Impact of Foreign Direct Investment on Economic Growth in Tunisia

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ABSTRACT

Tunisia has adopted policies intended to liberalize the exchanges and flows of capital combined with the increase in exports, privatization and the deregulation, these measurements are based on a change of strategy, in which the import substitution industrialization has been substituted by an approach of development centered on the market by privileging exports and access to foreign investments.

The purpose of this paper is to study the effects of foreign direct investment on economic growth while focusing on the various integration procedures followed by the Tunisian economy. The econometric results showed the positive impact of foreign investment on the country's growth, a similar to that of human capital and financial development impact.

Keywords: Foreign direct investment, growth, openness, JEL Classifications: O40, F13, F21

INTRODUCTION

Many econometric observations argue that developing countries opting for an opening to the world economy tend to benefit from rapid growth of national income, which led neoclassical economists to argue that exports are the engine of growth of countries via externalities that allow the introduction of technology and know-how, and encouraging specialization.

In this context, many studies on individual countries or homogeneous groups have linked the effects of export and economic growth policies, establishing a significant positive correlation between export expansion and growth of gross domestic product.

Moreover, even the various financial institutions have recommended for developing countries to participate in trade liberalization and develop their export activities as a prerequisite for receiving financial assistance. The different recommendations are applied to the Tunisian economy that has quickly opted for open borders and membership in a global market.

OPENING POLICIES FOLLOWED BY THE TUNISIAN ECONOMY

Given the persistence of macroeconomic imbalances that hit Tunisia during the late 70s, Tunisian authorities have undertaken numerous measures that helped to liberate individual initiative, boost market mechanisms, opening the economy to the outside, diversify production sectors and give the economy more efficient and better resilience to external shocks. These measures have taken place in a context of structural adjustment programs in order to stabilize the macroeconomic framework and control overall equilibrium with the agreement, the assistance and support of the World Bank and the International Monetary Fund.

The Structural Adjustment Programs in Tunisia

Tunisia has opted resolutely for economic openness to the rest of the world through an extensive program of structural reforms to restore macroeconomic balances overall, increase

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the efficiency and competitiveness of the national economy and ease inflationary pressures. Therefore, deal with the deficit of the trade balance and balance of payments, the Tunisian economy has given top priority to exports and foreign direct investment in order to promote its foreign exchange earnings.

However, the increase in exports requires greater competitiveness of local products to be able to confront foreign products in terms of both price and quality on the Tunisian market and also on foreign markets. The search for competitiveness is based primarily on market opening and liberalization of the system of trade and payments in order to expose the Tunisian economy to international competition. Thus, the structural adjustment program adopted for Tunisia has integrated several components in order to progressively liberalize economy through the liberalization of investment with a revision and simplification of various investment codes.

Similarly, Tunisia was conducted to achieve good economic performance through a free orientation outward through a reduction of tariffs on imports. This reduction is intended to introduce competitive pressure needed to start the modernization of the domestic industry and to ensure its international competitiveness.

Meanwhile, other measures have been advocated under the structural adjustment programs on the withdrawal of the state and the starting of privatization procedures Tunisian public companies. Moreover, the fiscal deficit of the state was partly its support to public enterprises as a subsidies and guarantees on their loans as well these companies have enjoyed a monopoly that has curbed their competitiveness. Therefore, the structural adjustment program was envisaged as a condition of competitiveness of the economy as a whole and modernization of the industry, this program focuses on privatization to increase internal competition between domestic enterprises to improve their competitiveness.

In order to ensure the success of the privatization program, Tunisia has made a multitude of reforms to the financial system to attract foreign capital because the country has recorded negative real interest rates, which impede investment. Therefore, Financial reform consists in achieve positive real interest rates.

In this regard, the liberalization of capital movements is a mobilization of foreign and domestic savings to enable the development of the capital market. In this context, Tunisia deregulated capital markets by allowing all economic agents to access the interbank market. These fundamental reforms united to flexibility of the exchange rate policy contributed to the consolidation of the competitiveness of the Tunisian economy and export promotion. Therefore, a net increase in exports has been considered to reflect the enormous diversification of the export base by the contribution of new sectors and different products.

In addition, tax reforms were also necessary for the Tunisian economy with the onset of structural adjustment programs, through the introduction of a value added tax to replace an outdated system partitioned taxes which induces harmful tax detrimental to the competitiveness of enterprises. Similarly, the structural adjustment program was able to achieve its objectives in terms of controlling inflationary pressures despite the liberalization of domestic prices and rising import by the depreciation of the dinar could lead to high inflation.

Meanwhile, Tunisia has benefited from its accession to the World Trade Organization since it was particularly aware of the challenge to always go forward to greater economic openness to the rest of the world to protect the country against any risk of recession or decline.

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The Commitment of Tunisia in the Multilateral Trading System

With the accession to the General Agreement on Tariffs and Trade (GATT) and carrying out the implementation of the agreements of the multilateral trade negotiations of the Uraguay Round, Tunisia has enjoyed easy access to the markets of all World Trade Organization (WTO) members committing to facilitate the crossing of goods and services from other members without any discrimination while receiving treatment for 'most favored nation' of the GATT.

Indeed, with the adoption of the Uruguay Round, many commitments were made in agriculture focusing on: The internal supports, market access and export competition. Given that the export subsidies were limited and covered only very reduced amounts, Tunisia focused only on two points: domestic support and market access it provides for the conversion of all non-tariff measures into tariff equivalents. However, Tunisia can protect its agricultural market for rural development or food self-sufficiency by the imposition of an additional duty under a special and differential treatment of developing countries treatment.

In regard to measures taken to reduce domestic support, they apply to those creating a distortion in trade of agricultural products, thus, the supply of Tunisia has focused on administered prices and input subsidies (fertilizer, irrigation ...) without taking into account other measures of agricultural credit or tax benefits designed as commitments under the World Trade Organization agreement on agriculture. Consequently, Tunisia is a country developing a net importer of food, enjoys the opening of global agricultural markets for these products while trying to limit imports.

The insertion in circuits global distribution allows Tunisia to overcome the constraints of its size and assert a credible partner in major international markets for both agricultural and industrial sectors, Including "textile and clothing" industry considered an engine of the Tunisian economy. Indeed, this branch was managed until 1994 by the Multi Fiber Arrangement signed in the GATT in 1976, the agreements governing half of world trade in textiles and clothing and allowed exporting countries; including developing countries in export their products to industrialized countries through advantages in terms of tariffs.

GATT 1994 has integrated textile and clothing industry in the WTO agreements and the planned phasing out of the Multi Fiber Arrangement in 2005, which caused a slowdown in the growth of the Tunisian export industry following its submission to foreign competition, especially from Asian countries whose production costs are more competitive than those prevailing in Tunisia. Despite the slight downturn, the textile and clothing sector remains a powerful export sector of the Tunisian manufacturing.

Alongside the opening exchange in the WTO measures, Tunisia has opted for regional integration with industrialized countries. This integration is seen as a preliminary step to strengthen cooperative ties with all these countries, to be made Tunisia was often a participant in signatures of free trade agreements; we give a particular interest in what follows.

The Free Trade Agreements between Tunisia and Industrialized Countries

Pioneer among developing countries, Tunisia has maintained an association agreement in July 1995 aimed at creating a common area of political stability and security provided by the economic development in the context of an “Zone of shared prosperity.”

for its completion this area requires several factors which include: the development of specialized service centers for small and medium enterprises, the modernization of industrial areas, the creation of infrastructure for transport, energy and telecommunications the

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development of financial markets and the definition of an adequate administrative framework for restructuring and privatization of enterprises and to facilitate the dissemination of foreign investments. Indeed, the agreement of European Union-Tunisia Association in contrast to what preceded it, the 1976 is based on the principle of reciprocity and partnership focusing to establish an area of free trade after a maximum period of 12 years and enhanced economic cooperation encompassing domains affecting relationships Tunisia European Union concerning education, environment, promotion and protection of investments.

Similarly, the agreement provides large areas of financial cooperation for particular reforms to modernize the economy and upgrading of economic infrastructure, this cooperation is to support the structural reforms needed to increased competition following the dismantling of customs Tunisia.

The agreement also envisages a social and cultural cooperation through social dialogue on research progress to be made on the movement of workers, equal treatment, reducing migratory pressure, the role of women ... The agreement between Tunisia and the European Union aims to restore a common area of peace and security by considering a regular political dialogue with affirmation on international political issues of common interest.

Our attention is drawn to the commercial aspect of the agreement whose main component is the gradual establishment of a free trade area between the EU and Tunisia they have set 2010 as a target date to establish this area covering substantially all trade in respect of the obligations under the World Trade Organization. The Association Agreement between Tunisia and the European Union began to be applied in its tariff dismantling component in 1996 before entering into force on 1Mars 1998, it appears that Tunisia is extremely involved in this process focused the gradual opening of the economy.

Indeed, this agreement propels Tunisia towards deeper regional integration by ensuring new opportunities through increased trade and expanding markets. This free trade area has some peculiarities leaving the classic pattern where two or more countries with similar levels of development agree to the establishment of a dismantling the protection of their own trade, it is actually an evolution of collaborative relationships between the Tunisian economy and its partner.

It follows that trade relations have witnessed, through the Euro-Mediterranean Agreement profound changes necessarily linked to the establishment of lasting relationship based on reciprocity, partnership and co-development, thus opening a new phase which aims is the commitment of the Tunisian economy to its partners in marking a new era of cooperation through institution of a free trade area concerning, as was negotiated only industrial products. Indeed, on export all industrial products originating in Tunisia benefit from total exemption from customs duties, which is the same for industrial products originating in the community who are admitted in Tunisia with tariff dismantling.

The agricultural component was examined in the direction of increased liberalization of trade between the two sides in 2001 with reinforcing the institutionalization of law contingent and total exemption from customs duties for a number of Tunisian products exported on the community.

Thus, trade liberalization has always been in the interest of Tunisia which also signed a free trade agreement 17 December 2004 with the European Free Trade Association (EFTA) which consists of four countries: Switzerland, Norway, Iceland and Lichtenstein, this agreement allows in particular strengthening the competitiveness of the national economy and promoting the export of Tunisian products. It also increases foreign direct investment to the country and transfer of technology. Indeed, signing association agreements with the

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Mediterranean countries, the EFTA States take to ensure their own economic actors that market access is unlimited and indiscriminate.

The objective of the EFTA countries is an even larger than the European Union expressed in the Barcelona Declaration, in fact, the free trade agreement of EFTA countries with Tunisia covers industrial products, processed agricultural products and sea products. It also contains rules concerning the protection of intellectual property as well as provisions on services, investment and economic cooperation (Magnisson, 2004)

On trade in goods agreement is asymmetric due to the differences in economic development between the partners, while the EFTA States completely eliminate their customs duties and taxes on products; Tunisia has for the sensitive products a transitional period to phase out customs duties. For technical cooperation, the EFTA States have negotiated with Tunisia cooperation projects that will serve the proper functioning of the Agreement and the fulfillment of its objectives.

The partnership process and in particular the economic aspect concerns the different sectors of the Tunisian economy and it is able to create, through the stipulation of the Association Agreement, a favorable environment for the establishment of the zone free trade designed as a greater anchoring means in the global economy.

Tunisia, like most developing countries, engages in a process of transition to a market economy. A transition that returns the economy that has followed a pattern of development on a centralized national space provided by a dominant state economy to a more open and regulated by the market, aiming to improve the integration into the global economy and facilitate the dissemination of foreign direct investment.

FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH

The passage of the Tunisian economy model introverted oriented development within at market oriented development model focused on export promotion and foreign direct investment (FDI) had huge implications on economic growth, we analyze in this following that causation passing first through a literature review.

Impact of FDI on Economic Growth: A Literature Review

Foreign direct investment have been many studies attempting to identify the determinants of economic growth as the study by (Boronsztein et al., 1998) who searched through an endogenous model the relationship between foreign direct investment and growth. Indeed, based on the model of Romer, in which technical progress is materialized, the two authors have tried to consider the mechanisms underlying the transfer of technology; they proved empirically that FDI of positive impact, if the level of schooling of the population exceeds a certain threshold. Thus, the positive effect of FDI on an economy depends primarily on its interaction with human capital.

On the other hand, (Saggi, 2000) have shown that FDI stimulates economic growth through capital accumulation and technology transfer, (Lipsey, 2000) also found that FDI as a percentage of GDP, combined with the level of education is a key factor in the increase in real per capita income in many developing countries between 1970 and 1995.

(Helpman et al., 2003) have led to the fact that FDI can be a stimulator of domestic investment and foreign trade factors, the authors demonstrated that FDI are complementary to foreign trade, against the argument advanced by (Markussen and Venable, 1995) reflects substitutability. According to these authors, growth and external trade are inter dependents and are part of the economic system of a country, which would necessarily be aimed at the

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improvement of individual and global well-being. These elements allow the transmission of the benefits of FDI on human capital.

Similarly, in conducting a study of 67 developing countries between 1970 et1995, (Hermes and Lensink, 2003) found a positive effect of FDI on growth, when the variable is combined with either the enrollment or with a variable describing the financial market. On the same basis (Durham, 2004) and (Alfaro et al., 2004) found that countries with an improved system and greater regulation of the financial market are better placed to exploit more effectively the investment and achieve a higher growth rate.

To analyze the effect of FDI on the growth process many studies have focused on the role of the accumulation and dissemination of technology, in this context a sustained growth can be produced by the existence of technological externalities and knowledge created by the interactions between economic agents in the production process. These studies seek to prove the interdependence between variables influencing the capacity of accumulation of physical capital and human capital simultaneously, the ability to generate technological change and promote the efficiency of different factors of production, Moreover, technological externalities related to the stage of development reached by the recipient country, the findings will be conditional upon the socio-economic condition of the country.

In this context, (Berthélemy & Démurger, 2000) have argued that the impact of FDI on firms and the domestic economy is primarily through an expansion effect by which FDI contributes to growth of the intermediate sector and thus to increase specialization of inputs producers, and secondly through a spillover effect (knowledge externalities) through which domestic firms can benefit in some of the knowledge accumulated in foreign companies.

Indeed, Berthélemy and Démurger showed that the growth rate of the economy is dependent on the level of human capital and the role of the FDI via the differential technological level in the intermediate sector. Thus, if the local technology is lagged with respect to the technology of foreign firms, the country may not benefit from FDI. The technology gap may therefore reflect whether the host country will be able to enjoy or not for acquired FDI, it follows that it remains preferable to promote FDI whose technology is close to the local technology. Note that the technology gap between foreign and domestic firms depends in particular on the level of human capital since it determines the managerial know-how and ability to absorb new technologies.

Thus, investments in education and other forms of human capital will be a paramount condition for locally exploit the benefits of the presence of foreign firms. Moreover, these companies will improve the level of qualification since they adopt internal training for executives and local operators or training by learning the local workers.

(Blomström et al., 1992) demonstrated the positive link between FDI and growth for some developing countries, the authors show that the effect of FDI on growth can be positive, but it depends on the stock of human capital available in the country recipient, however. This effect can be negative if the capital stock is low, which highlights the idea that technologies procured by FDI will benefit the country's performance if these investments corroborate with the level human capital.

On the other hand, (Balasubramayam et al., 1996) investigated the causality between FDI and economic growth with the implementation of structural adjustment programs, the authors argued that FDI flows affect growth especially if the country has implement policies of trade liberalization and macroeconomic stabilization.

Later (Bengoa & Sanchez-Robles, 2003) conducted a study for 18 Latin American countries during the period 1970-1999 to study the link between economic liberalization, foreign direct

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investment and economic growth. The study showed that the liberalization of countries is needed to attract investment and to ensure positive implications on the economic performance of countries.

It follows that the study of the effect of FDI on economic growth can go through some specific factors regarding the technological gap between the activities of foreign enterprises and domestic ones, the intensity of competitive processes in business sectors, the level of human capital increases in FDI recipient countries...

Foreign Direct Investment in Tunisia: Analysis and Estimation

The Tunisian economy has given paramount importance to foreign direct investment as a means to promote economic development, it is convinced of the importance of their role in promoting the country's performance, this will be accentuated in the 90s 2000. Attracting FDI has, for many years, been the subject of major national economic strategies.

The Tunisian government has promulgated a series of fiscal and regulatory measures to encourage foreign investors to locate in the country by preparing a favorable investment environment. The main sources of foreign investment in Tunisia from countries of the European Union. Are even interested in investing in Tunisia, Switzerland, Britain, the United States of America and Spain. Meanwhile, other businesses Arab participation can generate several jobs in Tunisia.

Employment jobs created by foreign investment is mainly in the manufacturing sector, energy and services, it has experienced in recent years a remarkable momentum in the field of hiring consultants and expertise and also in the field of informatics and telecommunications.

It follows that Tunisia has taken full advantage of the attraction of foreign investment, which is the result of ongoing efforts to improve the general environment of the economy by highlighting numerous provisions eliminating obstacles which impede the full performance of the economic enterprise, these provisions were based on:

a. Implementation at several government agencies responsible for directing cells and support foreign investors.

b. The creation of numerous websites providing economic enterprises all necessary information, it is actually materialize guidance for the implementation of virtual administration through these sites such as the Agency Promotion of Industry, administrative services remotely (SICAD) or agency promoting foreign investment (FIPA).

c. Extension of the period of enjoyment of tax incentives to companies that export.

d. Reduction of costs of production factors.

With these efforts, Tunisia seeks to be seen as favorable investment location. However, these foreign investments must contribute to the achievement of inter-regional balance in the sense that companies with foreign participation must be interested in the median strip and inland areas of Tunisia.

In order to assess the magnitude of the effects of FDI on growth of the Tunisian economy we conduct an econometric study for the period 1980-2011 on the basis of the following model:

$$GR = C + \alpha\, HK + \beta\, DF + \delta\, FDI + \sigma\, TIC + \Theta\, INF + \Omega\, EX$$

GR: Annual growth rate of gross domestic product.

HK: Enrollment rate at tertiary level.

DF: Money supplyM2divided by gross domestic product.

FDI: Share of Foreign Direct Investment in gross domestic product.

TIC: share of information technology and communication in the total imports of goods.

INF: Inflation rate.

EX: Share of exports in gross domestic product.

We rely on data from the World Bank. To proceed to the estimation we need to ensure the stationary of the variables, the unit root test sallow us to mention that the variables are stationary at the 1% level; the results are shown in the following table:

Table 1. Unit root tests

Séries	*Statistic*	*Proba**
HK	-5.03	0.0000
DF	-4.52	0.0001
FDI	-4.16	0.0003
TIC	-4.63	0.0002
INF	-5.93	0.0000
EX	-4.13	0.0003

*probabilities are computed assuming asymptotic normality

The results of the estimation are as follows:

Table 2. Econometric Results

Variables	*Coefficient*	*t-statistic*
C	-27.376	-4.641
HK	0.610	-3.834
DF	0.776	6.642
FDI	0.576	3.634
TIC	0.383	4.458
INF	-0.877	-2.019
EX	0.705	6.666
R-squared	0.92	
F-statistic	7.71	

It appears from this study that the increase in exports positively affects the growth of the Tunisian economy. Similarly, the effect of foreign direct investment is positive and significant. In fact, Tunisia is for many years attached to stimulate foreign investment, convinced of the importance of their role in promoting the country's performance prompting

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concerned agencies to enhance the attractiveness for investment to raise awareness of Tunisia as a favorite place for investment. Are also involved in this objective the modern communication tools.

The information technology and communication contributes even to increase the performance of the Tunisian economy, thus the digital information and communication technologies offer to enterprises and individuals the opportunity to market their services abroad, commercialization of these information and communication technologies has a major part in the country's commercial transactions, investment and acceleration of production, and it can have a very beneficial role in economic growth.

Human capital and financial development have a positive effect on economic growth; it slows down when it is affected by inflation.

CONCLUSION

The idea of this article is to focus on the impact of foreign direct investment on the growth of the Tunisian economy. Theoretically, many studies show a positive effect of FDI on growth when the variable is associated with either the level of human capital by requiring a minimum level which ensures absorption of foreign technology, or the degree of development of the sector financial, or with trade openness. These results suggest that FDI can have a considerable effect when certain favorable conditions are met.

Our study grouped variables related to foreign direct investment, human capital, trade openness, financial development, commercialization of information technology and communication and finally inflation variable. Econometric estimation for a period from 1980 to 2011 noted the positive effects of variables other than those relating to inflation. Therefore FDI promotes Tunisian economic growth. Thus, with their contribution to the achievement of national objectives, FDI should be accomplished by national development efforts for the improvement of the business environment. With these efforts Tunisia seeks to become a privileged investment location, except that political instability after the 2011 revolution night to achieving this objective.

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