Greece
Training	Compulsory training to all local staff
Movement	Yes
Suppliers	90 % Greece, 10 % Albania
Customers	90% in Albania, 10% in Greece
Competitors	Severe competition from local companies and black market

Source: Tabulated from author's field survey (2006)

Technology. WFF5 used second-hand foreign technology, machinery and equipment purchased in Greece during 1999. The average age of machinery was 15 years old. It was confirmed that the foreign company was continuously investing in technology. The foreign company claimed that the reasons for not investing in new technology were that the demand of customers in the region was quite low, which resulted in low sales. Consequently there was no room for extensive investments in highly sophisticated technology. Even though technology was not new, the foreign company claimed that customers were satisfied in terms of products' quality.

Mobility. WFF5 consisted in six employees involved with the administration of the company; one out of these being manager, three accountants, eight technicians, and the rest simple but qualified workers. The foreign company organized every year compulsory on job trainings that lasted two months. The trainings included technicians and simple workers. In addition, the foreign company engaged its administration in the trainings organized by the local Chamber of Commerce, which included trainings on finance, computer skills, information on legislation and customs. With regard to mobility, there were 5 cases of simple workers that left the company in the last year and joined local competitive companies. Given the fact that these workers were trained, there were possibilities that they would have transferred their knowledge and skills to the local companies, indicating for generation of spillovers effects through movement.

Nevertheless, it was highlighted that there no case of staff working at the administration level to leave the company.

Linkages with Local Suppliers and Local Customers. Regarding its suppliers, the foreign company had similar strategy with the previous case study company WFF4. It supplied 90% of its raw materials from country of origin Greece and the rest 10% in Albania. The raw materials purchased in Albania included sponge material and fabric for furniture. It cooperated with two local suppliers, one providing sponge material (9% of total local input) and the other one providing fabric (1% of total local input). The first local supplier was located in the region of Durres and the other in the region of Tirana. The reason that WFF5 did not rely on local suppliers on its main raw materials was low quality of local suppliers. However, it chose to purchase 10% of its input such as sponge and fabrics due to the low cost of these specific raw materials, as well as close distance/low transport cost. The foreign company made yearly contracts with both local suppliers. WFF5 kept good relation with both local suppliers and was actively involved in putting specific requirements in terms of quality, price, production procedures, and on time delivery. The foreign company was transporting itself the inputs from its local suppliers in order to facilitate and insure the incoming raw materials. WFF5 engaged its manager and one of the technicians into two site visits in the local supplier providing sponge material, where there were exchange of views and ideas through discussions as well as consultation of the product and processes.

We contacted the local supplier who supplied sponge material to WFF5. The demand from the foreign company covered 30% of total demand. The local supplier confirmed the information provided by the foreign company. There were exchange of ideas and discussion with the manager of WFF5, and the foreign company did put specific requirements to the local supplier in terms of quality, price and on time delivery. The local supplier noted that the demand for its raw material from local companies has increased recently, along with an overall increase of local companies on the market.

Turning to the customers of the WFF5, the foreign company was exporting 10% of its products to the country of origin Greece and was selling 90% of the product to local customers. The reason for relying mostly in the local market was high purchasing volume. On the other hand, the reason for exporting was access to foreign market. The

foreign company claimed that local customers are very satisfied from its products which resulted in their long-term relationship. WFF5 confirmed that it was actively involved in the activities of at least 70% of its local customers and was making sales contracts with its customers that lasted for 20 days. Similar to the previous case study, WFF5 did put specific requirements to its local customers in terms of prices and purchases. The main transmission mechanisms for the positive impacts were informal sharing of views, and visits to the main customers on various issues. We contacted one customer of WFF5 operating in Korca. The local customer was supplying its products exclusively only from WFF5. It confirmed the views of the foreign company on the active involvement of WFF5 in their practices.

Competition Effect. Turning to the competition that WFF5 was facing in the local market, it was confirmed that there was a high competition in the market coming mainly from local trade companies that were importing furniture cheap products from China and Spain, rather than from other wood manufacturing companies. There were at least 20 local companies in the region that were operating in a direct competition with WFF5. The other problem mentioned, was that these companies were not registered at the Patents and Standards Directory, so they were using the name of WFF5 in order to confuse clients. This was a problem that the foreign company should solve immediately in order to protect its products. It was noted the case of some clients that turned back some products to the foreign company, while they had purchased them to a local competitor that had the same name with WFF5. According to the company's perception on its local manufacturing competitors, it felt superior in terms of technology, design and local market established. However, it recognized that there was the case of one local competitor operating in the same region that had quite sophisticated technology and produced high quality furniture. Turning to the strategies that the foreign company applied or planned to apply in the future due to competitive pressures, WFF5 confirmed that it improved existing technology, introduced new technology, introduced new design for its products, and it was planning to change the name of the company in order to eliminate the problems created by illegal local companies. With regard to adverse effects due to high competitive pressure, the foreign company mentioned the cases of two small size local companies that went out of the market given their low demand from customers and low sales in return.

According to the information of WFF5, there was one major local manufacturing company in the region. We contacted the local competitor, a medium sized company producing a wide range of wood products. Surprisingly, its views were opposite to the ones provided by the foreign company. It claimed that the local companies are developing with high rhythms, investing in high technology and producing very high quality products, which in most of the cases is even superior to that of foreign companies. Many Albanians that worked in the neighbouring countries, when they turn back they bring know-how and skills and use these to open their own entrepreneurships. It also pointed out that maybe in the beginning when the foreign companies initiated to start their operations in the country, they were superior to local companies, however standards have changed since then. This has positive implications about the competitive effects due the fact that the higher the competition, the more foreign and local companies are forced to apply strategies and improve their products and technology in order to succeed in the market. The local competitor perceived its performance and products quality higher than those of any foreign company operating at least in the same region. It confirmed that there were continues investments in technology, introduction of new models and intentions to expand sales in Greece

Demonstrations Effect. We discovered that there were demonstration effects in WFF5, particularly from competitive local companies, which tried to imitate and copy the design of the models, by taking information from the catalogues of the company or by site visits. However, it was claimed that even though local competitors could imitate designs, it was difficult to imitate quality and manufacturing process.

Infrastructure, Institutions, Associations and Government Agencies. Regarding the role of government agencies and institutions, WFF5 provided the same views with the other companies included in the case studies, confirming the low levels in basic infrastructure, and particularly the lack of power supply. However, the foreign company was involved in two sponsorships and one charity. Finally, there was a direct involvement with the Albanian Chamber of Commerce.

7.3.2.3 Case Study 6 – WFF6

The final case study includes WFF6, a joint venture company with 75% foreign capital and 25% local capital, established in 1997. The company operated in Durres and produced wooden door-handles. It is exclusive in the kind of the product it produces. WFF6 used technology with an average age of 10 years. The technology was imported from Italy by the foreign partner and was purchased second hand. Even though technology was not purchased new, it was stated that it met perfectly the quality standards required by the customers. The parent company in Italy had activities in other fifteen countries, other than Albania. Moreover, the parent company was responsible for finding the necessary markets in Italy to sell the products, as well as the management of its subsidiary in Albania, for the products and processes, for investment in technology and training of workers. It was confirmed that there was a large extent of technological transfer from the parent company to the foreign company. The reasons for selecting WFF6 as a case study company, was to provide an example of how foreign companies operate in an enclave economy in Albania, where there are no contacts with local companies. However, there are some small benefits in the local economy overall from the presence of these foreign companies in terms of employment, technology imported in the country, and value added. Foreign companies operating in an enclave economy were a characteristic of sectors such as textile industry, and shoe and leather industry. WFF6 was an exception of the wood and furniture industry, where the foreign companies had some contact with the local companies.

Table 7.7 Background Information and Characteristics of WFF6

Category	
Main Products	Production of wooden door-handles
Year of Establishment	1997
Source Country	Italy
Location in Albania	Durres
Type of Ownership	Joint venture; 75%=foreign capital, 25%=local capital
Mode of Establishment	Greenfield
Number of Employees	300
Nr of staff with univ. and tech school	21
Parent Company	Yes
% of Capacity Utilized	800%
Technology	Age – 10 years; Source = Italy
Training	Compulsory training to all local staff
Movement	Yes
Suppliers	100 % Italy
Customers	90% in Albania, 10% Italy
Competitors	No local competition

Source: Tabulated from author's field survey (2006)

Mobility. With regard to the personnel of WFF6, it consisted in nine employees involved with the administration of the company; twenty seven technicians, and the rest simple but qualified workers. When it started its operations, the foreign company organized a training programme that lasted three to four months. The training was performed by two experts that were sent by the parent company to the local subsidiary. The parent company sent continuously experts to visit WFF6 particularly in the cases that new technology or new products were introduced. On the other hand, the general manager of the foreign subsidiary was engaged in training in the plants of the parent company in Italy, for more than two times. Finally, taking in consideration mobility, there were of movement which included simple workers that left the company, however the reasons why they left and which companies they joined were unknown.

Linkages with Local Suppliers, Local Customers and Local Competitors. The case of WFF6 was very specific, particularly regarding the characteristics of other foreign companies involved in the same sector. In contrast to other foreign companies, WFF6 was operating in enclave sector where there were no contacts with local suppliers, customers and competitors. 100% of the raw materials were imported from the parent company in Italy, and 100% of the product manufactured was exported to the parent company. It was confirmed that this was a strategy established by the parent company. Regarding to local competition, it was noted that there were two local companies that were producing similar product with that of WFF6, but they were very small companies with three or four employees, and were selling the products in the local market. Thus, the foreign company was not facing any local competition. However, it was interesting to discover that there were demonstration effects. The small local companies and the some companies operating in the black market, tried to imitate the design of the product of the foreign company.

Infrastructure, Institutions, Associations and Government Agencies. Similar to the other case study companies of the same sector, WFF6 provided the same views with the other companies included in the case studies, confirming total dissatisfaction from the poor basic infrastructure, and the role of government in supporting the activity of foreign companies in Albania. The foreign company was involved in one sponsorship and nine seminars for training of its employees.

7.4 CONCLUSIONS

This chapter presented six case studies to demonstrate the mechanisms in which foreign companies created possibilities for spillovers to take place. Case study companies came from two sectors such as food, beverages and tobacco industry and wood and furniture industry. Three companies were considered in each sector. Local suppliers, customers and competitors of each case study company were identified and contacted in order to compare and contrast their views with the ones of the foreign companies. The views of both parties, foreign and local companies, were quite close. On the basis of the approach developed in Chapter 2 and Chapter 5, we developed an analytical framework based on four issues which are considered important in the spillover generation process. These are as follows: human development, training and labour mobility; backward linkages with local suppliers and forward linkages with local customers; competitive effects; and demonstration effects. Interestingly, the findings provided in this chapter supported the findings obtained in Chapter 5; the presence of foreign companies stimulates spillover process and there is technological transfer to local companies. There was evidence of direct technological transfer from parent company to the local subsidiary; however evidence on indirect effects seemed to be more limited. This was as result of limited contact of foreign companies with local suppliers, customers and competitors. Nevertheless, in case that this contact exists there is evidence of positive spillover effects.

Investigating the technology of the foreign companies, we discovered that these companies rely on international sources for their production technology and machinery, often provided by their parent company. Given this, the foreign companies did not undertake any research on products or processes in their plants and none of the companies had an R&D department, and/or training department. Usually the parent company was responsible for any new introduction in products, processes, technology. It also contributed in technical support to its local subsidiary and training of employees. The foreign production technology acquired was very important in human capital development, since local employees acquired skills and experience. Most of the foreign companies used new and highly sophisticated technology and local employees had to be trained in order to operate, maintain and repair the machine and technology acquired. These trainings included production managers, technicians, and operators. The same

applied for product technology, where local staff was taught how to produce all kind of products launched by the company. Foreign companies also engaged staff at the high levels in external trainings organized by local agencies, and specialized trainings abroad hosted by the parent company in the home country. The discussion presented showed that employees benefited and acquired knowledge and skills from trainings offered by their companies. Local companies could in turn benefit in case that the trained workers should leave their foreign companies and join local companies. It was interesting to identify that there was significant mobility from foreign companies to local companies. In most of the cases, staff had left at least in the last two years to start new jobs at local competitors and there were also few cases of local staff that started their own businesses. These results provide important insights in the positive role that the presence of foreign companies plays in the upgrading of local human capital, which could in turn play an important role in the growth of local companies and the entire industry.

Forward and backward linkages with local companies were examined. Some companies formed stronger linkages than others, and particularly this was the case for foreign companies included in the food and beverages sector. Linkages presented in the wood and furniture appeared to be weaker. However, the extent of linkages depended also on the market orientation of the companies and the extent of contact they had with local companies. Some of the companies were mainly exporters while others produced only for local markets. The foreign companies that were targeted more towards local market presented more evidence for forward linkages with their local customers. On the other hand, most of the companies were relying on international markets for the majority of their inputs and only one case study company was relying completely on local suppliers. The higher the purchases and contact with local suppliers, the higher the extent of linkages. Usually local customers benefited in terms of better inputs, higher quality, lower prices and better time delivery, while local suppliers benefited in terms of increased sales and assistance in order to improve quality and reduce costs. Most of the foreign companies were actively involved by putting specific requirements to their local suppliers in terms of quality, time delivery, price and technical this. Besides this, in general local suppliers and local customers benefited from increased demand and purchases from the presence of foreign companies. The increase in sales for local

suppliers and the improved inputs purchased by local customers, helped the growth of these companies by providing them capital for investment, expansion and upgrading.

Most of the foreign companies were totally dissatisfied from the local infrastructure and the role of the government to promote foreign investments in the country. With regard to the linkages of the foreign companies with the local support systems such as business associations, private and public institutions, there were some interactions with the American Chamber of Commerce, which organized seminars and trainings and the Albanian Chamber of Commerce, where all foreign companies had to be registered. In general the interaction of foreign companies with institutions and governmental agencies appeared to be very limited, implying that the urgent need for the government to provide more support for the institutions that offer finance and industrial promotion to FDI, which would in turn enhance the interactions with foreign companies and support the share of knowledge and skills, as well as technical assistance. These would result in spillover process.

We investigated the competition between foreign and local companies. We observed a severe competition; in some of the cases this competition was coming from local companies and in some other from other foreign companies operating in the market. However, most of the companies confirmed about unfair competition from illegal companies that were operating in the market. Black market was a real problem for most of the case study companies. Foreign companies competed with local companies mainly for domestic market share. Foreign companies had more export capabilities than local companies, which were targeted mainly in the local market. In addition, foreign companies appeared to be dominant compared to their local competitors in terms of technology used, scale of production, quality of products, variety of products, and specialized staff. Local competitors had to undertake technological changes in order to face the stiff competition by foreign companies, which is supposed to result in overall improvement and upgrading of the company. This in turn, reflects spillover occurrence. However, we discovered also some cases of local competitors that were forced to leave the market due to increased market demands and competitive pressure.

Most of the foreign companies confirmed on the existence of demonstration effects. Local companies and specifically most often local competitors copied and imitated their

products (particularly the design) and tried to imitate their technology (even though this was more difficult to achieve). This took place when local companies observed products by site visits, by purchasing products and dismantling them, or by observations during exhibitions. There was also the case of one local competitor that claimed for future cooperation with one foreign company as a justification to visit the plant of the foreign company and get the chance to observe and share ideas.

To sum up, based on the above discussion we can conclude that local companies seem to benefit from the presence of foreign companies in the local manufacturing sector, and in turn stimulate spillover occurrence. These findings support the theoretical arguments provided in Chapter 2 and the survey analysis provided in Chapter 5. The generation of spillovers and their positive impact to the overall upgrading of local economy are important particularly in providing policy implications for the government.

CHAPTER 8

CONCLUSIONS AND POLICY IMPLICATIONS

8.1 INTRODUCTION

This chapter provides the summary of this study and some policy implications. It is organized in the following sections. Section 8.2 provides the broad objective of the study. Section 8.3 presents a summary of theoretical considerations and conceptual framework developed for the study. Section 8.4 presents the main findings of the study with regard to descriptive analysis conducted with survey studies, econometric results and case study analyses. Section 8.5 presents the conclusions, followed by Section 8.6 that presents the policy recommendations and at last Section 8.7 that suggest some recommendations for future work.

8.2 RESEARCH OBJECTIVES

The broad objective of this thesis was to examine whether technology, knowledge and skills are transferred from MNEs to the domestic companies in Albania, which in turn enable them to learn, innovate and upgrade. It was important to look at the role of FDI in the industrialization of the Albanian economy. The analysis was done by investigating the effects of direct and indirect technological transfer from MNEs to domestic companies in the Albanian manufacturing industry.

8.3 THEORETICAL ISSUES AND DESIGN OF CONCEPTUAL FRAMEWORK

After pointing out the weaknesses of econometric studies and their simplistic treatment of spillovers, we presented an alternative conceptual framework presented in Chapter 2. The characteristics of technological spillovers are not easy to be noticed, are often

highly complex in nature, and are not perfectly understood. This implies that they require to be examined an equally complex and integrated approach. The proposed conceptual alternative framework pointed out the importance of foreign investors' purchases, sales and competition. Foreign companies put pressures on suppliers to improve quality, provide customers with new inputs of better quality, delivery and prices, greater technological content and spur competition. All these mechanisms had the potential to improve the whole industry. But, these effects do not arise automatically only by the presence of foreign companies, but from a combination of several factors. In this light, the framework highlighted the important role of infrastructural, institutional and governmental support systems, implying that technological spillovers result from interactions of foreign companies with local companies and government policies. In the context of an underdeveloped country like Albania, that anyone can imagine that it is a non-technical developed country and needs technology, a detailed firm level survey with an integrated conceptual framework was necessary to understand the reality about spillovers and their effects, as well as the real mechanism of how they occur.

8.4 SUMMARY OF THE FINDINGS OF THE STUDY

This section will present the summary of the findings according to each step of the study.

8.4.1 Results Obtained from Survey Study with Foreign Companies

Based on the analytical framework designed in Chapter 2 to examine the extent of direct and spillover occurrence in the Albanian manufacturing sector, we examined the types of spillovers occurring as well as the channels through which technological spillovers occur. The data used came from the survey undertaken in the Albanian manufacturing industry covering all sectors: textiles; shoe and leather; wood and furniture; food, beverages and tobacco; electrical materials; paper, printing and publishing; construction materials; and others. The descriptive analysis done on direct and indirect effects, as well as the mechanisms they occur resulted in the following findings:

The characteristics of FDI in Albania can be summarized as follows: most FDI comes from Italy and Greece; foreign companies are relatively young based on average age (8

years old); FDI consists mostly in Greenfield investment; majority of foreign companies are fully owned; most of FDI seems to be concentrated in subcontracting companies in textile and clothing.

As expected, the findings resulted in positive direct technological effects from parent company to the subsidiary including direct transfer of technology, knowledge and skills, expertise, training and a wider effect on employment. The companies seem to have benefited more in terms of introducing new products, quality assurance, purchasing new equipments and in terms of adopting new technology and skills. However, evidence on indirect effects seemed to be limited. In general, there was limited contact of foreign companies with local suppliers, customers and competitors. Nevertheless, in case that this contact exists there is evidence of spillover effects. Overall, the impact of foreign companies on local suppliers was more evident than in case of local customers and competitors particularly in terms of improved quality and prices, and in terms of business performance (particularly sales), even though customers benefited to a large extent from improved product inputs This was done through active requirements put to suppliers and customers. The impact included also some adverse effects and particularly on competitors, which provided evidence of crowding out effects.

Examination of spillovers mechanisms showed that the highest level of technological spillovers is generated by workers mobility and demonstration effects. All of the companies confirmed to have lost some of their workers, and most of the companies confirmed to have lost some of their professional, managers, technicians as well as skilled and trained workers. Interestingly, a high proportion of these workers had left their foreign companies to join local companies or start their own entrepreneurship. Dealing with demonstration effects, these existed at a large extent and most of the companies confirmed that local companies had benefited from demonstration effects from their technology, processes and products. Determinants of the positive impact were resulted in technological difference between foreign and local companies, absorptive capacity, and geographical proximity between foreign and local companies. In general, the analysis confirmed the direct technological transfer through MNEs, provided for limited effects on the spillover effects due to limited contacts of foreign companies with local companies, however whenever there was contact, spillover mechanisms were present and active in the Albanian manufacturing industry.

Results Obtained from Technological Transfer Index and Quantitative Analysis

Based on data provided by the survey with foreign companies in the Albania's manufacturing industry, we developed a spillover index in order to examine technology transfer from MNEs to their local subsidiaries, and second to test the role of various variables or determinants in technology transfer. These determinants were: firm age (older firms rather than young firms), firm performance (high performing firms rather than low performing firms), firm size (old firms rather than young firms), absorptive capacity (highly skilled personnel are important for technology transfer); innovation (innovative products and processes stimulate technology transfer); demonstration effects (the higher the demonstration effects, the higher the transfer); and institutional support (the strong support from institutions supports technology transfer). Results from analysis done using the index on technology transfer, indicated that on average MNEs are involved in the transfer of technology. As expected, the sectors that benefit more are those of food and beverages, and wood and furniture. By technology component, MNEs seemed focused and interested by product technology more than any other component, while supply and customers system was the least on their concern. Initial results obtained using some econometric testing, showed that technology transfer was largely influenced by firm performance and technological, followed by demonstration effects. While, final results provided in the second phase, when weights (age of machinery) were taken into account, showed that the most important drives for technology transfer are firm age, firm performance, mobility, innovative products, demonstration, sector dummy, systemic support and absorptive capacity. In light of the above findings, we can therefore conclude that foreign direct investment is involved in the transfer technology in Albania.

8.4.2 Results Obtained from Case Studies with Foreign Companies and Surveys with Local Companies

Investigation of direct and spillover effects was undertaken through firm level case studies of foreign companies. Case studies were selected for a deeper analysis on the basis of the analysis done in Chapter 5. We selected two manufacturing sectors: food,

beverages and tobacco; and wood and furniture materials industries. Three foreign companies were selected from each sector and based on the information provided by these companies, their local suppliers, customers and competitors were contacted, comprising in total six local suppliers, six local customers and five local competitors. It was important to investigate spillover process from both angles, providing information on both foreign and local companies. The analysis of the case studies was done in line with the conceptual framework provided in Chapter 2.

Surprisingly, the views of both parties, foreign and local companies, were quite close. We investigated four main issues: human development, training and labour mobility; backward linkages with local suppliers and forward linkages with local customers; competitive effects; and demonstration effects. Interestingly, analysis done using the case studies supported the findings obtained by using descriptive statistics with surveys with foreign companies at an earlier stage. The findings showed that the presence of foreign companies stimulated spillover process and there was technological transfer to local companies. There was evidence of direct technological transfer from parent company to the local subsidiary; however evidence on indirect effects seemed to be more limited. This was as result of limited contact of foreign companies with local suppliers, customers and competitors. Nevertheless, in case that this contact exists there is evidence of positive spillover effects.

With regard to the technology of the foreign companies, these companies rely on international sources for their production technology and machinery, often provided by their parent company. The foreign companies did not undertake any research on products or processes in their plants and none of the companies had an R&D department, and/or training department. The parent company was responsible for any new introduction in products, processes, technology; and contributed in technical support to its local subsidiary and training of employees. The foreign production technology acquired was very important in human capital development, since local employees acquired skills and experience. Most of the foreign companies used new and highly sophisticated technology and local employees had to be trained in order to operate, maintain and repair the machine and technology acquired. These trainings included production managers, technicians, and operators. The same applied for product

technology, where local staff was taught how to produce all kind of products launched by the company. Four forms of training were discovered: on the job training, training offered inside the company, training offered externally at institutes or training agencies, external training outside the country and usually at the plants of parent company. Results showed that employees benefited and acquired knowledge and skills from trainings offered by their companies. Local companies could in turn benefit in case that the trained workers should leave their foreign companies and join local companies. It was interesting to identify that there was significant mobility from foreign companies to local companies, which provided important insights in the positive role that the presence of foreign companies plays in the upgrading of local human capital, which could in turn play an important role in the growth of local companies and the entire industry.

With regard to forward and backward linkages with local companies, some companies formed stronger linkages than others. Linkages were more evident in the case of foreign companies included in the food and beverages sector. However, the extent of linkages depended also on the market orientation of the companies and the extent of contact they had with local companies. Some of the companies were mainly exporters while others produced only for local markets. The foreign companies that were targeted more towards local market presented more evidence for forward linkages with their local customers. Most of the companies were relying on international markets for the majority of their inputs. The higher the purchases and contact with local suppliers, the higher the extent of linkages. Usually local customers benefited in terms of better inputs, higher quality, lower prices and better time delivery, while local suppliers benefited in terms of increased sales and assistance in order to improve quality and reduce costs. Most of the foreign companies were actively involved by putting specific requirements to their local suppliers in terms of quality, time delivery, price and technical this. In general local suppliers and local customers benefited from increased demand and purchases from the presence of foreign companies. Subsequently, the increase in sales for local suppliers and the improved inputs purchased by local customers, helped the growth and capability building of these companies.

Local infrastructure and the role of the government to promote foreign investments in the country were rated very low. This has in general a negative implication for the

impact of local infrastructure on the spillover process. The linkages of the foreign companies with the local support systems such as business associations, private and public institutions appeared to be very limited, implying for limited knowledge transfer.

There was a severe competition between foreign and local companies; in some of the cases this competition was coming from local companies and in some other from other foreign companies operating in the market. It was generally agreed about unfair competition from illegal companies that were operating in the market. Black market was a real problem for most of the case study companies. Foreign companies had more export capabilities than local companies, and appeared to be dominant also in terms of technology used, scale of production, quality of products, variety of products, and specialized staff. Local competitors had to undertake technological changes in order to face the stiff competition by foreign companies that is supposed to result in overall improvement and upgrading of the company. This in turn, reflects spillover occurrence. However, there was some evidence on negative effects due to competitive pressure. There were cases of local competitors that were forced to leave the market due to increased competitive pressure.

The existence of demonstration effects was evident. Local companies and specifically most often local competitors copied and imitated their products (particularly the design) and tried to imitate their technology (even though this was more difficult to achieve). The main ways that local companies benefited from demonstration effects were through site visits, by purchasing products and dismantling them, or by observations during exhibitions.

8.5 CONCLUSIONS

To sum up, based on the above presentation of results we can conclude that local companies in the Albanian manufacturing sector seem to benefit from the presence of foreign companies, and in turn stimulate spillover occurrence, however to a limited extent. Nevertheless, some issues emerged from the above summary. First, the results obtained in the technological effects of FDI are determined by the theoretical approach and methodological approach used. Subsequently, alternative approaches should be undertaken in order to driven conclusions. Second, the results are also determined by

the sector where MNEs operate. The results of this study maybe not be generalized since FDI presence in each manufacturing sector was not equally distributed, and therefore each sector should be analyzed separately in order to drive generalizable results. Third, the significance of each spillover mechanism was different, thus stimulations should be provided more in the mechanisms that prove to work more efficiently. Fourth, despite the limited linkages with the local institutions, in case that these institutions existed and were active, they provided some support (especially training and seminars), which facilitate the spillover process. Ultimately, on the light of the findings provided by the case studies, FDI seems to play an important role in the upgrading of the local manufacturing industry. Overall, the investigation and the findings that came out of this study support our initial claim that FDI plays an important role in the industrialization of Albania.

8.6 POLICY RECOMMENDATIONS

This study showed that FDI plays an important role in the industrialization of Albania. Based on this, the analysis done breeds some important lessons and recommendations for government policy, which are as follows:

- **Poor infrastructure** – the government should provide basic infrastructure once and for all. Examples include stable provision of basic utilities such as water and electricity power, transport and telecommunication.
- **Absorptive capacity** – the government need to formulate policies focused at human capital accumulation particularly in technology and engineering. Policies should be focused at firm learning and innovation in order to build technological capabilities. Moreover, there should be increased effort to facilitate and encourage R&D.
- **Weak institutional framework** – the government should support the institutions that offer finance and industrial promotion to FDI companies by either providing finance or acting as a guarantor for the credits, and should also provide coordination among institutions.
- **Promotion of linkages** – government should come up with definite policies toward promotion of linkages by creating a national linkage promotion program to deal

with promotion of linkage formation between and among firms, sectors and institutions, as well as promotion of international linkages.

- **Interactions with institutions, business associations and private agencies** – the government should encourage these interactions by facilitating manufacturing exhibitions and agricultural shows. This should encourage product, process and marketing promotions by foreign and local manufacturers. It should encourage firms and institutional visits.
- **Promotion of local suppliers** – the government should support local entrepreneurs to open business with supplies and raw materials, so that foreign companies do not supply their raw material and machinery only from outside the country, but to have also local opportunities to purchase their inputs. Also, the government should promote local suppliers and customers to improve the quality of their products by either providing finance or technical support through government agencies. In general, the government should promote the local production rather than imports from outside the country.
- **Competition policies** – there was evidence that high competition from foreign firms could crowd out domestic investment. Hence an institution should be established to deal with competition regulation in manufacturing. In their interviews, foreign companies blamed the existing competition regulatory body under the Ministry of Economy, as inefficient and weak in performance. Black market and unfair competition resulting from it, also appeared a big problem which needs to be immediately addressed by the government.
- **Trade orientation** – the government should remove import barriers of capital goods, technology, machinery and equipment that could serve as a source of technological transfer through imitation and replication. Also participation in exports should be encouraged as that would force domestic firms to learn and increase their technological effort in order to compete effectively in the international global market.
- **Labour market conditions** – good labour conditions are important for industrial growth and development. Thus, the government should promote them and in addition promote a culture of labour mobility.

8.7 RECOMMENDATIONS FOR FURTHER RESEARCH

Some suggestions for further research can be outlined as follows:

- More resources, a larger number of companies and more cities in Albania would be more illuminating in future works.
- To conduct similar studies in other East European countries, particularly Balkans. International comparisons of the findings can be made.
- The conceptual and analytical framework can be extended to the service sector for the examination of FDI and direct transfer and spillover occurrence process. In Albania, for instance service sectors with significant FDI can be traced to tourism and hotel sectors, communication and financial services as well as in building and construction industry.

REFERENCES

Aitken, B. and A. Harrison (1999) "Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela". *American Economic Review*, 89 (3), p. 605-618.

Aitken, B., G. Hanson and A. Harrison (1997) "Spillovers, Foreign Investment, and Export Behavior". *Journal of International Economics*, 43, p. 103-132.

Albanian Foreign Investment Association (FIAA) "*Country Profile Albania*". London: The Economist Intelligence Unit.

Albanian Center for Economic Research (2002) "*Common Country Assessment Albania 2002*". Tirana, Albania.

Alfaro, L., A. Chanda, S. Kalemli-Ozcan, and S. Sayek (2004) "FDI and Economic Growth: The Role of Local Financial Markets". *Journal of International Economics*, 64 (1), p. 89-112.

Alfaro, L., S. O. Kalemli and V. Volosovych (2008) "Why Doesn't Capital Flow From Rich to Poor Countries? An Empirical Investigation". *Review of Economics and Statistics*, 90 (2), p. 347-368.

Alfaro, L., A. Chanda, S. Kalemli-Ozcan, and S. Sayek (2009) "FDI, Productivity and Financial Development". *The World Economy*, p. 111-135.

Altenburng, T. (2000) "*Linkages and Spill-overs Between Transnational Corporations and Small and Medium-Sized Enterprises in Developing Countries – Opportunities and Policies*". German Development Institute, Working Paper, No 5/2000.

Altzinger, W. and C. Bellak (1999) "*Direct Versus Indirect FDI: Impact of Domestic Exports and Employment*". Wirtschaftsuniverstät Working Paper, No. 9.

Arksey, H. and P. Knight (1999) "*Interviewing for Social Scientists*". 1st edition, Sage Publications: London.

Arnold, E. and Thuriaux, B. (1997) "*Developing Firm's Technological Capabilities*" Technopolis Group Working Paper.

Arnold, J. M. and Javorcik, B.S. (2009) "*Gifted Kids of Pushy Parents? Foreign Direct Investment and Plant Productivity in Indonesia*". University of Oxford, Working Paper, Nr. 434.

Backer, K. and L. Sleuwaegen (2003) "*Does Foreign Direct Investment Crowd Out Domestic Entrepreneurship?*" Mimeo.

Balasubramanyam, V.N., M. Salisu and D. Sapsford (1996) "Foreign Direct Investment and Growth in EP and IS Countries". *Economic Journal*, 106, p. 92-105.

Banga, R. (2003) *"Differential Impact of Japanese and U.S. Foreign Direct Investments on Productivity Growth: A Firm Level Analysis"*. Indian Council for Research on International Economic Relations, Working Paper, No. 112.

Bank of Albania (1999). *Opinions on the Foreign Sector Development, 1992-1998.* (Tirana: Bank of Albania, Department of Research and Development) Available on: bankofalbania.org/New_web/4_anglisht/HTML/topic_pub.htm.

Bank of Albania (2002, 2003, 2004, 2008, 2011) *"Annual Report – Albania"*. Tirana, Albania.

Bank of Albania (2003) *"Foreign Banks in Albania"*. Available on: bankofalbania.org/Pdf/Anglisht/publikimet%20e%20Arianites/m2.pdf

Bank of Albania (2010) *"Report of Foreign Direct Investment in Albania, 2010"*. Edition of Bank of Albania, UNCTAD, UNDP. Tirana, Albania.

Banri, I., Y. Naomitsu, X. Zhaoyuan, C. Xiaohong, and W. Ryuhei (2010) *"How Do Chinese Industries Benefit from FDI Spillovers"*. RIETI Discussion Paper Series 10-E-026.

Barrel, R. and D. Holland (2000) "Foreign Direct Investment and Enterprise Restructuring in Central Europe". *Economics of Transition*, 8 (2), p. 455-504.

Barrel, R. and N. Pain (1997) "Foreign Direct Investment, Technological Change and Economic Growth Within Europe". *The Economic Journal*, 107, p. 1770-1786.

Barrell, R. and N. Pain (1998) "The Growth of Foreign Direct Investment in Europe", in R. Barrel and N. Pain (eds.), *Innovation, Investment and the Diffusion of Technology in Europe, German Direct Investment and Economic Growth in Postwar Europe.* Cambridge University Press: Cambridge, p. 19-43.

Barrios, S. (2000) *"Are There Positive Spillovers from Foreign Direct Investment? Evidence from the Spanish Experience (1990-1994)"*. Mimeo, University of Manchester.

Barrios, S. and E. Strobl (2002) *"Foreign Direct Investment and Productivity Spillovers: Evidence from the Spanish Experience"*. Weltwirtschaftliches Archiv, forthcoming.

Barrios, S., S. Dimelis, H. Louri and E. Strobl (2002) *"Efficiency Spillovers from the EU Periphery: A Comparative Study of Greece, Ireland and Spain"*. FEDEA Discussion Paper, No. 2002-02.

Batra, G., J. Morisset and K. Saggi (2003) *"Vertical Linkages Between Multinationals and Domestic Suppliers: Whom Do They Benefit and Why?"* International Finance Corporation Working Paper.

Begaj, N. (2003) "Analysis of Competitiveness on the Textile/Garment and Leather/Shoes Industries from an International Perspective". Working Paper, Acit.

Begaj, N. (2004) "The Wood Furniture Industry Profile ". Working Paper, Acit.

Bellak, C. (2004a) How Domestic and Foreign Firms Differ and Why Does it Matter? *Journal of Economic Surveys*, 18 (2), p. 1-32.

Bellak, C. (2004b) How Performance Gaps Between Domestic Firms and Foreign Affiliates Matter for Economic Policy. *Transnational Corporations*, 13 (2), p. 29-55.

Benacek, V., M. Gronicki, D. Holland, and M. Sass (2000) "The Determinants and Impact of Foreign Direct Investment in Central and Eastern Europe: A Comparison of Survey and Econometric Evidence". *Transnational Corporation*, 9 (3), p. 163-212.

Bitzenis, A. (2004) "Foreign Direct Investment and Cross-Border Transactions". Vaidya, A. (eds.), *Encyclopedia of Globalization*, Trade and Investment Issues, Section 1, ISBN 1-57607-826-4, ABC-CLIO Encyclopedias, [7500 Words].

Bitzenis, A. (2005) "Foreign Direct Investment". Section: Global Political Economy, P. O'Hara (eds.), *International Encyclopedia of Public Policy Governance in a Global Age*, Routledge: London and New York, [7500 Words].

Bitzenis, A. and L. Szamozi (2006) "Entry Modes and the Determinanta of Foreign Direct Investment in a Balkan Country". *Journal of Global Business and Economics Review*, Under Review.

Bhagwati, J. (1978) "*Anatomy and Consequences of Exchange Control Regimes*". Special Conference Series on Foreign Trade Regimes and Economic Development, No. 11, Cambridge.

Bhattacharya, A. (2002) "*Environmental Technology Diffusion in a FDI Regime: A Developing Perspective*". University of Mumbai, India.

Blalock, G. (2001) "*Technology From Foreign Direct Investment: Strategic Transfer Through Supply Chains*". Mimeo, University of California.

Blalock, G. and P. Gertler (2005a) "Foreign Direct Investment and Externalities: The Case for Public Intervention", in Moran, H., E. Graham and M. Blomström (eds.) "*Does Foreign Direct Investment Promote Development*", Institute for International Economics.

Blalock, G. and P. Gertler (2005b) "*How Firm Capabilities Affect who Benefits from Foreign Technology*". Mimeo, University of California.

Blalock, G. and P. Gertler (2008) "Welfare Gains from Foreign Direct Investment through Technology Transfer to Local Suppliers". *Journal of International Economics*, 74 (2), p. 402-421.

Blake, A., Z. Deng and R. Falvey (2009) "How Does the Productivity of Foreign Direct Investment Spill over to Local Firms in Chinese Manufacturing?" *Journal of Chinese Economic and Business Studies*, 7 (2), p.183-197.

Blomström, M. (1986) "Foreign Investment and Productive Efficiency: The Case of Mexico". *Journal of Industrial Economics*, 35 (1), p. 97-112.

Blomström, M., G. Fors and R. Lipsey (1997) "Foreign Direct Investment and Employment: Home Country Experience in the United States and Sweden". *The Economic Journal*, 107 (445), p. 1787-1797.

Blomström, M. and A. Kokko (1998) "Multinational Corporations and Spillovers". *Journal of Economic Surveys*, 12 (2), p. 1-31.

Blomström, M. and A. Kokko (2002) "*FDI and Human Capital: A Research Agenda*". OECD Technical Papers, No. 195.

Blomström, M., A. Kokko, and M. Zejan (2000) "*Foreign Direct Investment: Firm and Host Country Strategies*". Macmillan Press: London.

Blomström, M. and H. Persson (1983) "Foreign Investment and Spillover Efficiency in an Underdeveloped Economy: Evidence from the Mexican Manufacturing Industry". *World Development*, 11 (6), p. 493-501.

Blomström, M. and E. Wolf (1994) "Multinational Corporations and Productive Convergence in Mexico", in W. Baumol, R. Nelson and E. Wolf (eds.), *Convergence of Productivity: Cross-National Studies and Historical Evidence*. Oxford University Press: Oxford, p. 263-283.

Blomström, M. and F. Sjoholm (1999) Technology Transfer and Spillovers: Does Local Participation with Multinational Matter?" *European Economic Review*, 43, p. 915-923.

Blomström, M. (2002) "The Economics of International Investment Incentives" in OECD, ed., *International Investment Perspectives*, Paris: OECD, p. 165-179.

Blonigen, B. A. and J. Piger (2011) "*Determinants of Foreign Direct Investment*" NBER Working Paper, Nr. 16704.

Bode, E. (2004) "The Spatial Pattern of Localized R&D Spillovers: An Empirical Investigation for Germany". *Journal of Economic Geography*, 4 (1), p. 43-64.

Bosco, M. G. (2001) Does FDI Contribute to Technological Spillovers and Growth? A Panel Data Analysis of Hungarian Firms". *Transnational Corporations*, 10 (1), p. 43-68.

Borensztein, E., J. de Gregorio and J. W. Lee (1998) "How Does Foreign Direct Investment Affect Economic Growth". *Journal of International Economics*, 45, p. 115-135.

Brainard, S. L. and D. A. Riker (1997) "*Are U.S. Multinational Exporting U.S. Jobs*?" NBER Working Paper, No. 5958.

Buckley, P. (1988) "The Limits of Explanation: Testing the Internalization Theory of Multinational Enterprise". *Journal International Business Studies*, 19 (2), p. 181-193.

Buckley, P., C. Jeremy, C. Wang and A. Cross (2002) "FDI, Regional Differences and Economic Growth: Panel Data Evidence from China". *Transnational Corporations*, 11 (1), p. 1-28.

Buckley, P., C. Jeremy, and C. Wang (2002). "The Impact of Inward FDI on the Performance of China's Manufacturing Firms". *Journal of International Business Studies,* 33(4), p. 637-655.

Buckley, P., C. Jeremy, and C. Wang (2006). "Inward FDI and Host Country Productivity: Evidence from China's Electronics Industry". *Transnational Corporations*, 15 (1), p. 13-39.

Campos, N. and Kinoshita, Y. (2002) "*FDI as Effective Technology Transferred: Panel Evidence from the Transition Economies*". William Davidson Working Paper, No. 438.

Cani, S. et al. (2000) "Banking System in Albania: Problems of its Development". Bank of Albania Publications. Available from: http://www.bankofalbania.org/New_web/4_english/HTML/topic_pub.htm [Accessed 24 November, 2006].

Cantwell, J. (1989) *"Technological Innovation and Multinational Corporations"*. Basil Blackwell: Oxford.

Cantwell, J. (2000) "A Survey of Theories of international Production", in Pitelis, C. and R. Sudgen (eds.) "*The Nature of the Transnational Firm*", 2nd Edition, Routledge: London and New York.

Casson, M. (1984) "The Theory of Vertical Integration: A Survey and Synthesis". *Journal of Economic Studies*, 11 (2), p. 3-43.

Castellani, D. and A. Zanfei (2001) "*Productivity Gaps, Inward Investments and Productivity of European Firms"*. Mimeo, University of Urbino, Italy.

Caves, R. (1971) "International Corporations: The Industrial Economics of Foreign Investment". *Economica*, 41, p. 176-193.

Caves, R. (1974) "Multinational Firms, Competition, and Productivity in Host-Country Markets". *Economica*, 41 (162), p. 176-193.

Caves, R. (1976) "*Multinational Enterprise and Economic Analysis*". 2nd Edition, Cambridge University Press: Cambridge, New York and Melbourne.

Caves, R. (1982) "*Multinational Enterprise and Economic Analysis*". New York: Cambridge University Press.

CENSUS - AL (2001) Available on: http://census.al/default.aspx

Chen, T. J. and Y. H. Ku (2003) "*The Effects of Overseas Investment on Domestic Employment*" Chung Institution for Economic Research.

Chen, V. Z., J. Li and D. M. Shapiro (2010) "International Reverse Spillover Effects on Parent Firms: Evidences from Emerging-Market MNEs in Developed Markets". *European Management Journal, Forthcoming.* Special Issue for the The 2nd Copenhagen Conference on Emerging Multinationals, Copenhagen: Denmark.

CzechInvest (1998) "Foreign Investment in the Manufacturing Sector in the Czech Republic", in Benacek, V., M. Gronicki, D. Holland, and M. Sass (2000) "The Determinants and Impact of Foreign Direct Investment in Central and Eastern Europe: A Comparison of Survey and Econometric Evidence", *Transnational Corporation*, 9 (3), p. 163-212.

Chuang, Y. and C. Lin (1999) "Foreign Direct Investment, R&D and Spillover Efficiency: Evidence from Taiwan's Manufacturing Firms". *Journal of Development Studies*, 35 (4), p. 117-137.

Chuang, Y. and P. Hsu (2004) "FDI, Trade, and Spillover Efficiency: Evidence from China's Manufacturing Sector," *Applied Economics*, 36(10), p. 1103-15.

Chudnovsky, D., A. Lopez and G. Rossi (2004) *"Foreign Direct Investment Spillovers and the Absorption Capabilities of Domestic Firms in the Argentine Manufacturing Sector (1992-2001)".* MERCOSUR Economic Research Network, Buenos Aires, forthcoming.

Chung, W. (2001) Identifying Technology Transferring Foreign Direct Investment: Influence of Industry Conditions and Investing Firm Motives". *Journal of International Business Studies*, 32 (2), p. 211-229.

Coe, D. and E. Helpman (1995) "International R&D Spillovers". *European Economic Review*, 39, p. 859-887.

Commission of the European Communities (2002) *"Stabilization and Association Report for Albania (2003)".*

Commission of the European Communities (2003) *"Stabilization and Association Report for Albania (2002)".*

Conyon, M., S. Girma, S. Thompson and P. Wright (2002) "The Productivity and Wage Effects of Foreign Acquisitions in the United Kingdom". *Journal of Industrial Economics*, L (1), p. 85-102.

Crespo, N. and M. P. Fontoura (2007) "Determinant Factors of FDI Spillovers: What Do We Really Know?" *World Development*, 35 (3), p. 410-425.

Criscuolo, P. and Narula, R. (2008). "A Novel Approach to National Technological Accumulation and Absorptive Capacity: Aggregating Cohen and Levinthal". *European Journal of Development Research,* 20 (1), p. 56-73.

Crone, M. and S. Roper (1999) "*Local Learning from Multinational Plants: Knowledge Transfers in the Supply Chain*". Northern Ireland Economic Research Center, Working Paper No. 46.

Damijan, J. P. and M. Knell (2001) "*How Important is Trade and Foreign Ownership in Closing the Technology Gap: Evidence from Estonia and Slovenia*". Mimeo.

Damijan, J. P., B. Majcen, M. Knell and M. Rojec (2001) *"The Role of FDI, Absorptive Capacity and Trade in Transferring Technology to Transition Countries: Evidence from Firm Panel Data for Eight Transition Countries"*. Institute for Economic Research, Working Paper, No. 10, Ljubljana.

Dees, S. (1998) "Foreign Direct Investment in China: Determinants and Effects". *Economics of Planning*, 31, p. 175-194.

De Mello, L. R. (1997) "Foreign Direct Investment in Developing Countries and Growth: A Selective Survey". *Journal of Development Studies*, 34 (1), p. 1-34.

De Mello, L. R. (1998) "*Foreign Direct Investment, International Knowledge Transfers, and Endogenous Growth: Time Series Evidence*". Mimeo, University of Kent, England.

De Mello, L. R. (1999) "Foreign Direct Investment-Led Growth: Evidence from Time Series and Panel Data". *Oxford Economic Papers*, 51 (1), p. 201-214.

Dimelis, S. and H. Louri (2002) "Foreign Direct Investment and Efficiency Benefits: A Conditional Quantile Analysis". *Oxford Economic Papers*, forthcoming.

Djankov, S. and B. Hoekman (2000) "Foreign Investment and Productivity Change in the Czech Republic". *World Bank Economic Review*, 14 (1), p. 49-64.

Djankov, S. and P. Murrell (2000) "Enterprise Restructuring in Transition: A Quantitative Survey". *Journal of Economic Literature*, forthcoming.

Dollar, D. and A. Kraay (2000) "*Growth is Good for the Poor*". World Bank, Development Research Group, Washington D.C.

Driffield, N. (2001) "The Impact on Domestic Productivity of Inward Investment in the UK". *The Manchester School*, 69 (1), p. 103-119.

Driffield, N. and S. Girma (2003) "Regional Foreign Direct Investment and Wage Spillovers: Plant Level Evidence from the UK Electronics Industry". *Oxford Bulletin of Economics and Statistics*, 65 (4), p. 453-475.

Driffield, N. and J. H. Love (2003) "Foreign Direct Investment, Technology Sourcing and Reverse Spillovers". *The Manchester School*, 71 (6), p. 659-671.

Dunning, J. H. (1981) "*International Production and the Multinational Enterprise*". Allen and Unwin: London.

Dunning, J. H. (1993) "Multinational Enterprises and the Global Economy". Addison Wesley, Wokingham.

Dunning, J. H. (1994) "Re-evaluating the Benefits of Foreign Direct Investment". *Transnational Corporations*, 3 (1), p. 9-22.

Dunning, J. H. and Narula, R. (2004). "*Multinational and Industrial Competitiveness: A New Agenda*". Cheltenham: Edward Elgar.

Durham, K. B. (2004) "Absorptive Capacity and the Effects of Foreign Direct Investment and Equity Foreign Portfolio Investment on Economic Growth". *European Economic Review*, 48 (2), p. 285–306.

Economist Intelligence Unit (2000) "*Country Profile Albania*". London: The Economist Intelligence Unit.

Eltéto, A. (2001) "*The Competitiveness of Hungarian Companies*". Institute for World Economics Working Papers No. 118, Budapest.

Ernst, D., L. Mytelka and T. Ganiatsos (1998) "*Technological Capabilities in the Context of Export-Led Growth: A conceptual Framework*". London: Routledge.

Estrin, S., K. Hughes and S. Todd (1997) "*Foreign Direct Investment in Central and Eastern Europe – Multinationals in Transition*". The Royal Institute of International Affairs, London and Washington.

Ethier, W. and J. Markusen (1996) "Multinational Firms, Technology Diffusion and Trade". *Journal of International Economics*, 41 (1/2), p. 1-28.

European Bank for Reconstruction and Development (EBRD) (2002) "*Strategy for Albania*". London: EBRD.

European Bank for Reconstruction and Development (EBRD) (1999) "*Country Profile Albania*", London: EBRD.

European Bank for Reconstruction and Development (EBRD) (2000) "*Taxes, Competition and Finance for Albanian Enterprises: Evidence from A Field Study*", Working Paper No. 54, London, EBRD.

European Bank for Reconstruction and Development (EBRD) (2001). "*Investment Profile Albania*". London, EBRD.

European Bank for Reconstruction and Development (EBRD) (2002) "*Strategy for Albania*". London: EBRD.

European Commission – European Community Cards Program (2002) "*Albanian Country Strategy Paper (2002-2006)*".

Ferencikova, S. (2003) "Foreign Direct Investment as a Driver for the Restructuring of a Transitional Economy – Internal and Micro-External Change", in S. T. Marinova and M. A. Marinov (eds.), *"Foreign Direct Investment in Central and Eastern Europe"*, Ashgate Publishing Limited, UK, p. 268-283.

Filatotchev, I., R. E. Hoskisson, T. Buck and M. Wright (1996) "Corporate Restructuring in Russian Privatizations". *California Management Review*, 38 (2), p. 87-105.

Findlay, R. (1978) "Relative Backwardness, Direct Foreign Investment and the Transfer of Technology: A simple Dynamic Model". *Quarterly Journal of Economics*, 92, p. 1-16.

Foreign Investment Advisory Service (FIAS) (2002) *"Administrative Barriers to Investments in Albania"*. Head Office of World Bank, Tirana, Albania.

Foreign Investment Advisory Service (FIAS) (2003) *"Albania – Removing Administrative Barriers to Investment: A critical Component of the National Development Strategy"*. Head Office of World Bank, Tirana, Albania.

Foreign Investment Advisory Service (FIAS) (2003) *"FIAS Project Impact"*. Washington D.C.

Foreign Investment Promotion Agency (ANIH). Available on: www.ANIH.com

Fortanier, F. (2007) "Foreign Direct Investment and Host Country Economic Growth: Does the Investor's Country of Origin Play a Role?" *Transnational Corporations*, 16 (2), p. 41-77.

Fosfuri, A. and M. Motta (1999) "Multinationals Without Advantages". *Scandinavian Journal of Economics*, 94, p. 29-47.

Freeman, C. (1982). *"Unemployment and Technical Innovation"*. Francis Pinter, London.

Fry, M., S. Claessens, P. Burridge, and M. C. Blanchet (1995) *"Foreign Direct Investment, Other Capital Flows, and Current Account Deficits"*. World Bank, Policy Research Working Paper, No. 1527.

Geršl A., I. Rubene, and T. Zumer (2007) *"Foreign Direct Investment and Productivity Spillovers: Updated Evidence from Central and Eastern Europe"*. CNB Working Paper, No. 8.

Geršl, A. (2008) "Productivity, Export Performance, and Financing of the Czech Corporate Sector: The Effects of Foreign Direct Investment". *Czech Journal of Economics and Finance*, 58 (5-6), p. 232-247.

Girma, S., D. Greenaway, and K. Wakelin (2001) "Who Benefits from Foreign Direct Investment in the UK". *Scottish Journal of Political Economy*, 48, p. 119-133.

Girma, S. (2002) *"Geographic Proximity, Absorptive Capacity and Productivity Spillovers from FDI: A Threshold Regression Analysis"*. GEP Research Paper 02/06, University of Nottingham.

Girma, S., D. Greenway and K. Wakelin (2001) "Who Benefits from Foreign Direct Investment in the UK?" *Scottish Journal of political Economy*, 48 (2), p. 119-133.

Girma, S. and H. Gorg (2002) *"Foreign Direct Investment, Spillovers and Absorptive Capacity: Evidence from Quantile Regression"*. Mimeo, University of Nottingham.

Girma, S. and K. Wakelin (2000) *"Are There Regional Spillovers from FDI in the UK?"* GEP Research Paper 00/16, University of Nottingham.

Girma, S. and K. Wakelin (2001) *"Regional Underdevelopment: Is FDI the Solution? A Semi Parametric Analysis"*. CEPR Discussion Paper DP2995.

Giroud, A. and Mirza, H. (2006). "Factors Determining Supply linkages Between Transnational Corporations and Local Suppliers in ASEAN". *Transnational Corporations*, 15 (3), p.1-34.

Globerman, S. (1979) "Foreign Direct Investment and Spillovers Efficiency Benefits in Canadian Manufacturing Industries". *Canadian Journal of Economics*, 12 (1), p. 42-56.

Globerman, S., C. Ries and I. Vertinsky (1994) "The Economic Performance of Foreign Affiliates in Canada". *Journal of Economics*, 27 (1), p. 143-156.

Globerman, S. and D. Shapiro (2003) *"Governance Infrastructure and US Foreign Direct Investment". Journal of International Business Studies,* 34 (1), p. 19-29.

Görg, H. and D. Greenway (2002) *"Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment?"* Mimeo, University of Nottingham.

Görg, H. and E. Strobl (2001) "Multinational Companies and Productivity Spillovers: A Meta Analysis". *Economic Journal*, 111 (475), p. 723-739.

Görg, H. and E. Strobl (2002a) "Multinational Companies, Technology Spillovers, and Plant Survival: Evidence from Irish Manufacturing". *Scandinavian Journal of Economics*, forthcoming.

Görg, H. and E. Strobl (2002b) *"Spillovers from Foreign Firms through Worker Mobility: An Empirical Investigation"*. Mimeo, University of Nottingham.

Graham, E.M. and P.R. Krugman (1995) *"Foreign Direct Investment in the United States"*. Institute for International Economics, Washington D.C.

Grossman, G. and E. Helpman (1991) "Innovation and Growth in the Global Economy". MIT Press: Cambridge.

Haddad, M. and A. Harrison (1993) "Are There Positive Spillovers from Direct Foreign Investment? Evidence from Panel Data for Morocco". *Journal of Development Economics*, 42, p. 51-74.

Hanson, G., R. Mataloni, and M. Slaughter (2003) "*Vertical Production Networks in Multinational Firms*". NBER Working Paper, Mo. 9723.

Hashi I. and L. Xhillari (1997) "*Privatization and Transition in Albania*". Publication by Bank of Albania (Tirana).

Haskel, J., S. Pereira and M. Slaughter (2002) "*Does Inward Foreign Direct Investment Boost the Productivity of Domestic Firms?*" NBER Working Paper, No. 8724.

Harris, R. and C. Robinson (2003) "Foreign Ownership and Productivity in the United Kingdom: Estimates for UK Manufacturing Using the ARD". *Review of Industrial Organization*, 22 (3), p. 207-223.

Harris, R. and C. Robinson (2004) "Productivity Impacts and Spillovers from Foreign Ownership in the United Kingdom". *National Institute Economic Review*, 187, p. 58-75.

Havranek, T. and Irsova, Z. (2010) "*Which Foreigners are Worth Wooing? A Meta-Analysis of Vertical Spillovers from FDI*". Institute of Economic Studies Working Paper.

Havranek, T. and Irsova, Z. (2011) "*How to Stir Up FDI Spillovers: Evidence from a Large Meta-Analysis*". IES Working Paper, Nr. 34.

Hatzius, J. (1998) "Domestic Jobs and Foreign Wages". *The Scandinavian Journal of Economics*, 100 (4), p. 733-746.

Hill, C. (2002) "*International Business - Competing in the Global Market Place*". 3rd Edition, McGraw-Hill: Washington D.C.

Hoekman, B., K. Maskus and K. Saggi (2004) "*Transfer of Technology to Developing Countries: Unilateral and Multilateral Policy Options*". World Bank Policy Research Working Paper, No. 3332.

Hood, N. and Young, S. (1993) "TNCs and Economic Developments in Host Countries: Empirical Results".

Horstmann, I. And J. Markusen (1987) "Licensing Versus Direct Investment: A Model of Internalization by the Multinational Enterprise". *Canadian Journal of Economics*, 20 (3), p. 464-481.

Hu, A.G., G.H. Jefferson and J. Qian (2005). "R&D and Technology Transfer: Firm-Level Evidence from Chinese Industry". *The Review of Economics and Statistics*, 87 (4), p. 780-86.

Hunya, G. (1997) "*Foreign Investment Enterprises in the Investment process of the Czech Republic, Hungary and Poland*". Mimeo, Vienna Institute for Comparative Economic Studies.

Hunya, G. (2002) "*Recent Impact of Foreign Direct Investments on Growth and Restructuring in Central European Transition Countries*". Vienna Institute for International Economics, Research Report No. 284.

Hunya, G. and I. Geishecker (2005) "*Employment Effects of Foreign Direct Investment in Central and Eastern Europe*". WIIW Research Report, No.321.

Hurbert, F. and N. Pain (2000) "*Inward Investment and Technical Progress in the UK Manufacturing Sector*". OECD Economics Department Working Paper, No. 268, Paris.

Hymer, S. (1976) "*The International Operations of National Firms: A Study of Direct Foreign Investment*". MIT Press, MA: Cambridge.

Imbriani, C. and F. Reganatti (1999) "*Productivity Spillovers and Regional Differences: Some Evidence on the Italian Manufacturing Sector*". Centro di Economia del Lavoro e di Politica Economica, Università di Salerno, Discussion Paper, No. 48.

IMF (1993) "*Balance of Payments Manual*". 5th Edition, IMF: Washington D.C.

INSTAT (Albanian Institute of Statistics) (2002, 2003, 2004, 2005, 2008, 2011). Available on: http://www.instat.gov.al/

International Business Publications (2004) "*Albania – Country Study Guide*".

International Monetary Fund (IMF) (2004) "*Country Report – Albania: Third Review under the Three-Year Arrangement under the Poverty Reduction and Growth Facility*".

International Business Publications (2004) "*Albania – Investment and Business Guide*".

Ivarsson, I. (2002) "Transnational Corporations and the Geographical Transfer of Localized Technology: A Multi-Industry Study of Foreign Affiliates in Sweden". *Journal of Economic Geography*, 2, p. 221-247.

Javorcik, B. S., A. Ozden, M. Spatareanu, and C. Neagu (2011) "Migrant Networks and Foreign Direct Investment." *Journal of Development Economics*, 94 (2), p. 231-241.

Kalotay, K. (2001) "Privatization and Greenfield FDI in Central and Eastern Europe: Does the Mode of Entry Matter". *Transnational Corporations*, 10 (3), p. 7-22.

Kalotay, K. (2004) "The European Flying Geese: New Patterns for an Old Continent?" *Research in International Business and Finance*, 18 (1), p. 27-49.

Kathuria, V. (2000) "Productivity Spillovers from Technology Transfer to Indian Manufacturing Firms". *Journal of International Development*, 12 (3), p. 343-369.

Keller, W. and S.R. Yeaple (2003) *"Multinational Enterprises, International Trade, and Productivity Growth: Firm Level Evidence from United States"*. NBER Working Paper, No. 9504.

Kim, L. and Nelson, R. (2000) *"Teaching, Learning and Innovation"*. Cambridge University Press, New York.

Kinoshita, Y. (1999) *"Technology Spillovers through Foreign Direct Investment"*. University of Michigan, William Davidson Working Paper, No. 221.

Kinoshita, Y. (2000) *"R&D and Technology Spillovers through FDI: Innovation and Absorptive Capacity"*. CERGE Discussion Paper, No. 163, Prague.

Klein, M., C. Aaron and B. Hadjimichael (2001) *"Foreign Direct Investment and Poverty Reduction"*. IMF Working Paper.

Knell, M. and S. Radoŝević (2003) "FDI, Technology Transfer and Growth in Economic Theory", in G. Hunya (eds.), *"Integration Through Foreign Direct Investment: Making Central European Industries Competitive"*, Edward Elgar, UK and USA, p. 28-49.

Kolasa, M. (2007) *"How Does FDI Inflow Affect Productivity of Domestic Firms? The Role of Horizontal and Vertical Spillovers, Absorptive Capacity and Competition"*. National Bank of Poland Working Paper Nr. 42.

Kokko, A. (1994) "Technology, Market Characteristics and Spillovers". *Journal of Development Economies*, 43 (2), p. 279-293.

Kokko, A. (1996) "Productivity Spillovers from Competition Between Local Firms and Foreign Affiliates". *Journal of International Development*, 8, p. 517-530.

Kokko, A., R. Tansini and M. Zejan (1994) "Local Technological Capability and Productivity Spillovers from FDI in the Uruguayan Manufacturing Sector". *Journal of Development Studies*, 32 (4), p. 602-611.

Konings, J. (2000) "The Effects of Foreign Direct Investment on Domestic Firms: Evidence from Firms Level Panel Data in Emerging Economies". *Economics of Transition*, 9, p. 619-633.

Konings, J. and A. Murphy (2001) "Do Multinational Enterprises Substitute Parent Jobs for Foreign Ones? Evidence from Firm Level Panel Data". William Davidson Working Paper, No. 371.

Kroska, L. (2002) *"Foreign Direct Investment Financing of Capital Formation in Central and Eastern Europe"*. EBRD Working Paper, No. 120.

KPMG (2011) *"Investment in Albania"*. Edition 2011. Available on: www.kpmg.al

Kugler, M. (2000) "The Diffusion of Externalities from Foreign Direct Investment: Theory Ahead of Measurement". Mimeo, University of Southampton.

Lai, M., S. Peng and Q. Bao (2006) "Technology Spillovers, Absorptive Capacity and Economic Growth". *China Economic Review*, 17 (3), p. 300-320.

Lall, S. (1980) "Vertical Inter-Firm Linkages in LDCS: An Empirical Study". *Oxford Bulletin of Economics and Statistics*, 42, p. 203-226.

Lall, S. (1996) "*Learning from the Asian Tigers: Studies in Technology and Industrial Policy*". London and New York: Macmillan Press Ltd and St. Martin's Inc.

Lall, S (2002) "Technological Capabilities and Industrialization". *World Development*, 20 (2), p. 165-186.

Lapan, H. and P. Bardhan (1973) "Localized Technical Progress and Transfer of Technology and Economic Development". *Journal of Economic Theory*, 6, p. 585-595.

Lensink, R. and O. Morrissey (2001) "*FDI Flows, Volatility and Growth*". CREDIT Research Paper, No. 01/06.

Lesher, M. and S. Miroudot (2008) "*FDI Spillovers and their Interrelationships with Trade*". OECD Trade Policy Working Paper, Nr. 80.

Lim, E. G. (2001) "*Determinants of, and the Relation between Foreign Direct Investment and Growth: A Summary of the Recent Literature*". IMF Working Paper WP/01/175.

Lin, Y. and R. Rasiah (2003) "Structure, Technical Change and Government Intervention: The Development of the Information Hardware Electronics Industry in Taiwan". *International Journal of Business and Society*, 4 (2), p. 135-71.

Lin, Y. (2009) "*Economic Development and Structural Change*". The World Bank Publications.

Linz, S. and G. Krueger (1998) "Enterprise Restructuring in Russia's Transition Economy: Formal and Informal Mechanisms". *Comparative Economic Studies*, 40, p. 5-52.

Lipsey, R. and Sjöholm, F. (2004) "Host Country Impacts of Inward FDI: Why Such Different Answers?", in Moran, H., E. Graham and M. Blomström (eds.) "*Does Foreign Direct Investment Promote Development*", Institute for International Economics.

Lipsey, R. (2001) "*Foreign Direct Investment and the Operations of Multinational Firms: Concepts, History, Data*". NBER Working Paper Series, No. 8665.

Lipsey, R. and F. Sjöholm (2001) "*Foreign Direct Investment and Wages in Indonesian Manufacturing*". NBER Working Paper Series, No. 8299.

Lipsey, R. (2002) "*Home and Host Effects of FDI*". NBER Working Paper Series, No. 9293.

Lipsey, R. and Sjöholm, F. (2004) "Host Country Impacts of Inward FDI: Why Such Different Answers?", in Moran, H., E. Graham and M. Blomström (eds.) "*Does Foreign Direct Investment Promote Development*", Institute for International Economics.

Liu, X., P. Siler, C. Wang, and Y. Wei (2000) "Productivity Spillovers from Foreign Direct Investment: Evidence from UK Industry Level Panel Data". *Journal of International Business Studies*, 31 (3), p. 407-425.

Liu, X, C. Wang and Y. Wei (2001) "Causal Links between FDI and Trade in China". *China Economic Review*, 12, p. 190-202.

Lorentzen, L. (2005) "The Absorptive Capacity of South African Automotive Component Suppliers". *World Development*, 33 (7), p. 1153-1182.

Lucas, R. (1988) "On the Mechanisms of Economic Development". *Journal of Monetary Economics*, 22 (3), p. 3-42.

Majcen, B. and J. Damijan (2002) "*Recovery and Growth in the Manufacturing Sectors of CEE Transition Economies: Short and Long-Term Efficiency Improving Factors*". Institute for Economic Research, Lubljana.

Markusen, J. (1983) "Factor Movements and Commodity Trade as Complements". *Journal of International Economics*, 14 (3/4), p. 341-355.

Markusen, J. (1995) "The Boundaries of Multinational Enterprises and the Theory of International Trade". *Journal of Economic Perspectives*, 9, p. 169-189.

Markusen, J. (1998) "*Multilateral Rules on Foreign Direct Investment: The Developing Countries Stake*". World Bank, Draft Working Paper.

Marin, A. and M. Bell (2003) *"Technology Spillovers from Foreign Direct Investment (FDI): An Exploration of the Active Role of MNC Subsidiaries in the Case of Argentina in the 1990's"*. Paper presented at the DRUID Summer Conference 2003 on Creating, Sharing and Transferring Knowledge. The Role of Geography, Institutions and Organizations, Copenhagen, June 12-14.

Mattoo, A., M. Olarreaga, and K. Saggi (2002) "*Mode of Foreign Entry, Technology Transfer and FDI Policy*". World Bank Working Paper.

Mema F. and K. Nevrus (2000) "*Post Privatization in Albania: Success or Failure*". Bank of Albania Working Paper.

Mencinger, J. (2003) "Does Foreign Direct Investment Always Enhance Economic Growth?" *Kyklos*, 56 (4), p. 491-508.

Meyer, K. (1998) "*Direct Investment in Economies in Transition*". Elgar: Cheltenham, U.K. and Northampton, U.S.

Meyer, K. (2003) "*FDI Spillovers in Emerging Markets: A Literature Review and New Perspectives*". DRC Working Paper, No. 15, London Business School.

Meyer, K. and S. Estrin, S. (2001) "Brownfield Entry in Emerging Markets". *Journal of International Business Studies*, 3.

Meyer, K., S. Estrin, S. Gelb, H. Handoussa, S. Gokarn, N. Than Ha, and N. Vo Hung (2002) "*Foreign Direct Investment in Emerging Markets: A Comparative Study in Egypt, India, South Africa and Vietnam*". Mimeo, European Association for Comparative Economic Studies.

Meyer, K. and M. Peng, (2005) "Probing Theoretically into Central and Eastern Europe: Transactions, resources, and institutions". *Journal of International Business Studies*, 36, p. 600-621.

Mickiewicz, T., S. Radosevic, and U. Varblane (2000) "*The Value of Diversity: Foreign Direct Investment and Employment in Central Europe During Economic Recovery*". ISSN Working Paper, No. 05/00.

Ministry of Economy (2001, 2002) "*Annual Report for 2001, 2002*". Tirana, Albania.

Ministry of Economy (2002) "*Investor Targeting Strategy for Albania*". Tirana, Albania.

Ministry of Economy (2002) "*Guide to Investments in Albania*". Tirana, Albania.

Ministry of Economy (2002) "*Promoting Exports from Albania: Recommendations for an Albanian Export Promotion Strategy*". Tirana, Albania.

Mirza, H., A. Giroud and K. Köster (2003) "*Recent Flows in Foreign Direct Investment and Technology Transfer to ASEAN Economies*". University of Bradford, United Kingdom.

Mirza, H. and A. Giroud (2004) "Regional Integration and Benefits from Foreign Direct Investment in ASEAN Economies: The Case of Vietnam". *Asian Development Review*, 21 (1), p. 66-98.

Mirza, H., A. Giroud and K. Köster (2003) "*Recent Flows in Foreign Direct Investment and Technology Transfer to ASEAN Economies*". University of Bradford, United Kingdom.

Mirza, H. and A. Giroud (2004) "Regional Integration and Benefits from Foreign Direct Investment in ASEAN Economies: The Case of Vietnam". *Asian Development Review*, 21 (1), p. 66-98.

Moran, T. (2000) "*What are the Implications of Raymond Vernon's Product-Cycle Model of Parental Control and Supervision over Subsidiaries for the Growth and Welfare of Host Countries in the Developing World?*" Mimeo.

Moran, T. (2001) "*Parental Supervision: The New Paradigm for Foreign Direct Investment and Development*". Institute for International Economics, Washington D.C.

Moran, T. (2011) "Enhancing the Contribution of FDI to Development: A New Agenda for the Corporate Social Responsibility Community, International and Civil Society, Aid Donors and Multilateral Financial Institutions". *Transnational Corporations,* 20 (1), p. 69-102.

Nadiri, M. (1992) *"US Direct Investment and the Production Structure of the Manufacturing Sector in France, Germany, Japan, and the UK".* Mimeo, New York University.

Nakuci, V. and K. Zizo (2006) "Foreign Direct Investment (FDI) – The Promoter of Growth in the Albanian Economy". *South-East Europe Review*, 1, p. 97-108.

Narula, R. and Dunning, J. H. (2000) "Industrial development Globalization and Multinational Enterprises: New Realities for Developing Countries". *Oxford Development Studies*, 28 (2), p. 141-167.

Narula, R. and Lall, S. (2006) "*Understanding FDI-assisted development*". Routledge: London.

Nicolini, M. and Resmini, L. (2006) "*The Impact of MNEs on Domestic Firms in CEECS: A Micro-Econometric Approach*", ERSA conference papers, No. 411.

North, D. (1990). "*Institutions, Institutional Change and Economic Performance*". Cambridge University Press, Cambridge.

OECD (1995) "*Foreign Direct Investment, Trade and Employment*". OECD Publications, Paris.

OECD (1996) "*OECD Benchmark Definition of Foreign Direct Investment*". OECD Publications, Paris.

OECD (2000) "*Country Fact Sheets – A Summary of the Current State of the Investment and Business Environment and Key Policy Reform Priorities in South East Europe".*

OECD/OCDE (2000) "*Lithuania: Foreign Direct Investment Impact and Policy Analysis*". Working Papers on International Investment, No. 2000/3.

OECD (2001) "*New Horizons and Policy Challenges for Foreign Direct Investment in the 21st Century*". OECD Paper, Mexico City.

OECD (2002) "*Foreign Direct Investment for Development – Maximizing Benefits, Minimizing Costs*". OECD Publications, No. 81839, Paris.

OECD (2003) "*Incentives Based Competition for Foreign Direct Investment: The Case of Brazil*". Working Paper No. 2003/1.

OECD - Investment Compact (2004) "*The Informal Economy In Albania: Analysis And Policy Recommendations*". OECD and CEI Publications.

Olters, J. P. (2004) "*Albania's Informal Economy: An Impediment to Economic Development*?" IMF Staff Papers.

Pack, H. and K. Saggi (1997) "Inflows of Foreign Technology and Indigenous Technological Development", *Review of Development Economics,* 1 (1), p. 81-98.

Patibandla, M. (2000) *"Foreign Investment and Productivity: A Study of Post-Reform Indian Study"*. Department of International Economics and Management, Copenhagen Business School, Working Paper 1-2002.

Pavlinek, P. (2004) "Regional Development Implications of Foreign Direct Investment in Central Europe". *European Urban and Regional Studies*, 11 (1), p. 47-70.

Pavlinek, P. and A. Smith (1998) "Internationalization and Embeddedness in East-Central European Transition: The Contrasting Geographies of Inward Investment in the Czech and Slovak Republics". *Regional Studies*, 32 (7), p. 619-638.

Plaffermayr, M. (1994) "Foreign Outward Direct Investment and Exports: A Time Series Approach". *Applied Economics*, 26 (4), p. 337-351.

Peng, M. W., D. Y. Wang and Y. Jiang (2008). "An Institution-based on View of International Business Strategy: A focus on Emerging Economies". *Journal of International Business Studies,* 39(5), p. 920-936.

Pfaffermayr, M. and C. Bellak (2000) "*Why Foreign-Owned Firms Are Different: A Conceptual Framework and Empirical Evidence for Austria*". Paper prepared for workshop at HWWA, Vienna.

Portelli, B. and R. Narula (2003) "*Foreign Direct Investment Through Acquisitions and Implications for Technological Upgrading. Case Evidence from Tanzania*". Globalization as Transformative Process Working Paper Series, No. 05/03, University of Oslo, Norway.

Potter, J., B. Moore and R. Spires (2002) "The Wider Effects of Inward Foreign Direct Investment in Manufacturing on UK Industry". *Journal of Economic Geography*, (2), p. 279-310.

Public & Corporate Economic Consultants (PACEC) (1995) "*Assessment of the Wider Effects of Foreign Direct Investment in Manufacturing in the UK*". PA Cambridge Economic Consultants Ltd, Cambridge.

Qiu, B., S. Yang, P. Xin and B. Kirkulak (2009) "FDI Technology Spillover and the Productivity Growth of China's Manufacturing Sector". *Frontiers of Economics in China,* 4 (2), p. 209-227.

Rasiah, R. (1995) "*Foreign Capital and Industrialisation in Malaysia*". Basingstoke: Macmillan.

Rasiah, R. and G. Gachino (2004) "*Are Foreign Firms More Productive, and Export and Technology Intensive than Local Firms in Kenyan Manufacturing*?" UNU/INTECH Discussion Papers, No. 1564-8370.

Reenen, J. V. and L. Yueh (2012) "*Why Has China Grown so Fast? The Role of International Technology Transfer*". CEP Working Paper, No. CEPDP1121.

Reichert, U. N. and Weinhold, D. (2001) "Causality Tests for Cross-Country Panels: A New Look at FDI and Economic Growth in Developing Countries". *Oxford Bulletin of Economics and Statistics*, 63 (2), p. 153-171.

Rhee, Y.W. and T. Belot (1990) "*Export Catalysts in Low Income Countries: A Review of Elven Success Stories*". World Bank Discussion Paper, No. 72.

Rodrik, D. (1999) "*The New Global Economy and Developing Countries: Making Openness Work*". Overseas Development Council, Policy Essay, No. 24, Washington D.C.

Rodrik, D., A. Subramanian and T. Francesco (2004) "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development". *Journal of Economic Growth*, 9, p. 131-165.

Rojec, M. (2000) "Restructuring and Efficiency Upgrading with FDI" in G. Hunya (eds.), "*Integration Through Foreign Direct Investment: Making Central European Industries Competitive*", Edward Elgar, UK and USA, p. 28-49.

Rojec, M. (2001) "The Restructuring of Firms in Foreign Privatizations in Central and Eastern European Countries". *Transnational Corporations*, 10 (3), p. 1-24.

Romer, P. (1986) "Increasing Returns and Long-Run Growth". *Journal of Political Economy*, 94, p. 1002-1037.

Rosenberg, N. (1982) "*Inside the Black Box*". Cambridge University Press, New York.

Rotenberg, J. and G. Saloner (2000) "Competition and Human Capital Accumulation: A Theory of Interregional Specialization and Trade". *Regional Science and Urban Economics*, 30, p. 373-404.

Ruane, F. and A. Ugur (2002) "*Foreign Direct Investment and Productivity Spillovers in Irish Manufacturing Industry: Evidence from Firms Level Panel Data*". Trinity Economic Papers 02/06, Dublin.

Rubio, O. and Muñoz, M. (1999) "*Foreign Direct Investment and Trade: A Causality Analysis*". Working Paper, No. 9902, Public University of Navarra.

Rugraff, E. (2010) "Foreign Direct Investment (FDI) and Supplier-Oriented Upgrading in the Czech Motor Vehicle Industry". *Regional Studies*, 44 (5), p. 627-638.

Sabirianova, K., Svejnar, J. and Terrell, K. (2005) "Distance to the Efficiency Frontier and FDI Spillovers". *Journal of the European Economic Association*, 3 (2-3), p. 576-586.

Sass, I. S. (1996) "Foreign Direct Investments and Domestic Suppliers: Results of a Questionnaire Survey", in Benacek, V., M. Gronicki, D. Holland, and M. Sass (2000) "The Determinants and Impact of Foreign Direct Investment in Central and Eastern Europe: A Comparison of Survey and Econometric Evidence", *Transnational Corporation*, 9 (3), p. 163-212.

Saggi, K. (2001) "*Trade, Foreign Direct Investment, and International Technology Transfer: A Survey*". Mimeo, Southern Methodist University.

Scherer, F. M. (1980) "*Industrial Market Structure and Economic Performance*". Rand McNally, Chicago.

Schoors, K. and B. Van der Tol (2002) "Foreign Direct Investment Spillovers Within and Between Sector: Evidence from Hungarian Data". Ghent University, Working Paper 2002/157, Belgium.

SEEEUROPE.NET (2004) "*Investment Guide for South East Europe (2004) – Albania*".

Sembenelli, A. and G. Siotis (2003) "*Foreign Direct Investment, Competitive Pressure, and Spillovers. An Empirical Analysis on Spanish Firm Level Data*". Mimeo, University of Torino.

Seyoum, B., (2009) "Formal Institutions and Foreign Direct Investment". *Thunderbird International Business Review*, 51(2), p.165-183.

Seyoum B., (2011) "Informal Institutions and Foreign Direct Investment". *Journal of Economic Issues*, 45(4), p. 917-941.

Sgard, J. (2001) "*Direct Foreign Investment and Productivity Growth in Hungarian Firms, 1992-1999*". William Davidson Working Paper, No. 425.

Sinani, E. and K. Meyer (2002) "Identifying Spillovers of Technology Transfer from FDI: The Case of Estonia". Center for East European Studies, Copenhagen Business School.

Sinani, E. and K. Meyer (2004) "Spillovers from Technology Transfer: The Case of Estonia". *Journal of Comparative Economics*, 32 (3), p. 445-466.

Sinani, E. and K. Meyer (2009) "When and where does Foreign Direct Investment Generate Positive Spillovers? A Meta Analysis". *Journal of International Business Studies*, 40 (7), p. 1075-1094.

Siotis, G. (1999) "Foreign Direct Investment Strategies and Firms' Capabilities". *Journal of Economics and Management Strategy*, 8, p. 251-270.

Sjoholm, F. (1999) "Technology Gap, Competition and Spillovers from Direct Foreign Investment: Evidence from Establishment Data". *Journal of Development Studies*, 36, p. 53-73.

Smarzynska, B. (2002) *"Does Foreign Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages"*. World Bank Policy Research Working Paper, No. 2923, Washington D.C.

Smarzynska Javorcik, B., K. Saggi and M. Spatareanu (2004) *"Does it Matter Where You Come From? Vertical Spillovers From Foreign Direct Investment and the Nationality of Investors"*. World Bank Working Paper, No. 3449.

Smarzynska Javorcik, B. (2004) "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers Through Backward Linkages". American Economic Review, 93 (3), p. 605-627.

Smarzynska Javorcik, B. and M. Spatareanu (2005) "Disentangling FDI Spillover Effects: What Do Firm Perceptions Tell US?", in Moran, H., E. Graham and M. Blomström (eds.) *"Does Foreign Direct Investment Promote Development"*, Institute for International Economics.

Solow, R. M. (1957) "Technical Change and the Aggregate Production". *Review of Economics and Statistics*, 39, p. 312-320.

Sounders, M., P. Lewis and A. Thornhill (2000) *"Research Methods for Business Students"*. 2nd Edition, Prentice Hall: Great Britain.

Southeast Europe Investment Guide (2007) *"Albania"* Available from: http://www.seeforum.org [Accessed 20 September, 2009].

Szanyi, M. (1997) *"Experiences of Foreign Direct Investments in Eastern Europe: Advantages and Disadvantages"*. Institute of Economics of the Hungarian Academy of Sciences Working Paper, No. 85.

Tavares, A. T. and S. Young (2002) *"Sourcing Patterns of Multinational Subsidiaries in Europe: Testing the Determinants"*. UK Academy of International Business Conference Proceedings, University of Central Lancashire.

Teece, D. J. (1997) "Technology Transfer by Multinational Firms: The Resource Cost of Transferring Technological Know-How". *Economic Journal*, 87, p. 242-261.

Transparency International (2004) *"Transparency International Corruption Perceptions Index 2004"*. Available from: http://www.transparency.org/cpi2004.html.

UNECE (2001) *"Economic Growth and Foreign Direct Investment in the Transition Economies"*. UNECE Economic Survey of Europe, No. 1, Chapter 5.

UNCTAD (1996) *"Investment Promotion and Suggested Measures to Further Development Objectives"*. United Nations, New York and Geneva.

UNCTAD (1997) World Investment Report: "*Transnational Corporation, Market Structure and Competition*". United Nations, New York and Geneva.

UNCTAD (1999) World Investment Report: "*Foreign Direct Investment and the Challenge of Development*". United Nations, New York, Geneva.

UNCTAD (2000) World Investment Report: "*Cross-Border Mergers and Acquisitions and Development*". United Nations, New York and Geneva.

UNCTAD (2001a) World Investment Report: "*Promoting Linkages*". United Nations, New York and Geneva.

UNCTAD (2001b) "*Promoting Linkages Between Foreign Affiliates and Domestic Firms*". Geneva: Division on Trade, Investment and Enterprise Development, United Nations Conference on Trade and Development.

UNCTAD (2002) World Investment Report: "*Transnational Corporations and Export Competitiveness*". United Nations, New York and Geneva.

UNCTAD (2003) World Investment Report: "*FDI Policies for Development: National and International Perspectives*". United Nations, New York and Geneva.

UNCTAD (2004) World Investment Report: "*The Shift Towards Services*". United Nations, New York and Geneva.

UNCTAD (2005). World Investment Report 2005: "*Translational Corporations and the Internationalization of R&D*". United Nations, New York and Geneva.

UNCTAD (2011). World Investment Report 2011: "Non-Equity Modes of International Production and Development". United Nations, New York and Geneva.

Van de Ven, A.H. (1992) "Suggestions for Studying Strategy Process: A Research Note". *Strategic Management Journal*, 13, p. 169-188.

Velde, W. and O. Morrisey (2001) "*Foreign Ownership and Wages: Evidence from Five African Countries*". CREDIT Discussion Paper, No. 01/19.

Wang, J. and M. Blomstrom (1992) "Foreing Investment and Technology Transfer: A Simple Model". *European Economic Review*, 36, p. 137-155.

Wang, C. and Z. Zhao (2008) "Horizontal and Vertical Spillover Effects of Foreign Direct Investment in Chinese Manufacturing". *Journal of Chinese Economic and Foreign Trade Studies*, 1 (1), p. 8-20.

Wheeler, D. (2000) "*Racing to the Bottom? Foreign Investment and Air Pollution in Developing Countries*". Development Research Group, World Bank.

Wei, Y. and X. Liu (2003) "*Mutual Productivity Spillovers Between Foreign and Local Firms in China*". Aston Business School Research Papers, No. RP0307.

Wells, L. T. (1998) "Multinational and the Developing Countries". *Journal of International Business Studies*, 29 (1), p. 101-114.

Weresa, M. (2001) "The Impact of Foreign Direct Investment on Poland's Trade with the European Union". *Post-Communist Economies*, 13 (1), p. 71-83.

Wes, M. and H. P. Lankes (2001) "FDI in Economies in Transition: M&As Versus Greenfield Investment". *Transnational Corporations*, 10 (3), p. 113-129.

Williams, D. (1997) "Strategies of Multinational Enterprises and the Development of the Central and Eastern Economies". *European Business Review*, 97 (3), p. 134-138.

Wong, K. (1986) "Are International Trade and Factor Mobility Substitutes?" *Journal of International Economics*, 21 (1/2), p. 25-43.

Yamawaki, H. (1991) "Exports and Foreign Distributional Activities: Evidence on Japanese Firms in the United States". *Review of Economics and Statistics*, 73 (2), p. 294-300.

Yasar, M. and Paul, C. M. (2007). "International Linkages and Productivity at the Plant Level: Foreign Direct Investment, Exports, Imports and Licensing". *Journal of International Economics,* 71, p. 373-388.

Yin, R.K. (1992) "The Case Study Method as a Tool for Doing Evaluation". *Current Sociology*, 40 (1), p. 121-137.

Yin, R. (1994) "*Case Study Research: Design and Methods*". 2nd Edition, Thousands Oaks: Sage Publications.

Yudaeva, K., K. Kozlov, N. Melentieva and N. Ponomareva (2003) "Does Foreign ownership Matter?" *Economics of Transition*, 11 (3), p. 383-409.

Zemplinerova, A. (1998) "Impact of Foreign Direct Investment on the Restructuring and Growth in Manufacturing". *Prague Economic Papers*, 7(4), p. 329-345.

Zemplinerová, A. and M. Jarolim (2001) "Modes of FDI Entry and Firm Performance: The Czech Case". *Transnational Corporations*, 10 (3), p. 95-110.

Zhang, H. and D. Van den Bulcke, D. (1999) "*The Restructuring of the Chinese Automotive Industry: the Role of Foreign Direct Investment and Impact of European Multinational Enteprises*". CIMDA Discussion Paper, No. 38.

Zukowska-Gagelmann, K. (2002) "Productivity Spillovers from Foreign Direct Investment in Poland". *Economic Systems*, 24 (3).

Xhaferaj, E. (2006) "*The Evaluation of Foreign Direct investment in Eastern Europe Developing Countries: The case of Albania*". Bank of Albania Bulletin, Vol. 3.

Xhepa, S. and M. Agolli (2004) "*Small and Medium-Sized Enterprises Development*" Tirana: ISB & ACIT Publications.

APPENDIX A – GUIDE FOR QUESTIONNAIRES

A GUIDE FOR QUESTIONNAIRES DIRECTED TO FOREIGN COMPANIES

THE IMPACT OF TECHNOLOGICAL TRANSFER FROM FOREIGN DIRECT INVESTMENT

Dear Ms/Mr,
The purpose of this questionnaire is related to the PHD thesis with title **"The Direct and Indirect Impact of FDI on Albanian Companies"** of Mamica Skenderi, PHD student in the South East European Center (SEERC), Thessaloniki/Greece.
In the framework of this research, we kindly request that the questionnaire should be filled by the Chief Executive Officer (CEO) or an appropriate deputy in the firm (for example, director or production manager). The successful realization of this study is highly dependent on your support and cooperation, which will be greatly appreciated.
The information that will be provided in this questionnaire will be kept confidential and will be handled ethically according to University of Sheffield ethical policy. The information provided by individual companies will remain anonymous and will only be published in grouped form.

Thank you for your kind collaboration.

PART 1. GENERAL COMPANY INFORMATION

1.1 The respondent
Ms/Mr Name: _____ Address: _____
Position in the company: _____ E-mail: _____

Tel/Mobile No: _____ Date of filling the questionnaire: _____

1.2 Name of the company _____

1.3 What is the main actual activity of the company? (please list the three main activities or products that the company produces and sells)

Products	Percentage
1.	
2.	
3.	

1.4 What is the year of the original establishment of the company's in Albania? _____

1.5 What is the legal form of the company (please tick as appropriate)
a) Legal person ☐ b) Limited Liability Company ☐ c) General partnership ☐
d) Joint-stock company ☐ e) Limited partnership ☐

1.6 What is the ownership of the company (please tick as appropriate)?
a) Joint venture company (Albanian & foreign) ☐ b) Foreign company ☐
Please, specify the country origin of the foreign company _____

1.7 If the company is joint venture or foreign, specify the entry mode (please tick as appropriate)
a) Greenfield investment ☐ b) Brownfield investment ☐ c) Acquisition ☐
d) Merger and acquisition ☐ e) Joint venture ☐ f) Franchising ☐

g) Licensing ☐ h) Branch office ☐ i) Subcontracting ☐
j) Turnkey project ☐ k) Strategic alliance ☐ l) Creating an export base ☐
m) Other (please specify) ☐ _____

1.8 If the company is joint venture, specify the % of foreign capital _____ (%)

1.9 Is the foreign investor of Albanian origin? a) Yes ☐ b) No ☐

1.10 What is the size of the original foreign investment in the company? (in Lek) _____

1.11 What is the year in which the original foreign investment was made? _____

1.12 What is your main source of finance?

Source of Finance	Capital %	Source of Finance	Capital %
Loan from domestic banks		Loan from friends, relatives	
Loan from foreign banks		Own money	
Special government credit		Other sources (specify)	

1.13 Investment intentions

1.13.1 The amount that is reinvested in the subsidiary company (in Lek)

	2003	2004
The amount that is reinvested in the subsidiary company		

1.13.2 This investment was all financed out of the company's profits? a) Yes ☐ b) No ☐

1.13.3 The amount of investment planed for the next 5 years (in Lek) _____

1.14 Does the company have a parent company in the foreign home country? a) Yes ☐ b) No ☐

1.15 Does the company have any sister company in the same sector in Albania? a) Yes ☐ b) No ☐

1.16 Does the company have activities in other countries, and in how many? a) Yes ☐ b) No ☐

If yes, the nr of countries is _____

1.17 Basic information on company performance

Figures on the company	**2003**	**2004**
1) The size of the company		
a) The number of employees		
b) The annual turnover (in Lek)		
2) Operating profit of the company		
a) Net profit (in Lek)		
b) Gross profit (in Lek)		
3) The value added of the company		
4) Profitability of the company (in Lek)		
5) The expenditure on the following activities (in Lek)		
a) Research and development		
b) Advertising and promotion		
c) Training of personnel		
6. Total fixed assets		
7. Total sales		

8. Gross input		
9. Gross output		

PART 2. DIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL SUBSIDIARIES

PART 2.1 HUMAN RESOURCE DEVELOPMENT AND LABOR MOBILITY

2.1.1 The number of employees by each category for 2004

Category of Employment	Albanians (Nr of employees)	Non-Albanians (Nr. of employees)
a) Managerial		
Technical		
Non-technical		
b) Non-managerial		
Technical		
Skilled		
Semi-skilled		
Others (e.g. clerical)		
TOTAL		

2.1.2 What is the education level of your employees? (% of employees)
a) University _____ b) High school _____
c) Technical/Vocational Elementary education _____ d) Elementary level or lower _____

2.1.3 Is the owner of the firm also the manager? a) Yes ☐ b) No ☐

2.1.4 What is the educational level of the firm owner(s)?

a) University ☐ b) High school ☐ c) Tech/Vocational ☐ d) Lower/Elementary ☐

2.1.5 Has your firm provided training of any kind to the workers in the last FIVE years?
a) Yes ☐ b) No ☐

2.1.6 If the answer to 2.1.5 is Yes, the training has been: a) Compulsory ☐ b) Voluntary ☐

2.1.7 If the answer to 2.1.5 is Yes, the training has been:
a) Within working hours ☐ b) Out of the working hours ☐

2.1.8 If your answer in 2.1.5 was Yes, please provide estimates on how training is organized for 2004:

a) The estimated training cost as % of payroll	
b) Nr. of training courses per year	
c) Nr. of weeks of training per year	
d) Nr. of employees involved in training programs	
e) Type of employees involved in training programs	
f) Nr. of employees trained inside the company (on-job training)	
g) Nr. of employees trained in parent companies/home country	
h) Nr. of external staff used to train employees	

2.1.9 **Has your company a separate training department?** **a) Yes ☐** **b) No ☐**

2.1.10 **Has your company ever lost some of its workers to other competing firms in the past?**

a) Yes ☐ b) No ☐ If yes, how many _____

2.1.11 **If the answer to 2.1.9 is Yes, what type of workers were they?**

a) Managers and professionals ☐ b) Engineers and technicians ☐
c) Simple workers d) Others (please specify) ☐ _____

2.1.12 If your answer in 2.1.7 was Yes, what kind of firms did they join? (Multiple answers can be provided) a) Foreign firms ☐ b) Local firms ☐ c) Start their own firms ☐

2.1.13 **How severe is lack of skilled workers (qualified engineers and technicians) to your firm?**

a) Not severe ☐ b) Average ☐ c) Very severe ☐

2.1.14 What is the policy of your company regarding employment of skilled qualified workers e.g. scientists, engineers, technicians and other professionals (Use a scale of 1-5 in each of the below categories, where 1 = weak policy; 5 =very strong policy)

	Weak policy				Very strong policy
To employ graduates from poly-technique institutions	1	2	3	4	5
To employ fresh university graduates	1	2	3	4	5
To employ experienced workers from local firms	1	2	3	4	5
To employ experienced workers from other foreign firms	1	2	3	4	5
To employ experienced workers from outside the country	1	2	3	4	5

2.1.15 Did **your company employ workers from other companies?** a) Yes ☐ b) No ☐

2.1.16 **If your company has employed workers from other companies what kind of workers were they?**

a) Managers & professionals ☐ b) Engineers and technicians ☐
c) Simple workers ☐ d) Others (please specify) _____

2.1.17 What kind of companies did they come from? (Multiple answers can be provided)
a) Foreign firms ☐ b) Local firms ☐ c) Others (please specify) ☐ _____

PART 2.2 EXISTING TECHNOLOGY/CAPITAL

2.2.1 What is the core plant and production machinery used in the business? _____

_____

2.2.2 How can you describe your production machinery? (put percentage for each)
a) Purchased new ☐ ——— b) Bought Second hand ☐ ———

2.2.3 When did your firm last make and/or introduce new product(s)?
a) 0-1 years ☐ b) 1-2 years ☐ c) 2-5 years d) over 5 years ☐

2.2.4 What was the estimated cost of making and/or introducing this product(s)?
Lek

_____

2.2.5 Are the new products new to?
a) Your firm ☐ b) Local market ☐ c) Regional market ☐ d) Global market ☐

2.2.6 Has your company undertaken any improvements on any of its already existing products in the last five years? a) Yes ☐ b) No ☐

2.2.7 What is the source (origin) of your core production machinery?
a) Fully local ☐ b) Combination of local and foreign ☐
c) Fully foreign ☐ → Main foreign country source _____

2.2.8 What is the estimated *age* of your *core* production machinery? _____ Years

2.2.9 What is the estimated *value* of your *core* production machinery? _____ Lek

2.2.10 Is the production machinery? a) State of Art b) Second-generation ☐ c) Older ☐

2.2.11 When did you last make new investment in production equipment?
a) 0-1 years ☐ b) 1-2 years ☐ c) 2-5 years d) over 5 years ☐

2.2.12 Do you have technical partners? a) Yes ☐ b) No ☐
If yes, what is the origin a) Foreign ☐ b) Local ☐

2.2.13 Have you carried out any modifications on your machinery in the last five years?
a) Yes ☐ b) No ☐ If yes, how would you regard it? a) Major ☐ b) Minor ☐

2.2.14 In carrying out modifications on your machinery did you get any assistance? a) Yes ☐ b) No ☐
If yes, you got the assistance from a) Local consultants ☐ b) Foreign technical partners ☐

2.2.15 Can you compare your technology with home parent company (if any)
(Use a scale of 1-5, where 1 = well below the parent company; 2 = below the parent company; 3 = about the same as the parent company; 4 = above the parent company; 5 = well above the parent company)

	Well below parent company				Well above parent company
Comparison of technology with parent company	1	2	3	4	5

2.2.16 Can you compare your technology with current technology of other companies in Albania
(Use a scale of 1-5, where 1 = well below other companies; 2 = below other companies; 3 = about the same as other companies; 4 = above other companies; 5 = well above other companies)

	Well below other foreign companies				Well above other foreign companies
Comparison of technology with other foreign companies	1	2	3	4	5

2.2.17 Can you compare your technology with other companies in the world
(Use a scale of 1-5, where 1 = well below other companies; 2 = below other companies; 3 = about the same as other companies; 4 = above other companies; 5 = well above other companies)

	Well below other foreign companies				Well above other foreign companies
Comparison of technology with other foreign companies	1	2	3	4	5

2.2.18 The extent of transfer of technology, knowledge and skills from parent company to the foreign subsidiary
(Use a scale of 1-5 in each of the below categories, where 1 = not transferred; 2 = transferred on a case by case basis; 3 = transferred if criteria is met; 4 = largely transferred; 5 = complete transfer)

	Not transferred				Complete transfer

Products					
Current product development activities	1	2	3	4	5
Improving existing products	1	2	3	4	5
Introducing new products	1	2	3	4	5
Production processes					
Production process organization and technologies	1	2	3	4	5
Process control systems	1	2	3	4	5
Quality assurance systems	1	2	3	4	5
Inventory control systems	1	2	3	4	5
Cost control/value engineering	1	2	3	4	5
Facilitates/equipment maintenance system	1	2	3	4	5
Upgrade existing equipment	1	2	3	4	5
Buy new equipment	1	2	3	4	5
Technology and innovation					
Adaptive technology and skills	1	2	3	4	5
Technological innovation	1	2	3	4	5
Research and development	1	2	3	4	5
Supplier and customers system					
Sales and delivery distribution methods	1	2	3	4	5
Purchasing practices	1	2	3	4	5
Human resource management, training and reporting system					
Recruitment system	1	2	3	4	5
Employment system	1	2	3	4	5
Promotion and innovation system	1	2	3	4	5
Payment system	1	2	3	4	5
Training activities and skill levels	1	2	3	4	5
Team working	1	2	3	4	5
Reporting system	1	2	3	4	5
Financial management, marketing and organizational structure					
Financial and accounting procedures	1	2	3	4	5
Management practices	1	2	3	4	5
Marketing and sales activities	1	2	3	4	5
Organization structure	1	2	3	4	5

PART 3. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL SUPPLIERS

3.1 Where does your company rely on inputs and other raw materials? (please tick as appropriate)

a) Local suppliers ☐ b) Foreign suppliers ☐ c) Other foreign companies operating in Albania ☐

3.2 If your answer to 3.1 is a), please state the reason(s) why (please tick as appropriate, you may give more than one choice)

a) Low cost/price raw materials ☐ b) Local market access ☐ c) Resources access ☐

d) Geographical proximity/low transport cost ☐ c) Other (please specify) ☐ _____

3.3 If your answer to 3.1 is b) and c), please state the reason (s) why the company does not rely on local suppliers (please tick as appropriate, you may give more than one choice)

a) Lack of availability of local suppliers ☐ b) Low quality of products ☐ c) High price/cost ☐

d) Low technology/lack of suitable products☐ e) Unreliable supply/low volumes ☐

f) Packaging is not good ☐ g) Strategy provided by parent company or government ☐

h) Type of firm's activity ☐ i) Other (please specify) _____

3.4 Please provide the estimated proportion of your company's origin of inputs:

Principal Origin of Inputs	Domestic		Foreign	
	%	Location (s)	%	Country
Production inputs (raw materials)				
Capital, machinery and equipments				
Input services				

3.5 If your answer to 3.1 is (a), please list the names of your FOUR most important LOCAL suppliers and the percentage of (total) inputs supplied by each of them:

Company Names	% of Raw Materials	Company Names	% of Raw Materials
a)		b)	
c)		d)	

3.6 Does your company develop and maintain relationship with your LOCAL suppliers?
a) Yes b) No ☐

3.7 Do the materials come from ONE location? a) Yes b) No ☐ → How many ?_____

3.8 Can you estimate how far do the inputs from LOCAL supplier(s) travel to reach your company? a) 1-20 km ☐ b) 21-100 km ☐ c) 100-200 km ☐ d) above 200 km ☐

3.9 Does your company make any purchasing contract with the local suppliers? a) Yes b) No ☐
If Yes, for what period?_____Years

3.10 Does your company put specific requirements to suppliers in terms of?
(Use a scale of 1-5 in each of the below categories, where 1 = no specific requirements; 5 = highly specific requirements)

	No specific requirements				Highly specific requirements
Quality control of raw materials and components	1	2	3	4	5
On time delivery (speed of delivery)	1	2	3	4	5
Technical standards	1	2	3	4	5
Price	1	2	3	4	5
Penalties for delivery failure	1	2	3	4	5
Production procedures	1	2	3	4	5
Documentation procedures	1	2	3	4	5
Invoicing	1	2	3	4	5
Transportation standards	1	2	3	4	5
Insurance	1	2	3	4	5
Packaging	1	2	3	4	5
Flexibility	1	2	3	4	5
Efficiency	1	2	3	4	5

3.11 Which are the main transmission mechanisms for actively influencing suppliers?

(Use a scale of 1 – 5 to each of the below categories, where 1 = not important; 3= important, 5 = very important)

	Not important				Very important
Active mechanisms					
Cooperation effect through site visits on technical and quality issues	1	2	3	4	5
Networking (e.g. conferences/seminars, trade associations)	1	2	3	4	5
Informal sharing of views and ideas	1	2	3	4	5

3.12 To what extent has the relationship between your company and your suppliers affected your company in terms of the following (reverse effects)? (Use a scale of 1 – 5 in each of the below categories, where 1 = no transfer and 5 = high transfer)

	No transfer				High transfer
Information on local markets	1	2	3	4	5
Transfer of knowledge	1	2	3	4	5

PART 4. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL CUSTOMERS

4.1 Where does your company sell its final output? (please tick as appropriate)
a) Final domestic customers ☐ b) Final intermediate domestic customers ☐ c) Foreign Customers ☐

4.2 If your answer to 4.1 is a) and b) please state the reason(s) why? (please tick as appropriate, you may give more than one choice)
a) High price ☐ b) Local market access ☐ c) High purchasing volume ☐ d) Other (please specify) ☐_____

4.3 If your answer to 4.1 is c), please state the reason (s) why your company does not sell its products to the local customers? (please tick as appropriate, you may give more than one choice)
a) High price ☐ b) Not satisfactory payment system ☐ c) Low purchasing volume ☐
d) Access in foreign market ☐ e) Insured market from mother company ☐ f) Type of firm's activity ☐

4.4 Please provide the estimated proportion of your company's destination of output:

Final Domestic Customers		**Final intermediate domestic customers**		*Foreign customers*	
%	**Location(s)**	**%**	**Location(s)**	**%**	**Country(s)**

4.5 If your answer to 4.1 is (a), please list the names of your FOUR most important LOCAL customers and the percentage of (total) output purchased by each of them:

Company Names	**% of Output**	**Company Names**	**% of Output**
a)		**b)**	
c)		**d)**	

4.6 If your answer to 4.1 is (b), please list the names of your FOUR most important LOCAL intermediate customers and the percentage of (total) output purchased by each of them:

Company Names	**% of Output**	**Company Names**	**% of Output**
a)	**a)**	**c)**	**a)**
b)	**b)**	**d)**	**b)**

4.7 Does your company develop and maintain relationship with your LOCAL final and intermediate customers? a) Yes b) No ☐

4.8 Is there any difference in quality between the same products that are sold abroad and locally?
a) Yes ☐ b) No ☐ If yes, can you please mention why? _____

4.9 If your answer to 3.1 is (a) and (b), does your company do the distribution itself to its LOCAL customers? a) Yes ☐ b) No ☐ If No, what is the estimated number of the distribution companies? _____

4.10 Do the products go only to ONE location? a) Yes b) No ☐ → How many ? _____

4.11 Can you estimate how far the products are transported before reaching the LOCAL customers?
a) 1-20 km ☐ b) 21- 100 km ☐ c) 100-200 km ☐ d) above 200 km ☐

4.12 What proportion of your local customers are directly involved in production activities (value added to the products purchased)? _____ **%**

4.13 Does your company make any sales contract with local customers? a) Yes b) No ☐
If Yes, for what period? _____Years

4.14 Does your company put specific requirements to local customers in terms of?
(Use a scale of 1-5 in each of the below categories, where 1 = no specific requirements; 5 = highly specific requirements)

	No improvement				Very large improvement
Purchases	1	2	3	4	5
Prices	1	2	3	4	5
Technical skills	1	2	3	4	5
Professionalism	1	2	3	4	5
Innovation	1	2	3	4	5
Long term relationship	1	2	3	4	5

4.15 To what extent has the relationship between your company and your customers affected the your company in terms of the following (reverse effects)?
(Use a scale of 1 – 5 in each of the below categories, where 1 = no transfer and 5 = high transfer)

	No transfer				High transfer
Information on local markets	1	2	3	4	5
Transfer of knowledge	1	2	3	4	5

PART 5. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL COMPETITORS

5.1 Does the company have direct competitors domestically? a) Yes ☐ b) No ☐

5.2 If your answer to 5.2 is Yes, how would you rate this competition?
a) None ☐ b) Moderate ☐ c) Stiff ☐ d) Very stiff ☐

5.3 What is the origin of the competitors and who are the FOUR most important local competitors?

Domestic		**Foreign**	
Nr	**Name of companies**	**Nr**	**Name of companies**
a)	a)	e)	e)
b)	b)	f)	f)
c)	c)	g)	g)
d)	d)	h)	h)

5.4 Do the competitors compete across the full range of your products? a) Yes ☐ b) No ☐

5.5 If not, what characterizes where they compete? (please tick as appropriate)
a) Less complex products☐ b) Cheaper products ☐ c) Better technology ☐ d) Other ☐

5.6 Which of the aspects below do you consider as your competitive advantage and which as your disadvantage compared to the local competition? (Use a scale of 1-5 in each of the below categories, where 1 = important disadvantage; 2 = somewhat important disadvantage; 3 = the same as local competitors; 4 = somewhat important advantage; 5 = important advantage)

	Disadv.				Advan.
Price	1	2	3	4	5
Cost	1	2	3	4	5
Product quality	1	2	3	4	5
Product design	1	2	3	4	5
Marketing (Advertising and Promotion)	1	2	3	4	5
Technology	1	2	3	4	5
Reliability of services provided to customers	1	2	3	4	5
Volume capacity (scale of production)	1	2	3	4	5
Specialized expertise	1	2	3	4	5
Efficiency &flexibility (speed of delivery, ability to adjust to customer needs)	1	2	3	4	5
Established reputation	1	2	3	4	5
Export capabilities	1	2	3	4	5
Others (please specify)	1	2	3	4	5

5.7 Does your company expect more competition in the coming years? a) Yes ☐ b) No ☐
If Yes, from which competitors? a) Foreign ☐ b) Domestic ☐ c) Both ☐

5.8 Has your company applied or is planning to apply the following strategies due to competitive pressures? (Use a scale of 1-5 in each of the categories below, where 1 = never applied; 5 = applied very often)

	Never				Very often
Diversity into other products	1	2	3	4	5
Acquire new processing techniques	1	2	3	4	5
Improve the existing techniques	1	2	3	4	5
Undertake workers training	1	2	3	4	5
Improve market strategies	1	2	3	4	5
Improve organization, management, marketing of the company	1	2	3	4	5
Form joint ventures with local companies	1	2	3	4	5
Others (please specify)	1	2	3	4	5

5.9 Do you collaborate with your local competitors? a) Yes ☐ b) No ☐
If yes, in what way? _____

5.10 Has any of your local competitors gone out of business because your company has captured their market? Yes ☐ No ☐
If yes, please name any of these companies _____

PART 6. DEMONSTRATION EFFECTS

6.1 Have other companies ever introduced or adopted new products and new techniques observed from your company? a) Yes ☐ b) No ☐

6.2 If your answer to 6.1 is Yes, what kind of companies are they? (Please tick as appropriate, you may select more than one)
a) Competing domestic firms ☐ b) Competing foreign companies ☐
c) Domestic suppliers of your company ☐ d) Domestic customers of your company ☐
e) Domestic distributors of your company ☐

6.3 Please list the names of such companies?

a) _____ b) _____

c) _____ d) _____

PART 7. INFRASTRUCTURE, BUSINESS ENVIRONMENT AND NON-MARKET COLLABORATIONS

7.1 How would you rate provision of the following infrastructure? (Use a scale of 1-5 in each of the below categories, where 1 = very poor; 5 = excellent)

	Poor				Excellent
Transport services (e.g. roads)	1	2	3	4	5
Water supply	1	2	3	4	5
Electricity/power supply	1	2	3	4	5
Telecommunication network	1	2	3	4	5
Public health fascilities	1	2	3	4	5

7.2 What types of technical support has your company received and from which private agencies? (please tick as appropriate)

Type of support	Government	Business associations	Private sources	Others (specify)
Information				
Financial incentives				
Training				
Quality control				
Advertising				
Others (specify)				

7.3 Is the company involved in non-market collaborations such as: (please tick as appropriate and estimate the amount and how often)

Type of collaborations	Amount (Lek)	Total number
Sponsorships		
Chamber of commerce		
Charities		
Seminars		
Others (specify)		

7.4 To what extent has your company been of benefit, from both formal and informal interactions, to the following: (Use a scale of 1-5 in each of the below categories, where 1 = no benefits; 5 = very high benefits)

	No benefits				Very high benefits
Machinery suppliers and consultants	1	2	3	4	5
Raw material suppliers	1	2	3	4	5
Clients and distributors	1	2	3	4	5
Competitors	1	2	3	4	5
Other participants during local exhibitions and trade fairs	1	2	3	4	5
Government and private institutions	1	2	3	4	5
Universities and technical training institutions	1	2	3	4	5
Industry and business association	1	2	3	4	5

Investment and export promoters	1	2	3	4	5
Others (please specify)	1	2	3	4	5

7.5 What is the role of government in promoting and supporting FDI companies and their impact on local companies through: (Use a scale of 1-5 in each of the below categories, where 1 = no support et al; 5 = very strong support)

	No support				Very strong support
Taxes	1	2	3	4	5
Financial incentives	1	2	3	4	5
Others (specify)	1	2	3	4	5

END

****

Signature of the interviewer

Signature of the interviewee

A GUIDE FOR QUESTIONNAIRES DIRECTED TO LOCAL COMPANIES

THE IMPACT OF TECHNOLOGICAL TRANSFER FROM FOREIGN DIRECT INVESTMENT

Dear Ms/Mr,
The purpose of this questionnaire is related to the PHD thesis with title **"The Direct and Indirect Impact of FDI on Albanian Companies"** of Mamica Skenderi, PHD student in the South East European Center (SEERC), Thessaloniki/Greece.
In the framework of this research, we kindly request that the questionnaire should be filled by the Chief Executive Officer (CEO) or an appropriate deputy in the firm (for example, director or production manager). The successful realization of this study is highly dependent on your support and cooperation, which will be greatly appreciated.
The information that will be provided in this questionnaire will be kept confidential and will be handled ethically according to University of Sheffield ethical policy. The information provided by individual companies will remain anonymous and will only be published in grouped form.

Thank you for your kind collaboration.

PART 1. GENERAL COMPANY INFORMATION

1.1 The respondent
Ms/Mr Name: _____ Address: _____
Position in the company: _____ E-mail: _____

Tel/Mobile No: _____ Date of filling the questionnaire: _____

1.2 Name of the company _____

1.3 What is the main actual activity of the company? (please list the three main activities or products that the company produces and sells)

Products	Percentage
1.	
2.	
3.	

1.4 What is the year of the original establishment of the company's in Albania? _____

1.5 What is the legal form of the company (please tick as appropriate)
a) Legal person ☐ b) Limited Liability Company ☐ c) General partnership ☐
d) Joint-stock company ☐ e) Limited partnership ☐

1.6 What is the size of the original foreign investment in the company? (in Lek) _____

1.7 What is the year in which the original local investment was made? _____

1.8 What is your main source of finance?

Source of Finance	Capital %	Source of Finance	Capital %
Loan from domestic banks		Loan from friends, relatives	

Loan from foreign banks		Own money	
Special government credit		Other sources (specify)	

1.9 Investment intentions

1.9.1 The amount that is reinvested in the company (in Lek)

	2003	2004
The amount that is reinvested in the company		

1.9.2 This investment was all financed out of the company's profits? a) Yes ☐ b) No ☐

1.9.3 The amount of investment planed for the next 5 years (in Lek) _____

1.10 Does the company have any sister company in the same sector in Albania? a) Yes ☐ b) No ☐

1.11 Does the company have activities in other countries, and in how many? a) Yes ☐ b) No ☐

If yes, the nr of countries is _____

1.12 Basic information on company performance

Figures on the company	2003	2004
1) The size of the company		
a) The number of employees		
b) The annual turnover (in Lek)		
2) Operating profit of the company		
a) Net profit (in Lek)		
b) Gross profit (in Lek)		
3) The value added of the company		
4) Profitability of the company (in Lek)		
5) The expenditure on the following activities (in Lek)		
a) Research and development		
b) Advertising and promotion		
c) Training of personnel		
6. Total fixed assets		
7. Total sales		
8. Gross input		
9. Gross output		

PART 2. HUMAN RESOURCE AND TECHNOLOGY

PART 2.1 HUMAN RESOURCE DEVELOPMENT AND LABOR MOBILITY

2.1.1 The number of employees by each category for 2004

Category of Employment	Albanians (Nr of employees)	Non-Albanians (Nr. of employees)
a) Managerial		
Technical		
Non-technical		
b) Non-managerial		
Technical		
Skilled		
Semi-skilled		
Others (e.g. clerical)		
TOTAL		

2.1.2 What is the education level of your employees? (% of employees)
a) University _____ b) High school _____
c) Technical/Vocational Elementary education _____ d) Elementary level or lower _____

2.1.3 Is the owner of the firm also the manager? a) Yes ☐ b) No ☐

2.1.4 What is the educational level of the firm owner(s)?

a) University ☐ **b) High school** ☐ **c) Tech/Vocational** ☐ **d) Lower/Elementary** ☐

2.1.5 Has your firm provided training of any kind to the workers in the last FIVE years?
a) Yes ☐ b) No ☐

2.1.6 If the answer to 2.1.5 is Yes, the training has been: a) Compulsory ☐ b) Voluntary ☐

2.1.7 If the answer to 2.1.5 is Yes, the training has been:
a) Within working hours ☐ b) Out of the working hours ☐

2.1.8 If your answer in 2.1.5 was Yes, please provide estimates on how training is organized for 2004:

a) The estimated training cost as % of payroll	
b) Nr. of training courses per year	
c) Nr. of weeks of training per year	
d) Nr. of employees involved in training programs	
e) Type of employees involved in training programs	
f) Nr. of employees trained inside the company (on-job training)	
g) Nr. of employees trained outside the country	
h) Nr. of external staff used to train employees	

2.1.9 Has your company a separate training department? a) Yes ☐ b) No ☐

2.1.10 Has your company ever lost some of its workers to other competing firms in the past?

a) Yes ☐ b) No ☐ If yes, how many _____

2.1.11 If the answer to 2.1.9 is Yes, what type of workers were they?

a) Managers and professionals ☐ b) Engineers and technicians ☐
c) Simple workers d) Others (please specify) ☐ _____

2.1.12 If your answer in 2.1.7 was Yes, what kind of firms did they join? (Multiple answers can be provided) a) Foreign firms ☐ b) Local firms ☐ c) Start their own firms ☐

2.1.13 How severe is lack of skilled workers (qualified engineers and technicians) to your firm?

a) Not severe ☐ b) Average ☐ c) Very severe ☐

2.1.14 What is the policy of your company regarding employment of skilled qualified workers e.g. scientists, engineers, technicians and other professionals (Use a scale of 1-5 in each of the below categories, where 1 = weak policy; 5 =very strong policy)

	Weak policy				Very strong policy
To employ graduates from poly-technique institutions	1	2	3	4	5

To employ fresh university graduates	1	2	3	4	5
To employ experienced workers from local firms	1	2	3	4	5
To employ experienced workers from other foreign firms	1	2	3	4	5
To employ experienced workers from outside the country	1	2	3	4	5

2.1.15 Did your company employ workers from other companies? a) Yes ☐ b) No ☐

2.1.15 If your company has employed workers from other companies what kind of workers were they?

a) Managers & professionals ☐ b) Skilled scientists & engineers ☐
c) Technicians, craftsmen & artisans ☐ d) Simple workers ☐ e) Others (please specify) _____

2.1.16 If your company has employed workers from other companies, what kind of companies did they come from? (Multiple answers can be provided)
a) Foreign firms ☐ b) Local firms ☐ c) Others (please specify) ☐ _____

2.1.17 If the answer to 2.1.17 is a) or b) or both, how would you rate the contribution of such workers to your firm in the performance of your company: (Use a scale of 1-5 in each of the below categories, where 1 = no improvement; 2 = limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement)

	No improvement				Very large improvement
Business performance					
Sales	1	2	3	4	5
Employment	1	2	3	4	5
Investment	1	2	3	4	5
Productivity	1	2	3	4	5
Profitability	1	2	3	4	5
Wages	1	2	3	4	5
Operating practices					
Management philosophy and practices	1	2	3	4	5
Products and marketing	1	2	3	4	5
Production processes	1	2	3	4	5
Technology processes and innovation	1	2	3	4	5
Labor management and training	1	2	3	4	5
Financial management and organizational structure	1	2	3	4	5
Competitive position					
Product quality	1	2	3	4	5
Price	1	2	3	4	5
Cost	1	2	3	4	5
Lead time performance/speed of service	1	2	3	4	5
Delivery	1	2	3	4	5
Inventory control	1	2	3	4	5
Product design	1	2	3	4	5
Marketing and promotion skills	1	2	3	4	5
Specialized expertise or products	1	2	3	4	5
Professionalism	1	2	3	4	5
Established reputation	1	2	3	4	5
Responsiveness to client needs	1	2	3	4	5
Export Potential					
Export capability	1	2	3	4	5
Opportunity to secure new markets and customers	1	2	3	4	5

PART 2.2 EXISTING TECHNOLOGY/CAPITAL

2.2.1 What is the core plant and production machinery used in the business? _____

_____

2.2.2 How can you describe your production machinery? (put percentage for each)
a) Purchased new ☐ ——— b) Bought Second hand ☐ ———

2.2.3 When did your firm last make and/or introduce new product(s)?
a) 0-1 years ☐ b) 1-2 years ☐ c) 2-5 years d) over 5 years ☐

2.2.4 What was the estimated cost of making and/or introducing this product(s)?
Lek _____

2.2.5 Are the new products new to?
a) Your firm ☐ b) Local market ☐ c) Regional market ☐ d) Global market ☐

2.2.6 Has your company undertaken any improvements on any of its already existing products in the last five years? a) Yes ☐ b) No ☐

2.2.7 What is the source (origin) of your core production machinery?
a) Fully local ☐ b) Combination of local and foreign ☐
c) Fully foreign ☐ → Main foreign country source _____

2.2.8 What is the estimated *age* of your *core* production machinery? _____ Years

2.2.9 What is the estimated *value* of your *core* production machinery? _____ Lek

2.2.10 Is the production machinery? a) State of Art b) Second-generation ☐ c) Older ☐

2.2.11 When did you last make new investment in production equipment?
a) 0-1 years ☐ b) 1-2 years ☐ c) 2-5 years d) over 5 years ☐

2.2.12 Do you have technical partners? a) Yes ☐ b) No ☐
If yes, what is the origin a) Foreign ☐ b) Local ☐

2.2.13 Have you carried out any modifications on your machinery in the last five years?
a) Yes ☐ b) No ☐ If yes, how would you regard it? a) Major ☐ b) Minor ☐

2.2.14 In carrying out modifications on your machinery did you get any assistance? a) Yes ☐ b) No ☐
If yes, you got the assistance from a) Local consultants ☐ b) Foreign technical partners ☐

2.2.15 Can you compare your technology with current technology of other companies in Albania
(Use a scale of 1-5, where 1 = well below other companies; 2 = below other companies; 3 = about the same as other companies; 4 = above other companies; 5 = well above other companies)

	Well below other foreign companies				Well above other foreign companies
Comparison of technology with other foreign companies	1	2	3	4	5

2.2.15 Can you compare your technology with other companies in the world
(Use a scale of 1-5, where 1 = well below other companies; 2 = below other companies; 3 = about the same as other companies; 4 = above other companies; 5 = well above other companies)

	Well below other foreign companies				Well above other foreign companies
Comparison of technology with other foreign companies	1	2	3	4	5

PART 3. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL SUPPLIERS

3.1 Where does your company sell its final products? (please tick as appropriate)
a) Local customers ☐ b) Foreign customers inside Albania ☐ c) Foreign customers out of Albania ☐

3.2 If your answer to 3.1 is a) and b) please state the reason(s) why? (please tick as appropriate, you may give more than one choice)
a) High price ☐ b) Local market access ☐ c) High purchasing volume ☐ d) Other (please specify) ☐ _____

3.3 If your answer to 3.1 is c), please state the reason (s) why your company does not sell its products to the customers inside Albania? (please tick as appropriate, you may give more than one choice)
a) High price ☐ b) Not satisfactory payment system ☐ c) Low purchasing volume ☐
d) Access in foreign market ☐ e) Other (please specify) ☐

3.4 Please provide the estimated proportion of your company's destination of products:

Final/Intermediate foreign customers operating in Albania		**Local customers**		*Foreign customers operating outside Albania*	
%	**Location(s)**	**%**	**Location(s)**	**%**	**Country(s)**

3.5 If your answer to 4.1 is (b), please list the names of your FOUR most important FOREIGN final customers operating in Albania and the percentage of (total) products purchased by each of them:

Company Names	**% of Products**	**Company Names**	**% of Products**
a)		**b)**	
c)		**d)**	

3.6 If your answer to 4.1 is (b), please list the names of your FOUR most important FOREIGN intermediate customers and the percentage of (total) products purchased by each of them:

Company Names	**% of Output**	**Company Names**	**% of Output**
a)	**a)**	**c)**	**a)**
b)	**b)**	**d)**	**b)**

3.7 Does your company develop and maintain relationship with your FOREIGN final and intermediate customers? a) Yes b) No ☐

3.8 Is there any difference in quality between the same products that are sold abroad and locally?
a) Yes ☐ b) No ☐ If yes, can you please mention why? _____

3.9 If your answer to 3.1 is (a) and (b), does your company do the distribution itself to its FOREIGN customers operating in Albania? a) Yes ☐ b) No ☐
If No, what is the estimated number of the distribution companies? _____

3.10 Do the products go only to ONE location? a) Yes b) No ☐ → How many ? _____

3.11 Can you estimate how far the products are transported before reaching the FOREIGN customers?

a) 1-20 km ☐ b) 21- 100 km ☐ c) 100-200 km ☐ d) above 200 km ☐

3.12 What proportion of your FOREIGN customers are directly involved in production activities (value added to the products purchased)? _____%_____

3.13 Does your company make any sales contract with FOREIGN customers? a) Yes b) No ☐

If Yes, for what period? _____Years

3.14 Does your FOREIGN customers operating in Albania put specific requirements to your company in terms of? (Use a scale of 1-5 in each of the below categories, where 1 = no specific requirements; 5 = highly specific requirements)

	No specific requirements				Highly specific requirements
Quality control of raw materials and components	1	2	3	4	5
On time delivery (speed of delivery)	1	2	3	4	5
Technical standards	1	2	3	4	5
Price	1	2	3	4	5
Penalties for delivery failure	1	2	3	4	5
Production procedures	1	2	3	4	5
Documentation procedures	1	2	3	4	5
Invoicing	1	2	3	4	5
Transportation standards	1	2	3	4	5
Insurance	1	2	3	4	5
Packaging	1	2	3	4	5
Flexibility	1	2	3	4	5
Efficiency	1	2	3	4	5

3.15 Impact of the foreign customer/s on the performance of the company (Use a scale of 1-5 in each of the below categories, where 1 = no improvement; 2 = limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement)

	No improvement				Very large improvement
Business performance					
Sales	1	2	3	4	5
Employment	1	2	3	4	5
Investment	1	2	3	4	5
Productivity	1	2	3	4	5
Profitability	1	2	3	4	5
Wages	1	2	3	4	5
Operating practices					
Management philosophy and practices	1	2	3	4	5
Products and marketing	1	2	3	4	5
Production processes	1	2	3	4	5
Technology processes and innovation	1	2	3	4	5
Labor management and training	1	2	3	4	5
Financial management and organizational structure	1	2	3	4	5
Competitive position					
Product quality	1	2	3	4	5
Price	1	2	3	4	5
Cost	1	2	3	4	5
Lead time performance/speed of service	1	2	3	4	5

Delivery	1	2	3	4	5
Inventory control	1	2	3	4	5
Product design	1	2	3	4	5
Marketing and promotion skills	1	2	3	4	5
Specialized expertise or products	1	2	3	4	5
Professionalism	1	2	3	4	5
Established reputation	1	2	3	4	5
Responsiveness to client needs	1	2	3	4	5
Export Potential					
Export capability	1	2	3	4	5
Opportunity to secure new markets and customers	1	2	3	4	5

3.16 Which are the main transmission mechanisms for being actively influenced by foreign customers?

(Use a scale of 1 – 5 to each of the below categories, where 1 = not important; 3= important, 5 = very important)

	Not important				Very important
Active mechanisms					
Cooperation effect through site visits on technical and quality issues.	1	2	3	4	5
Networking (e.g. conferences/seminars, trade associations)	1	2	3	4	5
Informal sharing of views and ideas	1	2	3	4	5

3.17 Conditions influencing the positive impact from foreign customers:

(Use a scale of 1-5 in each of the below categories, where 1 = not important and 5 = very important)

	Not important				Very important
Technology gap between foreign and domestic firms	1	2	3	4	5
Productivity gap between foreign and domestic firms	1	2	3	4	5
Absorptive capacity (human capability or skills)	1	2	3	4	5
Cultural gap	1	2	3	4	5
R&D expenditure	1	2	3	4	5
Geographical proximity of domestic firms to foreign ones	1	2	3	4	5

3.18 As a result of improved performance, did your company need to do the following? (Use a scale of 1-5 in each of the categories below, where 1 = never applied; 5 = applied very often)

	Never				Very often
Diversity into other products	1	2	3	4	5
Acquire new processing techniques	1	2	3	4	5
Improve the existing techniques	1	2	3	4	5
Employ new workers	1	2	3	4	5
Undertake workers training	1	2	3	4	5
Improve market strategies	1	2	3	4	5
Improve organization, management, marketing of the company	1	2	3	4	5
Form joint ventures with foreign companies	1	2	3	4	5
Others (please specify)	1	2	3	4	5

3.19 To what extent has the relationship between your company and your foreign customers affected the latter in terms of the following (reverse effects)?
(Use a scale of 1 – 5 in each of the below categories, where 1 = no transfer and 5 = high transfer)

	No transfer				High transfer
Information on local markets	1	2	3	4	5
Transfer of knowledge	1	2	3	4	5

PART 4. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL CUSTOMERS

4.1 Where does your company purchase the products? (please tick as appropriate)

a) Local firms ☐ b) Foreign firms operating in Albania ☐ c) Foreign firms operating outside Albania ☐

4.2 If your answer to 4.1 is a) or b), please state the reason(s) why (please tick as appropriate, you may give more than one choice)

a) Low cost/price raw materials ☐ b) Local market access ☐ c) Resources access ☐

d) Geographical proximity/low transport cost ☐ c) Other (please specify) ☐ _____

4.3 If your answer to 3.1 is b) and c), please state the reason (s) why the company does not purchase products from manufacturing firms operating in Albania (please tick as appropriate, you may give more than one choice)

a) Lack of availability of local manufacturing firms ☐ b) Low quality ☐ c) High price/cost ☐

d) Low technology/lack of suitable products☐ e) Unreliable supply/low volumes ☐

f) Packaging is not good ☐ g) Strategy provided by government ☐

h) Type of the firm's activity ☐ i) Other (please, specify) ☐ _____

4.4 Please provide the estimated proportion of your company's origin of products:

Foreign manufacturing firms operating in Albania		Local manufacturing firms		Foreign manufacturing firms	
%	City/ies	%	City/ies	%	Country/ies

4.5 If your answer to 4.1 is (a), please list the names of your FOUR most important FOREIGN firms and the percentage of (total) products sold by each of them to your company:

Company Names	% of Products	Company Names	% of Products
a)		b)	
c)		d)	

4.6 Does your company develop and maintain relationship with FOREIGN manufacturing firms from which the products are bought? a) Yes b) No ☐

4.7 Do the products come only from ONE location? a) Yes b) No ☐ → How many ? ___

4.8 Can you estimate how far do the products from FOREIGN manufacturing firm(s) travel to reach your company?

a) 1-20 km ☐ b) 21- 100 km ☐ c) 100-200 km ☐ d) above 200 km ☐

4.9 Does your company make any purchasing contract with the FOREIGN manufacturing companies? a) Yes b) No ☐ If Yes, for what period? _____ Years

4.10 Does your foreign supplier/s operating in Albania put specific requirements to your company in terms of? (Use a scale of 1-5 in each of the below categories, where 1 = no specific requirements; 5 = highly specific requirements)

No improvement	Very large improvement

Purchases	1	2	3	4	5
Prices	1	2	3	4	5
Technical skills	1	2	3	4	5
Professionalism	1	2	3	4	5
Innovation	1	2	3	4	5
Long term relationship	1	2	3	4	5

4.11 Impact of the foreign supplier/s on the performance of the company **(Use a scale of 1-5 in each of the below categories, where 1 = no improvement; 2 = limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement)**

	No improvement				Very large improvement
Business performance					
Sales	1	2	3	4	5
Employment	1	2	3	4	5
Investment	1	2	3	4	5
Productivity	1	2	3	4	5
Profitability	1	2	3	4	5
Wages	1	2	3	4	5
Operating practices					
Management philosophy and practices	1	2	3	4	5
Products and marketing	1	2	3	4	5
Production processes	1	2	3	4	5
Technology processes and innovation	1	2	3	4	5
Labor management and training	1	2	3	4	5
Financial management and organizational structure	1	2	3	4	5
Competitive position					
Product quality	1	2	3	4	5
Price	1	2	3	4	5
Cost	1	2	3	4	5
Lead time performance/speed of service	1	2	3	4	5
Delivery	1	2	3	4	5
Inventory control	1	2	3	4	5
Product design	1	2	3	4	5
Marketing and promotion skills	1	2	3	4	5
Specialized expertise or products	1	2	3	4	5
Professionalism	1	2	3	4	5
Established reputation	1	2	3	4	5
Responsiveness to client needs	1	2	3	4	5
Export Potential					
Export capability	1	2	3	4	5
Opportunity to secure new markets and customers	1	2	3	4	5

4.12 Which are the main transmission mechanisms for being actively influenced by foreign suppliers?

(Use a scale of 1 – 5 to each of the below categories, where 1 = not important; 3= important, 5 = very important)

	Not important				Very important
Active mechanisms					
Cooperation effect through site visits on technical and quality issues	1	2	3	4	5

Networking (e.g. conferences/seminars, trade associations)	1	2	3	4	5
Informal sharing of views and ideas	1	2	3	4	5

4.13 Conditions influencing the positive impact from foreign suppliers:

(Use a scale of 1-5 in each of the below categories, where 1 = not important and 5 = very important)

	Not important				Very important
Technology gap between foreign and domestic firms	1	2	3	4	5
Productivity gap between foreign and domestic firms	1	2	3	4	5
Absorptive capacity (human capability or skills)	1	2	3	4	5
Cultural gap	1	2	3	4	5
R&D expenditure	1	2	3	4	5
Geographical proximity of domestic firms to foreign ones	1	2	3	4	5

4.14 As a result of improved performance, did your company need to do the following? (Use a scale of 1-5 in each of the categories below, where 1 = never applied; 5 = applied very often)

	Never				Very often
Diversity into other products	1	2	3	4	5
Acquire new processing techniques	1	2	3	4	5
Improve the existing techniques	1	2	3	4	5
Employ new workers	1	2	3	4	5
Undertake workers training	1	2	3	4	5
Improve market strategies	1	2	3	4	5
Improve organization, management, marketing of the company	1	2	3	4	5
Form joint ventures with foreign companies	1	2	3	4	5
Others (please specify)	1	2	3	4	5

4.15 To what extent has the relationship between your company and your foreign suppliers affected the latter in terms of the following (reverse effects)?

(Use a scale of 1 – 5 in each of the below categories, where 1 = no transfer and 5 = high transfer)

	No transfer				High transfer
Information on local markets	1	2	3	4	5
Transfer of knowledge	1	2	3	4	5

PART 5. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL COMPETITORS

5.1 Does the company have direct competitors domestically? a) Yes ☐ b) No ☐

5.2 If your answer to 5.2 is Yes, how would you rate this competition?

a) None ☐ b) Moderate ☐ c) Stiff ☐ d) Very stiff ☐

5.3 Who are your main competitors? (please tick as appropriate, you may give more than one choice)

a) Foreign companies ☐ b) Local companies ☐ c) Others (please, specify) ☐_____

5.4 What is the origin of the competitors and who are the FOUR most important competitors?

Domestic	Foreign

Nr	Name of companies	Nr	Name of companies
a)	a)	c)	c)
b)	b)	d)	d)

5.5 How does your company manage to face such competition pressures, especially from foreign firms operating in Albania (If your answer to 5.3 is (a), use a scale of 1-5 in each of the below categories, where 1 = no improvement; 2 = limited improvement; 3 = some improvement; 4 = large improvement; 5 = very large improvement)

	No improvement				Very large improvement
Business performance					
Sales	1	2	3	4	5
Employment	1	2	3	4	5
Investment	1	2	3	4	5
Productivity	1	2	3	4	5
Profitability	1	2	3	4	5
Wages	1	2	3	4	5
Operating practices					
Management philosophy and practices	1	2	3	4	5
Products and marketing	1	2	3	4	5
Production processes	1	2	3	4	5
Technology processes and innovation	1	2	3	4	5
Labor management and training	1	2	3	4	5
Financial management and organizational structure	1	2	3	4	5
Competitive position					
Product quality	1	2	3	4	5
Price	1	2	3	4	5
Cost	1	2	3	4	5
Lead time performance/speed of service	1	2	3	4	5
Delivery	1	2	3	4	5
Inventory control	1	2	3	4	5
Product design	1	2	3	4	5
Marketing and promotion skills	1	2	3	4	5
Specialized expertise or products	1	2	3	4	5
Professionalism	1	2	3	4	5
Established reputation	1	2	3	4	5
Responsiveness to client needs	1	2	3	4	5
Export Potential					
Export capability	1	2	3	4	5
Opportunity to secure new markets and customers	1	2	3	4	5

5.6 Do your competitors compete across the full range of your products? a) Yes ☐ b) No ☐

5.7 If not, what characterizes where they compete? (please tick as appropriate)

a) Less complex products☐ b) Cheaper products ☐ c) Better technology ☐ d) Other ☐

5.8 Which of the aspects below do you consider as your competitive advantage and which as your disadvantage compared to the local competition? (Use a scale of 1-5 in each of the below categories, where 1 = important disadvantage; 2 = somewhat important disadvantage; 3 = the same as local competitors; 4 = somewhat important advantage; 5 = important advantage)

	Disadv.				Advan.
Price	1	2	3	4	5
Cost	1	2	3	4	5
Product quality	1	2	3	4	5

Product design	1	2	3	4	5
Marketing (Advertising and Promotion)	1	2	3	4	5
Technology	1	2	3	4	5
Reliability of services provided to customers	1	2	3	4	5
Volume capacity (scale of production)	1	2	3	4	5
Specialized expertise	1	2	3	4	5
Efficiency &flexibility (speed of delivery, ability to adjust to customer needs)	1	2	3	4	5
Established reputation	1	2	3	4	5
Others (please specify)	1	2	3	4	5

5.9 Does your company expect more competition in the coming years? a) Yes ☐ b) No ☐
If Yes, from which competitors? a) Foreign ☐ b) Domestic ☐ c) Both ☐

5.10 Has your company applied or is planning to apply the following strategies due to competitive pressures? (Use a scale of 1-5 in each of the categories below, where 1 = never applied; 5 = applied very often)

	Never				Very often
Diversity into other products	1	2	3	4	5
Acquire new processing techniques	1	2	3	4	5
Improve the existing techniques	1	2	3	4	5
Undertake workers training	1	2	3	4	5
Improve market strategies	1	2	3	4	5
Improve organization, management, marketing of the company	1	2	3	4	5
Form joint ventures with foreign companies	1	2	3	4	5
Others (please specify)	1	2	3	4	5

5.11 Do you collaborate with your foreign competitors? a) Yes ☐ b) No ☐
If yes, in what way? _____

5.12 Has any of your local competitors gone out of business because the foreign competitor/s have captured the market? Yes ☐ No ☐
If yes, please name any of these companies _____

PART 6. DEMONSTRATION EFFECTS

6.1 Has your company ever introduced or adopted new products and new techniques observed from other companies? a) Yes ☐ b) No ☐

6.2 If your answer to 6.1 is Yes, what kind of companies are they? (Please tick as appropriate, you may select more than one)

a) Competing domestic firms ☐ b) Competing foreign companies ☐
c) Domestic suppliers of your company ☐ d) Domestic customers of your company ☐
e) Domestic distributors of your company ☐ f) Others (please, specify) ☐ _____

6.3 Please list the names of such companies?

a) _____ b) _____

6.4 If the answer to 6.2 is (b), which are the main transmission mechanisms for demonstration effects from foreign competitors? (Use a scale of 1 – 5 to each of the below categories, where 1 = not important; 3= important, 5 = very important)

	Not important				Very important
Active mechanisms					
Cooperation effect through site visits on technical and quality issues	1	2	3	4	5
Networking (e.g. conferences/seminars, trade associations)	1	2	3	4	5
Informal sharing of views and ideas	1	2	3	4	5

6.5 Conditions influencing the demonstration effects from foreign competitors: (Use a scale of 1-5 in each of the below categories, where 1 = not important and 5 = very important)

	Not important				Very important
Technology gap between foreign and domestic firms	1	2	3	4	5
Productivity gap between foreign and domestic firms	1	2	3	4	5
Absorptive capacity (human capability or skills)	1	2	3	4	5
Cultural gap	1	2	3	4	5
R&D expenditure	1	2	3	4	5
Geographical proximity of domestic firms to foreign ones	1	2	3	4	5

PART 7. INFRASTRUCTURE, BUSINESS ENVIRONMENT AND NON-MARKET COLLABORATIONS

7.1 How would you rate provision of the following infrastructure? (Use a scale of 1-5 in each of the below categories, where 1 = very poor; 5 = excellent)

	Poor				Excellent
Transport services (e.g. roads)	1	2	3	4	5
Water supply	1	2	3	4	5
Electricity/power supply	1	2	3	4	5
Telecommunication network	1	2	3	4	5
Public health fascilities	1	2	3	4	5

7.2 What types of technical support has your company received and from which private agencies? (please tick as appropriate)

Type of support	Government	Business associations	Private sources	Others (specify)
Information				
Financial incentives				
Training				
Quality control				
Advertising				
Others (specify)				

7.3 Is the company involved in non-market collaborations such as: (please tick as appropriate and estimate the amount and how often)

Type of collaborations	Amount (Lek)	Total number
Sponsorships		
Chamber of commerce		

Charities		
Seminars		
Others (specify)		

7.4 To what extent has your company benefited from both formal and informal interactions, to the following: (Use a scale of 1-5 in each of the below categories, where 1 = no benefits; 5 = very high benefits)

	No benefits				Very high benefits
Machinery suppliers and consultants	1	2	3	4	5
Raw material suppliers	1	2	3	4	5
Clients and distributors	1	2	3	4	5
Competitors	1	2	3	4	5
Other participants during local exhibitions and trade fairs	1	2	3	4	5
Government and private institutions	1	2	3	4	5
Universities and technical training institutions	1	2	3	4	5
Industry and business association	1	2	3	4	5
Investment and export promoters	1	2	3	4	5
Others (please specify)	1	2	3	4	5

7.5 What is the role of government in promoting and supporting FDI companies and their impact on local companies through: (Use a scale of 1-5 in each of the below categories, where 1 = no support et al; 5 = very strong support)

	No support				Very strong support
Taxes	1	2	3	4	5
Financial incentives	1	2	3	4	5
Others (specify)	1	2	3	4	5

7.6 What is the wide impact of the foreign competitor/s on the local economy (Use a scale of 1 – 5 in each of the below categories, where 1 = strongly detrimental impact; 2 = detrimental impact; 3 = neutral impact; 4 = beneficial impact; strongly beneficial impact)

	Strongly Detrimental impact				Strongly beneficial impact
Direct impact on competition	1	2	3	4	5
Direct impact on local employment	1	2	3	4	5
Indirect impact on local employment	1	2	3	4	5
Development on skilled workforce (training provision, labor supply)	1	2	3	4	5
Provision of technology in the host market	1	2	3	4	5
Productivity, quality and overall performance of domestic competitors	1	2	3	4	5
Productivity and quality of suppliers	1	2	3	4	5
Productivity and quality of business customers	1	2	3	4	5
Environmental impact	1	2	3	4	5
Final customers (product awareness)	1	2	3	4	5
Business conduct	1	2	3	4	5
Collaboration with local/regional agencies	1	2	3	4	5
Tax Revenues	1	2	3	4	5
Overall transition of the country	1	2	3	4	5

END

****

A GUIDE FOR CASE STUDY
DIRECTED TO FOREIGN COMPANIES

THE IMPACT OF TECHNOLOGICAL TRANSFER FROM FOREIGN DIRECT INVESTMENT

Dear Ms/Mr,
The purpose of this case study is related to the PHD thesis with title **"The Direct and Indirect Impact of FDI on Albanian Companies"** of Mamica Skenderi, PHD student in the South East European Center (SEERC), Thessaloniki/Greece.
In the framework of this research, we kindly request that the questionnaire should be filled by the Chief Executive Officer (CEO) or an appropriate deputy in the firm (for example, director or production manager). The successful realization of this study is highly dependent on your support and cooperation, which will be greatly appreciated.
The information that will be provided in this questionnaire will be kept confidential and will be handled ethically according to University of Sheffield ethical policy. The information provided by individual companies will remain anonymous and will only be published in grouped form.

Thank you for your kind collaboration.

PART 1. GENERAL FIRM INFORMATION

Brief history on how and why the firm was started. The firm's origin and ownership status including how it has changed over time as well as the role of various partners (e.g. if the company is a joint-venture). Mode of investment and the reasons for investment in Albania, and whether these reasons have changed over time. Does the firm has a parent company and any sister company?

The main source of finance for investment in Albania, the main barriers on assess to financial institutions and the relationship with the lenders. Explain whether the firm did ever offer or receive financial assistance to/from other firms linked to the firm. The possible investment planned for the coming years.

Discuss the nature of the firms' operation: scale of operation and performance in terms of number of employees, annual turnover, profit, value added, expenditure on R&D/advertising/training, total fixed assets, total sales – domestic and export performance, gross input, gross output, capacity utilization. Try to obtain time trend data on some of these aspects (if possible).

PART 2. DIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL SUBSIDIARIES

PART 2.1 HUMAN RESOURCE DEVELOPMENT AND LABOR MOBILITY

What is the firm employment structure (try to obtain historical time trend on this)? What is the firm organizational structure (try to obtain the organizational structure of the firm)? How does the firm undertake its training process: investment and expenditure on training, training mode and foreign experts involved in this process. Does the firm actually trains its workers or only mobilizes them?

How would you describe the labor mobility from your firm to other firms and vice-versa? How does this labor mobility impact your firms in terms of dynamic changes in the firm (products, processes, technology and innovation, management, marketing and organizational changes)?

PART 2.2 EXISTING TECHNOLOGY/CAPITAL

Explain the type of production machinery used in your firm, its source, cost and major changes over time – improvements of current technology or even adaptations of new technology. What are the reasons for such changes and whether the firm had any assistance from other firms: local, foreign or support institutions? What kind of quality control assurance your firm has?
What are the main products of your firms and the major changes over time? In case of product changes why and how were they undertaken and did the firm have any assistance from other firms: local, foreign or support institutions?

Discuss the extent of transfer of technology, knowledge and skills from the parent company to your firm particularly (particularly in terms of products, processes, technology and innovation, management, marketing and organizational changes). Discuss the support and commitment of the parent company to its subsidiary and its role in decision-making process and administration of the subsidiary (or whether the subsidiary is autonomous in taking decisions).

Discuss and compare your technology with that of your parent company, other companies in Albania and companies in the region.

PART 3. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL SUPPLIERS

Where does the firm rely for the supply of its inputs and other raw materials – local suppliers, foreign suppliers or other foreign companies operating in Albania - and why? Did the source of inputs change over time and why? What are the intentions for the near future?

What kind of backward linkages exist and what is the content, extent and strength of these linkages? Try to understand the type of linkages (transfer of new technology – new products and processes, managerial know-how; marketing and organizational skills). Does the firms put specific requirements to its local suppliers and in terms of what (e.g. quality, time delivery, price, technical standards, production procedures, transportation etc? Which are the main transmission mechanisms for actively influencing local suppliers (e.g. site visits, informal sharing of views, conferences/seminars/trade associations etc.) and the factors that influence the efficiency of this influence (e.g. technology gap, productivity gap, change in culture, geographical distance etc.)? How did the relationship between your firm and your local suppliers affect your firm (e.g. information on local markets, transfer of technology)?

PART 4. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL CUSTOMERS

Where does the firm sell its final products – final local customers, intermediate local customers, foreign customers out of Albania or other foreign customers operating in Albania - and why? Did the destination of your products change over time and why? What are the intentions for the near future?

What kind of forward linkages exist and what is the content, extent and strength of these linkages? Try to understand the type of linkages (transfer of new technology – new products and processes, managerial know-how; marketing and organizational skills). Does the firms put specific requirements to its local customers and in terms of what (e.g. quality, time delivery, price, technical standards, production procedures, transportation etc)? Which are the main transmission mechanisms for actively influencing local customers (e.g. site visits, informal sharing of views, conferences/seminars/trade associations etc.) and the factors that influence the efficiency of this influence (e.g. technology gap, productivity gap, change in culture, geographical distance etc.)? How did the relationship between your firm and your local customers affect your firm (e.g. information on local markets, transfer of technology)?

PART 5. INDIRECT EFFECTS OF FOREIGN DIRECT INVESTMENT ON LOCAL COMPETITORS

Does your firm have any form of competition locally (direct of indirect)? Can you identify your main competitors? Are they are local or foreign? What do your competitors produce and what characterizes where they compete? Where do they purchase their raw materials? Which markets do they serve, are they exporters?

What technology do you they have and how it can be compared with your technology? What enables you to face such competition (e.g. price, quality, technology, marketing, volume, reputation, efficiency and flexibility)? Does your firm collaborate with its competitors and in what? Did any of your local competitors go out of business due to competitive pressure from your firm or any other foreign firm?

PART 6. DEMONSTRATION EFFECTS

Have other firms (local or foreign) introduced or adopted new products, new production techniques, new management and organization and marketing techniques observed from your firm? Has your firm introduced or adopted new products, new production techniques, new management and organization and marketing techniques observed from other firms (local or foreign)? Did your firm benefit from these demonstration effects? Which are the main transmission mechanisms for effective demonstration effects (e.g. site visits, informal sharing of views, conferences/seminars/trade associations etc.) and the factors that influence their efficiency (e.g. technology gap, productivity gap, change in culture, geographical distance etc.)?

PART 7. INFRASTRUCTURE, BUSINESS ENVIRONMENT AND NON-MARKET COLLABORATION

Assess the nature of infrastructure and the business environment and how have these affected your firm's performance and productivity? Explain how did your firm benefit by interacting with various government institutions, private institutions, business associations, and universities, and has your firm been of benefit to any of these? Is the firm involved in non-market collaborations (e.g. sponsorships, charities, seminars, chamber of commerce)?

Discuss been the role of government so far in promoting and supporting FDI companies in Albania (e.g. financial incentives, taxes, customs, special programs etc.)? Discuss the wide effects of FDI in the Albanian economy (e.g. competition, employment, development of human capital, provision of technology, improvement of productivity, economic growth, tax revenues, overall transition of economy).

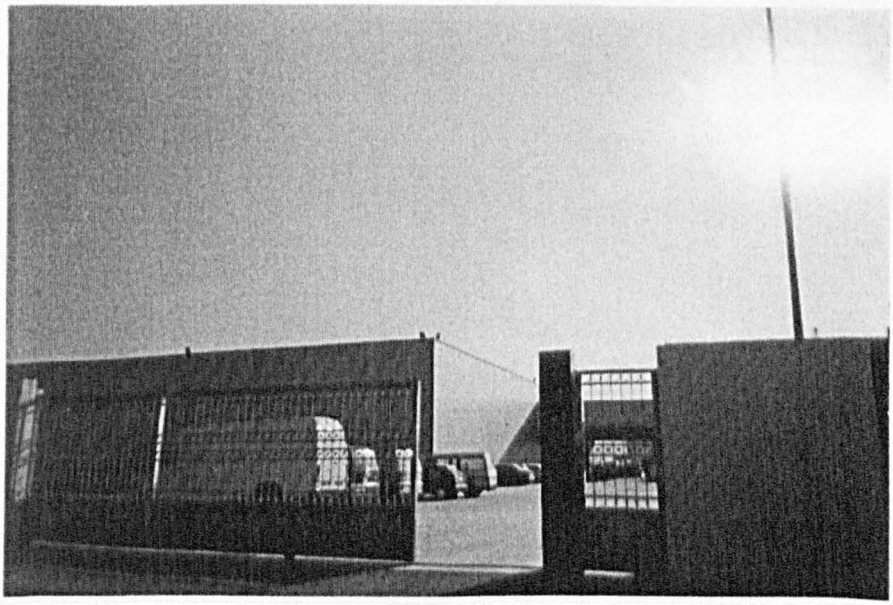
Physical infrastructure: e.g. transport services, water supply, power supply, telecommunication network, and public health.
Business associations: e.g. Union of Chambers of Commerce and Industry, Union of Industrialists and Investors in Albania, Albanian Agribusiness Council (KASH), Italian Entrepreneurs in Albania Association, Foreign Investors in Albania Association (FIAA), American Chamber of Commerce, Albanian Bankers Association, Mayors Association, Association for the Protection of the Businessmen and the Market.
Public and Private Institutions: e.g. access to capital/finance, legal system and judiciary, technical training institutions, university education, R&D institutions.

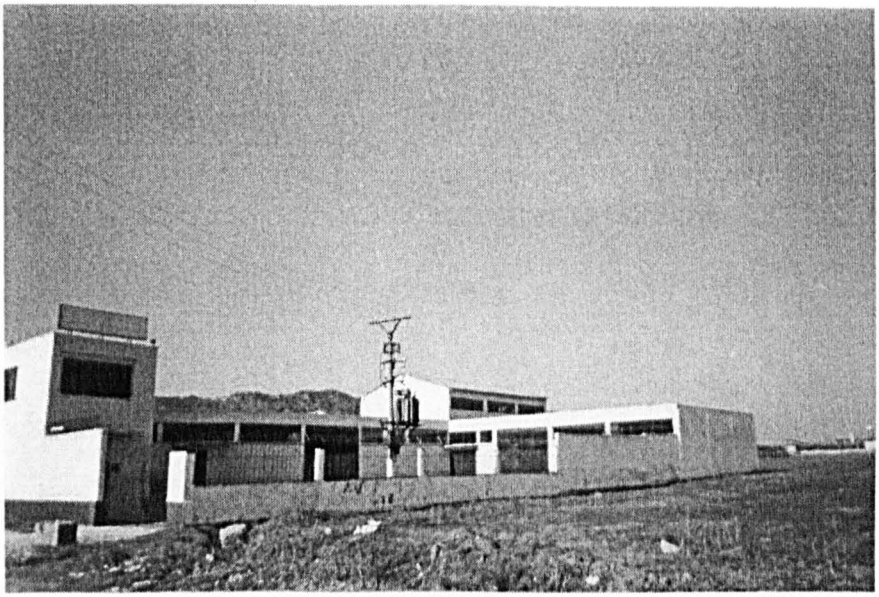
PART 8. FUTURE STRATEGIES

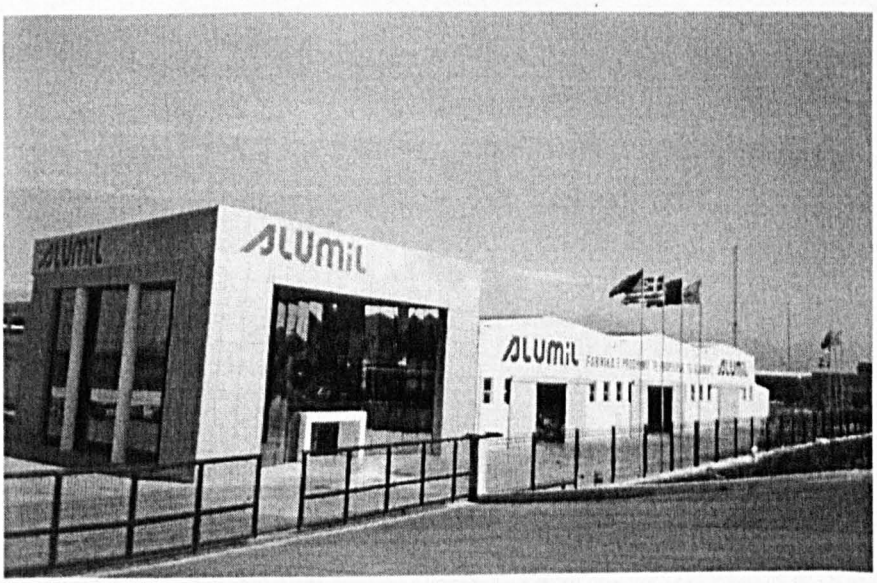
Explain and discuss the future strategies of your firm (e.g. diversify into new products, acquire new processing techniques, improve the existing techniques, undertake workers training, improve market strategies, improve organization/management/marketing of the firm, form joint ventures with local firms, expand the activities into other countries of South-East Europe).

END

APPENDIX B – PHOTOGRAPHS FROM FIELD WORK IN ALBANIA






ALUMIL
ALUMIL
ALUMIL