The Impact of Foreign direct investment (FDI) on economic growth in Algeria

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Declaration

I declare I have worked on the dissertation thesis on my own and I have used only the resources mentioned in the references.

Prague, the 5th January 2014

..............................................

Abdulghader Ali
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Abstract

The thesis is focused on the issue of foreign direct investments in Algeria and their impact on economic growth. The aim of the thesis is to test the importance of FDI, imports and domestic investments on economic growth in Algeria. The political and economical environment in Algeria is analyzed and described in the thesis as well. According to the results of the analysis there were made some recommendations which should help increase FDI impact in Algerian economy and also to attract new foreign investors. These recommendations are based on the theory mentioned in the chapter 4 and on the analysis used in chapter 5 and 6.

Keywords

Foreign, Direct, Investment, Economic, Growth, Algeria, Employment, Development, Analysis, ANOVA, Import
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1. Introduction

Foreign direct investment (FDI) is the key element of the globalization and of the world economy. FDI is important as a driver of employment, technological progress, productivity improvements, and ultimately economic growth. It plays the critical roles of filling the development, foreign exchange, investment, and tax revenue gaps in developing countries (Smith, 1976).

FDI can play an important role in Africa’s development efforts, including: supplementing domestic savings, employment generation and growth, integration into the global economy, transfer of modern technologies, enhancement of efficiency, and raising skills of local manpower.

Foreign direct investment is becoming more important for developing countries; which are often based on the assumption that greater inflows of (FDI) will bring certain benefits to their economy. FDI has great social, cultural, economic and political effects for the host countries.

Foreign Direct Investment as a growth-enhancing component has received great attention of developed countries in general and less developed countries in particular in recent decades. It has been a matter of great concern for many economists that how FDI affects economic growth of the host country. In a closed economy, with no access to foreign saving, investment is financed solely from domestic savings. However, in open economy investment is financed both through domestic savings and foreign capital flows, including FDI. The investments in form of FDI enable investment-receiving (host) countries to achieve investment levels beyond their capacity to save. Over the last couple of decades FDI has remained the largest form of capital flow in the developing countries far surpassing portfolio equity investment, private loans, and official assistance. In 1997,
FDI accounted for 45 percent of net foreign resource flows to developing countries, compared with 16 percent in 1986 (Perkins, 2001).

Moreover, the World Bank (2002) reported that in 1997 developing countries received 36 percent of total FDI flows. Most developing countries now consider FDI as an important source of development, but its economic effects are almost impossible to either predict or measure with precision. However, many empirical studies have shown significant role of FDI in economic growth of host developing countries, through its contribution in human resources development, technological transfer, capital formation and international trade (World Bank, 2002).

It is widely recognized that foreign direct investment affects economic growth in host economies both directly and indirectly. FDI contributes directly to employment, capital, exports, and new technology in the host country (Blomström, Kokko and Globerman, 2001).

In addition, local firms may benefit indirectly through improved productivity (Gorg and Greenaway, 2004). This is why there is significant competition among governments to attract inward FDI using all kinds of incentives. For example, many governments, especially in developing economies, have adopted policies aimed at attracting foreign investors. This is based on the belief that the benefits from multinational corporations (MNCs) can affect productivity, enhance a country trade performance and upgrade the technological progress of the host country.

In particular, one of the primary motivations for developing countries to attract FDI from developed countries is to obtain advanced technology in order to establish these countries innovation capability. Innovation is widely regarded as the central process of economic growth that can enhance the competitiveness of a nation. Published model of endogenous innovation-driven growth by Grossman and Helpman (1991) has emphasized the
importance of knowledge spillovers for economic growth. Many experts and policy-makers believe that the capacity to imitate new technologies from advanced nations is one of the key factors in determining the rate of economic growth (Romer, 1990).

Nowadays FDI typically accounts for more than 60 percent of private capital flows to the developing countries (Carkovic and Levine, 2005).

This world-wide explosion of FDI was accompanied by a shift in emphasis among policymakers in developing countries to attract more foreign capital. Most countries have reduced barriers to FDI and many aggressively offered tax incentives and subsidies. The simple rationale for the increased efforts to attract FDI stems from believing that FDI promotes growth (World Bank, 2006).

The economic importance of foreign investment in Algeria does not depend on the size of the investment or on the speed of flow only but also on their responsiveness to the all requirements of the balanced growth of the sectors and various economic activities within the State, and also on their willingness to develop skilled manpower and administrators who will be able to deal with modern technology associated with this investment efficiently thus contributing to raising the economy's ability to create production base in the future.

In this context, inadequate resources in developing countries constitute a major obstacle to economic development. FDI has gained in importance as one of the major sources for funding in developing countries, in which low levels of domestic capital have failed to meet the requirements of investment needed to achieve the desired levels of economic growth and the subsequent economic development.
FDI helps economic development by reducing the need for the tough policy decisions, such as austerity measures. Inward flows of FDI not only increase the chances of boosting the available resources, but also enhance the efficiency of the local resources. In other words, FDI tends to activate otherwise unused resources, in addition to increasing the productivity of the local resources which are already in use (El-Fergani, 2003).
2. Research Objectives and Hypotheses

The main aim of this thesis is that investigates and studies the effect of FDI and other foreign capital inflows on economic growth and domestic investment in the receiving economies. This thesis also attempts to offer a better understanding of the relationships between FDI, DI and economic growth, taking into account the influence of the host country’s absorptive capacity, and different types of foreign capital inflows. The main purpose of this thesis is to empirically examine the implications of the relationship and complementary between FDI and DI, and the contribution of these factors to economic growth.

The purpose of the thesis is to show the contribution of FDI to economic growth to Algeria so as to establish whether the call for more FDI is truly justified. The relationship between FDI and economic growth in the country is discussed and the contribution of FDI to growth will be uncovered. To achieve these, scholarly opinions and suggestions will be discussed and descriptive analysis on FDI will be carried out. Specifically, the study aims to find answers to the following questions:

1-What is the impact of foreign direct investment on economic growth in Algeria?

2- Is there suitable political and economical environment for attracting FDI in Algeria?

Study Hypotheses:

H1- The main hypothesis of the study assumes that FDI has a significant effect on economic growth in Algeria.

H2- There is a significant effect of Imports on economic growth in Algeria.

H3- There is a significant effect of domestic investments on economic growth in Algeria.
Through the assessment of these assumptions is necessary to express what the objectives of foreign direct investment and whether contribute to economic growth directly in terms of both growth in GDP and increased exports and reduced the unemployment rate in the economy. Does this will be short term or long term and whether awaited goals will be achieved after the concessions made by the government, such as changes in the level of taxes and enact legislation investment and agreement with investment companies, domestic and foreign.

Meanwhile, there are sub-goals of this dissertation thesis, which will help to get the correct evaluation of the hypothesis as following:

- Analysis and assessment of the investment climate in Algeria.
- Attempt to highlight the impact of foreign direct investment on economic growth in Algeria and thus test the validity of the hypothesis which studying.
- To examine the determinant of FDI and its impact on economic growth in developing countries, with particular interest in the Algeria, within the theoretical framework of an endogenous growth model. In particular, it tries to capture whether FDI is a sufficient condition for countries to achieve higher growth rates, or whether FDI, through its interactions with trade openness and human capital, enables these countries to absorb and adopt new technologies and knowledge from advanced countries, in order to catch up.
- Providing recommendations regards the policies and procedures which can be helpful in improving the Libyan business environment to enable it to attract more FDI in the all sectors.
3. Research Methodology

The methodological and analytical approaches used in the thesis are drawn from the empirical literature focusing on financial development, FDI and growth, so as to examine the objectives of the research. The research reviews extensive theoretical and empirical literature that underpins the role of economic growth and FDI in the Algeria. This research is partly qualitative and use of some qualitative methods to provide a clearer detail of the analysis.

The descriptive methods are used to provide better understanding of relationship of foreign direct investments and economic growth in Algeria. To meet this goal the neoclassical model internal growth is used.

In the thesis is used the inductive approach through reliance on indicators and extrapolate the results throughout analyzing the data and information, annual reports, research papers and global statistics issued by the international organizations and Indicators economic specializes FDI and economic growth in Algeria, as well. For this purpose is used the statistic software MINITAB V.15 for analysis of the data and extraction results. This analysis clarifies the relationship between foreign direct investment and its impact on Algerian economy.

There is used the "Cobb-Douglas" production function to measure and describe the effect of foreign direct investment on economic growth in Algeria during the period 2000-2011.

3.1 Cobb-Douglas production function

The production function is estimated by using the capital, labor, and the imports as production factors. Moreover, a distinction has been made between the domestic capital and foreign capital as independent factors, where the latter is measured by the foreign direct investment. Since the model has included the imports as production factors, the
gross product (GP) will be used, where GP equals the gross domestic product plus the imports.

The model is as follows:

$$GP = f(K, FDI, IMP, \epsilon)............... (1)$$

Where:

GP: gross production; it equals the gross domestic product plus the imports.

K: capital.

FDI: foreign capital measured by the accumulation of foreign direct investment.

L: labor element, measured by number of labor (total labor)

IMP: imports of goods and services.

\( \epsilon \): error rate.

The previous equation can be written as follows:

$$GP = AK^{\alpha_1}FDI^{\alpha_2}IMP^{\alpha_3}L^{\alpha_4} \epsilon............... (2)$$

Where:

\[1 = \alpha_1 + \alpha_2 + \alpha_3 + \alpha_4\]

And by dividing the two sides of the equation number (1) by L, we have the function number (2):
\[ \frac{GP}{L} = \frac{(AK\alpha_1 FDI\alpha_2 IMP\alpha_3 L\alpha_4 \epsilon)}{L} \] 

(3)

And so:

\[ \frac{GP}{L} = AK\alpha_1 FDI\alpha_2 IMP\alpha_3 L\alpha_4 L^{-1} \epsilon \] 

(4)

The equation (33) can be written in the following form:

\[ \frac{GP}{L} = AK\alpha_1 FDI\alpha_2 IMP\alpha_3 L\alpha_4 L^{-\alpha_1 - \alpha_2 - \alpha_3} \epsilon \] 

(5)

By rearranging the function we have the following form:

\[ \frac{GP}{L} = A(K/L)\alpha_1 (FDI/L)\alpha_2 (M/L)\alpha_3 \mu \] 

(6)

This model helps to avoid the problem of incompatibility of variance, where if such problem exists, the variance changes with the change of observations, which leads to inefficient results that do not help in taking the good decision in respect of testing the hypotheses. This model also helps to avoid the problem of multiple linear correlation, where if exist, there will be a correlation between the variables that are used in interpretation of dependent variable.

### 3.1.1 Definition of component variables of model

The component variables of this model are as follows:

I. **Gross product GP**: the study will depends on the concept of the gross product GP which is the nominal gross domestic product during a certain year measured by the American dollar, plus the imports of goods and services.

II. **Imports Imp**: expressed by the goods and services that are produced outside the Algerian economy but used inside therein during a certain year measured by the American dollar.
III. Domestic capital Kt: expressed by the gross domestic investment measured by the American dollar.

IV. Labor Lt: the study depends on to gross manpower (number of labor) as a criterion for labor element on the economy gross level.

V. Foreign direct investment FDI: it is the foreign capital measured by the American dollar.

3.2 Neoclassical development model

Neoclassical models of development and internal development models (modern development models) are considered the basic starting point for most of the theoretical and applied studies about the feasibility of foreign direct investment and its effect on economic growth; we will deal with each model as follows:

Neoclassical theory of economic growth directly springs from Harrod-Domar's model. The theories that came before Solow model are also considered the source on which Solow depended in establishing his model of economic growth, where the reasons that lead him to write his article in 1956: "A contribution to the theory of economic growth" represented in the path written by each of Harrod and Domar in their interpretation of economic growth.

3.2.1 Harrod-Domar model

(Rafek, 2008) Both Harrod and Domar tried to search for a unified and complete for economic growth; it depends on combining the Keynesian Analysis and the elements of economic growth; their thoughts were formed in a model that shows:

"The basic assumption of the model is that the production depends on the amount of the capital (K) which is invested in the production unit, and that the growth rate in the product (ΔY/Y) depends on the Marginal Propensity to Save (MPS), marked as $\frac{Δs}{Δy}$, and
also the capital output ratio \((K/Y)\), and according to the assumption that the Marginal Propensity to Save (MPS) is equal to the Average Propensity to Save, that is:

\[
\frac{\Delta S}{\Delta Y} = \frac{S}{Y} = S \quad \text{.....................................} \quad (7)
\]

Where \((s)\) is the saving rate.

In case of budget, saving equals investment, i.e. \(S = I\).

\[
\text{So, } i = I/Y \quad \text{.....................................} \quad (8)
\]

Where \((i)\) is the investment rate, and the investment \((I)\) is the change that occurs in capital, i.e.

\[
I = \Delta \quad \text{.....................................} \quad (9)
\]

And the Incremental Capital Output Ratio equals \((k)\), i.e.

\[
\frac{\Delta K}{\Delta Y} = K = \frac{1}{\Delta Y} \quad \text{.....................................} \quad (10)
\]

According to equation (4) we get:

And by dividing the two parts of the equation (5) into \(Y\), we get:

\[
\left(\frac{\Delta Y}{Y}\right) = \frac{1/Y}{K} \quad \text{.....................................} \quad (11)
\]

Accordingly, the growth rate in product equals the investment rate (or saving rates) divided into the Incremental Capital Output Ratio:

The equation can be reformulated as follows:
\[ g = \frac{s}{k} \]

Where:

\( g \): denotes product growth rate

\( s \): saving rate

\( k \): Incremental Capital Output Ratio

The capital budget is also equal to domestic investment and foreign investment, i.e.

\[ I = I_d + I_f \] \hspace{1cm} (12) \]

Where:

\( I_d \): domestic investment

\( I_f \): foreign investment

According to compensation in the equation (7), we get:

\[ \frac{\Delta Y}{Y} = \frac{(I_d + I_f)/Y}{K} \] \hspace{1cm} (13)

\[ g = \frac{I_d + I_f}{Y} \] \hspace{1cm} (14)

\[ g = \frac{S + I_f}{K} \] \hspace{1cm} (15)
Hence, economic growth declines as a result of the decline of domestic savings or capital budget. Due to the decline of savings rate in developing countries, they depend on other alternatives so as to close the gap between domestic investment and domestic saving; one of the most important alternatives is to promote the inflow of foreign direct investment to their lands.

3.2.2 Solow model

Solow's neoclassical model of economic growth is considered a contribution that brought the seeds of neoclassical theory of growth, where such model broadens the framework of Harrod-Domar model through adding the labor input, and a third independent variable which is the technological level to the economic growth equation".

"The internal variables in the model are represented in each of the production (Y), the capital (K), the labor (L) and labor output (A), where economy always has a certain volume of the three mentioned factors. These factors enter in the production function as follows:

\[ Y(t) = F(K(t), A(t)L(t)) \ldots \ldots \ldots (16). \]

Where (t) denotes time.

The properties of such function is that time does not enter in the function directly, and that the production changes in time in consequence of the change of production factors that are attained by the quantities given from the capital and labor and which increase gradually through technological progress achieved by increase of knowledge. The next product (AL) is called the actual labor, while the technological progress (A) which raise the actual labor is said to be neutral, where the way in which (A) affects the production function implies that the production rate K/Y is fixed, and such result is confirmed through the long-term period by the empirical data (Sadeadeen, 2006).
Among the fundamental hypotheses in Solow model is that each of the production factors, capital and actual labor have fixed scale economies, that is, if we double the quantities of the capital and actual labor, we get double production at the same quantity. In addition, economy must be developed enough where all the produced profits are exploited completely; that cannot occur if the economy is certainly undeveloped, that is, doubling the quantities of capital and actual labor leads to an increase in production more than the double.

Moreover, another property of production function is that the marginal output of capital or labor ends up to infinity when both of the capital and labor reach zero, and it reaches zero when they end up to infinity as follows:

\[
\lim_{K \to 0} (F_K) = \lim_{L \to 0} (F_L) = \infty; \lim_{K \to \infty} (F_K) = \lim_{L \to \infty} (F_L) = 0 \quad \ldots \ldots \quad (17)
\]

Solow model assumes that net investment is equal to saving, where if we use \((s)\) to refer to the saving rate, the increase in capital is written as \(dK(t)/dt = sY(t)\), the number of population develops at an external rate valued \((n)\), and the labor market also will be in budget in the long run. Accordingly, the variable \((L)\) denotes each of supply and demand and can be written as \(dL(t)/dt = nL(t)\). If we refer to the increase in \(A(t)\) by an exponential increase \(e^{\lambda t}\), the increase in capital for an individual is written as follows:

\[
dK(t)/dt = s[f[K(t)] - (n + \lambda)k(t)] \quad \ldots \ldots \quad (18)
\]

Consequently the regular growth pattern is defined by \(K^*\) of \(K\) where:

\[
s[f[K^*]] = (n + \lambda)K^* \quad \ldots \ldots \quad (19)
\]
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Where the regular case is represented in a many variables that grow at a fixed rate, i.e.
dk(t)/dt = 0.

3.2.3 Internal growth models (modern)

Madhat (2009), the weak performance of modernized neoclassical theories (Neoclassical) in shedding light on the sources of long-term growth has led to dissatisfaction with such theories, where this theory could not interpret the gap or huge differences in economic performance among underdeveloped countries, which gave rise to a new theory, namely the internal growth theory.

3.2.4 Romer model:

Romer (1986), could give a new style to the neoclassical theory through the hypothesis which is represented in entering the factor of learning by practice, where the firm which increases its monetary capital shall at the same time learn from production more effectively. Such positive effect of experience on production is described as practice through investment. Accordingly, if we suppose that we can refer to the knowledge available at the firm (I) as AI, it means that the variable dAi/dt denotes the total knowledge of economy, which in turn fits with change in Ki of capital inventory, and thus the production function is:

\[ Y_i = F (k_i, KLi) \] ..........................(20)

Where (F) denote the neoclassical properties, represented in the marginal production of each decreasing factor and the scale economies are fixed. Moreover, the marginal output of capital or labor ends up to infinity when both of the capital and labor reach zero, and it reaches zero when they end up to infinity.

If both of (K) and (Li) are constant, every company is subject to decreasing output of Ki as it is obvious in Solow model. Moreover, for a given value to Li, the production
function is a quantic first degree one in \( Ki \) and \( K \), and consequently the source of internal growth is the stability of social output of capital. The production function is so defined with help of Cobb Douglas function:

\[
Y_i = A \cdot (K_i)^\alpha \cdot (KL_i)^{1-\alpha} \quad \text{(21)}
\]

Where \( 0<\alpha<1 \)

And by putting \( ki=Ki/Li, yi=Yi/Li, k=K/L, \) and later \( y_i = y \) and \( ki/k \), the average result is:

\[
y/k = f(L) = A \cdot L^{1-\alpha} \quad \text{(22)}
\]

The marginal product of the capital can be defined by means of derivation in relation to \( Ki \) by making \( K \) and \( L \) constant and by compensation of \( k = ki \) we get:

Consequently, the product pertaining to capital increases with \( L \), and it is not related to \( K \), accordingly:

\[
\frac{\partial Y_t}{\partial K_t} = A \cdot \alpha \cdot L^{1-\alpha} \quad \text{(23)}
\]

Learning through practice and spread of knowledge cancels the decline towards output decrease; it is less than the average product because \( 0<\alpha<1 \)

By considering the following family budget:

\[
da/dt = w + ra - c - na \quad \text{(24)}
\]

where \( w \) denotes wage, \( a \) denotes assets of individual and \( r \) denotes rendement (output) of asset.
Accordingly, the utility function maximization constituent (U) under the budget through dynamic maximization resulting from Hamiltonian calculation is given in terms of the following relation:

\[ r = p - \frac{u'(c) c}{u'(c)} (\dot{c}/c) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (25) \]

By using the utility function which is called the non-temporal elasticity of substitution:

\[ u(c) = \frac{c(1-\theta)}{(1-\theta)} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (26) \]

Where when \( \theta \) increases, families deviate from regular consumption in time, and the elasticity of substitution of utility function is given as 1/\( \theta \). By making use of what has been mentioned above, the utility function can be written as:

\[ (\dot{c}/c) = \left( 1/\theta \right) (r - \rho) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (27) \]

And by compensation of the value of \( r \) which is represented in \( A\alpha L^{1-\alpha} - \delta \) we get the growth rate of non-centralized economy:

\[ g_c = \left( 1/\theta \right) (A\alpha L^{1-\alpha} - \delta - \rho) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (28) \]

And by considering the average product we get the growth rate which is specified by the plan (social maximization):

\[ g_{cp} = \left( 1/\theta \right) (AL^{1-\alpha} - \delta - \rho) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (29) \]

Bearing in mind that \( \alpha < 1 \), it means: \( g_c < g_{cp} \)
Social maximization can be achieved if we support investment at a rate of \((\alpha-1)\) through a presumptive taxation (forfeiture), if the ones who have the capital pay a part of \((\alpha)\) out of its cost, the output pertaining to capital will be equal to the social output.

### 3.2.5 Robelo model:

The assumption which is represented in the situation in which each of the material goods and learning has the same production function, does not take into consideration the basic role of learning, which requires qualified employees as production factor. So, Robelo has used two functions for production to Cobb Douglas:

\[
Y = C + K + \delta K = A. (\nu K)^\alpha . (\mu H)^{1-\alpha} \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots (30)
\]

\[
\dot{H} + \delta H = B . [(1-\nu) K]^n . [(1-\mu) H]^{1-n} \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots (31)
\]

Where \((Y)\) denotes production of goods (consumable goods and monetary capital), \(A, B > 0\) are two technological factors, each of \(\alpha\) and \(n\) denote the monetary capital used in each sector (they are restricted to 0 and 1), and each of \(u\) and \(v\) denote the total monetary capital rate and the human capital in goods production. By assuming \(\alpha > n\), the education sector is relatively intense the human capital and goods production is relatively intense in the monetary capital.

The form of the above-mentioned equations implies that there are fixed scale economies compared with quantities of factors that enter the production \(K\) and \(H\), and so the model becomes a source for internal growth, and in the regular case each of \(u\) and \(v\) are constant, and \(C, K, H\) and \(Y\) grow at the same rate \(g^*\). By using the dynamic maximization technology, we get the growth rate of consumption:

\[
A\alpha \cdot (vK / uH)^{(1-\alpha)} - \delta = g^* \quad (32)
\]

\[
g_c = (1/ \theta)
\]
In this model, the part which accompanies the net marginal product of capital is equal to the output \((r)\).

The output of human capital and monetary capita is the same in both sectors, these terms lead to the relation between \(u\) and \(v\):

\[
\left(\frac{n}{1-n}\right) \cdot \left(\frac{v}{1-v}\right) = \left(\frac{\kappa}{1-\sigma}\right) \cdot \left(\frac{u}{1-u}\right) \quad \text{.......................... (33)}
\]

Accordingly, the increase of production occurs through the increase coming to each of \(K\) and \(H\) rates allocated for production.
4. Literature Review

4.1 Concept of FDI

“Foreign direct investment is the category of international investment in which enterprise resident in one country (the direct investor) acquires an interest of at least 10 % in an enterprise resident in another country (the direct investment enterprise)” (UNCTAD, 2010). Transferred capital which is used in the host country differ the FDI from foreign portfolio investment. FDI means that foreign investors either invest into an existing company or establish a new company (i.e. factory, branch) in a host country. Since FDI is a form of physical investment, it is expected to have effects on the current account balance, gross capital formation, employment, productivity, economic growth, and development. In this regard, it gets a great deal of attention in empirical studies. However this study is focused on the effects of FDI on economic growth and development.

Foreign investment can be classified in two categories: the first relates to the movement of capital and other resources across borders and can be narrowly defined as FDI as it concerns financial control over organizations or companies as a crucial factor in the definition; and the second relates to the legislation concerned with the protection of foreign investment. The second category provides a broader definition of the concept of investment as it includes different types of assets, titles and contractual rights. (Ghazali, 2004)

The United Nations Conference on Trade and Development (UNCTAD, 2008) defines FDI as a long term relationship between companies in the source country (the investor) and another company in the host country (country of investment). Thus according to this definition the source company (the foreign investor) is defined as the company that owns assets in another company or production unit that belongs to a country other than its native country. To adhere to this definition of foreign investment, the investing company
has to hold not less than 10% of the normal shares or the voting power on the board of the registered companies or their equivalent of other companies. The local companies are labeled as subsidiary units or affiliates.

Despite the fact that this definition is influenced by the patterns of flow of foreign investment among the highly industrialized countries, where mergers between giant companies and monopolies over company assets give them the upper hand, it can still work in cases where individual foreign companies are involved. Based on this definition FDI includes the possession of part of the capital through the purchase of shares in the subsidiary company, or the reinvestment of profits made by the subsidiary company instead of distributing it to shareholders, or short-term or long-term borrowing or credit between the main company and its subsidiary companies, sub-contracts, management contracts, concessions, and licenses for producers and service providers.

The Arab Investment and Export Credit Guarantee Corporation defines FDI as the flow of capital in the form of financial assets or production assets, material or otherwise coming from outside the host country, and which features in independent or joint investment projects for business purposes (The Arab Investment and Export Credit Guarantee Corporation, 1987).

From these definitions, it is apparent that FDI is a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in a firm (direct investment firm) that is resident in an economy other than that of the direct investor. FDI usually features a long-term relationship between the direct investor and the target company, in addition to the potential control available to the investor on the board of directors of the company. The direct investor can be an individual or legal entity from the public or private sector, a group of people, a company or group of companies, a government or a government organization, or any other organization such as an international financing organization. The direct investment
institution can be defined as an institution in which 10% or more of its normal shares or voting power in case of stock companies, or an equivalent in case of non-stock companies belongs to a foreign investor (Shernanna & El-Fergana, 2006).

Direct investment enterprises are corporations, which may either be subsidiaries, in which over 50% of the voting power is held, or associates, in which between 10% and 50% of the voting power is held, or they may be quasi-corporations such as branches which are effectively 100% owned by their respective parents. The relationship between the direct investor and its direct investment enterprises may be complex and bear little or no relationship to management structures (UNCTAD, 2008).

According to the El-Fergani (2004) there are numerous forms of FDI. The most important associated with developing countries, are the following:

(I) Investment in the field of natural resources, where FDI plays an important role in the production of raw materials in developing countries and the export of these materials for consumption in external markets. An example of this is oil exploration.

(II) In some cases the local markets become a target for FDI. In such cases where obstacles are imposed by governments on imports, investment in local production becomes more feasible than exporting foreign products to these markets. This type of investment focused on the manufacturing sector during the 1960s and the 1970s as the policy of import substitution became popular among developing countries.

(III) Investments seeking quality performance as the case with some companies in the industrialized countries, which move their businesses to other countries in order to cut production costs and increase their profits. The high cost of labor in industrialized countries has forced companies in these countries to move into developing countries in search of cheap labor. This theme constitutes the main aspect of Japanese investment in
Asia, US investment in Mexico and Central America, and European investment in Central and Eastern Europe.

(IV) Some FDI can be described as strategic investment. This type of FDI is at the very advanced stage in which the multinational corporations (MNCs) seek the honing of skills through investment in relevant countries. Examples include the numerous centers for R&D in Singapore, the computer programming development centers in India, and the airline booking centers in the Caribbean.

Research explains that the increase in flows of FDI capital is due to a number of factors. One factor is the impact of the international economic growth on the developing countries as well as developed countries, while as second is the increasing wave of cross-border mergers and acquisitions (The Arab Investment and Export Credit Guarantee Corporation, 2006). This has come as a natural consequence of high profits and the subsequent rise in shares value which has led to the activation of cross-border mergers and acquisitions. Moreover, sustaining policies in favor of investment, removing obstacles that hinder international trade, and promoting investment in host countries have all made a positive contribution to the flow of investment capital worldwide (UNCTAD, 2007). It is important to note, however, that the global financial crisis has adversely impacted on FDI flows. Global FDI inflows fell from a historic high of $1,979 billion in 2007 to $1,697 billion in 2008, a decline of 14%. The slide continued into 2009, with added momentum: preliminary data for 96 countries suggest that in the first quarter of 2009, inflows fell a further 44% compared with their level in the same period in 2008 (World Investment Report, 2007).

The industrialized countries retain the main share of FDI. In 2008, the industrialized countries received 57% of total FDI compared to 43.0% to the developing and transition countries. Whereas the biggest share went to the East Asia, the share for the Middle East
and North Africa region was 16.5% of the total for developing countries (UNCTAD, 2009).

Despite of the negative effects of the global financial crisis, in 2008 the number of the Multi National Corporations (MNC) was estimated at 82,000 main companies and 810,000 subsidiaries, providing employment to around 77 millions of people employed (UNCTAD, 2009). Also, the contribution of the MNCs to the world economy has increased. For example, the contribution to total world exports increased from 26% in 1990 to 33% in 2006. Likewise the contribution of the MNCs to the global national product increased from 6.5% in 1990 to around 10% in 2009 (UNCTAD, 2007:17, 2009:22). This transformation is on the increase as the share of MNCs operating in developing countries has risen from 11% in 1994 to 26% in 2004 (UNCTAD, 2005).

In this context, it should be pointed out that the transformation of local companies into the MNCs has become a common phenomenon in developing countries. Furthermore, in the past fifteen years the number of the MNCs domiciled in either transitional economies or developing countries has shown higher growth rates than MNCs in the industrialized countries. However, the largest 50 MNCs from the developing world only match the hundredth biggest MNC from an advanced country. In addition, local MNCs only occur in a few of developing countries. In fact these companies belong to the industrial fledgling economies in Asia, Latin America and South Africa: Asia has 78 MNCs in the top 100 from developing nations, surpassing South Africa and Latin America with 11 companies each. These companies are engaged in construction, food and drinks and other industries, while a number have shown noticeable progress in the electronic industry especially in Asia (UNCTAD, 2007).

The 1980s, which witnessed unprecedented economic growth in South East Asia, saw the emergence of MNCs in developing countries. The early activities of these companies concentrated on investing in the Least Developed Countries (LDC). These companies
have shown competitive characteristics that promote their growth and expansion worldwide. According to Pavida (2001) the most important of these characteristics are the following:

(I) cutting down production costs through the use of the production methods that rely on intensive labor;

(II) The low cost of locally produced commodities, and the use of prices as a strategy for competition;

(III) The maximum use of the appropriate technology to minimize labor;

(IV) Making the maximum use of locally produced raw material to minimize imports;

(V) Concentrating on commodities which are in high demand in foreign markets.

As these companies grew during the 1990s, foreign investment expanded at both the geographical and sectoral levels, with attention focused on remote developing countries as potential markets. In addition, they were able to overcome custom tariffs and other obstacles imposed by industrialized countries on imports, as well as the acquisition of technological know-how. Consequently, location has become significantly more important for exploring new markets, particularly those located close to the EU and the US (UNCTAD, 2005).

4.2 Impact of FDI

The strong global direct investment flows have stimulated intensive debate and research on the impact of FDI on host economies. It is generally recognized that FDI can inherently benefit domestic firms. Brooks (2003) suggests that apart from increasing output and income, host economies can benefit from FDI in five ways:
(I) Foreign firms bring in superior scientific or managerial technology. They will provide technological assistance to their local suppliers or customers, and train workers who may subsequently move to local firms. In addition, local firms could learn by simply watching foreign counterparts. Chan, S.S. (2006) the extent of benefits to host economies depends on if the technology could spill over to other firms in the local market.

(II) Foreign investment steers up competition in the host economy. The entry of a new firm would tend to increase sectoral output and reduce the domestic price. In addition, the presence of foreign-owned firms may spur domestic firms to operate more efficiently and introduce new technologies earlier.

(III) Foreign investment typically results in increased domestic investment. There was found out in a panel data study of 58 developing countries that about half of each dollar of capital inflow translates into an increase in domestic investment. However, when capital inflows take the form of FDI, there is a near one-to-one relationship between FDI and domestic investment.

(IV) Foreign investment gives advantage in terms of export market access arising from economies of scale in marketing of foreign firms or from the ability to gain market access abroad.

(V) Foreign investment can aid in bridging a host country’s foreign exchange gap. Investment often requires imported inputs. If domestic savings are insufficient to support capital accumulation to achieve a target growth, or barriers exist in converting domestic currencies into foreign exchange to acquire imports, foreign inflows can help ensure that foreign exchange will be available to purchase imports for investment.

However, it should be noted that not all direct investments will lead to technological transfer or positive spillovers. If the direct investors want to protect the technology, especially a patented technology, production of foreign affiliates in host economies may
be diverted to low value-added activities, limiting the benefit from technological learning. Sometimes, direct investors may also restrict or abandon completely vertical integration by importing inputs to the affiliates in host countries. Regarding competition, evidences have shown that direct investors, which have certain advantages like economies of scale and scope inherited in their global value chains, can even eliminate competition by crowding out relatively low-efficiency domestic firms.

WTO Ministerial (1996) Although there are mixed effects of FDI on national economies and the international economy as a whole, due to differences in socio-economical and ideological conditions, the sheer size of FDI on the global level probably reflects that net effect of FDI is still positive. The question as how to utilize beneficially FDI remains the policy decision for each government either through bilateral agreements or multilateral arrangements in the WTO framework or other forums.

Blomstrom and Kokko (1997) published the empirical evidence on host country effects of FDI. The focus of the paper is the role of FDI in technology transfer to host countries and its diffusion. They conclude that “FDI may promote economic development by contributing to productivity growth and exports in host countries”.

De Mello surveys the FDI-led growth studies in developing countries under the light of theoretical advancements. First, he finds that the relation between FDI and growth depends on country specific factors. Second, the effect of FDI can be lower in technology laggards (e.g. the least developed countries) than technological leaders (e.g. developed countries), which supports the technology gap hypothesis of Findlay (1997; 1978).

Gorg and Greenaway (2004) represented the studies which examined the productivity, wage and export spillovers stemming from FDI in developing, developed and transition economies. They conclude that the results on the importance of FDI spillovers are mixed at best. The authors explain the negative or neutral effect of FDI with the use
inappropriate econometric methods and the use of inadequate datasets (e.g. sector limited cross-section data) from a methodological point of view.

The survey of OECD (2002) examines the contribution of FDI into host-country development. The findings are that FDI is a major catalyst to development in a similar vein.

Ozturk (2007) surveys the recent studies on the FDI-growth nexus. He finds that the result of FDI affects growth in a positive way” dominates. However, the results may change according to the econometric method followed and the sample groups analyzed (developed versus developing countries).

Stehrer and Woerz (2009) examine the effect of FDI on host country output growth. The study uses the OECD and non-OECD countries as a sample for the period 1981-2000. The results suggest a positive relationship between FDI and output as well as productivity and export. They find that attracting FDI enhances output growth.

Lane and Liu (2005) examined a panel of 84 countries over the period 1970 - 1999 to understand whether FDI triggers economic growth. Their results revealed that FDI not only promotes growth directly but also increases growth with its interaction terms. They further tested their hypothesis in two sub-samples: developed and developing countries by dividing the whole sample (84 countries). Again, the results confirmed that in both developed and developing countries FDI promotes economic growth. They found that a 10 percent increase in FDI (as a percentage of GDP) leads to a 4.1 percentage-point increase in the rate of economic growth.

Johnson (2006) examined whether FDI has a positive effect on economic growth by triggering technology spillovers and physical capital accumulation. He uses a panel
dataset consists of 90 developed and developing countries between 1980 and 2002. He performed the empirical analysis by using the OLS method and he concluded that “FDI enhances economic growth in developing economies but not in developed economies”.

Ewing and Yang (2009) assessed the impact of FDI in manufacturing sector on economic growth by using a dataset of 48 states in the US over the 1977-2001 periods. In their model, the dependent variable was the growth rate of real per capita Gross State Product (GSP), whereas the main independent variable was FDI as a share of GSP. They employed some control variables which are investment as a share of GSP, growth rate of state employment, and human capital (schooling). They used the panel OLS estimation method and by allowing for fixed effects for states. They concluded that FDI promotes growth but the growth impact is not uniform across regions and sectors in the US. In their estimations, the human capital variable exerted the expected positive coefficient.

Hansen and Rand (2006) searched for co-integration and causality relation between FDI and growth in a sample of 31 developing countries for the period 1970-2000 and they confirm the existence of co-integration. Moreover, their results indicate that FDI has a lasting positive impact on GDP irrespective of level of development. They interpret this finding “as the evidence in favor of the hypothesis that FDI has an impact on GDP via knowledge transfers and adoption of new technologies” (Herzer et al., 2008).

Azman-Saini et al. (2010) investigated the link between foreign direct investment (FDI) and economic growth by taking the role of economic freedoms (as a proxy for the institutional quality) into account. They used a panel dataset of 85 countries over the period 1976-2005. Their results reveal countries promote greater freedom of economic activities would gain significantly from the presence of multinational corporations due to the existence of a positive interaction term.
Bengoa and Sanchez-Robles (2003) investigated the interplay between economic freedoms, FDI and economic growth. They used 18 Latin American countries for the period 1970-1999. Their panel data estimations with the panel OLS method (fixed and random effects) showed that FDI and economic freedoms are the growth-enhancing factors in these countries. They found that a percent increase in FDI (as a percentage of GDP) may increase economic growth up to 0.5 percentage point. Therefore, policies to widen economic freedoms and to enhance FDI inflows can lead to an increase in economic growth.

Dollar and Kraay (2004) examined the interrelation between international trade, growth FDI, and poverty. They used estimation model with GMM and instrumental variable methods for more than 100 countries. Their period was ten-year averages over the period 1970-2000 period. They found that FDI and trade affect the well-being of people positively by increasing their income and decreasing poverty.

Basu and Guariglia (2007) examined FDI, inequality and growth relation by using a panel of 119 countries over the 1970-1999 periods. The study used an alternative Gini variable which measures the human capital inequality by using the data of education levels instead of income levels. They used five-year averages of the variables and estimated their model with OLS fixed effects and GMM. Their results revealed that: a) there is a positive relationship between FDI and educational inequality, b) FDI is positively related with growth, c) FDI flows lead to a decline in the share of agriculture in the host country.

Empirically, by cross-section analysis, Balasubramanyam et al. (1996) found positive growth effects of FDI by cross-section data and the ordinary-least-squares (OLS) regression model with regarding FDI inflows in a developing country as a measurement of its interchange with other countries. They suggested that FDI is more important for economic growth in export-promoting countries than in importing-substituting countries,
which implied that the impact of FDI varies across countries and the trade policy can affect the role of FDI in economic growth.

UNCTAD (1999) found that FDI has either a positive or negative impact on output depending on the variables that are entered alongside it in the test equation. These variables include the initial per capita GDP, education attainment, domestic investment ratio, political instability, terms of trade, black market premium, and the state of financial development.

Among the time series analyses, Bende-Nabende and Ford (1998) developed a simultaneous equation model to analyze the economic growth in Taiwan with regard to FDI and government policy variables. With the analysis of the direct effects and the multiplier effects, they confirmed that FDI could promote economic growth and that the most promising policy variables to stimulate growth are infrastructural development and liberalization.

Zhang (2001) studied the causality between FDI and output by a vector-auto regression model (VAR) in 11 countries in East Asia and Latin America. He found that the effects of FDI are more significant in East Asian countries. He recognized a set of policies that tend to be more likely to promote economic growth for host countries by adopting liberalized trade regime, improving education and thereby the human capital condition, encouraging export-oriented FDI, and maintaining macroeconomic stability.

Bende-Nabende et al. (2003) investigated five countries in East Asia by a paneled VAR analysis, and confirmed the positive impact of FDI, but the effects on spillovers are different across countries. The less developed countries have higher spillover effects on output. The VAR model with panel data was also be estimated by Baharumshah and then on 2006 to investigate the relationship between FDI, saving and economic growth in eight East and Southeast Asian countries. They confirmed the positive long-run effects of
FDI and saving on economic growth. They also suggested that countries that are successful in attracting FDI can finance more investments and grow faster than those deterring FDI.

Campos and Kinoshita (2002) in this context it is also argued that multinational companies, through FDI, may also diffuse their knowledge of global markets to domestic firms and hence enable them to become more successful exporters. In short, FDI is assumed to be an important vehicle for the transfer of technological and business know-how. These knowledge transfers may have substantial spillover effects for the entire economy. Hence, through capital accumulation and knowledge spillovers, FDI may play an important role for economic growth although the positive impact of foreign direct investment on economic growth seems to have recently acquired the status of a stylized fact.

Brems (1970) in theory there are several potential ways in which FDI can cause growth. For example, Solow-type standard neoclassical growth models suggest that FDI increases the capital stock and thus growth in the host economy by financing capital formation.

Agosin and Mayer (2000) argue that FDI in the form of mergers and acquisitions do not necessarily increase the capital stock in capital-scarce economies. Cross-border mergers and acquisitions merely represent a transfer of existing assets from domestic to foreign hands. If the proceeds of the sales of these assets are spent on consumption, FDI does not contribute to capital formation and growth. This might be of particular relevance for many Latin American countries where a significant share of FDI flows in the 1990s occurred as a result of privatization of state owned enterprises.

The positive effect of FDI on growth through capital accumulation requires that FDI does not „crowd out „equal amounts of investment from domestic sources. Accordingly, FDI may actually harm the host economy when foreign investors claim scarce resources (such
as import licenses, skilled manpower, credit facilities, etc.) or foreclose investment opportunities for local investors. Additionally, there is also concern that the positive knowledge spillovers predicted by endogenous growth models do not occur in developing countries.

Hansen and Rand (2006) attested that the size of the impact of FDI on growth seems to depend on economic and political conditions in the host country, such as the level of per capita income, the human capital base, the degree of openness in the economy, and the extend of the development of domestic financial markets.

Oyaide (1977) concluded that FDI engineer both economic dependence and growth. In his opinion, FDI causes and catalyzes a level of growth that would have been impossible without such investment. This is, however, at the cost of economic dependence. Although a lot of studies indicate that there exists a positive relationship between FDI and economic growth in Nigeria, there is a consensus among economists that the country’s growth rate would have a positive impact on FDI. The prospect that FDI will be profitable is brighter if the nation’s economic health is better and the growth rate of GDP is higher.

Growth enhancing effect of FDI is not, however, automatic, but depends on various country specific factors. UNCTAD (1999), Blomstrom et al (2000), and DeMello (1997) indicate that the positive effect of FDI is stronger the higher the level of development of a host country.

Higher level of development allows countries to reap the benefits of productivity fostered by foreign investment. For similar reasons Bronsznestein et al. (1998) have found that significant relations between FDI flows and economic growth depend on the level of human capital.
Host countries with better endowment of human capital are believed to benefit more from FDI induced technology transfer as spillover-effects than others with less human capital. Balasubramanyam et al. (1996) and UNCTAD (1998) suggested that the positive effects of FDI also depend on openness to trade. FDI can broaden access to export markets as transnational corporations often serve as channels for the distribution of goods from one country to other markets located in another country.

Nair-Reichert, U. & D. Winhold (2000), using a mixed fixed and random panel data estimation method to allow for cross country heterogeneity in the causal relationship, find some evidence that efficacy of FDI in raising future growth rate, although heterogeneous across countries, is higher for more open economies.

4.3 Types of FDI Inflows

The effect of FDI on economic growth is specific, since efficiency-seeking FDI is superior to market-seeking FDI in enhancing greater growth in the host economies also argued that FDI is expected to have a growth effect in the manufacturing sector, while in the primary sector, natural-resource seeking FDI is expected to have a limited impact on growth.

Colen et al. (2008) reported that the impact of FDI on economic growth is greater when FDI directed to high labor-intensive and less technology intensive industries, where the technology gap between foreign and domestic firms is narrowed.

There are arguments that the scope of the operation of FDI is a factor in determining the growth effect of FDI in the host country. For example, Alfaro (2003) and UNCTAD (2005) reported that the extent for linkages between foreign firms and domestic suppliers is often limited in the primary sector. As a result, the impact of FDI, which operates in the primary sector, tends to have a negative effect on growth. The manufacturing sector tends to have a broad variation of linkages activities; therefore FDI tends to have a
positive impact on growth. On the other hand, FDI tends to have ambiguous effect in service sector, where the scope of linkages is limited.

In addition, the entry mode of FDI is also crucial. Since, most developing countries prefer Greenfield FDI because it immediately and directly adds to the existing industrial capacity, whereas M&A only transfers the ownership of domestic assets to foreign investors. As a result, Greenfield FDI may contribute positively to gross domestic investment, since new production is introduced. Greenfield FDI also has a directly positive impact on employment levels via new jobs creation. By the competition effect, Greenfield FDI may improve the efficiency of domestic firms. (Meyer, 2003)

On the other hand, M&As are less likely to affect the employment levels in the host countries. However, M&As tend to have a more developed network of domestic and regional suppliers, even though it is simply a take-over of a domestically developed business. Although, M&As may achieve supplementary capital and employment may increase in the long term.

To sum up, the empirical studies suggest that the growth effect of FDI is not automatically but it depends on some conditional factors. For example, the technology gaps, the level of human capital development, financial market development, the macroeconomic conditions and so on. These factors are expected to explain why the growth effects of FDI are completely different between countries at the same level of development, the same sectors and the same types of firms.

4.4 FDI trends in the world

As a result of globalization, emerging markets have become among the major FDI recipients over the last decades. Multinationals expend their businesses aiming to maximize their profit in less saturated markets, driven by the emerging countries market
sizes, fast growth, access to cheap resources (raw materials and cheap labor compared with the developed world).

United Nations Conference on Trade and Development (2008) reports suggest that the global FDI flow grew strongly from the 1990s up to 2008 at rates well above those of global economic growth or trade. In fact, the table (1) indicates that the total FDI has grown from US $481.91 million in 1997 to almost US $958.69 billion in 2005. After more than 4 years of strong growth, reaching $1.9 trillion in 2007, FDI flow starts its decline from 2008 (-16%). The decline was more pronounced in 2009 (-37%) due to the global economic crisis, multinationals had to review their investment plan due to the recession in major economies, the stock-market crash, which led to tighter credit conditions, the decrease of asset value and the fall in corporate profit (UNCTAD, 2011).

In 2009, the total inflows had declined sharply in all groups: developed, developing and transition economies (Figure 1). This is due mainly to the climate of uncertainty following the world financial and economic crisis. Moreover, in 2010, the global (FDI) flow rose slightly to reach $1.24 trillion, but remains 15% below the pre-economic downturn average (Figure 1).

Table 1. FDI global flow in the world between1997-2010 (Millions of dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>world</th>
<th>developed countries</th>
<th>developing countries</th>
<th>share of developing countries by %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>481.91</td>
<td>269.65</td>
<td>193.22</td>
<td>40.09</td>
</tr>
<tr>
<td>1999</td>
<td>1079.08</td>
<td>824.64</td>
<td>222.29</td>
<td>21.25</td>
</tr>
<tr>
<td>2001</td>
<td>823.83</td>
<td>589.38</td>
<td>209.43</td>
<td>25.42</td>
</tr>
<tr>
<td>2003</td>
<td>632.59</td>
<td>442.16</td>
<td>166.34</td>
<td>26.29</td>
</tr>
<tr>
<td>2005</td>
<td>958.69</td>
<td>611.28</td>
<td>316.44</td>
<td>33.07</td>
</tr>
<tr>
<td>2007</td>
<td>1970.94</td>
<td>1306.818</td>
<td>573.032</td>
<td>33.69</td>
</tr>
<tr>
<td>2008</td>
<td>1744.101</td>
<td>965.113</td>
<td>658.002</td>
<td>37.72</td>
</tr>
<tr>
<td>2009</td>
<td>1185.030</td>
<td>602.835</td>
<td>510.578</td>
<td>43.08</td>
</tr>
<tr>
<td>2010</td>
<td>1243.671</td>
<td>601.906</td>
<td>573.568</td>
<td>46.12</td>
</tr>
</tbody>
</table>

Source: UNCTAD, 2011
Furthermore, FDI in developed countries shrank by 40% in 2009, while developing countries demonstrated more resistance to the economic downturn with a decline of 22%. UNCTAD (2010) suggests that “the falling profits resulted in lower reinvested earning and intra-company loans weighting on FDI flows to developed countries. At the same time a drop in leverage buyout transactions continued to dampen cross border M&As” (UNCTAD, 2010).

According to the global investment reports (2009) and (2010), the shift of global FDI flow towards developing and transition economies will accelerate from 2011 onwards. This change was already apparent from 2007-2009 (Figure 1), due mainly to political and economic reforms engaged by these countries to attract foreign capitals.

Likewise, total FDI flow will continue to increase in 2012 and is expected to peak in 2013. This corroborates the UNCTAD survey (2010-2012), which predicted a modest
recovery of 3% in 2011 and 2012, and predicts reaching $1.9 trillion in 2013, with 60% of the total inflow estimated to go to developing countries (Figure 2).

This positive prediction does consider other global economic shocks arising from risk factors still in play, such as the financial crisis in the Eurozone that could jeopardize the future FDI in the EU and could benefit more the Asian and other emerging economies.

However, The UNCTAD survey (2009-2011) suggests that MNEs have expressed high concern regarding the consequences of the economic downturn, further economic shock and its repercussions in both the short and long-term. In addition to the raise of state protectionism and nationalization in many developed and emerging market, many companies that took part in the survey stated that they have already shifted their FDI investment strategy from Greenfield and merger and acquisition to non-equity modes, such as franchising, licensing or outsourcing.

**Figure 2. Global FDI inflows and outflows between 2002 and 2010 and projection for 2011-2013 (Billions of dollars)**

Source: UNCTAD, 2011
4.5 FDI trends by region

When examining the FDI outflows in 2010, the global outflow is recovering from a high fall in 2009 (43%), rising to about 10% in the first quarter of 2010. With a large contribution of the developed countries, where outflows mainly surpass the inflows, outflows have risen in the first quarter of 2010 by 25%, compared with a drop of 23% in 2009. The main reasons are the new wave of developing countries’ investment, the increase of the number and sizes of MNEs from developing and transition economies, increasing competition in their local market along with other regional factors (UNCTAD, 2010). In 2010, three emerging countries are listed in the top 20 FDI investors (China, Hong Kong and the Russian Federation, with India and Brazil very close to the top 20). Nevertheless, the gap between the FDI inflows and outflows in developing economies is quite high, as they are recipients rather than providers (UNCTAD, 2011).

In terms of FDI recipients, the UNCTAD survey (2010-2012) and reports (2011) suggest that Asia, European Union and North America will remain the most attractive locations for investment. Moreover, three of the developing and transition economies are ranked among the 10 most popular FDI destinations, with the BRIC region forecasted to continue its remarkable growth due to the abundance of natural resources as well as the liberalization of the economy and the natural resources.

The Asian region is predicted to sustain its FDI growth, with seven countries among the top 20. In contrast, Africa languishes at the bottom of the league, with only South Africa present in the top 20, whereas some of the poorest regions continue to experience a large fall in FDI flows. In fact, flows to Africa, South Asia and other least-developed countries all declined with the distribution of FDI flow among the LDCs less developed countries remains uneven, as more than 80% of this flow goes to resource-rich countries in Africa, mainly in form of Greenfield investment (Figure 3).
4.6 FDI in Africa

Many African governments have implemented ambitious frameworks to attract more foreign investment. Nevertheless, most foreign investment in Africa goes to natural resources in a relatively restrained group of countries that do not necessarily generate a positive impact on the local economy. While attracting investment into diversified and higher value-added sectors remains a challenge for Africa, constraints on investment, such as weak infrastructure and fragmented markets, also adversely affect FDI flows to Africa.

Figure 3. Global FDI inflows by developing and transition economies by region, average 2005 - 2007 and 2008 - 2010 (Billions of dollars)

Prior to the financial crisis, FDI to Africa had been rising strongly, driven by the high demand in price for raw materials, particularly oil, from emerging countries like China, India and Brazil, which produced a boom in commodity-related investment. The global turmoil led to a considerable slowdown, and the data for 2009 shows that investment fell by around 20% (UNCTAD, 2010).
According to the UNCTAD (2010) report, the decline on FDI inflow to African countries is due to the decrease of global demand and prices of African export commodities. Although the decline was relatively low, it had a major impact for a region where FDI flows account for about one-fifth of gross capital formation and is a vital source of job creation and technology dissemination. While FDI flow to North Africa also declined, despite the fact that the sub-region’s more diversified sectors received FDI and sustained privatization programmers. Southern Africa also saw its inflows decrease dramatically, even though it remained the largest recipient sub region (Figure 3).

Looking at the major African FDI recipients, Angola continued to be the largest, followed by Egypt and Nigeria. In terms of investment, South Africa was the largest investor from the region in 2009, after recording negative outflows in 2008 (Figure 4). In 2009, Algeria ranked among the top 10 FDI in Africa. This is due probably to the authorities’ efforts to foster more FDI by offering investment incentives, restructuring local companies and increasing Algeria’s productive capacities, technology and knowledge transfer. As a result, FDI has risen dramatically in Algeria from $671 million in 1999 to $2.646 billion in 2008, of which $200 million was in non-hydrocarbon industries (UNCTAD FDI /TNC database, November 2008).

According to UNCTAD (2010), FDI inflow declined after 2008, falling by more the 60% to $1.2 billion in 2009, due to the deep recession in most of the Maghreb countries (-20% for the region) and the likely deterrent effects of new protectionist policies imposed by the Algerian government.
In order to attract more FDI, some countries (Gambia and Morocco) introduced a new investment policy; lowering corporate taxes and providing more incentives. Other countries (Rwanda and Libyan) embarked on drastic economic reforms to improve their countries’ business environment. In divergence, some countries, like Algeria and Nigeria, wanted to control MNE operations by tightening the regulatory framework and adding local content requirements (Nigeria), or by introducing new foreign ownership limitations (Algeria).

Besides, African countries are developing economic zones attracting FDI. Foreign capitals, notably from China, are promoting the creation of such zones, which provide employment, technology and knowledge spillovers to domestic economies and allow firms to benefit from better infrastructure and easier regulations. By investing in Africa, emerging countries also benefit from the preferential trade agreements of African countries with Europe and the United States.
Table 2. Distribution of FDI flow among African economies by range 2009

<table>
<thead>
<tr>
<th>Range</th>
<th>Inflows</th>
<th>Outflows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above $3.0 billion</td>
<td>Angola, Egypt, Nigeria, South Africa and Sudan</td>
<td></td>
</tr>
<tr>
<td>$2.0 to $2.9 billion</td>
<td>Algeria, Libya and Congo</td>
<td></td>
</tr>
<tr>
<td>$1.0 to 1.9 billion</td>
<td>Tunisia, Ghana, Equatorial Guinea and Morocco</td>
<td>South Africa and Libya</td>
</tr>
<tr>
<td>$0.5 to $0.9 billion</td>
<td>Zambia, Democratic Republic of The Congo, Mozambique, Uganda, Niger, Tanzania, Madagascar and Namibia</td>
<td>Egypt</td>
</tr>
<tr>
<td>$0.2 to 0.4 billion</td>
<td>Chad, Cote D’ivoire, Liberia, Cameroon, Mauritius, Seychelles, Botswana and Senegal</td>
<td>Morocco, Liberia and Algeria</td>
</tr>
<tr>
<td>below $0.1 billion</td>
<td>the rest of the continent</td>
<td>Nigeria, Gabon, Tunisia Kenya and Sudan</td>
</tr>
</tbody>
</table>

Source: UNCTAD, 2010

Although many African countries have embarked on major economic reforms, Africa is still lagging behind in terms of attracting foreign investment. Empirical evidence does show clearly that the rate of return on investment in developing countries is higher than some of the developed countries. Why then are developing economies not attracting FDI commensurate to this economic fundamental? There are a couple of studies that attempt to answer this question (UNCTAD, 2008).

The first set of explanations addresses the risk of investment in developing countries; for instance, the perception of Africa as a continent riddled with disease, civil unrest, war, poverty, disease and mounting problems.

Study claims that war and civil unrest occur more frequently in Africa than other regions. These events could have adverse effects on the investment climate because they often bring along devastating effects like high inflation and higher levels of other distortions, such as capital controls and illegal currency markets that thrive and deter investments.
Among the reasons for the low inflow of FDI to Africa is that the structural adjustment in many of the African countries has not been efficient compared with other global regions (Asiedu, 2004).

Another factor is the FDI environment in developing economies which is still inadequate to attract high quality, efficiency seeking, “globalizing” FDI. According to UNCTAD (2011), the general policy framework of FDI in the developing world has improved greatly in recent years, a trend that is continuing in many countries. However, the incentive framework continues to suffer from a number of deficiencies, such as the high barriers to entry; moreover, in some countries, some primary sectors are still reserved for local firms only. Almost everywhere, registration requirements for foreign investors are burdensome, thus raising transaction costs.

The inefficiency of the domestic business environment is present in many developing countries, with a high degree of government intervention within the market as well as the rigidity of government policies towards trade liberalization; the lack of privatization programmers and the outdating investment codes, the non-adoption of international FDI agreements and the lack of effective regional trade integration efforts make developing economies lose out in terms of FDI.

The deficient incentives for investment are also an important factor. Developing countries governments are making considerable efforts to streamline incentives and harmonies them through the ratification of regional agreements or Common Investment Charters. However, many developing economies retain generous investment incentives, and the authorities maintain considerable discretionary powers on the allocation of incentives.

Developing nations are also lagging behind in the development of their competitive factors of production. Economic, rather than policy factors are likely to be bigger constraints to FDI in many developing regions (UNCTAD, 2011).
During the last 10 years, education, health and infrastructure indicators have worsened in many developing economies. Improving the competitiveness of developing economies’ investment climate is a major challenge in light of deteriorating education and health systems (at least in some countries), poor physical infrastructure and lack of support services for enterprises.

Thanks to the G8 debt relief deal in June 2005, many developing countries could focus more on raising social indicators and physical infrastructure, and on rebuilding institutional capacity (UNCTAD, 2011).

4.6.1 FDI trends by type of entry

According to the UNCTAD survey (2010-2012), Greenfield investment was the major trend in FDI inflow to developing and transition economies, while merger and acquisition and other non-equity modes of entry were more significant in developed countries. Moreover, the interest to invest in developed economies has declined over the last few years and it seems to be continuing over the next few years. The main argument for MNEs is the consequence of the global economic crisis as well as the saturation of developed markets. The value of cross-border merger and acquisitions deals increased about 36 percent in 2010 to $339 billion, although it was still far from the peak in 2007. Meanwhile, the number of Greenfield projects fell marginally in 2010 (Figure 5).

The world investment report (2011:10) suggests that “Developing and transition economies tend to host Greenfield investment rather than cross-border M&As. More than two-thirds of the total value of Greenfield investment is directed to these economies, while only 25 per cent of cross-border M&as are undertaken there. At the same time, investors from these economies are becoming increasingly important players in cross border M&A markets, which previously were dominated by developed country players”.
For the prospect of FDI by mode of entry, market analysts suggest that the economic recovery would allow more capital abundance (that could be in favor of M&As). Moreover, the rise of developing and transition economies as a preferred destination for foreign investment would balance the choice between Greenfield and M&As. The growth of developing economies’ companies would increase the chance of M&As, while the increase of the rent capture within the market could increase Greenfield investment.

The data collected from 2010 shows more dynamic growth for M&As than Greenfield. This tendency is estimated to be more significant in the next few years, and is expected to remain for the short to middle-term due to the high uncertainty in the world investment climate (UNCTAD survey, 2011-20)

Table 3. The global net cross border M&A (by deals) vs. the net Greenfield projects

<table>
<thead>
<tr>
<th></th>
<th>net cross border M&amp;A</th>
<th>greenfield investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>world</td>
<td>5004</td>
<td>7018</td>
</tr>
<tr>
<td>developed countries</td>
<td>3805</td>
<td>5187</td>
</tr>
<tr>
<td>developing countries</td>
<td>1062</td>
<td>1552</td>
</tr>
</tbody>
</table>

Source: UNCTAD, 2011
Figure 5. Net Cross border M&A in years 2005 - 2010

Source: UNCTAD, 2011

Figure 6. Greenfield investments in years 2005 - 2010

Source: UNCTAD, 2011
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4.6.2 FDI trends by sector

After a strong period of growth between 2005 and 2008, FDI inflows and outflows slumped in all three sectors (primary, manufacturing and services) in 2009. The global economic and financial turmoil continued to dampen FDI flows not only in sectors sensitive to business cycles, such as chemicals and the automobile industry, but also in those that were relatively healthy in 2008, such as pharmaceutical and food and beverage industries.

However, the total value of FDI projects in manufacturing increased by 23% in 2010, compared with 2009, reaching $554 billion. The economic downturn had a negative impact on a range of manufacturing industries (Figure 1.6), but the shock could eventually demonstrate the benefit to the sector, as many MNEs were forced to restructure into more productive and profitable activities with attendant effects on FDI (UNCTAD, 2011).

FDI in the primary sector decreased in 2010 in spite of rising demand for raw materials and energy resources, and high commodity prices (particularly from BRIC countries).
FDI projects (including cross-border M&A and Greenfield investments) amounted to $254 billion in 2010, increasing the share of the primary sector to 22% - an increase of 14% compared with the pre-crisis period. Large natural resource-based MNEs, mainly from emerging economies, made some important acquisitions in the primary sector. For instance, Repsol (Brazil) was taken over by China’s Sinopec Group for $7 billion, and the purchase of the Carabobo block in the Bolivarian Republic of Venezuela by a group of investors from India for $4.8 billion (UNCTAD, 2011).

In 2010, the service sector continued to decline sharply, in relation to both 2009 and the pre-crisis level of activity. Major Service industries (business services, finance, transport and telecommunications and utilities) fell, albeit at different speeds. Business services declined by 8% compared with the pre-crisis level, as MNEs are increasingly seeking to reduce their production costs by outsourcing a major share of their non-core businesses to external providers.

FDI in the financial industry was at the heart of the current economic crisis, and the sector is experiencing a severe decline. According to the UNCTAD survey (2011-2013), there is no obvious sign of sector recovery in the medium-term. Over the past decade, its expansion was instrumental in escorting emerging economies into the global financial system by providing emerging economies with a stable and efficient financial system. Conversely, it also produced a bubble of unsustainable lending, which had to burst. When erupting, this had a major effect on the current financial crisis.
Figure 7. Sector distribution of FDI project (Billion dollars and percentage)

Looking at foreign investment by sector in Africa, manufacturing was under severe strain. FDI inflows to the primary sector were at a low level due to the fall in commodity prices and the lack of international financial resources; several mining exploration and exploitation activities were postponed or cancelled. The services sector, led by the telecommunication industry, became the dominant FDI recipient, attracting the largest share of cross-border M&As in Africa. While the distribution of FDI by industry shows a concentration in the mining industry in terms of value, the manufacturing sector accounted for more than 40% of the total number of greenfield investment projects in 2009 (UNCTAD, 2011).

4.7 FDI Determinants

Researchers cannot reach agreement on the factors that determine FDI. However, there is general agreement on a number of factors including: the size of the host economy which acts as an indicator of the local market; the availability of raw materials; per capita income as an indicator of the nature of the local market; and the investment environment, which constitutes the prevailing social, political, economic, financial, legal,
administrative and institutional conditions that tend to promote the chances of success (or otherwise) of investment in a country. The degree of economic openness, the availability and skills of the labor force, the infrastructure including the legislation and policies that organize and motivate the investment process constitute the most important elements that provide a suitable investment environment (The Arab Investment and Export Credit Guarantee Corporation, 1987).

There are two distinct schools of thought in relation to the interpretation of the determinants of the FDI. The first school emphasizes the determinants at the microeconomic level focusing on individual companies (Kindleberger, 1996; Hymer, 1976 and, Caves, 1974). In other words, these studies attempt to interpret the purpose behind MNCs expanding their activities beyond their national borders (Grossee & Trevino, 1995); Buckely & Casson 1976; Aliber, 1970). By contrast the second school of thought emphasizes the determinants of FDI at the macro-economic level taking into account the economies of the host countries. Both these approaches are discussed in the following sections.

4.7.1 Micro-economics Determinants

Studies conducted during 1950s and 1960s, during which the US and the UK were the major sources of FDI, were representative of the first school of thought and developed a number of hypotheses to interpret the determinants of FDI. The first hypothesis is that the FDI is a function of the returns and revenues made in the host countries. This hypothesis is based on the assumption that achieving maximum profits is the main aim of companies, which was the dominant assumption during the 1950s when US companies were able to maximize their profits in Europe compared with their local counterparts. However, as circumstances changes during the 1960s doubts were cast on the validity of the hypothesis although it had not been proved wrong.
The second hypothesis is related to the risks associated with investment assuming that investment in any country is more or less subject to political and/or economic risks that can impact negatively on a project and the return (Stevens, 1969).

The third hypothesis assumes a positive relationship between investment and the marketing of the product in the host economy markets. This is because the size of the local market is one of the elements that attract investment at the macro-economic. This hypothesis is confirmed by Stevens (1969) who suggests a significant relationship between the investments of American companies in Argentina, Brazil and Venezuela, and the sales of their products to the industrial sectors in these countries during the period 1952-1966. On the other hand, denies the existence of such a relationship pointing out that the expansion in investment can be justified by the ensuing growth in the size of the local market rather the absolute size of the market per se. However, in the case of the developing countries, (Rueber, 1973) points out that investment is closely related to the GNP rather than the growth in productivity.

Foreign trade is another important variable in determining FDI. In a study looking at US investment in a number of developing countries, proves a significant relationship between the volume of trade and US investment in those countries.

It is also important to state a negative relationship exists between political instability and FDI. In this context many studies establish a positive relationship between the flow of investment capital and the political stability (Basi, 1963). Nonetheless, some authors contest this evidence, suggesting that the effects of political instability could be a minor and insignificant regarding FDI, at least in developing countries (Rueber, 1973). However, the difference in opinion could be attributed to the methods of analysis used as well as differences in the definition of the concept of political instability.
Other micro-economic factors that affect the FDI include incentives provided by the host country in order to encourage the flow of investment capital in which case a positive relationship exists. For instance, (Aharoni, 1966) believes that in the early stages of decision-making incentives has no significance, particularly income tax exemptions. This finding is supported by other studies such as (Robinson, 1961) and Barlow and Wender (1955). It is worth mentioning that incentives especially those associated with tax are essential for small companies which lack experience in relation to markets in developing counties, even though (Root, 1979) has proved this relationship to be insignificant.

Finally, cheap and well-trained labor is considered one of the most important determinants of FDI. (Reidel, 1975) concludes that low wages constitute one of the most important factors that determine the FDI in Taiwan. This is further confirmed by studies conducted by (Donges, 1999) in relation to Spain and Portugal, and (Agarwal, 1980) in a study of investments made by the German companies and the cost of wages in developing countries such as Brazil, India and Iran. In addition, he argues that the level of wages is crucial in labor-intensive industries.

4.7.2 Macro-economic Determinants of FDI

The second school of thought relies on macro-economic theory regarding the determinants of the FDI. This school classifies the determinants of FDI on the basis of two approaches: the first approach relates to factors that attract investors and tends to explain FDI in terms of the relationship between the characteristics of the host economy and the flow of foreign capital into that economy. By contrast the second approach relies on factors of motivation. This approach is based on the belief that FDI is always attracted towards countries where profits are expected to be greater than those that can be achieved in country of origin.

Regarding the first approach points out that infrastructure, the size of the local market, manpower, location with respect to major markets, openness to the outside world,

In another study involving the identification of long-term determinants in Sub-Saharan Africa, (Bende, 2002) establishes a distinction between four types of factors: cost-related factors; the investment and business environments; macro-economic factors; and the development strategy of the host country. By using the autoregressive method, Bede proves that the rate of market growth represents the most important factor in the long run, followed by export policies and the free flow of FDI. Other factors, though of less significance, include the real exchange rate and the size of market in comparison to GNP. However, Bede failed to establish a relationship between the real rates of pay as an approximate variable for the cost of work unit and FDI.

The 1998 World Investment Report discussed conclusions reached by UNCTAD (1998:23) in relation to the most important factors that attract FDI. Based on empirical studies, UNCTAD emphasizes the factors identified as:

- The size of the host economy or the size of the local market: this variable measured by the nominal GNP of the host economy.
- The rate of economic growth of the host economy, which is measured by the rate of growth of real GDP estimated as an average of the five years preceding the year in question. This variable is used to forecast future growth in the size of the local market.
- Per capita income, which is an average of GNP per capita. This is used to measure demand and consumption for goods and services.
Furthermore Kamaly (2004) investigates 23 developing and advanced countries to discover successful experiences in attracting FDI in order to improve the investment environment in Egypt. By creating a quantitative model Kamaly concludes that factors such as the growth of the real GNP, economic openness, variations in nominal exchange rates and the international interest rates constitutes the most important determinants of FDI. However, while the growth rates of the GNP and economic openness have positive effects on FDI, the effects of the other two factors are negative. The study also shows that to attract FDI economic stability is a priority, while tax exemptions alone are most likely to be ineffective unless accompanied by other packages to motivate investors such as the removal of bureaucratic obstacles by say using one office (a one-stop shop). Other important factors include the availability of an efficient infrastructure and maintaining free ownership. It is also evident that policies that favor training and improving the skills of the workforce constitute a major factor for attracting FDI. All these results are consistent with other studies that have established a positive relationship between FDI and a strong economy in terms of growth in the real GNP.

Also, the strong positive impact of economic openness on FDI is apparent in most empirical studies, based on the ratio of the total exports to GNP (Kinoshita and Kampo 2003; Ancharaz 2003). These results confirm that there is strong positive relationship between the levels of FDI and the degree of economic openness provided that other factors remain constant. Also any changes in the nominal exchange rate may produce unfavorable effects with regard to the FDI.

4.8 Policies for improving the business environment for FDI

Many countries have pursued policies at both the macro and micro-economic levels to improve the investment environment in order to become more attractive to FDI. Over the past few decades these policies have gained increasing importance in the global economy. This can be attributed to having to cope with the rapid changes brought about
by globalization, the need to integrate into world economy, and the huge development in information technology and telecommunications. In these circumstances it is difficult for a country to remain isolated from these developments, given the potential difficulties it would face particularly in areas such as exports and the flow of capital. For this reason many countries including developing countries have adopted reform policies aimed at restructuring their economies in order to provide the right investment climate to improve its competitiveness in a global economy open for trade and capital flow.

It is worth underlining that there has been a change from the traditional concept of relative advantage based on the sources available to the state that allow competitive production including natural resources, labor and geographical location, to the concept of the competitive advantage which in addition to the afore-mentioned elements includes aspects such as technological know-how, expertise, and quality production. The concept of competitiveness varies according to the level involved: company, sector or state. The theory of competitive advantage is based on a model for measuring competitiveness relying on micro-economic principles (Porter, 1990). However, the OECD defines economic competitiveness from the economic point of view as the level that would allow the production of commodities and services to meet the requirements of international markets within open and fair markets, in the mean time, maintaining the economic growth in the long term cited in (Oughton, 1997).

The concept of competitiveness remains integral to alleviating the problems of the local market which constitute a major barrier to improving productive efficiency. Moreover, providing the right environment for competition should be an advantage in improving economic efficiency and boosting economic growth to promote better standards of living (Lall, 2001). The experiences of Singapore and Ireland support this argument. These countries have succeeded in attracting FDI, through winning the endorsement of the international organizations such as the World Bank, IMF and USAID. According to Wint
The efforts made by these countries in the last two decades have encouraged many developing countries to follow suit.

The following section highlights a number of examples of policies, programmers and procedures that have improved the inflows of FDI.

4.8.1 Polices Targeted of FDI

The promotion of investment should selectively favor investment in specific areas, such as areas that use highly sophisticated technology, or areas associated with exports. Consequently, instead of promoting investment in general, attention should be focused on the development of certain sectors. For example, in Singapore, the Economic Council for Development targeted investors that could contribute to the development of industrial conglomerates, while in Malaysia where the Organization for Industrial Development determined the most powerful 22 industrial conglomerates in relation to their capabilities to attract FDI to boost exports. This selective approach should help the state to achieve its strategic goals, including reducing unemployment, acquisition of technological know-how and development of exports (Centre for Information and Decision Support, 2004).

4.8.2 Financial Incentives

The experience of a number of countries indicates that to make an economy attractive to investment requires financial incentives. This implies that the financial incentives should be linked to issues having to do with matters such as employment, modernization and technology, and the development of human resources and exports. For example, R&D grants should be given to companies that develop or produce new products. These grants can be repaid in the form of royalties in the case of a successful new product, similar to the grants given by the state which is called Israel. Another example is Finland which has allocated grants to fund activities in the areas of R&D, which would improve the capacity
of companies to compete in foreign markets. Consequently, the R&D grants in Finland were €390 million in 2003 (Centre for Information and Decision Support, 2004).

Another example is development aid oriented grants which are given to assist projects to improve their capacity to compete in the long term by encouraging them to promote the use of skilled labor and modern technology. The amount of grant depends on the nature of the project as well as the location where FDI is taking place. For instance, in both Ireland and Hungary direct financial assistance was given to companies capable of creating an agreed number of jobs within the first three years of its operation. This grant funded assets provided that the total invested capital was not below a certain limit taking into account the production technology to be used OECD, 2003.

4.8.3 Promoting Managerial and Institutional Frameworks

The efficiency and flexibility of the organizational and institutional frameworks play a major role in determining the FDI environment. This efficiency improves with simpler procedures for establishing projects and settling disputes. Among the measures taken to improve managerial and institutional frameworks is the one-window service to facilitate the licensing process for investment projects, which are intended to save time and effort thereby reducing the costs for investment (Hong & Gray, 2003). Furthermore, centers for the protection of the rights of investors provide post-investment services aiming at removing potential barriers that face foreign investors particularly within government offices. These centers also provide consultation and advice to investors through research and database facilities. They can also issue newsletters highlighting proposed investments, areas where profits are expected to be high, and initial feasibility studies for projects proposed within the plans for economic development, in addition to establishing relationships between the different companies and between these companies and the centre in order to develop the technical capabilities of these companies (Centre for Information and Decision Support, 2004).
It is interesting to note that the agency for the promotion of trade and investment in South Korea opened an investment authority office in 1999. When a referral is made to the office, it immediately makes contacts with the relevant organization to resolve the issue. The office has been given full powers to seek the assistance of any governmental organization. The government organization then has a duty to produce plans to resolve the situation within seven days of receiving the complaint (Hong and Gary, 2003).

**4.8.4 Openness Policies**

Openness to the global international economy and a free-market economy reassure investors and therefore tend to boost the flow of capital, commodities and technological transfer into and out of the host country, thereby maximizing economic benefits. Part of creating the conditions for a free-market, open economy is adopting policies that encourage exports that in turn tend to attract FDI. These policies tend to create new markets for the fledgling economies and provide opportunities for investors to market their products and maximize their profits. Furthermore, becoming a member of regional economic groups, and signing bilateral agreements to remove double taxation, may boost regional capital flows. Such policies are becoming increasingly important in the wake of free trade, the globalization of products and markets, and the free movement of international capital.

In the absence of an over-arching international agreement concerning investment, the legal frameworks that underpin relationships between foreign investors and the host countries are based on bilateral agreements. These agreements, particularly those associated with the removal double taxation, can be considered to have greatly encouraged FDI. Bilateral agreements date back to 1959, when the first one was signed between West Germany and Pakistan. The number of agreements reached 5,500 in (UNCTAD, 2007). Despite the fact that bilateral agreements are not a precondition for attracting FDI, policies such as removal of double taxation and the right of ownership
incorporated in these agreements constitute a major incentive for FDI. However, many host countries receive huge investment capital despite the fact that they do not have bilateral agreements with the source countries. For example, Japan has only signed four bilateral agreements. Examples from developing countries include Brazil, which has the lion’s share of FDI among the developing countries, but has never signed any bilateral agreement.

Economic openness is vital for attracting FDI. A case in point is China. Following the death of Chairman Mao in 1978, China made structural changes to its economic policies that now encouraged exports and the import of technological knowhow. Consequently, China signed agreements with a number of countries including the US in order to improve its technological know-how and to attract more foreign capital for investment. Since doing so, China has emerged as a main target for FDI. For instance, in 1994 the total investment in China amounted to nearly US$34bn, whereby this sum has jumped to around US$60bn in 2004 (UNCTAD, 2007).

4.8.5 Improving the Legislative Framework

In order to maximize the potential benefits by protecting the rights of all parties involved, economic activity should take place under an umbrella of appropriate legislation. However, the legislation should encourage free competition, ban monopolies, and protects investment by providing the necessary guarantees o investors. In this context, the multiplicity of laws in relation to investment should replaced by one stable, integral and transparent law. This will make the law more reliable for investors as it facilitates the legal environment for investment. Moreover, effective legislation should be introduced to combat corruption in official circles, which would lower costs for potential investors (El-Fergani, 2002).
4.8.6 Other Policies

Other policies that contribute to the improvement of the environment for investment should be considered. These include policies that bring about social and economic stability such as cutting down fiscal deficits, and lowering inflation and unemployment, in order to close the gap between income and wealth levels of different social groups. Other policies include the freedom of ownership and the transfer of profits and investment capital when the project terminates.

A report compiled by the OECD in 2003 indicates that organizing training programmers for labor aiming at improving the skills constitutes a major incentive for attracting FDI, particularly in technologically demanding areas. The report argues that this tends to encourage investors because of the presence of highly-skilled low-cost labor (OECD, 2003).

4.9 Review of FDI theories

FDI theories comprise theories of international trade and international production. The international trade theories are those developed in attempts to explain trade motives, underlie trade patterns and benefits for nations, and enable individual firms and governments to behave based on their own benefits within the trading system. The theories of international production on the other hand explain reasons and patterns for production activities in a foreign country, suggesting that the propensity for a firm to engage in foreign production depends on a combination factors in the target market. Both trade and investment should be carried out according to the same principle of comparative costs, and be contributed to the international division of labor Kojima (1975).

4.9.1 International trade theory

The classical theory of trade was pioneered by Adam Smith (1776) in his classic work, the Wealth of Nations, which suggested that nations generate more benefits when they
acquire through trade those goods that they could not produce efficiently, and produce only those goods that they could produce with most efficiency. This absolute advantage concept meant that a nation would only produce those goods that they made best use of its available natural (land and environmental conditions) and acquired resources (skilled labor force, capital resources, and technological advances). But the absolute advantage of trade presented a major question. For example, if a country produce both or several goods at costs lower than the potential trading partner, then there is no intention for it to trade. In the 1910s, (Ricardo, 1913) proposed the concept of comparative advantages with a two-country and two-commodity model, which considered the nation’s relative production efficiencies when they apply to international trade. In his view, the exporting country should look at the relative efficiencies of production for both commodities and make only those goods it can produce most efficiently. The consequence is that each country specializes in producing those in which it enjoys a comparative advantage, and exchange the excess for the commodities with less efficiency if produced domestically (Bende-Nabende, 2002).

These classical theories explained trade of goods and services between countries by simplifying production activities into the two-countries, two-commodity model. However, their assumptions of perfect information on international markets and opportunities, full mobility of labor and production factors, as well as perfect competition in market are unrealistic in the real world. Thus, they could only partially account for international trade. Besides, these models only consider costs associate with labor in production, and disregard the costs from other factors inputted in production such as transaction cost and cost of capital.

Ricardo (1913) idea was extended to the theory of factor endowment, primarily by (Heckscher, 1919) and (Ohlin, 1933), which attempted to address all factors in production into international trade. They suggested that the determinants of comparative
costs lie in difference in factor endowments of the two national economies and in the ways in which the two commodities are produced. These factors include land, labor, capital, technology, and management skills. Hence, countries would have an advantage in producing goods required factors that are in abundance, as they are relatively cheap than other countries and lower the cost of the production. Through international trade, they can get products from other countries at a relatively lower price than if produced by themselves. Therefore, both countries are better off from trade.

Rybxzynski (1955) extended the H-O theorem into analyzing the dynamic change of factor endowments in production. He stated that the growth of one factor of production must always lead to the absolute increase in the output of the commodity using intensively the growing factor, while resulting in an absolute decrease in the output of the commodity using intensively the non-growing factor. Similarly, this theory assumed perfect competition and perfect information among trading partners, and took no account of the transaction costs. Furthermore, this theory ignored the importance of technology development, and skills of labor, such as expertise in marketing and management, which indeed all would affect the efficiency of distributions of factors enrolled in production. But this theory is persuadable to explain international investment behaviors if considering the effects of foreign investments as an extension of the H-O theorem when taking into account the costs of capital and transferring goods. Therefore, it built a basis for theories of international production or FDI.

4.9.2 International production theory

The FDI theory, or the international production theory, basically is consisted of two main literature groups. One group pioneered by (Hymer, 1976) and (Caves, 1974), who regarded FDI as an aggressive action to extract economic rent from a foreign market and suggested that FDI is undertaken by firms that possess some intangible asset. These firms invest in a foreign country in order to exploit the specific ownership advantage embodied
in the intangible asset. The other group, represented by (Vernon, 1966), took FDI as a
defensive action undertaken by firms to protect their export market which is either
threatened by competitors in the local market or damaged by unfavorable developments
in macroeconomic conditions at home such as wage increase or currency appreciation.
This defensive FDI is often made in low-wage countries where cheap labor cost enables
investors to reduce their production cost to keep international competitiveness, whilst
aggressive FDI may be made in any countries where local production is seen as the best
way to enter the market. Actually, it is difficult to distinguish one from the other as FDI
may be undertaken for a mixture of reasons including market-seeking and cost-seeking
motivations. Hence, we review both of the two main groups of literature, as well as other
studies on FDI, to provide a complete picture of FDI theories in the existing literature.

4.9.3 The neoclassical theory of capital movement

Before the 1960s, the prevailing explanation of international capital movements relied
upon a neoclassical financial theory of portfolio flows. Under perfect competition and no
transaction costs, capital moves in response to changes in interest rate differentials (see
Iversen (1936). Accordingly, capital was assumed to be transacted between independent
buyers and sellers and there was no role for the multinational enterprises (MNEs); neither
was there a separate theory of foreign direct investment. The neoclassical theory of
capital movement regarded the movement of foreign investment as part of the
international factor movements. Based on the Hecksher-Ohlin (H-O) model, international
movements of factors of production, including foreign investment, are determined by
different proportions of the primary production inputs available in different countries.
International capital movement implies a flow of investment funds from countries where
capital is relatively abundant to countries where capital is relatively scarce. In another
word, capital moves effectively from countries with low marginal productivity of capital
to countries with high marginal productivity of capital (Bos et al. (1974)). Such the
international investments may benefit both the investing and host countries. The host
country may benefit in increased income from foreign investment to the extent that the productivity of the investment exceeding what foreign investors take out of the host country in the form of profit or interest.

However, the assumptions of the neoclassical theory hardly exist in the real world, which required perfect competition, fully mobilization of labor and capital, no transaction cost and perfect information. Thus, the neoclassical theory failed to explain the behavior of MNEs, in particular, the two-way capital flows between capital-abundant countries, for example, FDI between developed countries like the US and Japan. In addition, it still failed to distinguish FDI from other forms of capital.

4.9.3.1 Industrial organization approach

In the 1960s, economic theory started to explain foreign direct investment by the industrial organization approach, which regarded FDI as part of international production. The primary concern of this approach was the characteristic of MNEs and the market structures in which they operated. Hymer (1966) related FDI with the behaviors of MNEs and stated that foreign direct investment from the US would be a natural consequence of the growth and expansion of oligopolistic firms, who have superiority in searching for control in an imperfect market in order to maximize profits. Even further, Caves (1971, 1974) claimed that newest products usually tend to be oligopolistic in their nature. They suggested that firms participate into FDI because of their oligopolistic characters and that their investments and operations abroad enable them to survive by expanding their oligopolistic systems. Accordingly, market structures and competitions conditions are important determinants of this type of firms which engage in FDI. This theory used firm-specific advantages, such as their market positions, to explain MNEs’ international investment. These firm-specific advantages include patents, superior knowledge, and production differentiation, expertise in organizational and management skills, and access to the foreign market. Advantages that some firms have in the home country can be
extended into foreign markets through international direct investment. This theory mainly characterized the US FDI motivation or market-oriented FDI, but has not explained others like resource-oriented FDI or efficiency-oriented FDI.

4.9.3.2 Location theory

Contrary to the industrial organization approach, location theory drew attentions on country-specific characteristics. It explained FDI activities in terms of relative economic conditions in investing and host countries, and considered locations in which FDI would operate better. This approach includes two subdivisions: the input-oriented approach and the output-oriented one. Input-oriented factors are those associated with supply side variables, such as costs of inputs, including labor, raw materials, energy and capital. Out-oriented factors focus on the determinants of market demand (Santiago (1987)), including the population size, income per capita, and the openness of the markets in host countries. Hence, the country-specific factors not only determine where MNEs locate their FDI, but also are utilized to distinguish the different types of FDI such as market-seeking investment, and efficiency-seeking export-oriented investment.

4.9.3.3 Product cycle approach

Another approach is developed by Vernon (1966) as the product cycle approach, which focused on consumer durables and was also based on the US experience in the post-war period. The product cycle approach was a response to the observation that US firms were among the first to develop new labor-saving techniques in response to the high cost of skilled labor and a large domestic market (Vernon (1966)). It suggested that the role of FDI follows a three-stage life cycle of a new product: innovation, growth, and maturity. The implicit assumption of this theory was that firms which developed the products in their domestic markets would shift the manufacturing plants to the countries identified with abundant unskilled labor, rather than sell or license their technology to host-country competitors.
In the innovation stage, new technologically advanced product is invented under the intensive research and development efforts by the lead firm in advanced industrial countries. This product is firstly introduced in the home market, and close co-ordination of production and sales are undertaken while the product is improved. As customers who like the new product would like to pay a premium price for it, the location of the product requires high per capita income, and a strong technological base. Consequently, these factors served to improve the innovation and launching of the new product in the home market like the US. This stage would end when the product is accepted and sales are increased according to the demand.

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Figure 8. Product life cycle
The growth stage relates to the period when the product is starting to be exported. The production method and sale channel are also improved for the enhancement of productivity with respect to increased demand. Other companies start to emulate it because of its success at this stage, and customers become sensitive to the price. Cost saving is now a big issue for the lead company to keep its advantage and it becomes realistic to shift producing the product to overseas countries. Also at this stage, the product starts to be exported.

The product eventually reaches maturity in the third stage, while the production process is standardized and the cost is reduced. Competition from similar products narrows profit margins and threatens margins on both export and home market. Instead of the decisive role played by research and development (R&D) or managerial skills at the innovation stage and the growth stage, low-cost labor becomes important to meet the requirement of cost saving in the producing process. Consequently, the production location moves to low-wage, developing countries through FDI. The costs of marketing exports of the
product from these countries may be lower compared with other competitors, since the productivity is standardized. FDI in this model is undertaken as a monopolistic defense of the market.

Vernon’s product cycle theory again only considered the situation from the US perspective and emphasized the technology advantage from the leading firm in developed countries. Therefore, it could not explain the FDI with no advanced technology like textile and garments industry. Neither had it considered FDI among developing countries.

4.10 The Effects of FDI in Theory

In this section, will be discussed the anticipated effects of FDI on capital accumulation and productivity (technology) spillover, which ultimately expected to increase per capita income of a host country. Then, we move on to the discussion of the effect of FDI on development.

4.10.1 The Effect of FDI on Capital Accumulation: Capital Widening

Since FDI is a type of physical investment it is expected to lead to an increase in the stocks of physical capital in host countries. Nonetheless, the effect may change regarding the type of FDI. When FDI leads to an establishment of a totally new facility (green-field investment), the increase in the stocks of capital would be significant. According to the neoclassical growth model of (Solow, 1956), the increase in physical capital stemming from FDI may increase per capita income level both in the short and long-run in the host economy by increasing the existing type of capital goods, but it would only enhance the growth rate of the economy during the transition period due to diminishing returns to capital. Nonetheless, the longevity of the transition period differs across countries but it still lasts for many years (Aghion and Howitt, 2009).
Therefore, in capital-scarce countries the capital widening effect might imply important welfare gains for economic agents. In this regard, FDI can be seen as an important growth-enhancing factor for these countries that may constitute an argument for pro-FDI policies. On the other hand, a brownfield type of FDI may not lead to a considerable increase in the existing capital stock. Generally, a brownfield type of FDI changes the ownership status of the existing capital stock, and therefore its effect on growth may be limited (Johnson, 2006). It is worth mentioning that in here we assume FDI does not affect the host country technology level and we relax this assumption in the following section. For broader discussions: see (Johnson, 2006) and (Ewing and Yang, 2009).

4.10.2 The Effect of FDI on Productivity: Capital Deepening

The capital deepening effect implies the transfer of knowledge and technology together with FDI into a host economy. It is supposed that multinationals bring capital along with advanced technology and effective managerial systems to maximize their profits in host countries (OECD, 2002).

This basic yet important reasoning implies that as FDI takes place productivity levels tend to increase that ultimately increases per capita income both in the short and in the long-run. There are differences in the mechanisms how FDI affects growth among different growth models. Firstly, according to the neoclassical growth model of (Solow, 1956) FDI may prevent capital falling into diminishing returns due to the existence of continuous contribution to the technology growth. Secondly, the AK growth model of (Frankel, 1962) and (Romer, 1986), which constitutes the first wave of endogenous growth models, claim that FDI generates learning by doing externalities that gives a rise to the technology growth and therefore economic growth. Thirdly, the product variety model of (Romer, 1990) argues that productivity and economic growth come from expanding the variety of specialized intermediate products” (Aghion and Howitt, 2009). The proponents claim that FDI expands the variety of specialized intermediate products
by bringing foreigners’ intermediate products into a host country which would result in a higher economic growth. Moreover, host country researchers would be more likely to invent new intermediate products due to the spillovers from FDI. Finally, according to the Schumpeterian model of (Again and Howitt, 2005) growth comes from the improvement of the quality of the existing types of capital goods in a country. Therefore, an open economy would transfer the innovative technology and the new quality improving mechanisms with FDI that would foster productivity growth and economic growth.

4.10.3 The Effect of FDI on Development

Unlike the well-established theoretical approaches on the effects of FDI on growth, it is often difficult to explain the effect of FDI on development within a sound framework. Basically, there are two reasons behind this argument. First, any mathematical and theoretical models have not been developed yet in development economics that would be comparable with the economic growth models. Second, it has not been agreed on in the development literature yet how to model development with FDI. Even worse there is no any consensus simply how to measure the development level of a country in the literature. The discussion of building up a better development index is beyond the scope of this study. Therefore, we use the most widely recognized development indicator: the human development index (HDI) developed by the UNDP and analyze its implications for the FDI-led development literature. The Human Development Index (HDI) developed by the UNDP is a widely used index in the development literature not only because it is a comprehensive one but because it provides an objective well-being measure available for almost all countries in the world, including the least developed ones (Stiglitz, 2006). The human development index measures the average development of a country with respect to three equally-weighted dimensions:

a) The economic performance through per capita GDP,
b) The education index measured by the adult literacy index and the gross enrollment combined index,

c) The health index measured by life expectancy (Dias et al., 2006).

Basically, productivity gains and economic growth spurred by the capital widening and the Starting from 2010, the UNDP replaces per capita GDP with per capita GNI (gross national income). And the UNDP started to measure the education index by combining the mean years of schooling index and the expected years of schooling index. Capital deepening effects of FDI provide governments more room to invest in infrastructure, education, and healthcare systems. On the other hand, a higher per capita income level for the residents of a host country implies that individuals can afford more on education and health expenditures. Both of the channels (government and individual) suggest that more FDI would lead to a higher per capita income, an improved education index and a longer life expectancy for a host country. Therefore, theoretically it is expected that FDI would make a positive effect on all three dimensions of the HDI. To this end, researchers may use the HDI to examine the development effect of FDI in host countries (Reiter and Steensma, 2010).

It is generally assumed that the effect of FDI leads to a bigger GDP size that increases the share of an average household in GDP in a host country. Deininger and Squire (1996) find that economic growth helps poor by increasing their income share in a sample of 108 countries.

Also findings of Dollar and Kraay (2004) support this argument that economic growth help poverty reduction and improve the well-being of residents. According to Stiglitz (2006, p. 44), “a successful development means sustainable, equitable, and democratic development that focuses on in increasing living standards, not just on measured GDP”.

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Therefore, “development is no longer seen primarily as a process of capital accumulation but rather as a process of organizational change”.

With an increased foreign presence in a host country, organizations (including private and public institutions) in a country may have an improved and more productive organizational structure due to spillovers (e.g. imitation, skills and technology transfer) stemming from FDI. This also will lead to a higher development levels for the residents (Gorg and Greenaway, 2004).

4.11 The relationship between FDI and economic growth

Due to the relationship between growth and development, there is usually a kind of confusion between the two concepts. For such purpose, this approach will give a definition of both of economic growth and development, and the criteria used to measure them.

4.12 Economic growth

There are many definitions of economic growth, where it is defined as the continuous increase in the quantity of goods and services produced in a country in one year. (Amine, 2003)

a. Economic growth is also defined as an increase in the gross domestic product or the overall national production where it leads to an increase the average of individual share of the real income, which means the following:

Economic growth does not mean an increase in the gross domestic product only, but it must definitely result in an increase in the individual real income, that is, the overall income growth rate surpasses the population growth rate. The gross domestic product in a country often increases while the population increases at a higher rate and consequently
the there will be no increase in the real average of individual income despite the local production increase (Mohamed &Eman, 2000).

According to what has been mention above, it can be said:

\[ \text{Economic growth rate} = \text{national income growth rate} - \text{population growth rate}. \]

b. Economic growth means an increase in the real individual income and not the money one, where money income refers to the number of money units that the individual receives within a specific period, usually one year, for the production services s/he provides, while the real income which equals the rate of money income to the general level of prices refers to the quantity of goods and services which the individual gets through spending their money income within a certain period. If the money income increases at a certain rate and the general level of prices increases at the same rate, the real income will stay fixed and there will be no improvement in the individual standard of living. And if the money income increases at a rate less than the average increase of prices, the real income of individual will decline and their living will deteriorate. Then, no economic growth will occur unless the increase rate in money income is larger than inflation (Abdulkader, 2000).

According to what has been mention above, it can be said:

\[ \text{Real economic rate} = \text{increase rate in individual money income} - \text{inflation rate}. \]

c. Economic growth is a steady phenomenon and not temporal; a rich country may provide some relief to a poor country, which may increase the real income level for a certain period, but such increase is not considered as economic growth.(Othman, 2008).
"Thus, economy must grow so as to be able to provide a high standard and growing level of living, that is, to make sure to provide people with goods and service of better quality; the sooner the economic growth of a country accelerate the sooner the standards of living grow and improve. In order to achieve such growth, the economy of a certain country must increase the productive resources of the following kinds:

- Natural resources: economists define natural resources that include land and raw materials such as: metals, water and sunlight.
- Capital: includes factories, tools, supplies and equipments.
- Workforce: it means all the people who seek jobs or who work, it also means their educational levels and practical experience.
- Technology: it refers to scientific research and the research in the field of work and inventions.

**Economic growth standards**

The following are among the most important standards of change that occur in the national activity and which reflect the economic growth:

**Exchange rate of growth:**

(Mohamed & Sohear, 1999) Growth rates are measured trough exchanging productions in kind and services into their equivalence of current money, this is considered the best available method for evaluation especially after making the amendments and considering the devaluation and inflation, and the exchange rate among currencies, where countries try to agree on a unified accounting system to follow so as to facilitate dealing with economic data. Growth rates are measured by using various kinds of prices such as:

**Growth rate with current prices:**
Economic growth is usually measured by using the annually issued data through using domestic currencies; it happens when domestic growth rates are studied for short periods, where both the growth rate of overall national production and national income growth rate are used. However, with the occurrence of inflation, growth rates exchange with fixed prices has been followed.

**Growth rate with fixed prices:**

Current prices no longer reflect increase in production or income due to the price increase and inflation, which necessitates data amendment based on standards numbers of prices, they are estimated with fixed prices after removing the effect of inflation; this occurs with long-term economic growth rate measurement.

**Growth rate with international prices:**

Local currency is not used in comparative international economic studies, but one currency, usually the American Dollar, is used so as to calculate the required standards especially in the field of foreign commerce, and consequently local currency is valued and exchanged to its equivalence of the internationally unified currency after removing the effect of inflation.

**Economic growth rates in kind:**

Growth rate of individual share from the gross domestic product, national product or national income is one of the most important indicators for economic growth and its relationship with population growth; it is due to the huge increase of population growth rates in developing countries which approximates the increase of national product growth rates. While in service fields, due to the lack of accuracy of money standards, other criteria have been used which reflect the economic growth such as: number of doctors for each one thousand people.
Purchasing power comparison

The International Monetary Fund has followed a standard depends on the purchasing power of national currency within its limits which means the volume of goods and services that the citizen gets in exchange for one unit of their national currency compared with the purchasing power of currencies of other countries. International organizations arrange countries according to the development level based on national product standard equalized with the American Dollar, where that method connect the power of economy by itself with exchange rate of national currency with the dollar. However, international firms have not followed such method because it reflects the development that have been achieved by some countries which have adopted the economy that was planned in the seventies, and the International Monetary Fund has recently adopted such idea.

4.13 Definition and measurement of development

(Pierre, 1999) The geographer Sylvie Brunel has defined development as the ability of the country to satisfy the necessary needs of population so as to bring them luxury.

Development is also defined as what the man does to improve and develop their life and by using all the available resources, tools and equipment they have, (Hosean, 2009).

So, as there are many definitions of development, "some define it as the process which transfers from underdevelopment status to development status, where such transfer necessitates making many radical and substantial changes in the economic framework".

"And then economic growth does not involve certain economic changes only but it also includes radical changes in the social, structural and organizational fields, where such changes include increases in the real national income and the individual share thereof as well, which improves the income or production and helps to increase savings so that it supports the capitalist accumulation and technological development in society, and consequently this supports the product and income. Economic growth also involves skills
improvement, production organization, development of means of transportation and improvement of health and education levels. (Alethy&Mhamed, 2003)

"Thus, economic growth does not necessarily mean development, where actual experiments and events assure that increase in real national income, individual shares and savings rates represent only part of the main changes that the growth processes include. It is also probable that a rapid economic growth may be achieved while a slowdown occurs in development process because economic growth improvement does not go with the social, political and cultural change, for instance, though the economic growth of national income has reached high rates approximate to 6% in some developing countries in Latin America, the standards of living have remained low and large groups of their population have continued suffering from poverty, lack of knowledge, diseases and unemployment, and the gap between the rich and the poor has tended to be wider where the rate of people who live below poverty line has increased, while other countries have achieved modest economic growth rates in the national income; they could achieve an acceptable progress on the human development composite index level as regards the number of matters that are related to the satisfaction of basic needs. In the eighties of the last century, for instance, Sri Lanka could raise the prospective age at birth to 73 years, which is close to the rate of developed countries (74 year). They also could increase the average of literate people to 78% of the population, (Ali,2003).

4.13.1 Development measurement

(Naseb,2005) Due to the difficulty of defining economic development, the United Nations Organization, within the framework of the United Nations program of development (PNUD), has issued a development measure which is represented by the Human Development Index (HDI) which appeared in 1990; it consists of three basic criteria represented in the health level which is expressed by the prospective age at birth, the education level, and the third factor is the standard of living which is expressed by the
modified real income level. In addition to such index, there is another one that considers
the inequity in distribution the human power between males and females together with
the aforementioned three criteria; such measure is represented in the human development
index which equalizes sex.

"The final development index is represented in developmental poverty index whose use
belongs to the international report about human development in 1997. This index
basically involves the deficiencies and defects of the same components or elements of
development, where the developmental poverty is represented in depriving the individual
of the basic elements of human development which are represented in new health care, a
satisfactory educational level and a general standard of living more or less acceptable".

4.14 Advantages of FDI

Foreign direct investment plays a major role in providing crucial benefits to the receiving
countries; however it has negative effects on the economies of such countries; we will
deal with such point herein below:

4.14.1 Host country

"There are many crucial economic benefits that host countries can gain as a result of
attracting foreign direct investment, among of which:

- Ensuring revolving source for getting money or capitals so as to finance
development plans and programs.
- Raising the contribution of private sector to the national product and creating a
  new class of businessmen when the members of society participate in the
  investment projects or create new projects in support of foreign investment
  projects."
- Facilitating modern and advanced technologies for host countries especially in respect of some kinds of industries, (Hasan, 2008).
- Abdulateef (2009), Training the domestic manpower that has the opportunity to work at the branches of foreign companies and providing it with modern technological skills through the most modern labor and training methods, where the workers of such branches use their skills and scientific, technical and administrative knowledge and transfer thereof to the national companies when they work for the same.

To show the growth of employment volume in multi-national companies, we consider the following chart:

Table 4. Employment volume in multi-national companies (2000, 2011)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million</td>
<td>%</td>
</tr>
<tr>
<td>- Main organization</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>- Branches of developed courtiers</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>- Total developed courtiers</td>
<td>78</td>
<td>109</td>
</tr>
<tr>
<td>- Branches of developing courtiers</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>Grand total</td>
<td>203</td>
<td>141</td>
</tr>
</tbody>
</table>

The chart shows that the employment volume has increased 32 million employers in the developing countries, while it is 27 million in developed countries during the period from 2000 to 2012, and the employment volume in the developing countries has doubled during such period, where it shifted from 33% in 2000 to 42% in 2012.

- Establishing scientific relations between the branches of foreign companies and the local scientific research centers, which provides such centers with the latest researches and technologies achieved by international companies.

- Supplementing foreign investments to the capital formation of developing countries' economies and compensating the domestic saving decline as a result of new inflow of such investments or reinvestment of their returns.

- Supporting balance of payments in host countries, where the primary effects of foreign direct investment on the balance of payments in host countries are positive due to the increase of returns of such countries coming from foreign currency (account of capital transactions). Moreover, due to the international communication of foreign companies and their experience in international markets network, in addition to the reputation of such companies in the international markets for their brands and trademarks, such companies provide host countries with greater potentials to invade the export markets and increase the return of their exports, (Hasan, 2008).

Following is a chart of some contributions of multinational companies in comprehensive development in developing countries
### Table 5. Contributions of multinational companies in developing countries

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Reasons &amp; factors that help achieving advantages</th>
<th>Primary effects</th>
<th>Secondary effects</th>
</tr>
</thead>
</table>
| 1- Increase of foreign capital inflow and the effect on balance of payments. | - Establishing economic relations among the various economic activity sectors.  
- Exploiting domestic resources.  
- Opening new export markets. | - Expected improvement in balance of payments and an increase in incomings due to foreign transfer. | - Improvement of economic and political capacity and growth due the active and productive use of economic resources, price decline, increase of export, support of economic independence, developing or creating an independent identity for host countries. |
| 2- Development of national product. | - Importing fewer numbers or quantities of raw materials and needs.  
- In general, foreign companies do not enter the same economic field of activity that the national companies practice, which ensure not to exclude any national company from market. | - A probability that some (or a very few number) of national companies may leave. | Improvement of economic and political capacity and growth of host countries due to:  
- Increasing State tax returns from profit tax, and development of national property, and creating a new class of businessmen.  
- Improvement of competitiveness and productivity of national companies through improving production and management or when such companies imitate multinational companies. |
3- Transfer of technology

- Implementing development and training programme for human resources (even if multinational companies focus their development programmes and activities in their homeland)
- Introducing advanced technology by promoting multinational companies host government.
- Direct investment through multinational companies contribute in transferring a great deal of knowledge or technology to host countries (in comparison with other methods), in addition to the continuous modernization and technological development to such countries.
- Developing current skills and knowledge.
- Introducing new kinds of skills and knowledge in many economic fields.
- Gaining new skills and knowledge when national manpower imitates its foreign counterpart in all fields (technical & administrative).
- Supporting and developing economic relations among various sectors of economic activities.


4.14.2 Exporting country:

Zead (2003), advantages of foreign direct investment on the exporting country level are represented in:

- Investing money at a return rate higher than the alternative domestic investment.
- Monopoly of technology
- Exploiting such companies for political purposes, for instance, interfering in the internal affairs of the host country.
4.15 Disadvantages of FDI

4.15.1 Host country

Despite the crucial role that the foreign direct investment plays in motivating economic growth in host countries through the benefits that such countries get from the aforementioned advantages, foreign direct investment faces many criticisms, hereafter some of criticisms:

- The increase of foreign direct investment inflow mostly makes investors import the investment requirements from foreign sources, especially when such requirements are not available in the local market, or due to their poor quality as compared with their foreign counterparts. Thus, this will lead to an increase in the invoice of imports and consequently harm the balance of trade especially if the increase in imports exceeds what the foreign investment adds to exports. Such effect will get worse in the case that foreign investors are able to transfer their money abroad, which will affect the balance of payment in general.

- Foreign direct investment may lead to the decline of domestic investment or crowd out domestic investment in host countries, and not to crowd in more domestic investment and in a way that limits its effects on economic growth in such countries. Such rivalry occurs due to financing part of the requirements of foreign direct investment from the domestic market or due the competition between foreign investment and local companies, where the first case will lead to a decrease of savings in the domestic market (the savings which go to domestic investment), and the second case may cause some domestic companies, which are unable to compete with foreign companies, exit from competition. The exit of local companies which are unable to face competition in host countries will be in the host country's favor especially in the long-running, where that will promote
weak companies to improve their conditions and enter the production domain again, which will lead to a greater economic growth in host countries.

- The role of foreign direct investment in host countries (through transferring the accompanying technology) depends on the conditions and abilities of such countries, such as the availability of a strong basic structure that helps in applying modern technology and that results from raising the expense assigned for researches and development, in addition to the kinds of sources used in the production processes such as the availability of experienced manpower arising from raising the expense assigned for the human capital. It is noticed that most of developing countries lack such basic factors, which makes the effect of foreign direct investment is limited. Moreover, that technology may be limited and does not suit the conditions of host countries, which may cause the host countries not to gain the hoped benefit. This will lead to lack or decline in the returns of productivity of domestic companies in host countries, especially in the sectors of weak technological abilities, in a way that may hinder such companies to improve and accept modern technology.

- Some argue that foreign direct investments may harm the overall balance of the host country particularly when host countries grant huge tax exemptions on the activities of such investments where the previous exemptions lead to erosion of State tax revenues, which may harm the general budget.

- The increase of foreign direct investment inflow may lead to some political interference, especially if its annual sales exceed the sales of domestic companies, or if foreign companies control any or some basic services in host countries. A study has found out a negative effect of foreign direct investment represented in the increase economic subordination, and the new Marxists and others such as Hymer have confirmed that opinion where it has been found that the concentration of foreign direct investments on the export sector in host countries has led to a higher subordination degree; that has been justified in that foreign
Direct investment companies depend on importing the export requirements from the main countries, and consequently the exports output of these companies which are represented in the exports of host countries depends on the availability of such production requirements in host countries.

- Foreign companies in host countries discriminate between foreign labor and the counterpart thereof in host countries as regards wages, where foreign workers get higher wages as compared to those which are paid to workers of host countries. Moreover, a large part of such wages is assigned to products of those companies. A study conducted within the same framework on investment and business banks in Egypt (1994) has pointed out that the wage of foreign labor has reached more than the double wage of the Egyptian employee in such banks, and almost the triple in mutual banks.

- There is another criticism represented in the concentration of foreign direct investment (sometimes) in some environmentally polluting industries in host countries, those industries which require from developed countries (the main countries) to pay high costs so as to conserve environment as compared with developing countries, for instance, chemical industries, textiles, steel, cement and ceramics.

4.15.2 Exporting country:

The most serious disadvantages of foreign direct investment on the level of the exporting country are represented in:

- Depriving the exporting country of income tax on companies.
- Exporting job opportunities.
- Affecting the balance of trade and balance of payments.
5. Analysis of FDI Algeria

Algeria has addressed the investment issue since independence through a number of successive statutes where it issued a number of legislations included many motives and advantages for investors.

5.1 Legal framework for investment in Algeria

Investment law number 277-63, dated 26 July 1963:

Sheah&Shakory (2009), economic and social situation after independence was characterized by weak basic factors to promote comprehensive economic growth.

Mahmoud&Asmaeal (2007), the State had to conserve the remaining through calling foreigners so as to invest their money inside Algeria and conserve the existed establishments. So, the State issued the first investment law in 1963 so as to promote investment. "The main object was to revive economic life again, to rebuild and develop the Algerian economy which suffered a vacuum due the emigration of establishers after independence, to conserve and keep the existed foreign capitals in Algeria and to promote foreign investment.

Investment law number 284-66, dated 15 June 1966:

Algeria decided to make new law in 1966, namely 284-66, dated 15 June 1966 which included the investment law of national and foreign sector; it gave priority to investment in order to achieve economic growth for the increasing foreign currency, transferring technology and ensuring employment opportunities. As for investment policy towards foreigners, Algerian authorities took new measures where it permitted foreign capitals to contribute in an attempt to create mutual companies with the State capitals through national companies.
Investment law number 11-82, dated 21 August 1982:

Having considered the private sector as marginal since 1963, whose role was limited to perform some secondary economic tasks especially in trade and services, it was obvious that the private sector, the foreign one in particular, has a distinguished role especially in fuel domain being the beating heart of Algerian economy. Despite the State monopoly of the sector and naturalizing it, it was still in need of the contributions and support of foreign direct investments due to financial abilities and great technology such sector needs. So, law number 11-82 was issued in order to clarify how mutual economic companies are formed and operated. The law defined the maximum rate of foreign contribution where it shall not exceed 49% of the company capital. After issuing such law, a new group of investments emerged between 1983 and 1984; it reached almost 2328 projects. As such law did not consider motivating sides; it required some amendments so as to be more responsive to the Algerian economy needs for private domestic and foreign investments that contribute to increase production capacity and raise the growth rates, especially in the fuel sector, (Sheah&Shakory, 2009).

Investment law number 13-86, dated 19 August 1986:

Law number 13-82 was amended by law number 13-86 due to its deficiency in motivating and bringing the desired volume of the foreign direct investments companies to be invested locally, especially in the fuel sector. Therefore, the new law included new methods for forming and running mutual companies in a relatively flexible, clear and motivating way as compared to the former law. According to the new law, foreign partners who are in partnership with public Algerian institutions on an agreement protocol base are authorized to participate in defining the issues and domains of interference of parties during the mutual partnership, and the obligations and duties of all parties. The law kept the contribution rate of public Algerian institution as 51% at least, while the role of foreign dealer was represented in ensuring the transfer of technology, capitals, employment positions and rehabilitation of employee. Foreign partner, in turn,
benefits from the contribution in running and taking the decisions pertaining to use or transfer of profits, raising or lowering its contributing capital, and transfer of some parts of foreign labor salaries.

**Monetary and loan law 1990:**

Al taher(2003), Law number 10-90 of monetary and loan, issued in 14 April 1990, is considered as a legislative law that reflects a confession of the importance that a banking system should have. Monetary and loan law included many aspects of reforms in the domain of financial running, loans and investment; it confirmed the freedom of capitals transfer from and to Algeria. It also canceled all the former laws which are related to local and foreign partnership rates, namely 51% and 49%, through giving the opportunity to all kinds of foreign capital contribution in Algerian economic growth. This law also found some basic mechanisms to activate banks through separating the processes of issuing and loaning according to which the Bank of Algeria emerged as an independent institution of issuing, organizing and controlling activities. Commercial banks also emerged as loaning institutions with unified functions, by virtue of law, in financing all institutions of public and private sectors without discrimination. Monetary and loan law was supported by a number of new, amending and integral organizational laws and legislations which were wholly more crucial in leading towards openness of the economy clearly and directly. However, despite these amendments, the volume of investment rapidly decreased in 1990 to 344 projects, that is, at a rate of 20.6% due the unstable political conditions.

**Law of 1993:**

The investment law was issued in accordance with the decree dated 5 October 1993 in respect of ensuring the legal, legislative and organizational environment which is suitable for attracting private investment to Algeria, especially the foreign one. When various investments were restricted to the public sector, made by its public institutions in
accordance with legal procedures which made the domestic private sector less important and narrowed the foreign private sector field of activity in the partnership in which the national partner owns the largest and greatest shares, the investment law of 1993 came distinguishable to legislate the full freedom principle of investment. Private sector, whether local or foreign, is free to join any investment project of under any form it wants, excluding some strategic activities that are peculiar to State, with no needs for numerous and complicated procedures, where it only needs an investment declaration from the national agency of promoting, supporting and controlling investments. Such law also stipulated the principle of non-discrimination against investors, whether they were public or private, local or foreign. The law ensured an equal treatment of investors in terms of rights and duties. It also permitted foreign investors, within the framework of settling the expected disputes friendly, to refer to the judiciary other than the Algerian authorities, so as to remove the various obstacles which may hinder attracting foreign investments. The investment law gave a number of motivators within the frame of the privileges granted by the national agency of promoting and supporting investments, (Sheah&Shakory, 2009).

**Law of investment development of 2001:**

The legal framework of promoting and developing private investments in Algeria was supported by the issue of the presidential decree number 3-1 dated 20 August 2001 in respect of investment development. The new law defined the public order which is applied on national and foreign investments achieved in economic activities that produce goods and services, and also on the investment which are achieved within the framework of privileges granted to local and foreign investors.

Thus, this law has been broadened so that the aimed development and promotion of investment shall include all the activities that the current economic policies have prepared to establish.
What distinguishes the investment code in Algeria is that it is based on the following elements:

- National Investment Board which is headed by the Prime Minister. Its authority is represented in planning the national strategy of investment development, defining the priority domains of exploiting privileges and the terms of utilizing the motivators pertaining to investment.

- Agency of National Development Investment (ANDI) which is an alternative to the national agency of promoting and supporting investments (APSI) established by virtue of the investment law issued in 1993; its main function is represented in developing and controlling the investment processes and facilitating the procedures of projects progress.

- Establishing a decentralized one-stop window which combines all administrations related to investment; such window has full authority to respond to prompt business of investors.

- Investment support fund that finances the activities related to improvement of investment climate, and prepares the required conditions for projects, for instance, preparing industrial zones, connecting the required utilities such as electricity, gas, water and telephones and paving roads. The following table shows the authorities and administrations available in each one-stop window along with the accompanying services they provide.
Table 6. The authorities and administrations available in each central one-stop window:

<table>
<thead>
<tr>
<th>Windows</th>
<th>Authorities</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception &amp; guidance</td>
<td>Agency of National Development Investment</td>
<td>Information, guidance, files delivery, declaration consignment, concession granting.</td>
</tr>
<tr>
<td>Civil register</td>
<td>National Center of Civil Register</td>
<td>Delivering a certificate of naming non-priority, temporal receipt of civil register.</td>
</tr>
<tr>
<td>The Customs</td>
<td>The Customs Department</td>
<td>Information about Customs organization.</td>
</tr>
<tr>
<td>Taxes</td>
<td>Tax Department</td>
<td>Helping investors within limits of procedures to overcome collecting difficulties to execute the decision of concession granting.</td>
</tr>
<tr>
<td>Real estate</td>
<td>The authority in charge of real estate and the committee of domestic activation for promoting investment</td>
<td>Information about real estate capacities, delivering the decision of premises booking.</td>
</tr>
<tr>
<td>Urbanization</td>
<td>Urbanization Department</td>
<td>Helping investors to get building license and other licenses for construction.</td>
</tr>
<tr>
<td>Ministry of labor</td>
<td>Employment Department</td>
<td>Delivering business license to foreigners, informing about the rules and legislations of business.</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tax receipts</td>
<td>Tax Department</td>
<td>Collecting the rights related to work implement, or amending the institutions and minutes of discussion of the running and administration framework.</td>
</tr>
<tr>
<td>Treasury receipts</td>
<td>Treasury Department</td>
<td>Collecting the rights related to treasury revenues that are not collected by tax department pertaining to establishment of companies.</td>
</tr>
<tr>
<td>Executive commissariat of municipality</td>
<td>Executive commissariat of municipality</td>
<td>Authentication of all required documents pertaining to the investment portfolio.</td>
</tr>
</tbody>
</table>

5.1.1 Guarantees and incentives granted to foreign investments in Algeria:

The investment law of 1993 can be considered as a main turning point in the course of openness of Algerian economy, where such law included a group of incentives and tax and customs collecting exemptions which make foreign investors tend to invest in Algeria due the protection and liberty provided by such law, (abdulmajeed, 2006).

Guarantees pertaining to protection of foreign investment in Algeria:

Algerian government has confirmed its resolution to encourage and protect investments to enable it contribute to build and develop national economy. Such encouragement is achieved through the said granted guarantees stipulated in law, and also through treaties concluded between Algerian and other countries on a bipartite level and multiparty by referring to international arbitration.

Algeria's resolution to attract foreign investors to support national economy came through the legal stipulations that have been stated in each of the monetary and loan law number (10-90) and the legislative decree number (12-93) pertaining to investment promotion and which stipulates the following:

A) Full freedom of investor and investment:

This principle ensures foreign dealers full freedom to invest in Algeria with consideration to the applicable legislation so as to make investment in many different fields of economic activities except what is peculiar to State such as public health, education, and teaching, in addition to many forms such as development of capacities or those which redo rehabilitation or structure and which are achieved as shares of the capital or estate shares provided by any normal or legal person.

This principle also ensures great freedom of investment either by contributing to the gross capital or through partnership. It also allows for make investment in forms of
limited liability companies (SARL), partnership company (SNC) or stock company (SPA), provided that such investments are approved by virtue of an investment declaration at the agency and accompanied by the required documents in accordance with the legislations and regulations.

**B) Principle of cancelling discriminations pertaining to investments and investors:**

Pursuant to the article number 38 of the legislative decree 12-93, it states: "foreign normal and legal people receive the same treatment that Algerian normal and legal people receive in terms of the rights and obligations as regards investment".

Accordingly, such article declares the discrimination principle as regards investors and investments, and then preserving and adhering to international concluded treaties in terms of ensuring investment protection within a mutual framework.

**C) Stability of law applied on investment:**

Pursuant to the article number 39 of the legislative decree 12-93, and in order to reassure foreign investors, the Algerian investment law has stated by virtue of such article that:

"Reviews or cancellations that may occur in the future to the achieved investments within the framework of such legislative decree shall not be applied unless the investor expressly request".

Algeria has also intended to conclude many international treaties so as to promote and stimulate foreign investment, ensure ownership thereof in case of nationalization, avoid seizing their money and resources or watching thereof.
D) **Ensuring freedom of financing:**

Foreign investors have full right to transfer capitals, outcomes, incomes, interests and other money related to transfer whether the transfer is in cash or in kind (i.e. transfer of machines or equipments). The article 12 of the legislative decree12-93 states: "achieved shares shall benefit from providing shares form the capital with a transferable currency officially approved by the Central Bank of Algeria which legalizes import thereof and ensure transfer of the invested capital and the arising revenues. This insurance is peculiar to the net outcome of cession or clearance even if such amount exceeds the original invested capital". The transfer orders requested by investors are implemented within a period not exceeds sixty (60) days.

E) **International obligations arising from the act of concluded treaties:**

Mosa (2000) the treaties concluded by Algeria whether bipartite or multiparty put foreign investors at their ease as they are considered international obligations that have the effect of the international law in terms of application and priority. Algerian legislations have also declared that expressly by virtue of a declaration signifies equality between local and foreign investors.

Algeria, in the belief that it is crucial to provide all the required conditions to promote and guarantee investment on its territory and in all economic fields, has concluded many treaties with countries of contrastive systems and tendencies; following are some of such treaties:

- **Multiparty international treaties pertaining to investment promotion and guarantee:**

Algeria has joined many international treaties desiring to promote and guarantee the incoming investments from anywhere; following are some of such treaties:
- Maghreb treaty pertaining to investment promotion and guarantee among the Arab Maghreb Union.
- Arab treaty pertaining to investment of Arab capitals in Arab Countries.
- International treaty pertaining to establishment of the international agency of promoting investment.

- **Bipartite international treaties pertaining to investment promotion and guarantee:**

Algeria, in the belief that it is crucial to provide all the required conditions to promote and guarantee investment on its territory and in all economic fields, has concluded many bipartite treaties with countries of contrastive political systems; following are some of such treaties:

- Bipartite treaty concluded with United States of America.
- Bipartite treaty concluded with Italy.
- Bipartite treaty concluded with France.
- Bipartite treaty concluded with Spain.

**Incentives granted to investors according to public system and private system:**

Talibi (2008), Algerian legislator has granted two types of advantages included in both systems: the public system and the exceptional system (private). In addition to the benefit that the investor gets out of the collection and customs incentives that are stipulated within the public framework, it benefits within the exceptional system from special advantages and exemptions especially when it uses special technology concerned with environment preservation, natural resources protection, introducing energy, supporting comprehensive development. Following are the most important incentives granted to investors:
a. Public order of incentives:

This system provides concessions in accordance with the national policy of investment and territory preparation. The advantages granted to investors within such system are limited to the first phases of project accomplishment and operating thereof. Investments benefit from:

- Application of the reduced rate in the field of customs rights as regards imported equipments which directly enter in the project execution.
- Tax exemption on the added value as regards the goods and services which directly enter in the investment implementation.
- Exemption from ownership transfer fees as regards all real estate properties which have been completed within the framework of the said investment.

b. Exceptions system:

Concessions are granted in exceptions system in accordance with two phases; investment implementation starting off phase and exploitation taking off phase as set out below:

➢ Investment implementation starting off phase

The said investments benefit from:

- Exemption from ownership transfer fees as regards all properties which are completed within the framework of investment.
- Application of a fixed right in registration at a rate of 0.2% as regards memorandums of association and increases in capital.
- Exemption from the value-added tax TVA as regards the goods and services that directly enter into investment, whether imported or acquired from domestic market when such goods and services which are dedicated for processes achievements are subject to tax on the added value.
- Application of the reduced rate in the field of customs rights as regards imported goods which directly enter into the project execution.

➤ **Exploitation taking off phase**

After surveying the exploitation taking off, the following advantages are granted:

- Exemption for ten (10) years from the actual activity of tax on profits of companies, from the tax on gross income on distributed profits, and from fees of vocational activity.
- Exemption for ten (10) years, starting from the date of having property, from the real estate tax on real properties which enter within the investment framework.
- Granting additional advantages that improve or facilitate investment. The following diagram shows the investment protection index in Algeria as compared to a number of countries.

**Figure 9. Investment protection index in Algeria compared with selected countries**

Source: www.doingbusiness.org/doing business in Algeria 2011
The following diagram shows position of Algeria in the investment protection index in Algeria as compared to a number of countries.

**Figure 10. Investment protection index in Algeria compared with selected countries**

![Investment protection index diagram](image)


### 5.1.2 Development FDI inflow to Algeria:

Algerian is distinguished by many natural features; its area is 2,381,741 km², located amid the Maghreb in the Northwest of Africa, bounded in the north by the Mediterranean and extends to the south to the deep desert of which Algeria occupies 2,000,000 km² and its coast stretches to 1,200 km, (Ahmed, 1993).

Owing to the great natural resources and the huge tourist capacity that Algeria has, it is considered a regular area that attracts foreign direct investment. However, economic policies and exploitation of such resources were not sufficient to lead to an active economic framework, which caused Algeria many problems and so it gave the
opportunity to foreign direct investment". The following table shows the development of foreign direct investment inflow to Algeria during the period (1990 – 2008).

Table 7. FDI to Algeria during the years 1990 – 2008 in million dollars

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI inflow to Algeria</td>
<td>80</td>
<td>30</td>
<td>*</td>
<td>*</td>
<td>25</td>
<td>270</td>
</tr>
<tr>
<td>Year</td>
<td>1997</td>
<td>1998</td>
<td>1999</td>
<td>2000</td>
<td>2001</td>
<td>2002</td>
</tr>
<tr>
<td>FDI inflow to Algeria</td>
<td>260</td>
<td>501</td>
<td>507</td>
<td>438</td>
<td>1196</td>
<td>1065</td>
</tr>
<tr>
<td>Year</td>
<td>2003</td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>FDI inflow to Algeria</td>
<td>634</td>
<td>882</td>
<td>1081</td>
<td>1795</td>
<td>1662</td>
<td>2646</td>
</tr>
</tbody>
</table>

During the last years (1990 – 2008), Algeria has achieved satisfactory levels of foreign direct investments. Moreover, this period was characterized by almost complete absence of foreign investment due the complicated situation that Algeria suffered on all levels. This stage witnessed an aggravation of the crisis of external indebtedness and an increase in the foreign debt to the extent that exceeds the available payment possibility and so the authorities were forced to reschedule the external indebtedness and what follows of the strict implementation of the organizational amendment terms set by the International Monetary Fund. The deterioration of security conditions, the political and economic instability and the increase of potential risk have had a negative effect on attracting foreign investment, (Naji, 2009).

While the period between(1996 – 2000) was characterized by the return of foreign investment to Algeria which mostly tended towards the fuel sector. Algeria did not attract
investments in other sectors and far from the foreign investment levels received by the neighboring countries.

While the period after 2001 was distinguished by a marked increase in foreign direct investment, where the incoming foreign direct investment to Algeria was estimated to 1196 million dollars in 2001 which is the same year when the order no 03/01 including the tax incentives thereof was issued, in addition to the inflow achieved in 2002 which was estimated to 1065 million dollars which was achieved due to selling the mobile phone license to the Egyptian company Orascom, and the privatization of iron industry company in Alhajar for the Indian company Esbat. Thus, such increase did not arise from an improvement in the investment climate of which the tax incentives are considered integral part. The evidence for that is the decline of foreign direct investment in 2003 to 634 million dollars, and then it increased to 882 in 2004 due to selling the third license to the Kuwaiti national communication company, and consequently the inflow of foreign direct investment in 2001, 2002 and 2004 mostly came from the communication sector, (Talibi, 2008).

5.1.3 Geographic distribution of foreign direct investment in Algeria

Investing countries, both Arab and foreign, have multiplied in Algeria. The following table shows the top ten investing countries in Algeria during the period (2008 – 2011).
Table 8. Top ten investing countries in Algeria during the period 2008 – 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The USA</td>
<td>256891</td>
<td>89882</td>
<td>205664</td>
<td>906806</td>
<td>906806</td>
</tr>
<tr>
<td>Egypt</td>
<td>51</td>
<td>03</td>
<td>100</td>
<td>362992</td>
<td>363146</td>
</tr>
<tr>
<td>France</td>
<td>76656</td>
<td>137460</td>
<td>49472</td>
<td>80413</td>
<td>344001</td>
</tr>
<tr>
<td>Spain</td>
<td>16209</td>
<td>16373</td>
<td>35596</td>
<td>152867</td>
<td>221045</td>
</tr>
<tr>
<td>Italy</td>
<td>92820</td>
<td>11800</td>
<td>9262</td>
<td>34383</td>
<td>148265</td>
</tr>
<tr>
<td>Germany</td>
<td>20062</td>
<td>7836</td>
<td>66509</td>
<td>37791</td>
<td>132198</td>
</tr>
<tr>
<td>Holland</td>
<td>2812</td>
<td>623</td>
<td>1308</td>
<td>71944</td>
<td>76687</td>
</tr>
<tr>
<td>England</td>
<td>36015</td>
<td>2001</td>
<td>14206</td>
<td>23254</td>
<td>75476</td>
</tr>
<tr>
<td>Japan</td>
<td>16648</td>
<td>2787</td>
<td>21092</td>
<td>8818</td>
<td>49345</td>
</tr>
<tr>
<td>Belgium</td>
<td>14648</td>
<td>571</td>
<td>4484</td>
<td>12384</td>
<td>32041</td>
</tr>
</tbody>
</table>

Source: CNUCED examen de la politique de l’investissement en Algérie, nations unies, Genève, 2012, P12
Based on the data of the table number (08), it is clear that:

The United States of America is considered the most important investor in Algeria exceeding 906 million dollars during the period 2008 – 2011. American investments center on the fuel sector such as Petro Fact Resource International Inc, in addition to other sectors such as the investments of the American « Pfizer » in the chemistry and pharmacy sector, (Goeader, 2012).

Within its relations framework with the European Union, Algeria has signed a number of cooperation and partnership treaties with the top three countries of the Southern European Union, i.e. France, Spain and Italy. The investments of such countries particularly center on the fuel sector through the two Spanish companies « Repsol » and « Cepsa », the Italian companies « Agip », « Sayram » and « Eniv », and the French company « ELF/TotalFina », in addition to some investments in the food industry sector such as « Danone » company along with other investment in ceramics, chemistry, pharmacy and chemistry sectors. German investments centered on a number of projects of which the following two projects are the most important: when « Henkel » company joined as the largest contributor with the national company of detergent « ENAD » in addition to « Messer » German group which is specialized in industrial gases, (Goeader, 2006).

Rafeg (2008) As for Arab investments in Algeria, each of Egypt, Bahrain, Kuwait and Jordan is considered among the most important investing countries in Algeria especially in the communication sector through Orascom Company for mobile phones along with some activities in the service sector. Egyptian investments have reached 603 million Euros, and the foreign direct investment coming from Saud Arabia in 2005 reached 247 million Euros. Consequently, such figures refer to the improvements of foreign direct investments of Arab countries in Algeria during the last years”. The following table shows the volume of Arab investments in Algeria during the period 1995 – 2005.
Table 9. Arab investments in Algeria during the period 1995 – 2005

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment volume</strong></td>
<td>3,5</td>
<td>-</td>
<td>-</td>
<td>122</td>
<td>85,5</td>
<td>347,5</td>
<td>350</td>
<td>54,6</td>
<td>80,4</td>
<td>263,3</td>
<td>260,6</td>
</tr>
</tbody>
</table>

Source: Rafiq Nezari

"The above table shows that the total account during the period 1995-2005 has reached 2567,6 million dollars, and the two years 2000 and 2001 are considered the best".

**Sectoral distribution of foreign direct investment in Algeria**

Algeria is rich in fuel, and its mining capacity which is estimated at 1,5 million km2 is not completely exploited. It also has a crucial basal structure and huge productive power. The sector has witnessed important development after enforcing the law number 21-91 issued on 04 December 1991 which amends the law number 14-86 as regards fuel; it established the openness of such sector to foreign investment. This new step has motivated partnership, where almost more than 60 discovery contracts have been concluded since 1992 between Sonatrak National Oil Company and foreign companies working in discovery and exploitation activities on the basis of production sharing. Such partnership is not limited to that; it also aims at creating mutual companies in the fields of services, maintenance and engineering.

It also supports the fuel sector which has been broadened to include petroleum activities after issuing the law number 07-05 concerning fuel on 28 April 2005; such law has put an end to the state monopoly of the sector. In the following table, we will refer to the most important sectors that attract foreign direct investment in Algeria, (Algeria, 2006).
Based on the table number (10), it is clear that:

Foreign direct investments in Algeria are distributed to a number of national economic sectors, where the industry and service sectors are in the lead whether in terms of the number of registered projects whose rate reaches 59% and 20% in each sector respectively, or in terms of the confirmed amounts of money whose rate reach almost 37% in the industry sector, while in the service sector it approximates 52%. These sectors are distinguished in high productivity of foreign companies, the fuel sector in particular,
in addition to some industrial activities such as pharmaceutical products which have been revived in 1999, especially that partnership which has been established between the Algerian Pharmacy Company "Sidal" and the Saudi Pharmaceutical Company with an amount of 15 million dollars, and with the American companies "Fizers, Bakistar and Lily" with an amount of 100 million dollars, (Goeader, 2006).

The agriculture, general work, health and trade sectors have not achieved the desired levels though important. The agriculture sector has achieved only 3% of the total value of decided investments despite the series of reforms and motivations granted to such sector, while the construction and general work sector has got only 41 projects, that is, what equals 9% of the decided projects. Such rate is deemed slight as compared to the goal to attract foreign capitals, entering thereof to the improvement of basal framework and the contribution to solve the habilitation problem in Algeria." While during the period (2002-2009), the distribution of foreign direct investments was as follows:
Table 11. Distribution of approved FDI to the most important economic sectors in Algeria during the years 2002 – 2009

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of projects</th>
<th>Rate%</th>
<th>Amount (million Algerian dollars)</th>
<th>Rate%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>10</td>
<td>1,44%</td>
<td>2021</td>
<td>0,12%</td>
</tr>
<tr>
<td>Construction &amp; general work</td>
<td>99</td>
<td>14,27%</td>
<td>472163</td>
<td>27,96%</td>
</tr>
<tr>
<td>Industry</td>
<td>387</td>
<td>55,76%</td>
<td>889532</td>
<td>52,67%</td>
</tr>
<tr>
<td>Health</td>
<td>4</td>
<td>0,57%</td>
<td>5982</td>
<td>0,34%</td>
</tr>
<tr>
<td>Tourism</td>
<td>15</td>
<td>2,16%</td>
<td>26216</td>
<td>1,55%</td>
</tr>
<tr>
<td>Services</td>
<td>179</td>
<td>25,80%</td>
<td>293070</td>
<td>17,36%</td>
</tr>
<tr>
<td>Total</td>
<td>694</td>
<td>100%</td>
<td>1688985</td>
<td>100%</td>
</tr>
</tbody>
</table>

source : www.andi.dz, 2013

The above table shows that foreign direct investments are distributed to a number of national economic centers, where the industry, construction, general work and services sectors take the lead whether in terms of the number of registered projects whose rate reaches 55,76%, 14,27% and 25,80% in each sector respectively, or in terms of the confirmed amounts of money whose rate reach almost 52,67% in the industry sector, 27,96% in the construction and general work sector, while in the service sector it reaches 17,36%. While the agriculture, health and tourism sectors did not achieve the desired
levels though important. The agriculture sector has achieved only 0.12% of the total value of decided investments, while the tourism sector has got only 15 projects at a rate of 1.55% out of the decided amounts of money.

5.2 Analysis of investment climate in Algeria

Naji (2009), For analyzing the investment climate in Algeria, this research focuses on some main indices which reflect the overall economic balance and which are basically represented in the growth rate of the internal raw product which in turn reflects the market volume and its level of development, the inflation rate and deficit in the balanced budget which reflects the internal monetary balance policy, and the external balance index which focuses on the balance of payment situation.

5.2.1 Analysis of the components of investment climate

Growth rate:

The increase in oil prices in the recent years has directly affected the improvement of economic growth rates. After the negative results of growth rates that were registered at the beginning of nineties, the internal raw product growth rate increased in 2003 to 6.9%, and in 2005 and 2005 it approximates 5.3%, however, in 2006 in decreased to 2.7%. The growth rate, measured by real GDP, was 8.5%. In the 2012. It could help to solve the problem of unemployment of young people (15 – 24 years old) which was about 20 % in recent years.

Inflation:

There is a strong connection between the variations of inflation rates and the stability of economic environment. Most of the countries that tend towards market economy have witnessed huge fluctuations in inflation rates arising basically from decontrol of prices which were administratively defined, and due to the reduction of local exchange rate
made by governments. After reducing the exchange rate in 1990 and 1991, the inflation rates in Algeria have witnessed huge record increase that exceeded 28% annually, while the inflation rate in 1994 reached 39%, which harmed the purchasing power led to an increase in interest prices in banks; all of such circumstances are may hinder investment. However, when Algerian governments applied strict financial and monetary policies between 1994-1996, the inflation rates decreased to 15% in 1996 and to 6% in 1997, and the inflation rate in the recent years decreased and fixed at approximately 6% in 2000, 1.64% in 2005 and 2.70% in 2007, that is, the prices were fixed at approximate levels with neighboring countries, which may be deemed as a positive factor in confirming the economic stability. The estimated inflation measured by CPI was 4.5% in 2011 and 8.9% in 2012.

**External balance:**

After the increase of oil prices since 1999, the position of balance of payment has showed great improvement where it registered a surplus which led to an improvement in the reserve exchange rate; after it was within the limit of one import month in 1990, it become within the limit of about 50 import months at the end of 2009, i.e. more than one billion America dollars, in addition to the decrease of indebtedness volume to less than 1 billion America dollars at the end of 2009, while it exceeded 32 billion in 1994. The following table shows the development of some overall economic indices during 2002 and 2009.

The above table shows that:

At the end of 2009, Algeria showed a progress in some overall economic indices where such improvement gave the opportunity within the economic growth rates to create many new job opportunities which reached 717000 job positions in 2009, and also to decrease poverty to 6.8% in 2009 where the number of people who lived at one dollar a day has decreased.

The balance of payment has also registered a positive balance which amounted to 6.9 billion dollars, that is, a positive important balance continued to the fifth year since 2000. While the external debts moved from 25.1 billion dollars in 2000 to 21.4 billion dollars and so decreasing gradually. The above table also shows that inflation increased at a rate of 3.6% in 2004 due the huge injection of public expenses especially for development along with increases of wages in 2009. The internal raw product in 2009 reached 84.6 billion dollars, (Maoulud, 2010).
5.2.2 Infrastructure of transport and communication:

We have previously mentioned that one of the most important criteria a company uses to determine its location for investment projects in a country depends on the availability of good basal frameworks including modern means of land, air and sea transportation and a communication network that goes with the rapid development such sector witnesses internationally.

Transport network:

Algeria has a land transport network which is considered the largest in Africa, where it reaches 107324 km. However, such network lacks constant maintenance; where a huge rate needs renewal. In addition, the cost of transport and distribution is relatively high due to the considerable distance between the large industrial zones and internal cities. The best solution is to hasten the execution of the highway east-west whose distance is 1200 km, of which only 160 km was accomplished until the end of 2005. The railway transport network was very late in Algeria; it is most probably inherited from the colonization era. Though it reached 4500 km, a few rates of goods was transported with it, which increases the use of land transport and the accompanying negative matters which are represented in the increase of costs, time and environmental pollution. If we compare Algeria with neighboring countries, it needs much work so as to renew and modernize the railway transport network and connect it with the most important industrial zones and ports. As regards air and sea transport, we notice that the fleet of the national companies has become old, which makes the services provided to investors not good due to the burden they bear in transporting and distributing their products.

Information and communication technology:

Bagti (2002), Algeria has sought to get the benefits from the Internet network services and the related techniques by joining the Internet network in March 1994 through the European Center of International and Strategic Research (CERIS). Since 1994, Algeria
has witnessed a marked progress in the Internet field, and according to authority of such center, the number of Internet users in 2001 reached 250 thousand, while at the end of 2007 the number of Internet users reached 2.5 million. In spite of that, most national companies lack private websites, they rather do not know how to use such network to promote their products and to develop partnerships with foreign companies.

The telecommunication sector has also witnessed some considerable changes since 2003 by virtue of Julie law 2000 which canceled general monopoly and separated the services between the post and communication, which allows domestic and foreign dealers to invest in such sector”. "The number of subscribers in the mobile phone service increased to 21 million in 2007 while it was only 600 thousand subscribers in 2001. The number of subscribers in the landline phone service increased to 3.6 million in 2006 while it was about 2.6 million subscribers in 2002. Thus, the overall telephone density (both the landline and mobile phone) has changed from 5.28% in 2000 to 51% in 2005, and the investments reached 5 billion dollars of which 4 billion dollars are foreign direct investments. In spite of that, Algeria has ranked 87 in 2005 among 115 countries in information and communication technology, (Naji, 2009)

5.3 Evaluation of foreign investment climate in Algeria:

5.3.1 Quantitative evaluation of foreign investment climate in Algeria:

Saleh (2010) in our evaluation of the investment climate in Algeria we will depend on the calculations of the composite index of economic policies component of investment climate. This index has been set by the Arab institution of investment quality control since 1996. It shows that the stable economic environment that stimulates and attracts investment is that the one which is distinguished by having no deficit in the balanced budget against an acceptable deficit in the balance of payment, low inflation rates, a
reasonable exchange rate and a stable and transparent institutional and political structure that can be foreseen for the financial, commercial and investment planning.

**Table 13. the composite index of economic policies in Algeria (2008 – 2009)**

<table>
<thead>
<tr>
<th>Policy Index</th>
<th>Year 2008</th>
<th>Year 2009</th>
<th>Change in index &quot;percentage points&quot;</th>
<th>Index degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal balance policy index &quot;deficit of balance as a rate of the gross local product&quot;</td>
<td>(6.9)</td>
<td>(14.2)</td>
<td>-14.2</td>
<td>3</td>
</tr>
<tr>
<td>External balance policy index &quot;deficit of current account as a rate of the gross local product&quot;</td>
<td>(13.9)</td>
<td>(31.3)</td>
<td>-21.30</td>
<td>2</td>
</tr>
<tr>
<td>Monetary policy index &quot;inflation rate&quot;</td>
<td>3.6</td>
<td>1.6</td>
<td>-2.0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Saleh Muftah, Dalal Ben Samina, 2011

**Index reference:**

- Less than 1: on improvement in investment.
- From 1 to 2: improvement in the investment climate.
- From 2 to 3: big improvement in the investment climate.

According to the results mentioned in table (13), we can calculate the composite index of economic policies component of investment climate in Algeria which equals the average of the three previous indices, i.e.

\[
[(1+3+3) / 3] = 2.33
\]
The index reference reflects the big improvement in investment climate in respect of the gross economic balances due to economic reform programmes, in addition to the increase of oil price in the recent years and its effect on decreasing the balance deficit and increasing the real growth rates. In spite of this improvement, Algeria is not considered among the countries that mostly attract foreign investment. However, it is classified as one of the tardy countries in attracting foreign direct investments as compared to the potentials and qualifications it has. In order for a detailed analysis of investment climate in Algeria, we can enter some other quantitative indices adopted by many international institutions.

5.3.2 Qualitative evaluation of foreign investment climate in Algeria:

In order to recognize the position of Algeria and understand its investment climate, we mention the most important qualitative indices adopted by the most important international institutions that are interested in foreign investment. For comparison purposes, we mention the status of each of Algeria, Tunisia, and Morocco in a table in terms of a number of such international indices, with a special focus on Algeria.

International competitiveness indices:

Arabic Index (2009) the international competitiveness index is issued within the annual international competitiveness reports since 1979 about the World Economic Forum which has developed through the last three decades where it has become one of the most important international indices that have great credibility in international competitiveness". "Such indices enable foreign companies to know the countries capacity to provide competitive features that allow such countries to benefit from advantages of transfer to some country.
Table 14. Competitiveness status of Algeria, Tunisia and Morocco

<table>
<thead>
<tr>
<th>Country</th>
<th>International competitiveness index</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Competitiveness growth index</td>
<td>Competitiveness work index</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rank</td>
<td>Year</td>
<td>Rank</td>
</tr>
<tr>
<td>Algeria</td>
<td>71</td>
<td>2004</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>2005</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>76</td>
<td>2006</td>
<td>85</td>
</tr>
<tr>
<td>Tunisia</td>
<td>42</td>
<td>2004</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>2005</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>2006</td>
<td>26</td>
</tr>
<tr>
<td>Morocco</td>
<td>56</td>
<td>2004</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>76</td>
<td>2005</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>2006</td>
<td>76</td>
</tr>
</tbody>
</table>

Source: Naji Ben Hussein, 2009

The international competitiveness index of 2004 included (104 countries), in 2005 (117 countries) and in 2006 (125 countries). The above table shows that the competitiveness status of Algeria lags behind neighboring countries where it ranges between rank 71 and
89, while Tunisia's rank, for instance, ranged between 26 and 42 during the last three years. Such index is considered as an indication of the deteriorating importance of Algerian market for foreign investors especially those who seek investments aiming for export to external markets.

**Conditions of establishing business in Algeria:**

Naji (2009) whenever there are complicated business procedures in a country, prolonged periods, lack of information, non-enforceable contract, court legislations and labor laws, the work performance will be more costly as indicated by various theoretical studies, scientific inductions and practical evidences. So, the environment of work performance will deteriorate and there will appear negative phenomena such as bureaucracy, bribe, and spread of black markets, which means that domestic investment will deteriorate and the chances of the environment of work performance in attracting foreign direct investment will regress. The conditions of establishing companies reflect the nature and extent of complicated procedures and costs for investors. Accordingly, the countries that desire to attract foreign investment should simplify and rush the establishment procedures and the cost thereof. In order to know the status of Algeria in terms of the conditions of establishing business, we introduce the following table:
Table 15. Index of legal business establishment in Algeria, Tunisia and Morocco

<table>
<thead>
<tr>
<th>Country</th>
<th>International rank 2008</th>
<th>Number of procedures</th>
<th>Duration, workday</th>
<th>Cost of execution as a rate of national income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>125</td>
<td>18</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Tunisia</td>
<td>88</td>
<td>10</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Morocco</td>
<td>129</td>
<td>11</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Naji Ben Hussein, 2009

According to the data mention in the above table, the international rank of Algeria in terms of the conditions of establishing business is lagging behind Tunisia and Morocco, namely (rank 120 as compared to rank 59 and 47 for each of Tunisia and Morocco in 2006). The rank of Algeria retrogressed in 2008 to rank 125, which has been noticed with both of Tunisia and Morocco. The reason of such deterioration is due to prolonged period required before establishing the project and to high cost of establishment as compared to the individual income.
Indices of the general environment of business and the role of institutions:

Table 16. Selected international indices of Algeria, Tunisia and Morocco

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>94</td>
<td>119</td>
<td>106</td>
<td>103</td>
<td>111</td>
<td>96</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tunisia</td>
<td>86</td>
<td>99</td>
<td>97</td>
<td>89</td>
<td>67</td>
<td>74</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morocco</td>
<td>86</td>
<td>97</td>
<td>123</td>
<td>124</td>
<td>101</td>
<td>90</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Naji Ben Hussein, 2009

Economic freedom index

Zead (2005) it is issued by (Hertag) institute in cooperation with (Wall Street Journal) since 1995 for the purpose of measuring the extent of interference by authority (the government) in economy and the effect thereof on economic freedom of members of society. This index included 161 countries in 2002 among of which there are 20 Arab countries including Algeria. Countries have recently got more interest in their ranks in such index and in the degree of improvement of economic freedom throughout the years.
Index components: this index depends on (10) factors including:
- The status of financial administration of the State budget (Tax framework of individuals and companies).
- The contribution volume of public sector in economy.
- Monetary policy (inflation index).
- Inflow of private investments and foreign direct investment.
- The status of banking and financing sector.
- Levels of wages and prices.
- Rights of individual property.
- Administrative and bureaucratic legislations and procedures.
- Activities of black market.

The index is calculated by taking the average of these sub-indices.

Index reference:

(1 – 1.95) refers to complete economic freedom.

(2 – 2.95) refers to semi-complete economic freedom.

(3 – 3.95) refers to restricted economic freedom.

(4 – 5.00) refers to lack economic freedom.

The status of Algeria in the index:

The rate of freedom index in Algeria ranged during the period 1995-2006 between 3.30 and 3.50, which means that Algeria has restricted economic freedom where it ranked 94 in 2002 and receded to rank 119 in 2006 in contrast with each of Tunisia and Morocco which are among the countries that have semi-complete economic freedom at an average index equals 2.95.
Performance and potentials index of incoming foreign investment:

Eassa (2006) Ononktad Organization observes two important indices so as to compare the status of foreign direct investment in all countries, they are:

A) FDI Performance Index

This index measures the current situation of State in terms of its real share of the inflow of foreign direct investment internationally coming in relation to the State share of the world gross domestic product, the average of three years is calculated so as to limit the effect of seasonal factors.

B) FDI Potential Index

This index measures the future State potential for attracting foreign direct investment through (13) components including gross domestic product growth rate, average of individual income, the ratio of exports to gross domestic product, spread of landline phones, spread of mobile phone lines, the average of individual power consumption, the costs of researches and development of the gross domestic product, the ratio of higher studies students to the number of population, the sovereign classification of State, the share of State out of the world natural resources exports, the ratio of spare parts imports of electrical device and cars to the world, the rate of the State exports of services to the world, the State share of incoming cumulative balance of foreign direct investment to the world.

➢ Index components:
By comparison of some country in terms of the performance and potential indices, it is classified among one of the following groups:

a) Forerunner countries group: these countries have high performance index and high potential index. The group includes 42 countries.

b) The group of countries that transcend their potentials; they have high performance index and low potential index. The group includes 28 countries including Tunisia.

c) The group of countries that are below their potentials; they have low performance index and high potential index. The group includes 30 countries.

d) The group of countries of low performance; they have low performance index and low potential index too. The group includes 40 countries including Algeria and Morocco. The balance of performance index for Algeria during the period 1988-1990 was estimated to be (0) while it became 0,3 during the period 1998-2000. Algeria ranked 111 in this index out of 140 countries in 2002, while it ranked 95 in 2004. The balance of potential index for Algeria during the period 1988-1990 was estimated to be (0,198), while it became 0,216 during the period 1998-2000. Algeria ranked 96 out of 140 countries under this index.

5.3.2.1.1.1 Human development index

This index is issued annually since 1990 by the United Nation Developmental Programme UNDP; such index is calculated based on the average of three components as follows:

a) The longevity which is measured in relation to life expectancy at birth; it ranges between 25 and 85 years.

b) Knowledge, the index is measured in relation to illiteracy eradication among adults and the rate of students who join various educational grades; it ranges between 0% and 100%.
c) Standard of living; it is measured in relation the average of individual income of the real gross domestic product; it ranges between 100 and 40000 dollars.

**Index components:**

Countries are arranged in three groups according to index value; a high human development index is estimated to be 80% or more, an intermediate human development index ranges between 50% and 79%, and a low human development index is estimated to be less than 50%.

**Status of Algeria:**

Algeria is considered one of the intermediate human development countries in spite of the improvement of its index which reached 55% in 1980, while it became almost 69.7% in 2000, which made Algeria rank 106 in 2002 and 103 in 2006, while Tunisia ranked 89 out of 177 countries.

**Tripartite composite index for measuring nations' wealth of rising economies:**

This index is issued by the Financial Affairs Center of International Bank since 1996 for the purpose of measuring the capacity of rising countries to achieve balanced development between economic growth and improvement of social status, and their capacity to provide a stable and attractive investment environment. This index includes about 70 rising countries, (Naji, 2009)

This index consists of three secondary components include 63 components as follows:

a) Economic environment index; it includes the main economic indices, the indices of incorporation in world economy and work performance environment index.

b) Informatics infrastructure index and the extent of its use.
c) Social environment index: it includes the social development and stability index, health index and natural environment protection index.

**Status of Algeria:**

Algeria has got 1063 points and so ranked 54 out of 80 countries. Consequently, it is considered one of the lagging countries in respect of the arising nations' wealth as compared to other countries that have approximate potentials.

O: order of the country in accordance with the index (from the least risky to the riskiest)

B: balance of the country within the index calculations.

The index of country risks assessment consists of the following indices:

- Composite index of country risks:

Since 1980, this index is issued monthly by PRS Group through the International Country Risk Group for the purpose of measuring the risks related to investment. This index covers 140 countries including 18 Arab countries; it consists of 3 sub-indices: political risks assessment index (it forms 50% of the composite index), economic risks assessment index (it forms 25%) and financial risks assessment index (it forms 25%).

The index divides the countries in terms of the risk degree into the following groups:

- From zero to 49,4 points: the degree of risk is very high.
- From 50 to 59,5 points: the degree of risk is very high.
- From 60 to 69,5 points: the degree of risk is very high.
- From 70 to 79,5 points: the degree of risk is very high.
- From 80 to 100 points: the degree of risk is very high.
## Country risk assessment index:


<table>
<thead>
<tr>
<th>Composite index of country risks</th>
<th>Euromoney index of country risks</th>
<th>Institutional Investor index of country assessment</th>
<th>Coface index</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>B</td>
<td>O</td>
<td>B</td>
</tr>
<tr>
<td>87</td>
<td>64</td>
<td>85</td>
<td>65,8</td>
</tr>
<tr>
<td>56</td>
<td>71</td>
<td>57</td>
<td>73,5</td>
</tr>
<tr>
<td>53</td>
<td>73</td>
<td>49</td>
<td>73,3</td>
</tr>
</tbody>
</table>

Source: Naji Ben Hussein, 2009
Thus, the more the composite index balance increases, the less the degree of risk is.

The table shows that during 2003 Algeria ranked 85 internationally out of 140 countries, where the index value reached 65.8 points with a fair degree of risk, while during 2006 it became one of the countries that have low risk at an index value of 77.3 points.

**Euro money index of country risks:**

This index is issued by euro money magazine twice a year (in March and September) for the purpose of measuring the country risks in respect of the country ability to pay its financial obligations. It covers 185 countries including 20 Arab countries. It consist of nine components: political risks, economic performance, indebtedness index, status of delinquent debts, country credit assessment, availability of long-term banking finance, availability of short-term finance, availability of capital markets, deduction average upon concession. The index shows that the more the country balance increases, the less the country risks are.

During 2003, Algeria ranked 88 internationally out of 185 countries where the index value reached 41.29 points with a high degree of risk.

**Institutional investor index of country assessment:**

This index is issued by "Institutional Investor" magazine since 1998 twice a year (March and September). It covers 151 countries including 16 Arab countries. This index is calculated according statistical surveys basis that comes from the greatest economists and analysts in international banks and large financial companies. The countries are classified hierarchically from zero to 100; the more the country balance increases, the less the degree of risk is.

During 2003 Algeria entered the high risks group where it ranked 81 internationally out of 151 countries.

**Colace index country risks:**

Goeader (2006) this index is issued by French Association of External Commerce Insurance (coracle) where it measures the risk of country potential to pay. It covers 141 countries including 20 Arab countries. It depends on sub-indices used in assessing political factors, risks of lack of
foreign currency, capacity of country to settle its external obligations, risks of unexpected decline of currency value due to huge capital withdrawals, risks of typical crises in banking sector, periodical risks and payment behavior in short-term transactions.

The index reference is classified as follows:

A. The investment degree A which is divided into four levels:

A1: The political and economic environment is stable and the payment record is very good, the risk of paying potential is very weak.

A2: The payment possibility remains very weak even within a less stable political and economic environment, or a rise of payments record to a country at a rate relatively less than the country classified in A1.

A3: The rise of inappropriate political and economic conditions may lead the balance of payments which is originally low to be lower than the previous category excluding the possibility of default on payment.

A4: The discrete payment record may get worse due to deterioration of political and economic conditions; however, the default on payment may occur.

B. Speculation degree; it is divided into three levels:

B1: Unstable political and economic environment probably has a bigger effect on the payment record which is originally bad,

C2: The volatile political and economic environment may lead to bigger deterioration of the payment record which is originally bad,
D3: The high degree of risk of political and economic environment in some country may cause the bad payment record to get worse.

Based on this index, Algeria in 2002 and 2003 was classified among the group of countries in terms of the speculation degree at B balance, which means that the unstable political and economic environment has a great effect on the payment record which is originally bad.

During 2006, we observe that the status of Algeria improved where it moved from the speculation degree B to the degree (A4) which is the moderate risk status. The main reason of such improvement is due to improvement of the financial status of Algeria since it has a banking reserve exceeds 100 billion dollars at the end of 2007 (Naji, 2009).

5.4 Third approach: impediments to foreign direct investment in Algeria

Despite all efforts made by Algeria which are dedicated for promoting and encouraging foreign investments, the volume of foreign investments registered in the country were below expectations. Such investments were far beyond what has been expected of the expansion in granting incentives and facilities to foreign investors; this may arise from the following economic, legal and administrative impediments:

5.4.1 Economic impediments:

The economic impediments which contributed to the weakness of incoming foreign investments to Algeria include:

Political stability:

Absence of political stability has a big effect on the inflow of foreign direct investments in sectors other than fuel, where there is a strong relation between the absence of such factor in a country and the stimulation of attracting investments to this country.
Due to the economic and security situation that Algeria experienced throughout the ninetieth, and according to the assessment of country risk made by the most important organizations of investment insurance headed by "Coface", Algeria has been classified among the top risky countries. Therefore, they raised the investment insurances against political risks, however, this increase was not the only restriction that led to absence of foreign direct investments from Algeria; the role played by national and foreign mass media made the foreign investors never plan even to visit Algeria or invest therein (Ali&Fatema, 2005)

**Lack of competitive market:**

It is due the following factors:

**a)** One of the reasons that made Algeria unable to attract foreign investments is that the Algerian experience was still fresh in terms of the market economy due to difficulty in transferring from a planned economy to a capitalist economy, and the mechanisms of Algerian economy are currently modest as compared to other countries that compete within a similar field.

**b)** Part of many investments in developing countries is represented in the privatization operation. Despite the laws issued by Algeria, the privatization operation was not applied as it should be because this matter was so complicated and may have negative effects on the proletariat and national economy, so it was suspected by some official circles in Algeria especially the syndicate that tries to protect employment positions and not to venture unless the results are secure.

**c)** Foreign direct investment is relevant to the private sector capacity to carry out such operations. This sector has not reached the required level despite that its activity represents 44% of the national activity. In addition, lack of experience and expertise in such sector made it unable to contribute as it is required to, because the private sector in some countries is the one which attracts money by virtue of its expertise and private relation with foreign investors.
d) In addition to the previous points, foreign direct investment cannot venture unless it notices that the private sector ventures in the host country. However, what is being noticed with Algerian economy is that the commercial activity related to import is dominant because of the high productivity it achieves as compared to investment activity and the facilities and fraud in this field as well encourages private sectors to proceed with this activity rather than venture into investment operation.

e) As regards the other side, the status of public economic institutions in particular has not been determined yet whether to continue, stop or to be privatized, which does not allow the investor to invest in an atmosphere whose economic future is not known yet because the country support in these fields contradicts with the investment facilities and laws legislated by Algeria that do not distinguish between the local and foreign investor.

f) The other side which failed is that banking institutions, private sector in particular, were inactive and undeveloped. And finally we notice the catastrophe of the backdoor bank and closing some other banks due to lack of commitment towards customers and society. Moreover, the failure of Algerian stock market makes investors prefer other countries whose financial environment is active and suitable.

g) Another dangerous phenomenon is the spread and trade of drugs, which makes the Algerian Market suspicious because this dirty money comes from organized local and international gangs which try to launder such money and put thereof in the economic activity. This will limit the competitiveness whether on a domestic or a foreign level. According to the declaration of National Police Authority, the number of cases pertaining to such issue reached 10000 during 10 years. This problem must be solved as it may harm the social or economic situations.

h) In addition to the previous reasons and according to the report of the International Bank titled "Issues of Public Administration Systems" in 2006, one of the factors that harm the business environment in Algeria is the strong competition of parallel sector. Formal statistics has assured that the parallel sector in Algeria controls solely 40% of the money stock circulating in the national market; it is a very high rate and consequently the losses
caused by the parallel sector through the illegal competition are considerable, and this situation does not allow any investor, whether local or foreign, to invest in an organized market controlled by the black market.

**Premises impediment:**

One of the most serious impediments to foreign direct investment in Algeria is the premises problem. Premises is a supportive factor for stability of investors where the problem basically lies in the long period that the authorities of real estate utilization take to reply (the department of real estate and the local committee of domestic stimulus for promoting investment on the one-stop window level); it sometimes may take a year. Moreover, the problem of industrial premises is considered one of the most serious impediments; following are the most serious problems of impediment:

- The long period taken by competent authorities to assign the industrial premises; it may take a year.
- The high cost of land assignment including the preparation costs without doing any real preparation for these lands, or in unreal areas of activity that are not established yet due to some dispute over ownership.
- Lack of correspondence between the assigned industrial land and the kind of activity.
- Security of the industrial zone.

Furthermore, problems of rustic premises are not very different from those of the industrial premises where it remains the main impediment in agricultural production; it is due to difficulty that producers face in working on a land that they do not own despite the issue of several laws including law number 18-83 in 31 August 1983 in respect of reclamation of land and real property ownership (Ali & Fatema, 2005).

While touristic real estate in Algeria suffers from many problems such as:
• Diminution of the areas of touristic expansion due to constant deterioration of touristic sites.
• Random work of the areas of touristic expansion and spread of unplanned constructions in such areas.
• Deterioration of the natural atmosphere such as pollution and lack of urbanization rules, which led to changing the nature of touristic resources and consequently that considerably decreased the investment opportunities in some regions of high touristic value.
• Touristic real estate was exposed to various cupidity that caused speculation on deals of real estate in terms of cutting of the lands located within the region of touristic expansion.

5.4.2 Legal and administrative impediment

Following are among the most serious legal and administrative impediments that impede the development of foreign direct investment in Algeria:

Administrative corruption:

Hamouda (2005) Administrative corruption is the abuse of position or authority for personal purposes by extorting the dealers of having a bribe. When an employee or an official accepts a bribe in exchange for their legal service it is deemed a bribe. And the contrary is also deemed a bribe, that is, when providing a service legally prohibited such as giving confidential information and licenses illegally.

The organization of international transparency annually issues the transparency index or corruption review since 1995 so as to show the degree of improvement in the practice of governmental administration and international companies for the purpose of promoting transparency and fighting corruption. Through a number of encyclopedias and information sources, the index tries to define the extent of corruption in the country and its effect on the investment climate as an impediment in such country, and the opinion of the international foreign companies in investing in the said country. The index value ranges between zero, which means
that the degree of corruption is high, and ten, which means that the degree of transparency is high. Algeria ranked 97 in 2004 out of 146 countries, and it had the same rank in 2005 out of 159 countries. Despite the registered improvement in fighting corruption in the recent years, the spread of bribe and administrative corruption remain among the most serious impediments to foreign direct investment in Algeria (Saleh, 2008).

**Lack of transparency in the Customs:**

One of the most important reasons that stimulate the transfer of foreign direct investment is the customs authorities that work transparently in host countries, and the efficient performance in dealing with foreign investors at first when the customs make some exploratory visit in order to know the economic, social and political conditions of a developing country. It has been noticed that many developing countries have corrupted bureaucratic customs authorities which make many businessmen go back on the first plane available at the airport due to the insolent treatment of some customs officers.

"The customs play an effective role in this operation due to the following reasons:

- Customs facilities and efficient administration allow transfer of goods and equipments from a country to another.
- When there are customs authorities that promote exports, investors are stimulated to set up projects which aim for production to meet the domestic requirements and export externally.
- When customs authorities respect international laws pertaining to customs laws in dealing with illegal economic transactions in a way that respects the law and applies to all economic dealers, then competitiveness and transparency will control the market.
- Taking the measures to combat fraud and forgery in commercial transactions and rights of intellectual property will help making investments in a reliable and satisfactory climate.
- Hastening and considering economic dealings will stimulate foreigners to invest in developing countries, because slackness wastes much time and makes many investors change their investment sites.

- The spread of bribe and bias in the customs sector leads to spread of yields that the bribed get, this will make the market controlled by incomplete competitiveness or may bring monopoly, and consequently the best solution for noble investors then will be either to withdraw from market or to go bankrupt.

**Other legal impediments:**

Unintelligibility of legal and legislative terms pertaining to investment and lack of interpretive and executive regulations, in addition to lack of adaptation of the developments in investment legislations to other sectors legislations especially a number of sectors which still suffer from quasi-rigidity in reforms in the same manner of the banking system and even some industrial sectors (Saleh, 2008).
6. Analysis of FDI impact on economic growth in Algeria

Having studied and previewed the theoretical framework of foreign direct investment and its relation with economic growth, this approach will define the used model in the applied study as follows:

As it is mentioned above the Cobb-Douglas production function is used to describe impact of FDI on economic growth.

From the function:

\[ GP = f(K, FDI, IMP, \varepsilon) \] ….(34)

Where:

GP: gross production; it equals the gross domestic product plus the imports.

K: capital.

FDI: foreign capital measured by the accumulation of foreign direct investment.

L: labor element, measured by number of labor (total labor)

IMP: imports of goods and services.

\varepsilon: error rate.

Is derivated the following form:

\[ \frac{GP}{L} = A \left( \frac{K}{L} \right)^{\alpha_1} \left( \frac{FDI}{L} \right)^{\alpha_2} \left( \frac{M}{L} \right)^{\alpha_3} \mu \] ….(35)

The method is more deeply described in the third chapter. The form above solves the problem of incompatibility of variance and multiple linear correlation.
6.1 The effect of foreign direct investment on economic growth

This approach will assess and examine the equations that form this model and to examine their results so as to accept or reject the hypothesis. The model mentioned in this approach is tested by software Minitab V.15 which is one of the most important and distinguished programs used in data statistical analysis due to the distinguishing features such as ease of use. Accordingly, the results have been assessed the data of the said program as follows:

6.1.1 The effect of FDI, imports and domestic investment on economic growth

The basic model has been transferred to the linear model by logarithmic conversion, and tested by least-squares estimate. During the period (2000-2011) the equation pertaining to testing the effect of foreign direct investment and imports on economic growth was as follows:

\[ \log \left( \frac{GP}{L} \right) = 1.21 + 0.373 \log \left( \frac{K}{L} \right) + 0.0244 \log \left( \frac{FDI}{L} \right) + 0.444 \log \left( \frac{M}{L} \right) \quad \cdots \quad (36) \]

R-Sq = 96.7% R-Sq.(adj) = 96.0%

According to the equation number (36) and table (18), and based on the test (t), the significance of the constant and foreign direct investment are proved fixed where they are bigger than the tabular value of (t) \( t=1.746 \) at a freedom degree (2-11), and the probability value (P. value) equaled 0.000 and 0.033 for each of the constant and variable of the foreign direct investment; it is less than the significance level 5%.

It shows also the insignificance of the imports mark, where the calculated value of (t) as \( t=1,49 \) is less than the tabular value of (t), and the probability value P. value = 0.158 is bigger than the significance level 5%. It also shows the insignificance of domestic investment mark, where the calculated value of (t) as \( t=1,63 \) is less than the tabular value of (t), and P. value = 1,126 is bigger than the significance level 5%.
With reference to equations values, the effect of foreign direct investment becomes clear, where the results show that the elasticity of foreign direct investment is (0.0244), i.e. the increase rate at 1% in the volume of foreign direct investment leads to an increase in the gross product at (0.0244), and this effect, though small, is positive. The results also reflect the positive effect of imports on the gross product where its elasticity equals (0.444); which is considered a great contribution. The reason of such great contribution is due to the increase in imports volume especially in 1995 when Algeria liberated its external trade, and also because the domestic product depended on the external world in providing a large part or the capitalist goods required for production operation. Moreover, the results reflect the positive effect of domestic capital on the gross product where its elasticity equaled (0.373), i.e. the increase rate at 1% in the volume of domestic investment leads to an increase in the gross product at (0.373).

Moreover, the value of adjusted determination coefficient R- Sq.(ad) equaled 96%, which means that the independent interpretive variables clarify such rate of variations that occur to the dependent variable, i.e. the gross product, and the rest of 4% refers to other factors such as random error. The measure results during the period (1991-2008) as per the table number (18) shows that this model is abstract as all the model combined marks are abstract, where the calculated (F) is bigger than the tabular (F) [F=3.34], and Value = 0 which is less than the abstract level 5%.
Table 18. Results of testing the effect of FDI and imports on economic growth

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Value of regression coefficient</th>
<th>Test statistical value (t)</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a_1$</td>
<td>1,2131</td>
<td>5,05</td>
<td>0,000</td>
</tr>
<tr>
<td>$a_2$</td>
<td>0,3728</td>
<td>1,63</td>
<td>0,126</td>
</tr>
<tr>
<td>$a_3$</td>
<td>0,02445</td>
<td>2,37</td>
<td>0,033</td>
</tr>
<tr>
<td>$a_4$</td>
<td>0,4437</td>
<td>1,49</td>
<td>0,158</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.

Table 19. ANOVA for FDI and imports impact on economic growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of freedom</th>
<th>Set of squares</th>
<th>Mean square</th>
<th>F. calculation</th>
<th>Probability value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>SS</td>
<td>MS</td>
<td>F.CALC</td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>3</td>
<td>0,2277</td>
<td>0,0759</td>
<td>136,41</td>
<td>0,000</td>
</tr>
<tr>
<td>Error</td>
<td>14</td>
<td>0,0077</td>
<td>0,0005</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>0,2355</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.

And among the results of testing the normality of probability distribution of residuals by using Kolmogorov-Smirnov' test, it was clear that the residuals follows that normal distribution, where the probability value (P. Value) = 0, 15 which is bigger than the abstract level 5%, this made us
accept the null hypothesis which says that the residuals follow the normal distribution as shown in the following figure:

Figure 12. Probable distribution of residuals

The D.W test has shown that the residuals are independent, i.e. there is no autocorrelation between thereof where the test result was $D.W = 1.7988$; it is between 2 and the higher tabular value $d_u=1.69$. The model is free from any autocorrelation problems between the random residuals. The following figure shows the tendency and behavior of random residuals so as to define the kind of autocorrelation among such residuals

Source: based on estimate results and by Minitab V.15.
The figure shows that there are no serial correlations either positive or negative.

Other results of analysis show that the spread and distribution of residuals take a random form at both sides of the line that represents zero, i.e. the line that separates negative residuals from positive residuals. Moreover, no specific pattern or type can be observed for the residuals, that is, such residuals are not increasing, decreasing or at one side, so we judge that the variance is unstable as shown in figure (06).

In order to accept or reject the research hypothesis, we suggest studying the effect of each factor of the previous product factors on economic growth separately by applying the simple linear model.
6.1.2 Testing of impact of FDI on economic growth

The form of estimated equation during the period (1991-2008) is as follows:

\[
\text{LOG (GP/L) } = 3.65 + 0.105 \text{ LOG (FDI/L)} 
\]……….. (37)

R-Sq = 31.5%

According to the estimated equation (37) and chart (19), and based on the test (t), the significance of the constant mark and foreign direct investment mark are proved fixed where they are bigger than the tabular value of (t) t=1.746 at a freedom degree (2-18), and the probability value (P. value) for each of constant and variable of foreign direct investment is less than the significance level 5%. And the gross significance of the model has become clear because the estimated F was
bigger than the tabular F (F=4,49), and the probability value (P. Value) = 0,015 which is less than the significance level. The value of determination coefficient R- Sq rated 31,5 %, which means that foreign direct investment interprets 31,5% of the variables that occur with the dependent variable, i.e. the gross product, while the rest 68,5% refers to other factors such as random error.

With reference to equations values, the effect of foreign direct investment becomes clear, where the results show that the elasticity of foreign direct investment is (0,015), i.e. the increase rate at 1% in the volume of foreign direct investment leads to an increase in the gross product at (0,015), and this is a positive effect. Thus, there is a direct proportion between foreign direct investment and gross product; this was proven by Person coefficient whose value is 0,561, which means that there is a positive intermediate correlation between the two variables.

Table 20. Results of testing the impact of FDI on economic growth

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Value of regression coefficient</th>
<th>Test statistical value (t)</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>α1</td>
<td>3,6463</td>
<td>61,03</td>
<td>0,000</td>
</tr>
<tr>
<td>α2</td>
<td>0,1049</td>
<td>2,71</td>
<td>0,015</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.
Table 21. Analysis of variance ANOVA for testing the impact of FDI growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of freedom</th>
<th>Set of squares</th>
<th>Mean square</th>
<th>F. calculation</th>
<th>Probability value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>SS</td>
<td>MS</td>
<td>F.CALC</td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>1</td>
<td>0.0741</td>
<td>0.0741</td>
<td>7.35</td>
<td>0.015</td>
</tr>
<tr>
<td>Error</td>
<td>16</td>
<td>0.1614</td>
<td>0.0100</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>0.2355</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.

6.1.3 Testing impact of imports on economic growth

The form of estimated equation during the period (1991-2008) is as follows:

\[
\text{LOG (GP/ L )} = 0.764 + 0.985 \text{LOG (M/L)} \quad \text{...........(38)}
\]

\[
\text{R- Sq} = 94.6\%
\]

According to the estimated equation (38) and chart (21), and based on the test (t), the significance of the constant mark and imports mark are proved fixed where they are bigger than the tabular value of (t) \( t=1.746 \) at a freedom degree (2-11), and the probability value (P. value) for each of the constant and variable of imports is 0 less than the significance level 5%. And the gross significance of the model has become clear because the estimated F was bigger than the tabular F (F= 4, 49), and the probability value (Value) = 0 which is less than the significance level. The value of determination coefficient R- Sq rated 94.6%, which means that the imports interpret 94.6% of the variables that occur with the dependent variable, i.e. the gross product, while the rest 5.4% refers to other factors such as random error.
With reference to equations values, the positive effect of imports becomes clear, where the results show that the elasticity of imports is (0,985), i.e. the increase rate at 1% in the volume of imports leads to an increase in the gross product at (0,985), and this is a positive effect. Thus, there is a direct proportion between the imports and the gross product; this was proven by Pearson coefficient whose value is 0,972, which means that there is a strong positive correlation between the two variables.

**Table 22. Results of testing the effect of imports on economic growth**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Value of regression coefficient</th>
<th>Test statistical value (t)</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a_1$</td>
<td>1,3980</td>
<td>10,00</td>
<td>0,000</td>
</tr>
<tr>
<td>$a_2$</td>
<td>0,7562</td>
<td>17,16</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.
Table 23. ANOVA for testing the effect of imports on economic growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of freedom DF</th>
<th>Set of squares SS</th>
<th>Mean square MS</th>
<th>F. calculation F.CALC</th>
<th>Probability value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>0,2227</td>
<td>0,2227</td>
<td>277,80</td>
<td>0,000</td>
</tr>
<tr>
<td>Error</td>
<td>16</td>
<td>0,0128</td>
<td>0,0008</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>0,2355</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.

6.1.4  measure of the effect of domestic investment on economic growth

The form of estimated equation during the period (1991-2008) is as follows:

\[
\text{LOG \ (GP/ L)} = 1,40 + 0,765 \text{LOG \ (K/L)} \quad \ldots \ldots \text{(39)}
\]

\[
\text{R- Sq} = 94,8\%
\]

According to the estimated equation (39) and chart (23), and based on the test \(t\), the significance of the constant mark and domestic investment mark are proved fixed where they are bigger than the tabular value of \(t\) \(t=1,746\) at a freedom degree \(2-18\), and the probability value \(P. \text{value}\) for each of the constant and variable of domestic investment is \(0\) less than the significance level \(5\%\). And the gross significance of the model has become clear because the estimated \(F\) was bigger than the tabular \(F\) \(F=4,49\), and the probability value \(\text{Value}\) \(= 0\) which is less than the significance level \(5\%\). The value of determination coefficient R- Sq rated 94,8\%, which means that the domestic investment interprets 94,8\% of the variables that occur with the dependent variable, i.e. the gross product, while the rest 5,2\% refers to other factors such as random error.
With reference to equations values, the positive effect of domestic investment becomes clear, where the results show that the elasticity of domestic investment is (0,765), i.e. the increase rate at 1% in the volume of domestic investment leads to an increase in the gross product at (0,765), and this is a positive effect. Thus, there is a direct proportion between the domestic investment and the gross product; this was proven by Person coefficient whose value is 0,974, which means that there is a strong positive correlation between the two variables.

**Table 24. Results of testing the effect of domestic investment on economic growth**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Value of regression coefficient</th>
<th>Test statistical value (t)</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a1$</td>
<td>1,3980</td>
<td>10,00</td>
<td>0,000</td>
</tr>
<tr>
<td>$a2$</td>
<td>0,7562</td>
<td>17,16</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.

**Table 25. ANOVA for testing the effect of domestic investment on economic growth**

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of freedom</th>
<th>Set of squares</th>
<th>Mean square</th>
<th>F. calculation</th>
<th>Probability value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>SS</td>
<td>MS</td>
<td>F.CALC</td>
<td>value</td>
</tr>
<tr>
<td>Regression</td>
<td>1</td>
<td>0,2234</td>
<td>0,2234</td>
<td>294,42</td>
<td>0,000</td>
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<tr>
<td>Error</td>
<td>16</td>
<td>0,0121</td>
<td>0,0007</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>0,2355</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Prepared by the student according to the data of the International Bank and by Minitab V.15.
This chapter tried to answer the study hypothesis through an attempt to measure the effect of foreign direct investment on economic growth in Algeria, where the applied model has been defined together with the adopted method in measuring by the software (Minitab V.15). Moreover, at the beginning, the effect of foreign direct investment, imports and domestic investment has been studied. The study depended on a multi-regressive model through which we came to the positive effect of foreign direct investment, imports and domestic investment on economic growth, and that the positive effect of imports and domestic investment on economic growth outweighs the effect of foreign direct investment. Then we studied the effect of each of these factors on the economic growth, which came in a simple regression model, and we got the same previous results.
7. Discussion and suggestions

The role of foreign direct investment has maximized as one of the external finance resources as it provides services for economic growth, reduces its burdens, contributes to employment of national manpower and reduces unemployment rates. Furthermore, it considerably contributes to transfer of modern technology, which made many economists conduct several studies in order to limit and check the advantages of such investments. These studies are different in terms of treatment methods and the results they achieved. Due to the importance of such kind of investment, most of the developed or developing countries tended to open the door for such investment, where foreign direct investment became a field of competitiveness among countries and a sphere for competitive race so as to attract more investments.

The FDI, political and economic environment are analyzed and described in chapter 5. There are number of studies which emphasize the importance of economical a political conditions (e.g. Hansen & Rand 2006; Azman-Saini et al. 2010; Bengoa & Sanchez Robles 2003). In Algeria is functional legal framework which is important for foreign investors. The investment law of 1993 provides inventiveness tax exemptions for investors. There are laws (No. 12-90, 10-93) guarantee full freedom for investments and investors, protection of discrimination, stability of law and freedom of financing. Algeria has joined many international treaties desiring to promote and guarantee the incoming investments from anywhere. There are many bipartite international treaties (e.g. with United States, France, Italy, and so on), as well. With the legal framework corresponds the increasing foreign direct investments to Algeria in the last 10 years.

The economical conditions were analyzed in the chapter 5 as well. Many authors mentioned the importance of economical environment for positive impact of FDI on economic growth (e.g. Bende-Nabende & Ford 1998; Blomstrom et al. 2000; De Mello 1997). Algeria has a positive external balance of payment which contributes, according to Balusubramanyam et al. (1996), to the higher impact of FDI on the economic growth. There are also some challenges which Algeria faces up. The transport network can be limit and the communication network is still in the
process. Also the competitiveness and conditions for establishing business should be improved (Naji, 2009).

Algeria in one of the countries that compete for the largest possible rate of gross inflow of foreign direct investments, and so as to follow what is prevailing internationally such as the widespread use of tax incentives in attracting foreign direct investment, Algeria issued many legislations which are distinguished by a huge package of tax incentives, and consequently prepared the legal and legislative basics in order to facilitate the investment process and protect investors, which gives a new impetus to national economy.

Throughout this memorandum which attempts to measure the effect of foreign direct investment on the economic growth in Algeria, it is clear that the results of measure were compatible with the economic theory, where the study reflected the importance of foreign direct investment and its crucial role in promoting economic growth in Algeria during the period (1991-2008). Despite the small volume of foreign direct investment as compared with domestic investment, it has a positive effect.

In the chapter 6 were tested the hypothesis about the impact of FDI, import and domestic investments on economic growth. The results show that the importance of FDI on economic growth is significant which is in compliance in theory mentioned in the chapter 4. However some authors pointed out the fact that to measure the effect of FDI can be tricky. Ozturk (2007), Grog & Greenway (2004), UNCTAD (1999) and others claim that the positive or negative effect is related with the method and variables. The direct impact of FDI is depended on the other factors as a technical development, political and economical level, “human capital”, and so on. The impact effect of FDI on economic growth in Algeria is according to the equation (36) 0,0244 with the value coefficient of determination 96. In the equation were also involved imports and domestic capital. There was used multiple linear regression with logarithmic conversion to get the parameters and test their significance. Test of the impact of FDI on economic growth were made again in the simple logarithmic regression with value (0,105). There is quite big difference
between these two parameters. But the results confirm the positive effect of FDI on economic growth in Algeria. These results are in compliance with economical theory. But as it is mentioned above there are many factors which influence the economic growth and according to the (Gorg and Greenaway, 2004) FDI can affect the economic growth indirectly as well. Although the impact of FDI was proved by using ANOVA models the values of the parameters are lower than e.g. the value indicated by Lane and Liu (2005). Their result is (0,41) for FDI effect on economic growth. This value is 16,8 times higher than the value from the first ANOVA model. The results do not correspond with the Balasubramanyam et al. (1996) findings which indicated the higher effect of FDI for export-promoting countries. The first hypothesis that FDI have significant impact on the economic growth in Algeria was proved.

The second hypothesis was that the contribution of imports together with domestic capital to the economic growth in Algeria is important and significant. This hypothesis was also tested by equation (36) and by ANOVA models for each factor. The results indicated by equation (36) shows insignificance for these variables. However the further ANOVA models prove the significance of these factors.

The results show the positive effect of foreign direct investment and imports on the gross product in Algeria during the study period, which shows the importance of domestic capital accumulation and the importance of imports in Algerian economy due to the increase of volume of dependence on the external world in order to meet the necessary needs and production requirements.

Having studied the Algerian endeavor to attract foreign direct investment, and having analyzed the most serious impediments that impede the inflow of such investment, and in order for the improvement of future investment in Algeria, the following points must be observed:

- Developing, educating and promoting the human element, creating efficient people capable of producing technology that best fits for domestic conditions, developing the promotion skills of investment opportunities by intensifying the cooperation efforts with
international organizations that have a role in promotion processes, providing consultation services and establishing offices for promoting investment activities all over the world.

- Reinforcing the efficiency of legislative framework by limiting the multiplicity of regulating legislations of investment, facilitating the procedures and duties, hastening the issue and activation of competitiveness law, preventing monopoly, protecting intellectual property and patents, and trying to make continuous amendments to the prevailing laws and legislations in a way that encourages and stimulates investment activities.
- Providing tax incentives to sectors that have competitive characteristics.
- Necessity of providing the required infrastructure for investment and developing the financial markets and banking activities.
- Necessity of providing a transparent business atmosphere without bureaucracy and bribes.
- Providing political and security stability.
- Increasing the expenditures on researches and development and giving thereof the required attention so as to improve the creative capacities in all fields.
- Benefiting from the developing countries experience in attracting foreign direct investment.

In the long run, it can be said that whatever information, available data and analysis tools you have, it is still a mere effort which will always be subject to criticism and improvement. Moreover, any shortcomings in this research may provide a starting point for other deeper studies with in-depth analysis.
8. Conclusion

Foreign direct investments can be an important factor for economical development. There were made many studies to describe the impact of FDI. These studies suggest that FDI can play an important role for development of African states and their integration to the global economy, bringing new technologies and know-how. But there are more factors which impact has been proved.

The thesis is structured to provide comprehensive view to the issue of foreign direct investments, their impact for developing and developed countries and especially for Algeria.

The aims of the thesis are stated in chapter 2. The methods for achieving these goals are described in chapter 3. The theoretical framework necessary for understanding the role of FDI are summarized in chapter 4. The present situation in Algeria is described in chapter 5. For this purpose there are used statistical descriptive methods. To test the hypotheses stated in chapter 2 there are used quantitative methods in chapter 6. There are used multiple factor and simple factor ANOVA models to prove or reject the hypothesis. Obtained results are discussed in the chapter 6 and they are confronted with the results of other authors quoted in chapter 4.

Kolmogorov-Smirnov test was used to prove the normality of residuals obtained from the equation (36). And the independence of residuals was tested by Durbin-Watson test, which showed no autocorrelation.

The aim of the thesis was to describe political and economical environment in Algeria as the most important determinants for attracting FDI and for their impact on economic growth. There were also tested three hypotheses about the importance of FDI, imports and domestic investments on economic growth in Algeria.
To answer the study questions “What is the impact of foreign direct investment on economic growth in Algeria?” and “Is there suitable political and economical environment for attracting FDI in Algeria?” there were made several analyses.

The investment climate in Algeria is analyzed and described in chapter 5. There were made many reforms and many obstacles were reduced in recent decades to improve conditions for foreign investors. There is a function system of inventiveness with working legal framework. The economic determinants were analyzed as well. The real GDP growth was 2.5% and there are expected higher values in next years. The inflation measured by CPI is about 8% and unemployment is about 10%. These facts make from Algeria attractive country for foreign investments. On the other hand not all obstacles were removed. In the analysis is mentioned the fact of lack of competitive markets. The transport infrastructure needs to be improve. The communication infrastructure is still in development and its users need better education. According to these findings there were suggested recommendations in previous chapter. These recommendations should help to improve the climate for foreign investors and also they should help to increase the effect of foreign direct investments on economic growth. Higher effect of FDI contributes to the higher living standards of Algerian people.

The second question “What is the impact of foreign direct investment on economic growth in Algeria?” were examined together with the hypotheses in the chapter 6.

There were also stated hypotheses which were necessary to prove or reject. These hypotheses are following:

**H1-** The main hypothesis of the study assumes that FDI has a significant effect on economic growth in Algeria.

**H2-** There is a significant effect of Imports on economic growth in Algeria.

**H3-** There is a significant effect of domestic investments on economic growth in Algeria.
To prove or reject these hypotheses there were used ANOVA models. The results show importance of FDI for economic growth. The impact of domestic investments and imports is evident from the estimated parameters. But in the equation (36) the variables for domestic investments and for the import were marked as insignificant. In further one factor ANOVA models these variables were marked as significant, which is in compliance with economical theory and studies mentioned in chapter 4.
9. References


Abdulmajeed, N. Foreign direct investment in small and medium-sized enterprises, international Forum on qualification requirements small and Altosth enterprises in the Arab countries, 17-18 abril, Algeria, 2006, p255.


Ali, Abdulah. Human development site within the structural reform, Researcher magazine, number 2, Algeria, 2003, p103.


Amine. V. Sarkan, poverty alleviation towards sustainable development, revue economic et management, universite de Tlemcen, N02, mars 2003, p113.


Eass, M. F.& S, S. Appropriate environment to attract foreign direct investment to the Libyan economy, the national conference on foreign direct investment in Libya, Tripoli, 2006, p4,7.


Hamouda, H. & Esmaeal, G. The real estate crisis in Algeria and in the development cycle of foreign direct investment, Researcher magazine, number 05, 2007, p64.


Ricardo David (1913): The principles of Political Economy and Taxation; Gonner’s ed; London; 1913; pp.115-116.


Saderadeen, S, Growth and international trade in developing countries, Treatise for Neil holiday PhD in Economic Sciences, Algeria University, 2006, p40.


WORLD BANK GROUP. Doing Business [online]. 2011 [2013-3-12]. Available at: www.doingbusiness.org/doingbusiness/Algeria

WTO, 1996. One of the objectives of these working groups is to set up a framework to facilitate cross-border investment. However, the recent two WTO ministerial conferences in Cancun and in Hong Kong did not have major breakthrough in this aspect due to strong opposition from some capital-importing developing countries.


Zead, M. The reality and the political prospects of investment in Algeria, North Africa's economy magazine, the second issue, the University of Chlef, Algeria, 2005, p143,144.