

EFFECTS OF DIRECT FOREIGN INVESTMENT  
ON ECONOMIC DEVELOPMENT:  
A STUDY OF THE TURKISH  
EXPERIENCE, 1980-1995

By

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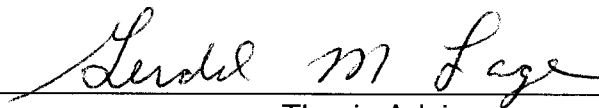
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## LIST OF VARIABLES

Y = Gross domestic product

K = Capital stock

L = Labor input

X = Exports

GDPGR = Annual growth rate of the real gross domestic product

I = Aggregate investment

LG = Annual growth rate of labor force

XG = Rate of growth of exports of goods and services

FDI = Inflows of foreign direct investment

GDP = Gross domestic product

TB = Trade account balance

DRATE = Turkish discount rate

EXRT = Exchange rate between US dollar and Turkish lira

FDIGDP = Foreign direct investment as a proportion of GDP

GDSGDP = Gross domestic saving as proportion of GDP

EMGR = Annual growth rate of employment

C = Consumption

M = Imports

S = Savings



G = Government expenditures

T = Taxes

TR = Net transfers received by private sector

YD = Disposable income

## CHAPTER I

### INTRODUCTION

#### Significance and Scope of the Study

Economic development can be complex and difficult task for developing countries. Its proper understanding requires the study of a number of diverse factors of an economic, political, sociological and technological nature and the way these factors correlate to one another.

Theories of growth and economic development focus attention on an increase in real per capita income and relate such increases to certain major factors, such as capital accumulation, population growth, organization of labor, technological progress and the discovery of new recourses<sup>1</sup>. In all such theories, capital accumulation leads to faster economic growth. It is then obvious that foreign direct investment, by affecting capital accumulation, should be capable of influencing economic development. Moreover, since the foreign direct investment is usually associated with technological progress this effect can be strengthened further.

To achieve economic success, developing countries have to turn to industrially advanced and developed nations of the world for assistance. In order

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<sup>1</sup> Higgins, B (1968). Economic development, principles, problems and policies. New York: W. W. Norton, p.188.

to support their development they have to deal with the problem of scarcity of capital as well as other deficiencies in technology, organization, marketing etc.

Developing countries need to solve their fundamental problem of attracting adequate and healthy flows of foreign direct investment for their development purposes. Compared with the developed countries, developing nations as a whole are still considered a more complex and difficult environment within which to manage foreign direct investment operations because of limited supplies of investment resources in the face of excessive demands, incompatible social and economic systems between the investing and hosting sides, and inadequate host-government efforts to cope with the several shortfalls<sup>2</sup>. All of these have either prevented investors from moving towards more substantial and long term commitments in developing nations or obstructed the developing countries' attempts to channel foreign direct investment into the mainstream of their development process.

The new trend of foreign direct investment development and the problems it confronts have led to a new concern in the world-wide debate. How can foreign direct investment as a particular form of international transaction contribute effectively to the developing nations' development process, as is increasingly expected? Although the role of multinational corporations stays at the center of the discussion, more attention has been given in recent years to the responsibility developing countries must take.<sup>3</sup> It is obvious that basic attitudes

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<sup>2</sup> Paul W. Beamish (1985). "The Characteristic of Joint Ventures in Developed and Developing Countries". Columbia Journal of World Business, 20(3), p.13.

<sup>3</sup> Jose De La Torre (1981). "Foreign Investment and Economic Development: Conflict and Negotiation". Journal of International Business Studies, 12(2), p 16-17.

and strategies of the governments of developing countries have important impacts in shaping the process and outcome of foreign direct investment practices in the developing countries.

On the other hand, empirical studies related to efforts of developing countries to investigate and utilize foreign direct investment as a useful resource for achieving national economic goals remain limited and insufficient for various reasons. First of all, the active objective of attracting foreign direct investment in some less developed countries is quite a recent circumstance and its real importance will take some time to fully access for both the investing and hosting countries. In addition, research into ongoing foreign direct investment facilities in most developing countries is difficult due to problems of access to information in those countries. Finally, an overall analysis of less developed countries' experience with foreign direct investment is obstructed by the broad and complex nature of such study. The developing world contains countries differing significantly in economic, political and cultural backgrounds and, therefore, having a wide diversity of expectations and approaches to foreign direct investment. The government of each developing country making decisions regarding foreign direct investment, furthermore, confronts a multitude of demands and constraints at home and must consider conflicting variables such as short term versus long term benefits, economic versus social criteria, tangible versus intangible assets, and so forth.<sup>4</sup> Therefore, any attempt to generalize a foreign direct investment study in developing nations is remarkably difficult.

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<sup>4</sup> ibid., p. 14.

Before going any further, discussion of foreign assistance can be analyzed under the discussion of two-gap model.

### The Two-Gap Model

The development process of a country is likely to be obstructed by a number of limitational constraints. These are: (i) the difficulty of developing nations to increase their saving ratio to match their investment requirements; (ii) the inability of such nations to finance their imports through their export earnings; and (iii) the limitation imposed by a country's absorptive capacity. The first two constraints are known as the 'two-gap model' in development economics. The third constraint, absorptive capacity, needs some explanation. Meier (1964) defines absorptive capacity as the limit of efficient investment physically possible in the short-run. Absorptive capacity depends on a number of factors. Among these factors listed by Meier are natural resources, taxes, technical and managerial skills, entrepreneurial capacity, the efficiency of public administration, the extend of "technology mindedness" of the population, and so on. If these factors are insufficient, he argues the absorptive capacity is likely to be low resulting, indeed, in a low rate of investment (p. 93). Petrochilos (1989) states that a country cannot expand its economy effectively by obtaining all its necessary recourses from abroad. This is because other productive resources may not be available in the appropriate quantity and/or quality to combine effectively; the educational, and technical expertise, necessary to use up-to-date technology, may be missing; and generally the social and structural

arrangements of the country may not be favorable to increase rates of development (pp. 2-3). Thus, the absorptive capacity argument implies that, given the state of a country's endowments, there is a maximum rate of economic growth.

The idea of the 'two-gap model' in development economics can be explained in the simple macroeconomics analysis. At the beginning we can define the basic identity of national accounting:  $Y=C+I$ , where  $Y$  is gross domestic product,  $C$  is consumption, and  $I$  stands for investment. Then when we introduce exports  $X$  and imports  $M$  to the model, the equation can be rewritten as  $Y+M=C+I+X$ . This equation states that imports are added to domestic product to expand the available supplies, which in turn are needed to support both domestic usages - in the form of consumption and investment- and exports.

The equation can also be written as  $M-X=(C+I)-Y$ , which states that expenditure on consumption and investment goods and services can exceed domestic production so long as there is an excess of imports of goods and services over exports. Obviously this excess represents borrowing or aid from abroad. Moreover, because  $S=Y-C$ , it follows that  $M-X=I-S$ , which states that when investment needs exceed savings, imports will exceed exports. The next step is the substitution of suitable relationship for  $M$ ,  $X$ ,  $I$  and  $S$  into above identity to produce estimates of the two gaps<sup>5</sup>.

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<sup>5</sup> Government sector can also be introduced to the macroeconomic model. In the model  $G$  stands for purchases of goods and services by government. Since part of the income is spent on taxes ( $T$ ) and the private sector receives net transfers ( $TR$ ), in addition to national income, disposable income ( $YD$ ) equation can be written as  $YD=Y+T-TR$ . On the other hand, disposable income is allocated to consumption and saving:  $YD=C+S$ . Therefore both equation can be rewritten as;  $C+S=YD=Y+TR-T$  or  $C=YD-S=Y+TR-T-S$ . Finally, with the consideration of trade we obtain  $(S-I)=(G+TR-T)+(X-M)$ . Thus the

From this analysis it is obvious that the need of developing countries for foreign assistance is to cover an inadequacy in productive resources and a shortage of foreign earnings to pay for their import requirements. The idea of two-gap model can be demonstrated as follows. Assume that a country has set an aim to increase output by a given amount over a planning time,  $t$  years. Given an incremental capital-output ratio, investment requirements in the objective year can be determined as  $I_t$ . Initial savings are known and by using a linear savings function total potential savings can be calculated as  $S_t$ . If planned savings are less than planned investment, such as, if  $I_t - S_t > 0$ , it follows that the goal level of output cannot be achieved because it is constrained by a savings gap or a gap of productive resources. To solve this deficiency problem the country needs assistance to bridge this gap and thus enable it to reach the target. On the other hand, there are certain import requirements which need to be fulfilled. These may take the form of not only capital goods but also materials, components and even consumption goods. Objective import requirements are determined by initial imports and a marginal propensity to import, as  $M_t$ . The model assumes that exports are given exogenously as  $X_t$ , implying that they depend on outside forces, such as foreign demand and, therefore, are not affected by policies of the country in question. If the import requirements exceed exports there is a shortage of foreign exchange, which represents a further constraint in the attainment of the plan's goals, and this

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equation states that the excess of saving over investment is equal to the government budget deficit plus the trade surplus.

trade gap has to be covered by capital inflows from abroad if the projected level national output is to be reached.

At the target level of national output, the amount which people would be prepared to save may exceed the amount required for investment goals, after subtracting the contribution of foreign support to this aim. In this case, foreign assistance is needed to raise the foreign exchange earnings and not to increase domestic savings. This means that the foreign exchange gap or trade gap dominates the saving gap. Since the successful achievement of the plan's aim requires that both the investment and import prerequisites are satisfied, the size of these two gaps determines the required foreign help. In the condition of a trade gap any attempts to increase domestic savings are not successful because the recourses liberated cannot extend productive investment.

The model contends that there are two gaps, a saving gap and a foreign exchange gap. Moreover, these two gaps will usually be unequal. The larger gap then becomes the dominant constraint on growth and the theory implies that a possible dominance is indicative of where to put the emphasis in policy recommendations. The theory also suggests that there are different phases of the development process, during which the trade constraint and afterwards the saving constraint are the binding ones. This model outlines some of the problems facing developing countries and their dependence on foreign assistance. On the other hand, it must be emphasized that some of the assumptions of the model are quite inflexible, especially with regards to the developing countries' ability to influence, through proper government policies, the



level of savings and exports. Such policies may include policies offering appropriate incentives for the motivation of savings as well as the earning and/or saving of foreign exchange such as, interest discounts on the value of exports, lessening of imports etc.<sup>6</sup>

This argument would seem to imply that the foreign exchange necessary to finance the capital requirements of the development plans of a country ought to be sought in extended exports rather than increased aid. Therefore, the affects of increased exports on economic development which are potentially more significant than those of foreign capital inflows are related to linkages on employment and the different patterns that foreign capital inflows can take. Cohen states that increased export earnings contributes to economic development more than increased capital inflows (1968).

Another point in this discussion is the relation between domestic savings and foreign capital inflows. Empirical studies have shown that a possible decrease in domestic savings could be the result of foreign capital inflows. The appearance of foreign capital curtails the pressures and incentives to save and can also stimulate increased consumption of imported goods. Fry (1995) also sites this adverse effect. He found that foreign direct investment reduces national savings. One possible explanation is that residents of a country may find that situations for foreign direct investment are more favorable than they are

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<sup>6</sup> McKinnon, R. (1963). "Foreign exchange constraints in economic development and efficient aid allocation". *World Development*, 21(3), pp. 169-189. & Chenery, H. B. & Strout, A. M. (1966). "Foreign assistance and economic development". *American Economic Review*, 56, pp. 679-773. Quibria, M. G. (1980). "Two-gap models of foreign aid". *Journal of Economic Development*, 5(1), pp. 67-89.

for locally financed investment.<sup>7</sup> Therefore, they would have an incentive to remove capital from their country to bring it back again in the form of foreign direct investment. To the extent that these people wish to hide the capital outflow, they will overinvoice imports and underinvoice exports. In such case, an increase in foreign direct investment inflows would be accompanied by reduction in recorded national savings.

The two-gap model explains the importance of foreign assistance in the economic development process. However, some interesting questions should be asked. What kind of assistance or how much of it is necessary? Finally, the effects of foreign assistance on a recipient country's economy ought to be analyzed. The main purpose of this study, in this respect, will be the influence of foreign direct investment on the host countries, particularly in Turkey and its contribution to economic growth of Turkey since 1980. First of all, a short discussion of different forms of foreign investment is required.

### Types of Foreign Investment

Foreign investment can be both private and government. Private investment can also be subdivided into portfolio investment and foreign direct investment.

Portfolio investment happens when an individual or a company purchases bonds or stocks from abroad in quantities too small to gain control of a foreign firm. In this kind of investment foreign investors are interested in the higher

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<sup>7</sup> Fry, M. J. (1995). Money, interest, and banking in economic development. Baltimore: The John Hopkins University Press.

return of capital, which arises from lack of capital abroad. It is a capital movement of funds which flow from low-interest rate regions to higher interest rate areas. Another factor affecting portfolio investment is government decisions abroad such as inter-governmental loans, the level of imports from invested countries, which influence the volume of export credits in turn, and the credit worthiness of the debtor countries. Portfolio investment constituted much the larger part of international investment in the nineteenth century.

On the other hand, foreign direct investment is defined as an investment in which the investor acquires a substantial controlling interest in a foreign firm or sets up a subsidiary in a foreign country. Direct foreign investment involves ownership and/or control of a business enterprise abroad. Direct investment is important for developing countries because, apart from movement of financial capital it may evoke, it brings new and superior technology, managerial and technical skills, improved marketing techniques, etc. Therefore, foreign direct investment is seen as a bundle<sup>8</sup> of all these factors in which developing countries are inadequate. However, in order to have direct investment it is not necessary for the actual movement of financial capital to take place. The foreign investor can try to raise the necessary funds by borrowing in the local capital market, although in some countries this option may be limited or even non-existent. What is necessary is that the investor commands some kind of monopolistic advantage, often in the form of know-how. Johnson (1970) states that "the transference of knowledge is the crux of the direct investment process".

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<sup>8</sup> Vernon, R. (1971). Sovereignty at Bay: the multinational spread of US enterprises. New York: Basic Books.

Foreign direct investment is also a means of obtaining not only capital but also technology, scarce management and skills, improved marketing know-how, and outlets for non-traditional exports of manufactures, processed commodities and traded services (Hymer and Rowthorn, 1970). This information obviously represents an asset to the multinational firms, which are the main vehicle of foreign direct investment, by having special knowledge, the patents, know-how and managerial expertise. Therefore, with all these advantages multinational corporations become such important vehicles of transmission of new ideas, products, technology and managerial techniques across borders.

A company may decide that these factors can be hired or sold to other countries through royalty agreements and licensing. Thus, when a company decides to invest abroad it has to mean that it expects profits from international production to be larger than they would have otherwise been. On the other hand, a firm has some other ways to consider for the better utilization of its advantages than investing directly. First of all, a company may produce at home and rely on exports to satisfy demand abroad. Moreover, it may decide to license its special knowledge. Finally it may decide to invest abroad. As a result, the decision to invest directly shows that there is an element of economic rent for the firm's special knowledge which the firm wants to capture in the host country.

From the view point of the host country, foreign direct investment and portfolio investment can be compared as follows. As a host country, foreign direct investment does not involve fixed interest charges, which the portfolio

investment induces. Direct foreign investment is also likely to play a bigger role in promoting growth than portfolio investment. It can also help in restructuring the host country's economy.

It was mentioned earlier that the main characteristic of foreign direct investment, which separates it from other types of foreign inflows, is that it involves foreign ownership and control of the means of the production. The effects of foreign production on the local society can have many dimensions - social, political and economic.

CHAPTER II

THE DETERMINANTS AND TYPES OF  
FOREIGN DIRECT INVESTMENT

Introduction

The growth of foreign direct investment has led to discussion regarding factors affecting such investment. Moreover, even though foreign investors have disadvantages locating a subsidiary in another country, flows of foreign direct investment have increased. In 1995, \$167 billion of private capital flowed into developing countries, and \$90 billion of these was foreign direct investment flows<sup>9</sup> (it was \$80 billion in 1994).

Before listing the factors affecting foreign direct investment inflows, inherent disadvantages of investment abroad can be classified as follows. First of all, operating an enterprise abroad rises costs related to communication and transportation, while domestic firms don't have these kind of costs. Another cost a foreign investor has to pay comes from the cultural and language differences between the host country and home country. Unfamiliarity of the foreign country's business community, such as tax laws and other government procedures also increases foreign investors' related costs. Foreign corporations

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<sup>9</sup> "Shaken, but not stirred." (1996, March 16). The Economist, p. 78.

usually pay higher wages to their personal for them to live abroad.<sup>10</sup> On the other hand, among the comparative advantages, foreign corporations have or may have cheaper sources of financing, a brand name, patented or nonmarketable technology, marketing skills or special access to markets, managerial skills and economies of scale (Kindleberger, 1969).

After all these advantages and disadvantages, the other chief factors of the foreign direct investment decisions can be classified into macro, micro, and strategic. The macro determinants emphasize the importance of the size of the host market (as given by the level of gross domestic product), the growth of the host market, factor prices, interest rates, profitability, etc. The micro determinants are related to differences between foreign companies and local firms. Such differences are product differentiation, technological and advertising effects, the product cycle phases as well as the size of firm as measured by either its sales or its assets. The third category of determinants involves various other strategic and long-term factors, which have mainly indirect effects on the decision to invest abroad but are directly relevant to the profitability of the attempt.

#### Determinants of Foreign Direct Investment in General

Almost all studies tend to suggest that among the determinants the factor most likely to play an important role in the foreign investment decision is the size of the domestic country's market, which is given by the level of GDP. Agarwal

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<sup>10</sup> Markusen, J. R. & Melvin, J. R. & Kaempfer, W. H. & Maskus, K. E. (1995). International trade: theory and evidence. McGraw-Hill Inc.

states that "the rationale of market size hypothesis is provided by the domestic experience that firms increase their investment in response to their sales and that domestic investment of a country rises with its rising GDP" (1980, p. 746). Therefore, a large market size allows specialization of factors of production and decreasing costs of production.

While the size of the domestic market is an important factor, according to the growth-of-market hypothesis, its growth rate is also thought to influence foreign capital inflows. The growth of the market is measured either by percentage change or the change in the levels of the gross domestic product and these changes are directly related to the flow of foreign direct investment.<sup>11</sup>

Foreign investment can be viewed as an attempt by multinationals to minimize their costs of production or marketing. A firm might undertake foreign investment because of manufacturing cost advantages in the host country. The Neoclassical Hypothesis suggests that low labor cost played an important positive role in decisions to invest abroad, and that low-wage countries expected a higher inflow of foreign capital than high-wage ones.<sup>12</sup>

Other determinants in general discussion can be categorized as follows. The higher the tariff barriers the higher the flow of foreign direct investment. A few studies have shown that devaluation of the currency of a country discourages the inflow of foreign direct investment in that country. In fact, the majority of the economists who have tested this hypothesis statistically have

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<sup>11</sup> Wang, Q. Z. & Swain, N. J. (1995). "The determinants of foreign direct investment in transforming economies: empirical evidence from Hungary and China." *Weltwirtschaftliches Archiv*, 131(2), pp.359-382.

<sup>12</sup> *Ibid.* p.361.



come to the conclusion that devaluation encourages an inflow of foreign direct investment.<sup>13</sup> Some studies argued that the rapidly growing imports and import liberation in a host country tend to reduce entry barriers and lead to temporary decline of foreign direct investment, as direct investment and exports could be substituted for one another (Jeon, 1992). With the reduction of import barriers a foreign investor may prefer exporting to a host country instead of opening a subsidiary in the host country. The cost of exporting can be less than cost of opening a subsidiary in a host country. On the other hand, contrary arguments have been advanced that increased imports may cause foreign direct investment to rise. Higher imports imply less trade restrictions for importers. Thus, foreign investors may import their intermediate products used in the production of their final goods instead of using domestic goods due to the lower production costs. Another determinant is that countries with low labor productivity may create less incentive for foreign investors to establish a production facility to use cheap labor than those with high labor productivity together with relatively cheap labor.

The preceding discussion gives the macro determinants of foreign direct investment. Micro determinants of foreign direct investment are actually related to the theory of industrial organization and can be classified under some hypotheses.

#### A Behavioral Hypothesis

Aharoni maintained that (cited in Agarwal, 1980) the three factors of

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<sup>13</sup> Ibid. p.363.

fundamental importance in initial investment decision are uncertainty, information and commitment. Managers of a firm tend to overestimate the risk and uncertainty involved in foreign investments. Therefore, there has to be some initial force (or forces), which may be external or internal, such as a strong interest of one or several high-ranking executives inside the organization for a particular foreign direct investment. External forces include proposals from foreign governments, distributors of the company's products and clients, or fear of losing a market, or strong competition from abroad in the home market. Once the possibility of foreign direct investment is considered by the management, it may lead, depending on strength of initial forces, to search for information relevant for the appraisal of the likely investment project. During this process of information collection one or more members of the search team become personally interested in the realization of the project because of the time and effort which they have already devoted to it. The implementation of the project depends on their commitment and persuasive capability in removing the natural pessimism of top management in the particular case of foreign direct investment. Aharoni points out that the goals followed by different persons or agencies involved in the decision-making process are likely to be quite conflicting and far from the traditional assumption of profit maximization.

#### Product Cycle Hypothesis

This theory was introduced by Vernon (1966). The life cycle of a product

is conceived to be three stages. In the first stage when the product is new it is produced by the innovating firm in its home market, because of the greater need for efficient coordination between R&D and production units as well as the availability of demand for it there. The second stage is marked by the maturity and export of the product to countries having the next higher level of income. Expansion of demand and growing competition in these markets lead eventually to foreign direct investment of the innovator into these countries for local production of the product. The third stage is characterized by a complete standardization of the product as well as its production technique which is no longer an exclusive possession of its innovator. Price competition from other producers forces the innovator now to invest into developing countries to seek cost advantages, especially labor costs.

#### Currency Area Hypotheses

Aliber (1971) suggested that the pattern of foreign direct investment can be explained in terms of the existence of different currency areas. He states that "some currencies are harder when compared with others at a point of time and the market is subject to a bias in evaluating the currency premium on weaker currencies." As a result the harder currency areas are able to borrow at lower costs and capitalize the earnings on their foreign direct investment in softer currency areas at higher rates than the local firms. The higher the share of capital in value added and the size of the premium on local currency, the greater the comparative advantage which a foreign investor would enjoy over local firms.

Therefore, overvaluation of a currency is associated with outflow of foreign direct investment and undervaluation with inflow of foreign direct investment in the currency are concerned. As a result, the exchange rate is one of the factors that influence foreign direct investment decisions. Its over or undervaluation and devaluation or revaluation may affect the timing of a particular direct foreign investment rather than being the sole cause of it.

### Types of Foreign Direct Investment and Role of Governments

Foreign Direct Investment can be subdivided according to foreign investor and to the host country. From the point of view of the foreign investor the expansion of the corporation into another country through the transfer of equity capital, management, technology or other knowledge can take the following forms:

- (a) horizontal investment, involving the production of the same basic products in different countries,
- (b) vertical investment, which takes place when a firm locates different stages in the production or marketing process in various countries,
- (c) conglomerate expansion which takes place where a firm produces internationally a diversified range of products.

The preceding discussion on the determinants of foreign direct investment explains why corporations undertake horizontal investment abroad. The main reason is the desire to take advantage more fully of certain monopolistic or oligopolistic advantages, such as patents or differentiated products. In the case

of vertical foreign direct investment, the main cause seems to be much same as in the home market; for instance, the elimination of oligopolistic uncertainty and the avoidance of risk as well as the erection of entry barriers to potential rivals. Conglomerate foreign direct investment suggests the use of foreign investment as a means of spreading risks to the firm across different products as well as different locations.

From the view of the host country, foreign direct investment can be divided into: (a) import-substituting; (b) export-increasing and (c) other. Import-substituting involves the production in the host country of those products that were imported before. Therefore, one of its consequences is that exports from the investing country to the host one will be affected, with a reduction in final products but probably an increase in intermediate ones and raw materials. The influential determinants of this type of foreign direct investment are likely to be size of the host market, transportation costs and tariffs. Indeed, if these factors are present in the right proportions, host countries may have considerable power in their relationships with foreign investors. Export-increasing foreign direct investment represents the seeking of sources of inputs, such as raw materials and the production of intermediate as well as final products. Other foreign direct investment is government-initiated investment, which occurs following a deliberate policy by the host country's government. In order to achieve certain economic conditions, for example, improving the balance of payments, reducing underemployment, and so forth, a host country's government may offer to foreign investors a number of concessions and advantages. These incentives

have the purpose of attracting foreign investment by reducing uncertainty for the foreign investor and/or by changing the underlying demand and cost conditions in the host country, while in the absence of such incentives foreign investment would not have taken place. Thus, the offering of these incentives is a sign that host country suffers some kind of comparative disadvantage, when looked at as a potential location for the establishment of foreign subsidiaries.

The flow of foreign direct investment after 1985 was largely a surge in investment flows among developed countries. The United Nations Center on Transnational Corporations' data shows that the G5 countries (France, Germany, Japan, the United Kingdom, and the United States) were the source nations of almost 70 percent of foreign direct investment flows during this time, while nations classified by United Nations as Developed Market Economies were home to most of the remaining foreign direct investment flows. The G5 countries were also recipient nations to 57 percent of these flows, and developed market countries in total were host to 81 percent<sup>14</sup>. The share of foreign direct investment flows going to less developed countries, therefore, was only about 19 percent. Thus, for the developing countries their efforts to attract foreign direct investment almost at any cost, and without much thought about its type, have not been very successful. The reason for the unwillingness of the developed nations' investor to consider developing nations as potential locations of their subsidiaries can be either of an economic and/or socio-political nature. As the economic reasons are concerned, industrialized countries may offer more

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<sup>14</sup> UNCTC (1988). Transnational Corporations in World Development: Trends and Prospects. New York: UN Press.

profitable opportunities to foreign capital than the developing countries, since the latter may suffer from a number of disadvantages, such as relatively small markets, insufficient infrastructure, lack of adequate skilled labor force, lack of economical stability and also lack of familiarity of foreign investors with the conditions and attitudes prevailing in developing countries. Due to these unfavorable situations developing nations offered incentives to attract foreign investors. Foreign investors seek some kind of guarantee, which they should find to attract them to invest in a developing county.

Foreign investment can be influenced by the investing country either in a positive way or negative way. Incentives of a positive nature include the provision of information and promotion activities, investment guarantee schemes, tax arrangements, incentives for the transfer of technology and government cooperation with private or institutional investors. In a negative way, the tax system may discriminate slightly against investment abroad compared to investment at home or, for balance of payments problems, special taxes may be charged to discourage investment abroad.

Less developed nations continue to provide a wide variety of incentives to foreign investors. Such incentives seek either to increase the rate of return for foreign investment projects or to decrease the mainly non-commercial risks associated with investment in developing countries. Incentives may be offered to all foreign investors or to those among them who meet certain specified criteria.

The overall picture of the incentives offered to foreign investors in developing countries has been altered lately. Among these uncertain

developments, the following may be cited: incentives are increasingly tied to performance rather than the initial characteristics of the investment; responsible developing country authorities appear to be more sophisticated and selective in their negotiations with investors on incentives; there is an increasing emphasis on exports as a test of desirable performance<sup>15</sup>. On the other hand, tax incentives continue to be the most common and widespread types of incentives offered to foreign investors. They consist of tax holidays, customs rebates, special capital depreciation, allowances, exemptions from particular categories of taxes etc. Another approach adopted by some countries is based on the establishment of promotional regimes for special zones, established at the country's borders, where special conditions are offered for enterprises engaged in the assembly and export of goods.

#### Towards a Theory of Foreign Direct Investment

The preceding discussion on the determinants of foreign direct investment has identified a number of factors affecting such investment and has illustrated the need for a more general approach; for a general theory of foreign direct investment. The reason for this is that most of the theories put forward to explain and predict the flow of such investment provide only partial explanation of the phenomena. Some may suffer from certain methodological shortcomings, such as the vagueness of their assumptions regarding, in particular, the objectives of the firm and their competitive constraints and the failure to

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<sup>15</sup> ibid. p. 271.



distinguish between short-run and long-run. In addition, some studies take as given the value of variables which need to be explained. The search for such a general theory generated two alternative and closely related approaches: the internalization and the eclectic theories.

According to Buckley and Casson (1976) firms try to maximize profits in a world of imperfect markets. If markets in intermediate products are imperfect, firms have an incentive to elude them by creating internal markets, which means that activities linked by the market are brought under common ownership and control. In a final stage, when firms internalize such markets across frontiers, this process leads to foreign direct investment. Buckley and Casson argue that the markets for certain chief intermediate products, such as knowledge, marketing, managerial expertise and human capital are imperfect so that the linking of interdependent activities through these markets may involve considerable time lags and transaction costs. Consequently, firms are encouraged to bypass such costs by replacing the external imperfect markets with their own internal markets for such products. The benefits arising from internalization include the avoidance of time lags and of bargaining and buyer uncertainty, the ability to use price discrimination to achieve the most efficient exploitation of market power and the minimization of the impact of government intervention in international markets through transfer pricing. However, the internalization process involves costs too, such as communication and administrative expenses, resource costs of fragmenting the market and cost of political discrimination against foreign-owned companies. For profit

maximization to occur, the internalization process must proceed up to the point where the benefits and costs associated with internalization are equalized at the margin.

The internalization hypothesis was strengthened with the development of Dunning's eclectic theory (1981). According to this theory, a firm will engage in foreign direct investment provided the following conditions are satisfied:

(a) The firm possesses certain ownership advantage over firms of other nationalities. This could be a product or production process for which other corporations do not have access, such as a patent, blueprint, or trade secret. It could also be something intangible, like a trademark or reputation for quality.

(b) The foreign market must offer a location advantage that makes it profitable for the firm to produce the product in the foreign country and to utilize such advantages in conjunction with at least some factor inputs outside its home country, otherwise foreign markets can be served by exports and domestic markets by domestic production. Although tariffs, quotas, transport costs, and cheap factor prices are the most obvious sources of location advantages, factors such as access to customers can also be important.

It is clear that eclectic theory suggests that all forms of foreign direct investment can be explained by reference to its conditions. It recognizes that advantages due to ownership, internalization and location may change over time and it accepts that if country-specific characteristics are important, determinants of foreign direct investment may not be valid generalizations from one country's experience to another.

The internalization approach needs more explanation. Rugman (1980) states that externalities lend the main incentive to internalization. It is believed that any type of externality in the products or factor markets will provide the corporation with an incentive to internalize. Then, such markets and internalization of such distortions in a worldwide setting will cause foreign direct investment development. The reason is, the inappropriate markets gives permission to the multinational corporation to organize an internal market of its own so as the overcome the failure of an external market for the sale of information. Such an internal market makes it possible for the firm to transform an intangible piece of research into a valuable asset specific to the firm. It allows the firm to use all of these advantages in different foreign markets, through production by subsidiaries, instead of licensing and joint ventures, because the latter arrangements can not benefit from the internal market of the corporation and are likely to waste the knowledge monopoly of the firm.

It is claimed that the internalization hypothesis, as applied to the multinational corporations, represents a general theory of foreign direct investment. It is obvious that multinational corporations avoid market failure through foreign direct investment.

## CHAPTER III

### THE ECONOMIC EFFECT OF FOREIGN DIRECT INVESTMENT ON HOST COUNTRIES

#### General Discussion

The impacts of foreign direct investment on the economies and societies of the host nations can be classified into economic, social and political. Foreign direct investment involves the transfer of a whole package of resources and proprietary rights across frontiers, which gives rise to streams of expected costs and benefits. Amirahmedi and Wu (1994) summarizes both positive and negative effects of foreign direct investment on developing countries. First of all, it is a source to finance developing countries' growth. The technological and managerial assets of foreign investors may also be accessed through foreign direct investment into less developed countries, which improves productivity growth. Moreover, foreign investor's binds to the operation of the investments projects should strengthen their eagerness to bring technology and job training. In addition, local investors can be stimulated by the introduction of efficient and internationally competitive foreign enterprises into an economy. This is because foreign direct investment provides increased competition, a demonstration impact, and chances for subcontracting. A part of beginning capital may also be

furnished by foreign direct investment. It generates profits required for future industrial investment. More employment, a better-trained labor force, a higher national income, more innovations, and increased competitiveness of developing countries' exports can be considered other dynamic gains of foreign direct investment.

On the other hand, some negative impacts of foreign direct investment should be viewed. First, foreign direct investment may lead to operations in an "enclave" because of a lack of important linkages to other economic sectors. Multinational corporations want to internalize production and distribution in order to minimize transaction costs. Therefore, due to both effects separation between sectors could be generated by foreign direct investment in some less developed countries. In addition, despite foreign investor's tendency to reinvest their earnings locally during periods of economic growth in a host country, during economic downturns they may actually increase repatriation of funds. This could lead to further depressing of the economy. Moreover, as a result of firm-specific advantages of multinational corporations, some developing countries' may lose economic control over certain sectors. These advantages include brand names, patented superior technology, marketing and management skills, control of a large section of world markets, and economies of scale. Multinational corporations tend to take control of domestic economic policies. This control can be adverse to less developed nations' national interests or independence. After these general impacts of foreign direct investment on developing nations, some special areas need more explanation.

## Effect of Foreign Direct Investment on Domestic Economy

A number of benefits accrue to the country receiving direct foreign investment. It involves a capital flow into the host country and thus supplements other forms of foreign transfer of savings. In the case of joint ventures, foreign direct investment also results in the mobilization of domestic savings for productive purposes. It is normally expected that foreign direct investment would bring in production and process technology that are often new for the host country. In some cases, multinationals would not be prepared to transfer this technology unless it was for one of their own subsidiaries. Another benefit of the foreign direct investment is that it helps to promote exports as foreign investors would normally be more conversant with foreign markets and would have their own well-established market networks. The direct foreign investment also results in additional employment and training. Generally, multinationals will try to upgrade the technical skills of the local staff by exposing them to international practices and applying their well-established training methods. Multinationals also bring some management and organizational know-how which includes organization, accounting, marketing, etc. In many countries, foreign direct investment may result in the promotion of subcontracting as the home country's manufacturers would like to supply various parts and components to the foreign-invested enterprise. In turn, this may also lead to better quality control in the local industry. Most of the above-mentioned benefits of foreign direct investment would have a demonstration effect as the new technology, production methods,

and management techniques would be replicated in other industries in the host country.

Direct foreign investment has also been criticized for several negative impacts. For example, in some cases, it results in the import of raw materials and spare parts and thus causes a recurring constraint on the limited foreign exchange resources of host countries. At the same time, it may not result in significant exports to offset the import burden. In some cases, used machinery has been shipped from the headquarters plant, which does not result in any technological gain to the host country. It is also argued that often import protection, and export subsidies have to be provided to a foreign invested enterprise to keep it financially viable. This causes further distortions, and often bias against domestic manufacturers. Also, political trouble has followed private investment where it has come predominantly from one donor country and the host country has been merely the recipient of foreign investment without any other major benefits.

#### Effects on Private Investment

One of the important subjects of foreign direct investment is its impact on the output, and, consequently, on the growth of host nations. This argument is more forceful in the case of developing countries where inward investment is considered as an engine of economic growth. However for such effects to be possible it is necessary that there has been an increase in the capital stock of the host country following the investment. Therefore, an increase investment will

contribute to a country's general level of output.

According to Jansen (1995), it is clear that foreign direct investment would have an effect on the level of private investment, then output. First off all, foreign direct investment can be considered as a part of private investment; thus, any increase in foreign direct investment will, by itself, stimulate private investment. Moreover, direct foreign investment and local private investment are likely to be determined by similar variables reflecting the investment climate of the country. An increase in direct foreign investment, therefore, is likely to be accompanied by an increase in local investment. This increase in investment provides a demand impulse with further multiplier and accelerator effects on income and investment.

Second, new foreign direct investment projects may invite complementary local private investments that provide inputs to, or use, outputs of the foreign firm.

Third, it is likely that private investment expands by more than the direct foreign investment inflows because foreign equity capital finances only part of foreign investment projects. A substantial part of the foreign direct investment projects is usually financed from local financial markets (p.196).

Because of all these reasons private investment can increase and as a result of this total output will expand in a developing country. Moreover, Dunning also states that (cited in Petrochilos, 1989) if foreign investment uses resources which would have otherwise remained unemployed, then the net output generated by foreign direct investment represents a net contribution to



real output for the host country. Similarly, inflows of foreign investment could increase the efficiency of domestic resources, either by shifting them from less effective to more productive sectors of the economy or by raising their productivity in their existing uses, then again domestic output would expand. Therefore, foreign direct investment can influence output level where it is possible to absorb surplus resources and improve their efficiency through alternative resources.

### Employment Effects of Foreign Direct Investment

In so far as the impacts of foreign direct investment on employment are concerned, much of the analysis depends on the assumptions related to macro economic policy of the host nation and the difficulty of estimating what would happen to employment if the foreign direct investment had not taken place.

There are wide disagreements concerning the impact of foreign direct investment on domestic employment. Labor unions states that there is a loss of actual or potential jobs when corporations invest abroad. On the other hand, multinational firms contend that much of their foreign direct investment is induced by the growing competitiveness of foreign producers and, therefore, that domestic jobs would be lost even if they did not invest abroad. Indeed, multinational corporations are able to sustain domestic employment in high-skill activities by transferring their labor-intensive activities abroad. Moreover, these firms point to the increased demand by their subsidiaries for domestically-produced intermediate products and capital goods, as foreign direct investment

takes place.

It could also be argued that "the technological bias and capital-intensive nature of most investment characterizing oligopolistic industries, made possible through their research and development expenditure and necessitated and supported by their large size, means that such investment is unlikely to promote considerable labor usage".<sup>16</sup> In other words, since most of foreign direct investment is undertaken by multinational corporations operating in monopolistic or oligopolistic markets, the idea related to a positive impact of foreign direct investment on reducing unemployment is overstated

Given the unemployment levels and the spread of underemployment in most developing countries, it can be argued that foreign direct investment does not simply substitute new employment opportunities for the old ones, but does help to generate new employment. For instance, a "greenfield" investment generates a new productive site and increases productive capacity of the economy, therefore, a higher level of employment can be created. In contrast, a take-over of an existing firm might actually decrease employment as its immediate impact.

The employment level may also be influenced by the location of the investment. For instance, since the labor is not adequate in developing countries, less employment per unit of capital may be generated by investing in a congested industrial area. Labor market conditions are also a significant factor.

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<sup>16</sup> Petrochilos, G. A. (1989). Foreign Direct Investment and Development Process. Vermont: Gower Publishing.

If legal rules and a highly-unionized manpower make it expensive and difficult to decrease workers, creation of employment may be discouraged.<sup>17</sup>

The view of most economists seems to be that no definite conclusion is warranted about the net employment effects of direct foreign investment. Broad generalizations are difficult because of the very different employment effects one obtains from various plausible alternative assumptions about what would happen in the absence of foreign investment

#### Balance of Payments Effect

By far the most significant linkages of foreign direct investment are those associated with the balance of payments. The balance of payments, or rather its equilibrium, is seen as a final goal of economic policy for host governments. In the face of shortages of foreign exchange and fixed exchange rates it represents an effective constraint in the achievement of other targets of economic policy, such as a faster rate of economic growth, full employment and so on. This is essentially the conclusion of the "two-gap" model. Therefore, the balance of payment question is more pressing for the developing countries than the developed ones. While foreign exchange requirements vary according to country and period for industrialized countries, in the developing world foreign exchange is considered as a scarce resource affecting growth. As a result such foreign exchange constraint problems increase the balance of payments limitations for developing countries on the achievement of certain goals.

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<sup>17</sup> Lall, S. (1995). Employment and foreign investment: policy options for developing countries. International Labor Review, 134(4-5), pp. 521-540.

According to Petrochilos (1989); physical and financial conditions of the operations of the foreign corporations can be used to evaluate the impacts of the foreign direct investment on the balance of payments of the host country. Because such impacts are both direct and indirect the effect of the foreign corporations has to be analyzed in terms of: "(i) their absorption of the host country's factor inputs in the production process, (ii) the proportions of their output sold in the host country's market and abroad, and (iii) the distribution of the value of their output between the host economy's factor inputs, the host government - in the form of tax revenue and retained share" (p. 32).

Impacts of foreign direct investment on the balance of payments can be classified into two different groups. The first is the initial inward investment effect and the second one is the continuing effect arising from the subsidiary under foreign ownership and management. The initial effect increases the capital account of the balance of payments of the host country by the amount of the investment, less the value of the any imported real capital such as machinery. To analyze the effects on the balance of payments of host nations of the activities of foreign corporations, the case of inward investment and that of a takeover of a domestic firm should be examined.

In the first case, some real capital is imported by the foreign investor, which is used to produce commodities; or, alternatively, financial capital may also be imported, which in turn, the foreign investor exports to finance the purchase of real capital abroad. In this condition the initial impact on the balance of payments are zero. However, as a result of this operation the capital stock of

the host country has grown, and hence, there is an increase in the flow of domestic output. This increase in output, due to inward investment, affects the balance of payments, both directly and indirectly. The form of various remissions to the home country- for instance; management fees, royalties, profit, and capital repatriation as well as the effects of import substitution, export promotion - depending on the nature of the investment, import content of the output of the subsidiary can be considered as direct influences on balance of payments. Indirectly, the balance of payments is influenced through increased domestic factor revenues and aggregate demand. The increased domestic incomes interact with imports positively and, thus, affect the balance of payments.

When foreign direct investment takes the form of a takeover of a domestic corporation, then the beginning impact on the balance of payments equals the price paid for that firm's acquisition. However, because the takeover does not require changes in the suitability of resources the flow of output does not change before and after the takeover.<sup>18</sup> Nonetheless, even under this strict assumption, the balance of payments is affected directly, because of the various remissions to the home country and the export behavior of the new foreign management and also, indirectly, through the changes in the incomes accumulating to residents.

### Foreign Direct Investment and Technology

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<sup>18</sup> Under the assumption of same utilization of existing resources.

The relation between foreign direct investment and technology is considered to be one of chief significance in the arguments of the foreign direct investment idea, both for the investing and host nations. The reason is to be found in the benefits that technology confers on all participants. Special question in this respect is that how the foreign technology is transferred and absorbed by the host country and how it influences the domestic economy.

Generally speaking, technology is the result of research and development facilities, with objectives for either the invention of new products, techniques of production or both. Technological change takes the form of know-how, which involves new skills and information possessed by individuals; records of various kinds, such as scientific papers and blueprints, prototypes etc. Either way, new technology gives an advantage to its owners, the original investors, because technology is a proprietary right that has scarcity value and is marketable. Since it results in an improvement of existing products or their marketing methods new products altogether or new techniques of production, which have a tendency to diminish costs.

Technology transfer can happen in a variety of different ways resulting in a variety of different outcomes. The appropriateness of the transfer mechanism depends on the outcome desired. Ruttan and Hayami (1973) have classified the transfers into three major groups: (i) hardware transfer, when only access to the technology itself is desired; (ii) information transfer, when hardware alone is not enough and 'know-how' is desired; (iii) capacity transfer, when the ability to translate the technology into a locally-produced new generations of technology is

desired. The relative degree of appropriateness of each transfer is a function of both the technology and the recipient of the transfer. When industrialization is the final target, control of the technology is most likely to be the aspect of the technological capability desired. Such mastery implies, in the long run, an ability to perform the entire ongoing innovation process locally.

Having placed technology in perspective, the relation between technological change and foreign direct investment for developing countries can be analyzed. Actually, technology can be transferred to developing countries through foreign direct investment by developed nations. In the developed countries the bottleneck factor has been labor in the research and development facilities. Consequently, the main object of the research and development studies has been to devise labor-saving techniques which would help to maximize profits. In contrast to the developed countries, developing countries have different factor endowments. For example, labor is relatively abundant, while in some cases capital is scarce, and this is reflected in their respective prices. Therefore, the adoption of technology by less developed countries suited to different environments not only fails to maximize profits in the host country but it may also displace labor, increasing unemployment. As a result developing countries desire to choose appropriate technology. But, this is not an easy task.

Johnson (1970) states that the transference of knowledge is the central element of foreign direct investment process. Transfers of technical knowledge includes these items: product design, production techniques, organize and carry out of a production program (UNCTC, 1988). Since the different types of

technical know-how symbolizes forms of business secrets protected by patents, they have a scarcity value which increases in the quasi-rents.

A study by UNCTC states that there are different ways to transfer technology, such as exploiting technology directly in production through foreign direct investment, joint ventures, licensing, management contracts, technical contracts, etc. The difference between foreign direct investment and licensing needs some explanation. Licensing of know-how is considered as a suitable form of transfer to firms in host countries but certain obstacles, connected mainly with the need for the owner of the technology to maintain control over business secrets, patents, and trademark rights, mean that its use may be limited. Reasons for which a firm may wish to license its technology abroad may involve both external factors- for instance, unwillingness to invest directly abroad or the prohibition by the host country of foreign investment- and the internal factors such as a shortage of necessary resources, a desire to receive a return on a sunk cost asset, and technology or product. On the other hand, the question of confidentiality does not arise in the case where the firm that has developed the new technology decides to set up a subsidiary or take over an existing domestic firm in the host country and use its technical knowledge directly in the production. The owners of technology in this situation have also some other complementary factors which can place the parent company in a clearly favorable situation to enhance this technological advantage. Such factors can be organization, capital, marketing, access to world markets, etc. Because such factors are owned by multinational corporations in abundance, it is not surprising



that such corporations are responsible for the largest proportion of the international transfer of technological knowledge.

Developing countries rely on the foreign technology for much of their industrialization process. But, the appropriateness of technologies transferred by multinational corporations has been argued. In the literature appropriate technology is defined "as the set of techniques which makes optimum use of available resources in a given environment".<sup>19</sup> The concern is especially relevant in the idea of foreign direct investment, since less developed nations can exercise very little control over the technologies transferred by foreign firms. There is a widespread presumption that they simply transplant inappropriate, capital-intensive technologies developed in their home countries which, in contrast to the labor abundant host countries, are characterized by relative abundance of capital. Moreover, with their easier access to cheaper capital, they face factor price ratios effectively different from those faced by local corporations, and this may increase capital intensity. In addition, since the adaptation of technologies to developing country environments could be costly, subsidiaries of multinationals may find that it is more cost-effective to use technology that is readily available to them.

A recent review of empirical evidence on the subject did not yield any clear-cut conclusions as to the relative capital intensity of foreign versus domestic firms operating in the same industry (UNCTC, 1988). Another study of four industries in Hong Kong found that, with the possible exception of one

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<sup>19</sup> Morawetz, D. (1974). "Employment implications of industrialization in developing countries: a survey." Economic Journal, 84, pp. 491-592.

industry, foreign firms did not use more capital-intensive technologies (Chen, 1983). Similarities in capital intensity between foreign and domestic firms have also been found in the case of the Turkish pharmaceutical industry (Kirim, 1986). On the other hand, an analyzes of 564 firms of foreign and local corporations of similar size drawn from 80 manufacturing industries observed higher capital intensity for foreign firms than for comparable Brazilian firms (Wilmore, 1986). Another study of three industries in a number of Latin American nations (Brazil, Colombia, Costa Rica, El Salvador, Guatemala, Mexico and Nicaragua) did not find any similar relationship between capital intensity and foreign ownership, although it did find a wide measure of support for the view that when foreign ownership is related to higher capital intensity , the positive relationship reduced or reversed as export propensities of foreign firms increase (Sosin and Fairchild, 1987).

As a result, it appears that while the benefits of foreign technology accruing to the investing firm are substantial, the corresponding benefits to the to the host country may not be so obvious. It may turn out to be either negligible or even negative. This may be partly due to the inability of the recipient country to absorb properly the foreign technical knowledge, but the main reason seems to be the fact that such technology, having been created to suit a particular environment of factor endowments, is opposed to developing countries necessities.

#### Effect of Foreign Direct Investment on Training

One of the significant benefits related to foreign direct investment in a developing country is its inferred ability to train domestic labor and management in advanced techniques. Its importance to the productivity of the labor force and profitability of the investment needs no special emphasis. Foreign investors, even though they don't like to spend money on the training of domestic labor, realize that such expenditure may be important to the success of their investment. Thus, expenditures in training becomes part of the initial investment and are another sunk costs, similar to purchasing machinery. At the beginning of investment foreign investors use the home country's personal. Then, they have a strong incentive to use domestic workers and management. Reasons for that can be lower costs, increased productivity of domestic labor after training, and partly political pressures and local regulations in the host country for the employment of domestic population.

According to Petrochilos (1989) the training of such domestic labor starts inside the corporation and is of a technical nature. The objective is to teach parent company's technology to domestic manpower. This training involves instruction on technical and engineering aspects as well as corporate systems of quality, control and marketing. In addition, with strong relations with domestic corporations, a foreign investor may want to extend the process of training through the subsidiary's suppliers. The reason is that foreign investor prefers to minimize uncertainties related to technical specification and quality of intermediate products. The final stage of training includes the training of distributors and dealers, because an effective distribution network is required for

the successful launching of the products of the subsidiary. Consequently, the training of domestic manpower can be important for the success of the whole venture while increasing the skilled labor of developing countries.

## CHAPTER IV

### THE FRAMEWORK OF FOREIGN DIRECT INVESTMENT IN TURKEY

#### Foreign investment legislation

In the past, in spite of liberally couched legislation, dating back to 1954, foreign investment in Turkey has for various reasons played a minor role. In particular, the restrictive application of the law by the Turkish administration and lengthy bureaucratic procedures finally led in the 70s to a situation in which there was no new investment. Even the necessary increases of capital could no longer be made.

When in 1977 with the onset of the foreign exchange crisis it also became practically impossible to transfer profits. Foreign capital inflows slowed to a trickle and were stagnating at the end of 1979 at a cumulative total of US \$228 million. German investment, although topping the list of investing countries with 24 holdings, totaled at that time DM 137 million ( corresponding to about 0.2 per cent of all German private investment abroad).<sup>20</sup>

Since 1980 this trend has significantly changed. Internal political stabilization and the increasing readiness to carry through economic reforms, with the ensuing progress made in overcoming the crisis, have increased the

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<sup>20</sup> Foreign investment in Turkey: changing conditions under the new economic program. OECD press. 1983.

confidence of foreign investors in the Turkish economy. As a result, in the year 1980 alone, the newly created Foreign Investment Department approved foreign investments to a value of US 97 million. In 1981 almost all the subsidiaries of foreign firms in Turkey applied for approval for capital increases and/or investment extensions, and in some cases for carrying out new projects; one hundred four foreign corporations received permits for investment to a value of US \$338 million.<sup>21</sup> In other words, in 1981, the total of approvals for new investment exceeded that for the whole of the past and amounted to three times that of the previous year.

After these beginning improvements, to lessen the bureaucratic transactions on the flow of capital and to remove the distortions, flexible foreign investment policies have been produced as part of the liberalization of the Turkish economy. The foreign investment laws provide a secure environment for foreign capital via support from several bilateral and multilateral agreements and organizations which grant such capital the same rights and obligation as local capital while guaranteeing the transfer of profits, fees and royalties, and the repatriation of capital in the event of liquidation or sale.

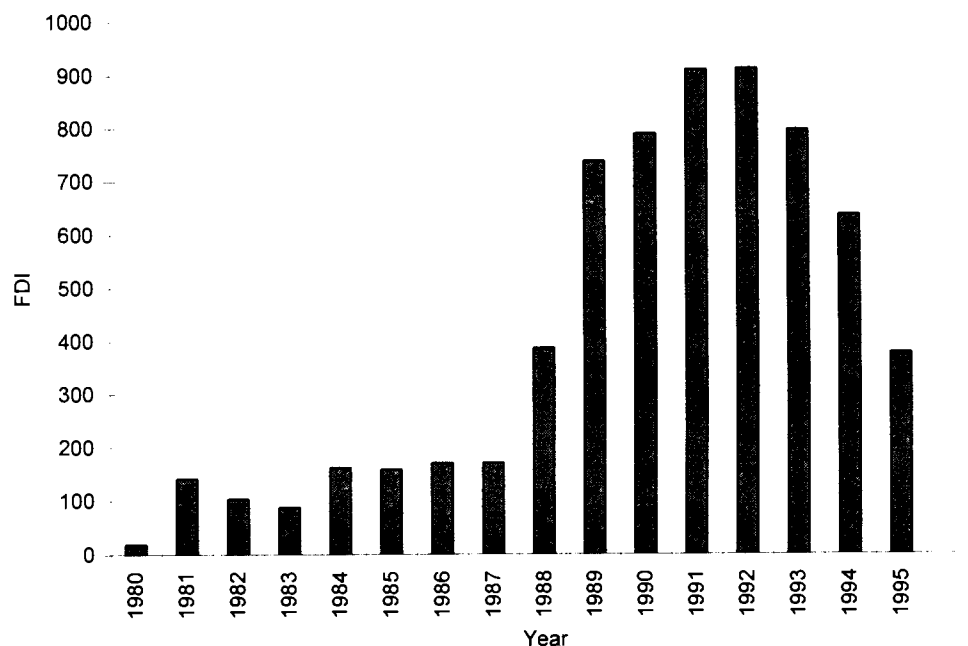
At present there are more than 2,500 enterprises with foreign partnerships in operation in various sectors. Almost 15 per cent of the industrial output of the country is produced by enterprises with foreign capital. Among the major investors, familiar names can be found; for instance, Toyota from Japan; GM, Philip Morris, Reynolds, General Dynamics, Hilton, Sheraton, Hyatt Regency

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<sup>21</sup> ibid. p.7.

from the USA; Cement Franchise, Total, Renault from France; Siemens, AEG, Mercedes from Germany; and Fiat from Italy. These companies are just some of the many international firms poised to take advantage of Turkey's favorable investment policies. Favorable results of the liberalization policies and promotion measures which have been adopted have appeared as increased direct foreign investment flows into the country. Consequently, cumulative foreign capital reached US \$1.8 billion in 1989 and US \$2.2 billion in 1993<sup>22</sup>. Figure 1 gives the inflows of foreign direct investment into the Turkish economy since 1980.

Figure 1. Inflows of Foreign Direct Investment



<sup>22</sup> Main Economic Indicators. Prime Ministry State Planning Organization. December 1995. Ankara, Turkey, p. 73.

## The Legislation

Foreign direct investment in Turkey is within the scope of the authority of the Under Secretariat for the Treasury and Foreign Trade, General Directorate of Foreign Investment (FID). All foreign investment applications pass through this government body and are subject to its approval. Any foreign investment coming into Turkey by means of a company formation, participation in an existing enterprise, establishing a branch office or liaison office, granting licensing, know-how, technical assistance or royal rights are all subject to the approval of the FID.

The basic foreign investment legislation of Turkey is Law No.6224 known as the Foreign Investment Encouragement Law which came into force in 1954. The main object of this law is expressly intended to promote investment. Due to this law FID gives permission on condition that the business in which the investment will be made is useful for the economic development of the country, is in a field of activity open to Turkish private enterprises and does not lead to the creation of any monopoly or any special concession. In particular, once FID permission is granted and a foreign investor is active in a company with foreign capital, as per the regulations, all rights, exemptions and privileges awarded to local enterprises are available to foreign capital corporations working in the same field in Turkey. The foreign share holders may freely repatriate their profits, share transfer values and liquidation proceeds abroad.

In the context of the stabilization program introduced in 1980, the Framework Decree No.8/168 in revision of Law No. 6224 provided new material



and organizational pre-conditions for foreign investors. According to this decree the Foreign Investment Department can on its own initiative approve foreign capital participation; (a) in investments with a fixed investment volume of up to US\$ 50 million; (b) on condition that the foreign capital participation ratio does not exceed 49 per cent but it is not less than 10 per cent; (c) tourism projects up to 100 per cent participation. With this framework decree screening decisions became centralized, thus gaining entry to the country became less painful for foreign investors.

Some of the major elements of Turkey's foreign investment policy, which has become very attractive for foreign investors, may be summarized as follows<sup>23</sup>:

1. Depending on the situation, foreign capital is secured by means of national foreign investment regulations along with the bilateral and international agreements listed below:

- OECD Codes of Capital Movements and Invisible Transactions.
- Bilateral Investment Protection and Promotion Agreements.
- Avoidance of Double Taxation Agreements.
- Membership in ICSID (International Center for Settlement of Investment Disputes) and MIGA (Multinational Investment Guarantee Agency).

2. Repatriation and transfers of profits, fees and royalties and the transfer of capital in case of liquidation or sale are guaranteed by the Foreign Investment Law.

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<sup>23</sup> The information is taken from the Internet sources of Ministry of Foreign Affairs of Turkey. The related address is [www.mfa.gov.tr/grupc/c4a.htm](http://www.mfa.gov.tr/grupc/c4a.htm).

3. Implicitly all fields of activity which are open to Turkish private sectors are also equally open to foreign participation and investment.

4. There is no limitation to the equity participation ratio of foreign shareholders.

5. There is no limitation on employing expatriates as managers and technical staff.

6. In order to implement foreign investment-related measures, the General Directorate of Foreign Investment within the Undersecretary of Treasury and Foreign Trade of the Prime Ministry has been authorized to;

•guide and assist foreign investors in exploring investment opportunities and promote foreign investment possibilities in Turkey,

•receive and process foreign investment applications and grant incentives,

•review and approve licensing, royalty and management agreements and foreign credits for joint venture companies,

•review and approve work permits for expatriates, and

•negotiate bilateral agreements for the protection and promotion of investment."<sup>24</sup>

In summary, all these fundamental changes created a central screening function. Before 1980 several ministries of government used to approve foreign investors' applications, all sharing a suspicion of intervention through investment. Consequently, potential investors were effectively discouraged in their attempts to deal with bureaucracy. In 1980 with the creation of a FDI, the structure of the

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<sup>24</sup> Ibid.

screening foreign investment has been changed. As a result, more favorable legislation caused the improve application of foreign investors.

### Economic Policy

The legislation regarding the attraction and protection of foreign capital must be seen in the context of the overall state policy towards economic development in general. Therefore the declared objective of Turkey's economic policy provides incentives to both Turkish and foreign capitalists to undertake investment, thus accelerating the pace of economic development. The incentives can be briefly summarized as follows.<sup>25</sup>

For an investment project to be eligible for an investment incentive, the minimum value is 250 million TL for investments aimed at preventing environmental pollution, for research and development investments and for investments by financial leasing firms. The minimum value for investments in other areas of investment is at 5 billion TL, and 1 billion TL in the priority development regions, in the Free Trade Zones and some other sectors such as tourism or software development.

Depending on the level of development, Turkey is divided into four different regions where the incentives of concern are applied differently. First and Second Priority regions are mostly in the central and eastern areas of Turkey. Normal Regions are in the central and western Turkey and Development Regions are in and around major cities such as Istanbul, Ankara,

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<sup>25</sup> Doing business in Turkey. (1990). Price USA: price waterhouse.

Izmir, Kocaeli, Adana and Bursa.

Minimum equity requirements of both domestic and foreign investors, for of investments benefiting from investment incentives are 30% in First Priority Regions, 40% in Second Priority Regions, 50% in Normal Regions, and 60% in Developed Regions. As an exception to the regional classification there is a rate of 15% for ship and yacht building investment and importation, 30% for housing projects and completely new integrated printing and publishing investments; and 10% for investments for leasing companies. For investments that utilize Foreign Credits the loan/equity ratio can be up to 85%.

Almost all machinery and equipment (capital goods) are freed from custom duties. However, some of them are subject to a fund payment varying between 5% and 20%. The machinery equipment imports for investment to be located in the Priority Development Regions or in the Priority Sectors are exempt from fund payments for those machinery and equipment with 5% fund levy.

There is a corporate tax exemption (investment allowance) available to the investments possessing an Incentive Certificate. The rate of investment allowance ranges between 20% and 70% of total fixed investment depending upon the location, sector and the value of investment.

In order to stimulate investment new taxes and duties were enacted. Provided that certain rates of production are committed for export (20% of annual production for investments in developed regions, 10% in normal regions, 5% in the priority regions) for five consecutive years after capacity has been reached, medium-and long-term domestic investment credits, working capital

credits and foreign credits are exempted from taxes, duties and charges.

The state may also subsidize the total fixed investment between 30% and 60% due to the region and the sector of the investment. Interest charges for these credits are also easily repayable to the state. Interest rates also range between 10% and 30% according to the region of investment.

Various concessions have also been designed to promote export activities. For instance, any material imported for the manufacturing of commodities is freed from custom duties; cash subsidies up to 20% are paid from the Support and Price Stabilization Fund; 16% of export revenues exceeding US\$ 250000 are exempted from corporate tax; and, the Turkish Eximbank provides support to exporters with the credits, guaranties and insurance programs.

#### Comparison of Turkish Policies with Some EC-Countries

The importance of incentives and economic policies towards foreign direct investment can be analyzed with comparison to other countries' policies. The countries chosen are Greece, Portugal, and Spain. Similarities of these countries with the Turkish economy can be summarized as follows.

These countries share an economic aim to increase national income via rapid industrialization. In achieving this end, an increased inflow of foreign capital is considered an important factor of the industrialization process. In addition, the constraints on rapid development also show similarities. A shortage of foreign exchange, arising from balance of payments difficulties, brings

difficulties in the development activities. An economic structure depending on agriculture, a legacy of protection and an industrial sector unable to withstand world competition in many areas.

In contrast to Turkey, these countries are members of the European Community (EC). Turkey signed a custom union agreement with EC at the beginning of 1996. The next step will be complete membership. Therefore, Turkish incentives for foreign direct investment can be meaningfully compared with the members of EC.

In Greece, foreign direct investment is regulated by Legislative Decree 2687/1530. Due to this decree over \$5 billion of inflows of foreign direct investment have been approved by 1985 (Buckley & Artisien, 1987). In the same period total capital inflows to Turkey were \$1,204 million<sup>26</sup>. The policy of offering incentives to foreign investors under this Legislative Decree designates three chief areas.<sup>27</sup>

First of all, as incentives to encourage the establishment of new plants by foreign firms, this decree guaranties that the foreign investors' property rights cannot be expropriated except in the case of war, in which case loses of investors will be paid by Greek Government. In addition, rapid depreciation allowances, capital subsidy and exemption from income tax on re-invested earnings were included. The second area is related to transfer of earnings of foreign investors to their home countries, such as, profits, interest, remuneration

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<sup>26</sup> Main economic indicators. Prime Ministry State Planning Organization. December 1995.

<sup>27</sup> Buckley & Papadopoulos (1988). "Foreign direct investment in the tourism sector of the Greek economy". Service Industries Journal, 8(3). 370-388.

etc. The Greek government brings some restrictions on these transfers. For instance, repatriation of capital is allowed at a rate of 10 per cent annually of the amount of capital imported. A foreign investor can transfer his profit up to 12 per cent of remaining capital, foreign exchange may be remitted for the payment of interest on loan capital maximum 10 per cent yearly, and foreign personnel are permitted to transfer their earnings in foreign exchange. Finally, when foreign investors produce export commodities that save the country's foreign exchange, tax exemptions and other activities are awarded to them. Such incentives include freezing income taxes up to ten years, reduction of custom duties, local taxes, and decreases in stamp duties for a maximum of ten years.

Another country, Portugal, joined the EC in 1986. It is representative of its medium and smaller sized members with its population of 10.5 million people and a per capita GNP of \$5,930.<sup>28</sup> Despite its relatively poor status, Portugal has succeeded in attracting a considerable amount of foreign direct investment. While \$156 million was invested in 1986, this amount reached \$3.2 billion in 1990. It had grown 20-fold in only five years.<sup>29</sup> The increase of foreign direct investment in Turkey for the same period was only 3-fold.

When the structure of incentives is analyzed for Portugal, one similarity with the foreign direct investment policy of Turkey is the centralization of the screening decision. An agency- Investment, Trade and Tourism of Portugal, (ICEP)- has been established to administer all aspects of foreign direct

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<sup>28</sup> World Development Report (1993). World Bank. P. 239.

<sup>29</sup> Marques, M. A. (1991, May 20). Why is Portugal an attractive location for investment. Business America, 112(17), pp. 2-5.

investment, including its promotion and review under the Decree-Law 197-D/86.<sup>30</sup>

According to this law, greenfield investments and acquisitions are treated equally, provided that acquisition contains at least 20 per cent of the domestic firm's capital. Law 197 operates a combined notification and approval framework. Applications for foreign direct investment must be reported to ICEP prior to establishment. ICEP must make its decision within two months. On the other hand, this approval decision is given within two weeks in Turkey.<sup>31</sup> Moreover, there is no specification associated with any industry specifically restricted to foreign participation except industries which include cinema, flag vessels, travel agencies, and insurance. In addition, no restrictions exist on the transfer abroad of the proceeds arising from the sale or liquidation of a foreign investment. Other similar incentives can be classified as cash grants, fiscal incentives, and training incentives.

According to OECD figures, Spain has been the fourth largest recipient of foreign direct investment during the period 1988-1994. Annual investment flows averaged \$2,528 million between 1982 and 1987, reaching a peak of \$13,841 million in 1990. In 1993, inflows were about \$8,000 million.<sup>32</sup> In contrast to other countries, after 1992 prior authorization has been generally no longer required for foreign direct investment. However, controls still remain for the non-EC

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<sup>30</sup> Geist, M. A. (1995). Toward a general theory on the regulation of foreign direct investment. Law and Policy in International Business, 26(3), pp. 673-716.

<sup>31</sup> Wint, A. G. (1992). Liberalizing foreign direct investment regimes: the vestigial screen. World Development, 20(10), pp. 1515-1529.

<sup>32</sup> Guide to direct investment: Spain. (1994, September). Euromoney, pp.392-393.



residents and governments investing in specific sectors. In addition, the official Spanish adviser, The Directorate General for Foreign Investment (DGIEX), is at the disposal of any corporation wishing to undertake investment projects in Spain, and offers information, advice or support.

Similar to Turkey, Spain offers subsidies for investment expenditures. The amount of subsidy varies by sector and region. Investments in developing regions of country get more subsidy than the developed areas.

Spain's corporate tax rate is 35% while Turkey has a 15% corporate tax rate.<sup>33</sup> Foreign investors can benefit from tax credits reaching up to 45 percent for investment involving important research and development.

There is also a 25% withholding tax on the remitted profits of non-residents doing business through a permanent establishment in Spain. This does not apply to EC residents or to nationals in other countries with which Spain has negotiated double taxation treaties.

In general, several incentives are applied to attract foreign direct investment inflows. Beside these incentives, all three countries are low-wage economies; they are proximate to large markets; they belong to the European Communities and their availability of raw materials makes them an attractive location for foreign investors.

An evaluation and comparison of Turkish legislation and policy to foreign direct investment with those of other countries shows that a foreign investor is treated in Turkey at least as well as, and in some cases better than, he is treated

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<sup>33</sup> Kochan, N. (1992). Structural changes in the Turkish capital markets tempt multinationals. Multinational Business. 3, pp. 50-56.

in other countries. As a future prospect for integration into the EC, foreign direct inflows into Turkey are expected to increase. Turkey also offers the low wage cost of the compared countries. Moreover, almost 60 million population in Turkey can be considered as a huge potential market. Finally, due to its location Turkey has excellent access to a wide diversity of markets ranging from Western Europe, the Middle East, and the Gulf to the Commonwealth of Independent States, the countries of Central and Eastern Europe, the Black Sea region, and the Turkic-speaking republics of Central Asia.

## CHAPTER V

### DETERMINANTS OF FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN TURKEY

#### Evaluation of Development Process

During the two decades preceding the adjustment program of 1980, Turkey had pursued an inward-oriented development strategy, combined with the extensive involvement of the public sector. Macro planning and import substitution became equivalent, as the import-substitution industrialization strategy was standardized under the First Five Year Development Plan introduced in 1963. Judged on the basis of the growth rates of industrial production and overall output, the performance of the 1963-1977 period was impressive. The average rate of growth of GNP was recorded as 7% , while the average rate of industrial production was 9%<sup>34</sup>. Several factors exercised a favorable affect during the 1970s and helped to sustain the momentum of rapid growth established during the preceding decade. Such factors deserve special importance. The primary commodity boom was contributory to the rapid increase of Turkish exports during the early 1970s. Crucial inflows of workers' remittances and short-term capital inflows from the Euro-currency market also

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<sup>34</sup> These numbers are taken from the Internet sources of Ministry of Foreign Affairs of Turkey. The related address is [www.mfa.gov.tr/grupc/c1a.htm](http://www.mfa.gov.tr/grupc/c1a.htm).

performed a key role in resolving the foreign exchange problem and maintaining high rates of economic growth.

These forces, however, helped disguise the principal problem of the Turkish economy, namely, an excessive dependence on imports of intermediate and capital goods, with an unsatisfactory ability to increase export earnings to finance the necessary import bill. A pattern observed in many developing nations was repeated in the Turkish context. The import-substitution industrialization policy had rendered the economy more vulnerable to external shocks as a result of increased dependence on imported inputs. In contrast, the share of exports in GDP remained constant at around 4-5% throughout the decade<sup>35</sup>.

During the 1970s, not only the Turkish economy, but most of the OECD countries faced many problems because of a declining share of the manufacturing sector in GDP relative to that of services. In Turkey, the reaction of policy-makers to such structural problems emerged as an aftermath of the oil shock of 1973-74 had been to press ahead with the import substitution strategy. The crises of the late 1970s, which was precipitated by Turkey's inability to meet her external commitment in 1977, was the combined outcome of the domestic and external economic environments, such as overvaluation of the exchange rate, accelerating inflation, large fiscal deficits (due to the change internal price of oil and its derivatives), and weak coalition governments.

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<sup>35</sup> Ibid.

By the end of 1979, the inward-looking, etatist approach<sup>36</sup> had been discredited as a viable option and the administration was converted to the view that a major shift in policy was necessary. Consequently, the new Economic Stabilization Program was declared in January 1980. The main objectives of the program were a reduction in government involvement in production facilities, an increased emphasis on market forces, the replacement of an inward-looking strategy with an export-oriented strategy and the attraction of foreign investment.

From the start, 1980, success in terms of a more balanced and vigorous economic performance was striking. Then, around 1986 the results of these reforms in the Turkish economy began to appear. The highest economic growth rate has been reached (9.5%) in 1987 during this period, 1980-1995. Since 1988, however, the rate of economic growth has fluctuated sharply (see figure 2). Private investment increased, growth of real GNP accelerated, and growth of exports of goods and services continued. Average growth rate is 4-5% since 1980 and can be seen in figure 2.<sup>37</sup>

With the increase in the growth rate of Turkish economy, foreign direct investment inflows have accelerated into Turkish economy. Related numbers are given in the prior chapter. Moreover in 1992 the volume of foreign direct investment was directed to the manufacturing sector, which accounted almost 63 percent of such investment. Another 34 percent was directed to the service

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<sup>36</sup> Etatist principles of economic development had been dominant since 1930s. Etatism can be defined as a system that provides poorly managed capitalist economy in which most of the capital happens to be supplied by the government (Hale, 1981).

<sup>37</sup> "A disaster that hasn't quite happened." (1996, June 8). *The Economist*, p. 8. (In a survey: p. 56).

Figure 2. Economic growth

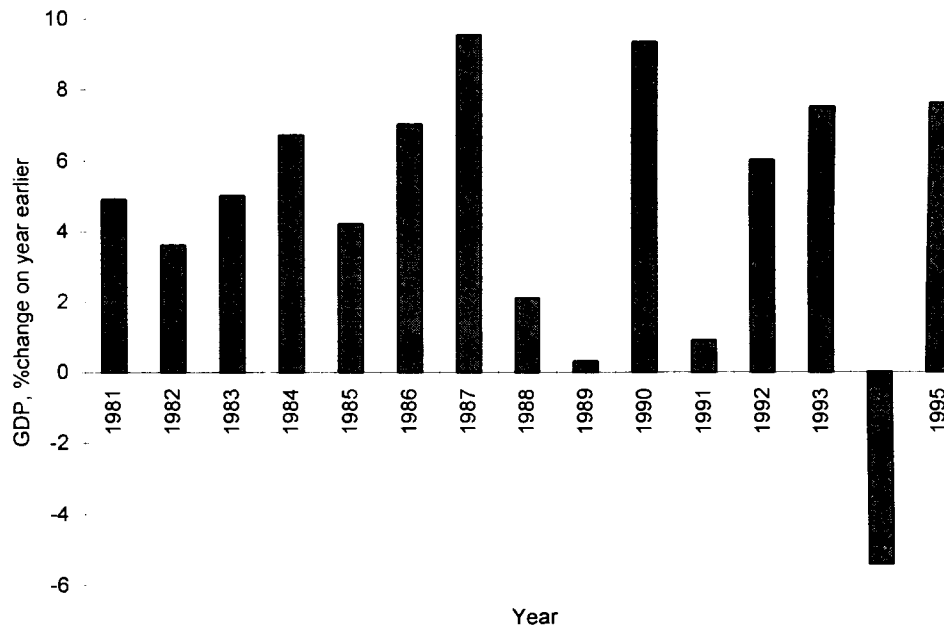
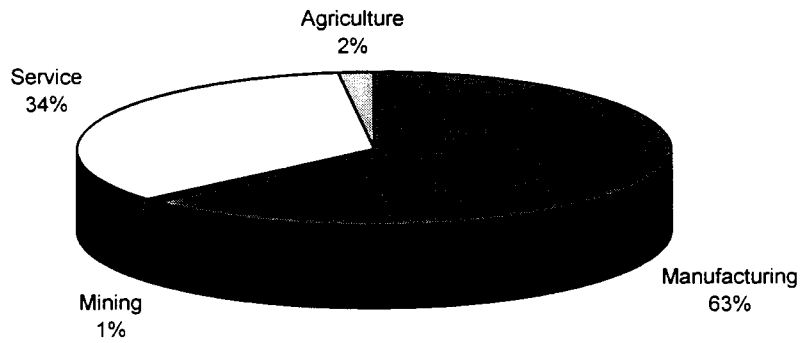


Figure 3. Share of Foreign Direct Investment by Sectors



sector, while 2 percent was invested in agriculture, and 1 percent in mining<sup>38</sup>. Even though these inflows have been rising since 1980, inflows of foreign direct investment seem to be are not adequate to handle foreign exchange constraint. Next policy arguments can be how to improve these inflows. To get an idea of next policies the analyzes of determinants of foreign direct investment inflows have to be examined empirically. Another important issue is the impact of inflows of foreign direct investment on the growth performance of Turkish economy since 1980.

### The Determinants of Foreign Direct Investment and Economic Growth in Turkey

The preceding discussion of Chapter II has identified a number of factors likely to play an important role in the foreign investment decision. In this section it is proposed to undertake econometric analysis of such determinants in the Turkish economy to establish a basis for what causes the foreign investor to invest in Turkey. Then, the contribution of foreign direct investment to Turkish economic growth is analyzed.

#### Model Specification

Turning to the empirical evidence regarding the determinants of foreign direct investment and its impact on economic growth in the Turkish economy, a

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<sup>38</sup> Report of Foreign Capital (1990-1992). Undersecretaries of Treasury and Foreign Trade of the Prime Ministry. Ankara. (In Turkish). Figure 3.

simultaneous equation model is used in which the inflow of foreign direct investment and rate of economic growth are jointly determined.

According to Tsai<sup>39</sup>, most of the studies used to test the determinants of foreign direct investment and its influence on the economic growth of a host country estimate a single equation model. In other words, determinants and outcomes of foreign direct investment are considered as two completely independent issues. On the other hand, variables considered exogenous in the analysis may in fact be endogenous. More foreign direct investment may be attracted by higher growth rate, and higher foreign direct investment encourages economic growth. " Failure to capture the interdependence of the determinants and the consequences of foreign direct investment ordinary least square estimates of a single regression equation are very likely to be biased and inconsistent". Indeed, as the empirical studies are surveyed and compared, it is found that the host country's rate of economic growth is taken to be a central factor attracting foreign direct investment. In addition, inflows of foreign direct investment are considered as explanatory variables for economic growth. Therefore, the idea cannot be ignored that, not only can the inflow of foreign direct investment influence the host country's economic growth, but economic growth can, in turn, affect the direction and volume of foreign direct investment (Tsai 1994, p.139).

The aim of this chapter is to analyze the determinants and consequences of foreign direct investment in the Turkish economy by specifying and estimating

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<sup>39</sup> Tsai, P. (1994). Determinants of foreign direct investment and its impact on economic growth. Journal of Economic Development, 19(1), pp. 137-163.



a simultaneous equation model in which the inflow of foreign direct investment and the rate of economic growth are jointly determined.

### The Model

The preceding discussion pointed out the potential simultaneous equation problem in a single equation model. First of all, before identifying the variables of two-equation model, the derivation of growth equation needs more explanation.

A neoclassic aggregate production function is used to derive the growth equation including the level of real exports. Coppin (1994) uses the term "augmented aggregate production function" for this new production function (p.220).

In the usual notation the augmented production function can be written as follows:

$$Y = f(K,L,X) \tag{1}$$

where:

Y = gross domestic product,

K = capital stock,

L = labor input,

X = exports.

If equation (1) is differentiated totally, and both sides are divided by Y, rearranging terms and letting  $dk/dt = I$ , where I represents domestic investment, the following equation can be obtained:

$$\text{GDPGR} = b_1 + b_2(I/Y) + b_3(\text{LG}) + b_4(\text{XG}) \quad (2)$$

where GDPGR represents the annual rate of growth of the real gross domestic product,  $b_1$  is the intercept term expected to capture the effect of excluded variables including changes in technology,  $I/Y$  stands for ratio of investment to the gross domestic product, LG represents the annual rate of growth of labor force, and XG stands for the annual rate of growth of real exports. Since accurate data series on LG for Turkey could not be located, the employment growth rate is used as a proxy for LG (Tsai, 1994). If LG replaced by the employment growth rate (EMGR), and  $I/Y$  is designated by IY, and adding stochastic error term, equation (3) is obtained:

$$\text{GDPGR} = b_1 + b_2(\text{IY}) + b_3(\text{EMGR}) + b_4(\text{XG}) + \varepsilon \quad (3)$$

Equation (3) represents the final relationship to be estimated. Several variations of this equation should also be estimated. The variable IY can be diversified into its components which include investment from domestic sources, and that from foreign sources. The gross domestic savings-gross domestic product ratio (GDSGDP) is used to measure investment from domestic sources<sup>40</sup>. Investment from external sources is given by the amount of foreign direct investment as a proportion of gross domestic product (FDIGDP). Finally, the variables of a two-equation model can be identified:

<sup>40</sup> Mbaku, J. M. (1993). Foreign aid and economic growth in Cameroon. *Applied Economics*, 25, pp. 1309-1314.

Tsai, P. (1994). Determinants of foreign direct investment and its impact on economic growth. *Journal of Economic Development*, 19(1), pp. 137-163. Islam, A. (1992). Foreign aid and economic growth: an econometric study of Bangladesh. *Applied Economics*, 24, pp. 541-544.

$$FDI_t = a_1 + a_2(GDP)_t + a_3(GDPGR)_t + a_4(TB)_{t-1} + a_5(DRATE)_t + a_6(EXRT)_t + \omega \quad (4)$$

$$GDPGR_t = b_1 + b_2(FDIGDP)_t + b_3(FDIGDP)_{t-1} + b_4(GDSGDP)_{t-1} + b_5(EMGR)_t + b_6(XG)_t + \varepsilon \quad (5)$$

where

FDI= inflows of foreign direct investment,

GDP= gross domestic product,

GDPGR= annual growth rate of GDP,

TB= trade account balance,

DRATE= Turkish discount rate,

EXRT= exchange rate between U.S. dollar and Turkish lira,

FDIGDP= foreign direct investment as proportion of GDP

GDSGDP= gross domestic savings as proportion of GDP,

EMGR= rate of growth of employment,

XG= rate of growth of exports of goods and services in real terms

$\omega, \varepsilon$  = error terms

In this model economic implications are quite different from those of the single equation models. In the simultaneous equation model both the annual growth rate of gross domestic product and foreign direct investment are endogenous variables. The annual growth rate of gross domestic product can affect inflows of foreign direct investment through equation (4), but, inflows of foreign direct investment can, in turn, influence annual growth of gross domestic

product via equation (5). The interdependence of inflows of foreign direct investment and annual growth rate of gross domestic product does not exist in a single equation model where both are considered as exogenous.

#### Factors Effecting Inflows of Foreign Direct Investment

Equation (4) uses most of the frequently mentioned, quantifiable demand side determinants of foreign direct investment. The variables, gross domestic product and annual growth rate of gross domestic product, reflect the market size hypothesis and the growth hypothesis. The market size hypothesis emphasizes the necessity of large market size for efficient utilization of resources and usage of economies of scale. As the market size grows to some critical value, the hypothesis asserts that foreign direct investment will start and increase thereafter with the growth of the market size (Scaperlanda and Mauer, 1969; Torrisi, 1985). In addition, gross domestic product can be used to capture the effect of proven economic performance. The higher value of gross domestic product implies better infrastructure and therefore provides greater incentive for foreign direct investment.

The growth hypothesis also assumes a positive relationship between inflows of foreign direct investment and annual growth rate of gross domestic product. The discussion goes like this: a rapidly growing economy provides relatively better opportunities for making profits than ones growing slowly or not growing at all (Lim, 1983). Consequently, an impressive rate of economic growth will be taken as a favorable signal by foreign investors in making investment

decisions.

The relation between the trade balance and foreign direct investment is rather complex and there are different predictions about this relationship.<sup>41</sup> A trade balance hypothesis implies that a country's overall trade performance has a lagged effect on foreign direct investment in developing nations that selectively enforce foreign investment regulations (Torrise, 1985). The argument of the two-gap model is considered that one of the main constraint on economic growth in developing countries is foreign exchange. Thus, when a country faces growing trade deficits, it is expected to adopt more favorable policies to promote an inflow of foreign direct investment.

To test the neo-classical hypotheses that investment is determined by the cost of the capital, the Turkish discount rate is used because foreign firms can finance some of their business facilities through domestic resources.<sup>42</sup> Moreover, since domestic sources of capital are likely to be tapped by foreign firms for working rather than long-term capital, the discount rate is preferred to any Turkish long-term rate. The sign of the discount rate coefficient is expected to be negative.

Finally the exchange rate variable is applied to designate the exchange rate risk. A nominal devaluation of domestic currency results in increases in exports and decreases in imports, which in turn lead to increases in foreign direct investment. But empirical studies show that an exchange rate has a

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<sup>41</sup> In some cases, foreign direct investment is encouraged by the huge trade deficits for a desire for export diversification, on the other hand, trade surpluses may be the sign of a stable economy, therefore stimulate foreign direct investment (Torrise, 1985).

contradictory effect on foreign direct investment in the short run and will differ between various groups of developing nations (Wang and Swain, 1995). Therefore the influence of exchange rates on foreign direct investment remains ambiguous and uncertain.

### The Growth Equation

The growth equation is derived from a neoclassical aggregate production function including exports, following the large number of empirical studies which investigate the export-led growth hypothesis (e.g. Feder, 1983; Sengupta and Espana, 1994; Balassa, 1985; Alam, 1991; Coppin, 1994). It is obvious that trade, particularly exports, may enlarge competition, allow the realization of comparative advantage, enable countries to buy commodities abroad, and provide opportunities to gain access to new technology as well as managerial knowledge. Krueger also argues that "a successful export oriented set of trade policies forces adaptation of other efficient and growth-enhancing liberalization policies. Those policies permit further gains to be realized from the trade strategy, and simultaneously induce further growth." (cited in Tsai, 1994) Therefore, exports have a significant role in the development procedures of developing countries.

One of the most debatable issue in development economics is the effect of foreign direct investment on economic growth. According to modernization hypotheses, foreign direct investment accelerates economic growth by providing

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<sup>42</sup> Multinational corporations have an advantage due to borrowing domestic funds in host nations, because of strong home country currency (Wang & Swain, 1995).

external capital, and through growth spreads its benefits throughout the economy. In addition, foreign direct investment brings advanced technology, and better management and organization. On the other hand, the dependency hypothesis admits a possible short-term positive impact of the flow of the foreign direct investment on economic growth, while there is negative long-term impact of foreign direct investment on economic growth. In the short-run, any increase in foreign direct investment allows higher investment and consumption and thus generates economic growth directly and immediately. However, as foreign direct investment accumulates and foreign projects take hold, there will be negative impacts on the remaining economy which cause a decline in economic growth. This is due to the intervening mechanisms of dependency, such as, "decapitalization" and "lack of linkages" between sectors (Bornschier, 1980; O'hearn, 1990). Also lagged value of FDIGDP ratio is added to the model to analyze the effects of current and lagged foreign direct investment-gross domestic product ratio on rates of economic growth.

Finally, lagged value of gross domestic savings-gross domestic product ratio is added to the model. The reason is that last year's gross domestic savings can determine current year's gross domestic investment which has an influence on the growth rate of a country.

### Empirical Results

Most of the annual data used in this analysis are from the publications of the International Monetary Fund (IMF), the World Bank, the State Planning

Organization of Turkey (SPO) and the OECD sources (sources of data is given in the appendix B). The time period for this study is 1980 to 1995. The reason to use this time data was discussed in the beginning of the chapter. A two stage least squares procedure of the Shazam (User's Reference Manual Version 7.0, 1993) is employed to estimate the previously mentioned parameters.

Table I : Results for the Capital Inflow Equation:

VARIABLE NAME	ESTIMATED COEFFICIENT	T-RATIO 10 DF	P-VALUE
GDP	0.008	8.85*	0.000
GDPGR	-17.394	-1.928*	0.083
TB <sub>t-1</sub>	-0.004	-0.37	0.718
DRATE	5.89	2.228*	0.045
EXRT	-0.015	-6.355*	0.000
CONSTANT	-484.85	-3.837	0.003

\* indicates statistically greater or less than zero at 5% or better level

To analyze results, in table I for the capital inflow equation, first of all the significance of variables is considered, and one tailed t-test is applied to test statistical significance of coefficients. The critical t-value for 10 degrees of freedom is 1.812 for 5% level. Therefore, with the exception of the lagged trade balance variable, which is insignificantly different from zero, all slope coefficients are significantly different from zero. While the market size hypotheses is supported, the growth hypotheses is not supported by the present study. The negative impact of rate of economic growth on the inflows of foreign direct investment can be caused by unstable economic growth of the Turkish economy.



In addition, foreign investor would like long-term stable economic growth which Turkey couldn't establish during this period. Moreover, the evidence did not support the cost of capital hypotheses, since the sign of the coefficient for the Turkish discount rate is different from what we expect. Even though the fact that there are 36 foreign investment bank in Turkey and the majority have been established after 1980. This implies the profitability of Turkish financial market. A reason for unexpected sign could be the high inflation in Turkey. Since the inflation rate is higher than the discount rate, the real return of a investment will be positive. Finally, exchange rate has the opposite effect on foreign investors decision in Turkey.

Table II: Results for the Growth Equation

VARIABLE NAME	ESTIMATED COEFFICIENT	T-RATIO 10 DF	P-VALUE
FDIGDP	-0.25	0.03	0.979
FDIGDP <sub>t-1</sub>	11.855	2.425*	0.036
GDSGDP <sub>t-1</sub>	-0.248	-1.182	0.264
XG	0.09	2.056*	0.067
EMGR	2.1318	4.689*	0.001
CONSTANT	1.51	0.755	0.468

\* indicates statistically greater or less than zero at 5% or better level

Table II gives the results for the growth equation. T-values are also reported for the growth model to analyze the significance of coefficients. Critical t-value is 1.812 at 5% level for 10 degrees of freedom. Therefore, both current

FDIGDP ratio and lagged GDSGDP ratio are not statistically significant. Neither has made a contribution to the Turkish economic growth for the given time period. On the other hand, the lagged value of FDIGDP ratio is statistically significant at 5% level and the sign of the coefficient is what we expect. Consequently, foreign direct investment inflows have a lagged impact on the Turkish economic growth. The positive effect of lagged FDIGDP may reflect the spillovers from previous foreign direct investment on the economy. It might also reflect lagged demonstration effect and other externalities from foreign direct investment on current total factor productivity growth. Another significant coefficient is export growth at the 5% level. The coefficient is also has the expected sign. Therefore, the export growth contributes to the growth of Turkish economy since 1980s, although its size of the coefficient is very small (0.09). Finally, employment growth has an important effect on the economic growth of Turkey. The sign of the coefficient is expected and statistically significant at 1% level.

These results must be taken with the understanding that the data suffer from measurement problems for the developing countries and the relatively short time period (1980-1995) to use two stage least square (2SLS). Because of small sample size problems, the expected value of a coefficient produced by 2SLS is still not equal to the true value of the coefficient. As the sample size gets bigger the expected value of the coefficient approaches its true value. In addition, Studenmund (1992) argues that "even for small samples, though, it's worth nothing that the expected bias due to 2SLS usually is smaller than expected bias

due to ordinary least square" (p.549).

In summary, the analysis has shown that only the market size and conditions played a decisive role in attracting foreign direct investment. Factors affecting economic growth are the lagged foreign direct investment as a proportion of gross domestic product, the export growth and the employment growth. On the other hand, domestic savings are not enough to influence economic growth. Consequently, foreign capital appears to have some positive role to play in the process of economic development in Turkey.

## CHAPTER VI

### CONCLUSION

The main purpose of this study was to examine the role of foreign direct investment inflows on the economic development of the Turkish economy during the period, 1980-1995. As a developing country Turkey faces many problems during her development process due to the scarcity of capital as well as other deficiencies in technology, organization, marketing etc. Therefore, foreign investment can be applied to solve the problem of scarcity of domestic capital. The study began with the discussion of necessities for foreign investment under the discussion of two-gap model. Then, types of foreign investment are stressed.

The second chapter analyzed the literature on the determinants and types of foreign direct investment. The size and the growth of the host market, factor prices, interest rates, profitability etc. are considered macro determinants of foreign direct investment. As micro determinants, differences between foreign companies and local firms are important issues such as, product differentiation and technological and advertising effects. Types of foreign direct investment are also given both from the view of foreign investor and the side of the host country.

The discussion of the economic effects of foreign direct investment on host countries was done in Chapter III. In particular, the effects of foreign direct

investment on economic growth, employment, balance of payments, technology and training were discussed.

A careful examination and comparison of foreign direct investment legislation in Turkey were given in fourth chapter. With the introduction of export-led growth strategies in 1980 foreign investment policies were liberalized. Therefore, favorable results of the foreign investment policies increased the inflows of foreign direct investment into the country. Comparison was done with the three members of European Community; Greece, Portugal and Spain. It is shown that foreign investors are treated in Turkey at least as well as, and in some cases better than, they are treated in other countries.

The discussion of Chapter V identified the principal determinants of foreign direct investment in Turkey, factors related to the Turkish economy and the growth performance of the Turkish economy with the introduction of foreign direct investment. A simultaneous equation model was employed to estimate variables. While the domestic market size is a significant factor effecting inflows of foreign direct investment into Turkey, the growth of gross domestic product has negative impact. Although market size hypothesis was supported, the value of the coefficient was very small. One unit increase in gross domestic product causes 0.008 unit inflows of foreign direct investment during this period. In addition, growth hypothesis didn't find support by this study. On the other hand, Turkish discount rate had positive effect on the foreign investors' decisions. The other variables, trade balance and exchange rate, didn't seem to be important factors affecting foreign direct investment inflows into the country.

Factors affecting economic growth in Turkey were considered as investment in the country, employment growth and export growth. Investment was divided into domestic and foreign investment. Estimation of simultaneous equation model showed that lagged value of FDIGDP ratio, export growth and employment growth played a significant role in the economic development process of Turkish economy during 1980-1995. In contrast, present values of FDIGDP ratio and gross domestic savings as a proxy for gross domestic investment did not contribute the Turkish economic growth.

Even though inflows of foreign direct investment into the Turkish economy increase during this period, Turkey seems to be not utilizing the foreign direct investment. Especially main determinants of foreign direct investment didn't seem to encourage foreign investor to invest in the country. Therefore, Turkey should improve her market size to collect more foreign investment. In addition, unstable economic growth increases the risk of investing in Turkey for foreign investors. Since Turkey's incentives to foreign investor very favorable, small market size appeared to be the most important reason for low foreign direct investment inflows. After analyzing the positive contribution of lagged foreign direct investment to the economic growth, Turkey can use foreign capital intensively in the economic development process. Another reason to use foreign capital is that scarcity of domestic capital. Gross domestic savings were not significant at this time period.

Another policy implication is related to status of Turkey with European Community. Turkey signed a custom union agreement with EC. This situation

can increase the market size of the Turkish economy, then increased inflows of foreign direct investment into the country should occur. Also foreign direct investment brings modern technology, managerial techniques, and increases in productivity. After all, competition power of Turkish commodities can increase.

Due to availability of data, time period is relatively short. For future studies, as more reliable and accurate data series are developed, it should become possible to make more definitive determinations of the impact of foreign direct investment on economic growth. Better data series should allow researchers to undertake more disaggregation of the data on foreign direct investment.

Finally, the performance of foreign direct investment and its contribution to the Turkish economy can be evaluated with reference to its effect on employment balance of payments and technology with the availability of the data. The level of domestic labor working in foreign firms; foreign companies' exports, imports and transfer of profits; and the level of technology transfer of foreign firms are required data to evaluate these effects on an economy.

## REFERENCES

- Agarwal, J. P. (1980). Determinants of foreign direct investment: a survey. Weltwirtschaftliches Archiv, 116(4), pp. 739-773.
- Aliber, R. Z. (1971). The multinational enterprise in a multiple currency world. In J. H. Dunning (Ed.). The Multinational Enterprise (pp. 49-56). New York: Preager.
- Amirahmedi, H., & Wu, W. (1994). Foreign direct investment in developing countries. The Journal of Developing Areas, 28, pp. 167-190.
- Baldwin, R. E. (1994). The effects of trade and foreign direct investment on employment and relative wages. OECD Economic Studies, 23, pp. 7-54.
- Beamish, P. W. (1985). The characteristics of Joint Ventures in developed and developing countries. The Columbia Journal of World Business, 20(3), pp. 13-19.
- Bornschieer, V. (1980). Multinational corporations and economic growth: a cross national test of the decapitalization thesis. Journal of Development Economics, 7, pp. 191-210.
- Buckley, P. & Artisien, P. (1987). Policy issues of intra-EC direct investment: British, French, German multinationals in Greece, Portugal and Spain, with special reference to employment effects. Journal of Common Market Studies, 26(2), pp. 207-230.



- Buckley, P. & Cason, M. (1976). The future of the multinational enterprise. New York: Holmes & Meier Publishers.
- Buckley, P. & Papadopoulos, S. I. (1988). Foreign direct investment in the tourism sector of the Greek economy. Service Industries Journal, 8(3), pp. 371-388.
- Caves, R. E. (1982). Multinational enterprise and economic analysis. New York: Cambridge University Press.
- Chen, K. Y. (1983). Multinational corporations, technology and employment. New York: St. Martin's Press.
- Chenery, H. B. & Strout, A. M. (1966). Foreign assistance and economic development. American Economic Review, 56, pp.679- 733.
- Cohen, B. (1968). Relative effects of foreign capital and larger exports on economic development. Review of Economics and Statistics, 50(2), pp. 281-284.
- Coppin, A. (1994). Determinants of LDC output growth during the 1980s. The Journal of Developing Areas, 28(2), pp.219-228.
- De La Torre, J. (1981). Foreign investment and economic development: conflict and negotiation. Journal of International Business Studies,12(2), pp. 9-32.
- Dunning, J. H. (1981). International production and the multinational enterprise. Boston: Allen & Unwin.
- Eckaus, R. S. (1987). A survey of the theory of direct investment in developing

- countries. In R. D. Robinson (Ed.). Direct Foreign Investment: Costs and Benefits (pp. 111-130). New York: Greenwood Press.
- Fry, M. J. (1995). Money, interest, and banking in economic development. Baltimore: John Hopkins University Press.
- Geist M. A. (1995). Toward a general agreement on the regulation of foreign direct investment. Law and Policy in International Business, 26(3), pp. 673-716.
- Graham, E. M. & Krugman, P. R. (1993). The surge in foreign direct investment in the 1980s. In K.A. Froot (Ed). Foreign Direct Investment (pp.13-36). Chicago: The University Of Chicago Press.
- Guide to direct investment: Spain. (1994, September). Euromoney, pp. 392-393.
- Hale, W. (1981). The political and economic development of modern Turkey. New York: St. Martin's Press.
- Higgins, B. (1968). Economic development, principles, problems and policies. New York: W. W. Norton.
- Hymer, S & Rowthorn, R. (1970). Multinational corporations and international oligopoly: non-American challenge. In C. P. Kindleberger (Ed). The international corporation (pp. 57-91). Cambridge, Massachusetts: The MIT Press.
- Hood, N. & Young, S. (1979). The economics of multinational enterprise. New York: Longman Inc.
- Islam, A. (1992). Foreign aid and economic growth: an econometric study of

- Bangladesh. Applied Economics, 24, pp. 541-544.
- Jansen, K. (1995). The macroeconomics effect of direct foreign investment: the case of Thailand. World Development, 23(2), pp. 193-210.
- Jeon, Y. D. (1992). The determinants of Korean foreign direct investment in manufacturing industries. Weltwirtschaftliches Archiv, 128, pp. 527-541.
- Johnson, H. G. (1970). The efficiency and welfare implications of the international corporation. In C.P. Kindleberger (Ed). The International Corporation (pp. 35-56). Cambridge, Massachusetts: The MIT Press.
- Kindleberger, C. P. (1969). American business abroad: six lectures on direct investment. New Haven: Yale University Press.
- Kirim, A. S. (1986). TNCs and local capital: comparative conduct and performance in the Turkish pharmaceutical industry. World Development, 14(4), pp. 503-521.
- Kochan, N. (1992). Structural changes in the Turkish capital markets tempt multinationals. Multinational Business, 3, pp. 50-56
- Krueger, A. O. (1995). Partial adjustment and growth in the 1980s Turkey. In R. Dornbusch & S. Edwards (Ed). Reform, Recovery and Growth (pp. 343-367). Chicago: The University of Chicago Press.
- Lall, S. (1995). Employment and foreign investment: policy options for developing countries. International Labor Review, 134(4-5), pp. 521-540.
- Lucas, R. B. (1993). On the determinants of direct foreign investment: evidence from East and Southeast Asia. World Development, 21(3), pp.391-406.
- Markusen, J.R. (1995). The boundaries of multinational enterprises and the

- theory of international trade. Journal of Economic Perspectives, 9(2), pp. 169-189.
- Marques, M. A. (1991, May 20). Why is Portugal an attractive location for investment. Business America, 112(17), pp. 2-5.
- Mbaku, J. M. (1993). Foreign aid and economic growth in Cameroon. Applied Economics, 25, pp. 1309-1314.
- McKinnon, R. (1963). Foreign exchange constraints in economic development and efficient aid allocation. Economic Journal, 73, pp. 338-409.
- Meier, G. M. (1964). Leading issues in economic development. New York: Oxford University Press.
- Morawetz, D. (1974). Employment implications of industrialization in developing countries: a survey. Economic Journal, 84, pp. 491-542.
- OECD (1983). Foreign Investment in Turkey: changing conditions under the new economic program. Paris: OECD Press.
- OECD (1991). OECD Economic Surveys : Turkey , 1990-1991. Paris: OECD Press.
- O'hearn, D. (1990). TNCs, intervening mechanism and economic growth in Ireland: a longitudinal test and extension of the Bornschier model. World Development, 18(3), pp. 417-429.
- Onis, Z. (1991). The evolution of privatization in Turkey: the institutional context of public-enterprise reform. Journal of Middle East Studies, 23, pp.163-176.
- Petrochilos, G. A. (1989). Foreign direct investment and the development

- process. Vermont: Gower Publishing.
- Quibria, M. G. (1980). Two-gap models of foreign aid. Journal of Economic Development, 5(1), pp. 67-89.
- Rugman, A. M. (1980). Internalization as a general theory of foreign direct investment: a re-appraisal of the literature. Weltwirtschaftliches Archiv, 116, pp. 365-379.
- Ruttan, V. W. & Hayami, Y. (1973). Technology transfer and agricultural development. Technology and Culture, 14(2), pp. 24-31.
- Scaperlanda, A. E. & Mauer, L. (1969). The determinants of US direct investment in the EEC. American Economic Review, 59(4), pp. 558-568.
- Schneider, F. & Frey, B. S. (1985). Economic and political determinants of foreign direct investment. World Development, 13(2), pp. 161-175
- Shaken, but not stirred. (1996, March 16). The Economist, p. 78.
- Sosin, K. & Fairchild, L. (1987). Capital intensity and export propensity in some Latin American countries. Oxford Bulletin of Economics and Statistics, 49(2), pp. 191-208.
- Studenmund, A.H. (1992). Using Econometrics: A Practical Guide. New York: HarperCollins Publishers Inc.
- Tonge, D. (1994). Foreign investment in Turkey. Middle East Executive Reports, 17(1), pp. 8, 20-23.
- Torrisi C. R. (1985). The determinants of direct foreign investment in a small LDC. Journal of Economic Development, 10(1), pp.29-45.
- Tsai, P. (1991). Determinants of foreign direct investment in Taiwan: an

- alternative approach with time-series data. World Development, 19(2/3), pp. 275-285.
- \_\_\_\_\_ (1994). Determinant of foreign direct investment and its impact on economic growth. Journal of economic Development, 19(1), pp.137-163.
- Turkey Main Economic Indicators (1995). Prime Ministry State Planning Organization. Ankara, Turkey.
- UNCTC (1988). National legislation and regulations relating to transnational corporations. New York: UN Press.
- UNCTC (1988). Transnational corporations in world development: trends and prospects. New York: UN Press.
- Vernon, R.(1971). Sovereignty at Bay; the multinational spread of US enterprises. New York: Basic Books.
- \_\_\_\_\_ (1966). International investment and international trade in the product cycle. Quarterly Journal of Economics, 80, pp. 190-207.
- Wang, Q.Z. & Swain, N. J. (1995). The determinants of foreign direct investment in transforming economies: empirical evidence from Hungary and China. Weltwirtschaftliches Archiv, 131(2), pp. 359-382.
- Willmore, L. N. (1986). The comparative performance of foreign and domestic firms in Brazil. World Development, 14(4), pp. 489-502.
- World Development Report (1993). World Bank. p. 239.

APPENDIXES

## A--USED DATA

Year	FDI*	GDP*	TB*	EXRT
1979	75	69373	-2554	
1980	18	56919	-4603	98.9
1981	141	57666	-3864	110.24
1982	103	53031	-2628	160.94
1983	87	51149	-2990	224.03
1984	162	49667	-2942	364.85
1985	158	52783	-2975	518.34
1986	170	58246	-3081	669.39
1987	171	87173	-3229	855.69
1988	387	90853	-1777	1420.76
1989	738	107144	-4219	2120.78
1990	789	150677	-9555	2607.62
1991	910	151041	-7326	4169.85
1992	912	159095	-8190	6868.69
1993	797	174167	-14162	10985.96
1994	637	130578	-4216	29704.33
1995	378	173525	-11500	45705.43

\* In Millions of Current US Dollars



Year	GDPGR	GDSGDP	XG	EMGR	DRATE
1979		15.40			
1980	-2.4	14.10	-4.5	1.30	26.00
1981	4.9	16.60	63.5	0.90	31.50
1982	3.6	17.30	34.0	1.10	31.50
1983	5.0	15.30	13.1	1.00	48.50
1984	6.7	15.30	25.4	1.50	52.00
1985	4.2	17.80	-1.9	1.70	52.00
1986	7.0	21.50	-5.1	1.90	48.00
1987	9.5	24.10	26.4	2.30	45.00
1988	2.1	27.80	18.4	1.50	54.00
1989	0.3	21.70	-0.3	1.90	54.00
1990	9.3	21.90	2.6	2.00	42.00
1991	0.9	21.60	3.7	0.30	48.00
1992	6.0	21.00	11.0	1.00	48.00
1993	7.5	22.20	7.7	0.90	48.00
1994	-5.4	21.20	15.2	-4.1	64.00
1995	7.6	22.00	13.0	2.50	57.00

## B--SOURCES OF DATA

FDI: State Planning Organization. Main Economic Indicators, December 1995, p. 73.

GDP: World Bank. World Tables (1995), pp.28-29. Baltimore: John Hopkins University Press.

TB: IMF. International Financial Statistics Yearbook, (1995), p. 760-761.

EXRT: State Planning Organization. Main Economic Indicators, December 1995, p. 77.

GDPGR: OECD. OECD Economic Outlook (58), December 1995, p. A4.

GDSGDP: World Bank. World Tables (1995), pp. 64-65. & Trend in Developing Economics (1995), p. 521.

XG: OECD. OECD Economic Outlook (58), December 1995, p. A12.

EMGR: OECD. OECD Economic Outlook (58), December 1995, p. A23.

DRATE: IMF. International Financial Statistics Yearbook, (1995), p. 760-761. & Central Bank Monthly Bulletin, (1996, February).

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