THE EFFECT OF FOREIGN DIRECT INVESTMENTS ON THE ECONOMIC GROWTH OF THE MEDITERRANEAN COUNTRIES: CASE OF TURKEY AND MOROCCO

Ahmet Yağmur ERSOY* - Mohamed AALIOUA**

ABSTRACT

Purpose of this research is to analyze the impacts of foreign direct investment on the economic growth of the Mediterranean countries: case of Morocco and Turkey. The study aims to unveil if the FDI has always a positive impacts on the economic growth and showing by a comparative analysis the effects of foreign direct investment on the economic growth between Morocco and Turkey. The study was done by using the panel data between the period 1990-2016 and by utilizing the Vector Error Correction Model (VECM) methodology. The collected data from the world bank of the both countries were analyzed by using the tools, the Augmented Dickey Fuller (ADF) test, then Johansen test for Cointegration, there after VECM, and finally Impulse Response Function (IRF). The ADF test results indicate that all variables became stationary after taking the first difference, and they be integrated of order one I (1). Johansen Cointegration test results means that these four variables have a long run association shape, which argue the existence of a cointegration among the variables. In Morocco, Normalised long run estimates indicated FDI has a significant negative connection with economic growth, while the export and investment were found to have a significant positive impact on the economic growth. However, Labor has an insignificant negative impact on the economic growth, though statistically insignificant. From the estimated short run, it noticed that most of the variables are statistically insignificant. Impulse response function displayed that the reaction of a shock on foreign direct investment and export was positive, whereas the reaction to a shock in force labor and investment was negative. On the other hand, in Turkey, Normalised long run estimates showed. That all the variables have a significant positive linkage with economic growth. From the estimated short run, it has shown that most of the variables are statistically insignificant.

* Dr. Öğr. Üyesi Sakarya Üniversitesi İşletme Fakültesi Uluslararası Ticaret Bölümü, El-mek: ayersoy@sakarya.edu.tr

** Yüksek Lisans Öğrencisi, Sakarya Üniversitesi, İşletme Enstitüsü Uluslararası Ticaret Ana Bilim Dalı, El-mek: aalioua.mohamed@ogr.sakarya.edu.tr
Impulse response function (IRF) can be seen that following a shock to FDI, export, investment and force labor, The GDP was found to respond positively from the first period horizon up to the tenth period.

**STRUCTURED ABSTRACT**

Investment now appears as a key factor in the development and growth of countries. More specifically, foreign direct investment (FDI), which 20 years ago was considered by Developing Countries as an instrument used by developed countries to impose their domination over their economies. But the arrival of globalization with its attendant structural changes and international regulations has favored the integration of economies and removed the distances that once paralyzed trade between states. So today we are witnessing fierce competition from developing countries for the purpose of attracting new sources of investment, namely FDI. The aims of the study are to confirm or reject if the foreign direct investment has all the time a positive impacts on the economic growth and showing by a comparative analysis the effects of foreign direct investment on the economic growth between Turkey and Morocco.

The nations strive to achieve the economic growth, but in order to achieve the growth, the nations should analyze the variables of growth and identify the variables that enhance the economic growth of nations. In the theoretical literature, the received FDI is supposed to stimulate the growth of the host economy at several levels. In the empirical literature, the question of the effects of FDI on growth has been treated according to three types of approach. The first focuses on an unambiguous relationship ranging from FDI to growth. Foreign investment has the status of an exogenous variable alongside other direct catalysts for growth (Dutt, 1997, Bouklia-Hassane and Zatla, 2001). A second approach, more microeconomic, consisted in measuring at the level of firms or sectors the effects of technology transfer of FDI on the efficiency of local firms. The third and last approach thus considers that there is a one-to-one relationship (feedback) between FDI and growth. FDI allows growth, which in turn becomes a factor of attractiveness to FDI (Li and Liu, 2005).

UNCTAD (1999) and Ram and Zhang (2002) detect a positive link between FDI and growth but which disappears on certain specifications. Among them, we find the level of GDP per capita, ..., or for certain variables used to measure FDI flow. Dutt (1997) finds no significant relationship between the two variables, any more than Carkovic and Levine (2005), who, over a different period and sample and correcting for the classic simultaneity bias between investment and growth, find no robust results. On the other hand, the introduction of the temporal dimension and the control of fixed country effects show positive and significant results on the Li and Liu (2005) panel analyzes which take into account reciprocity between both variables.

There is therefore uncertainty about the net effects of FDI on growth because the ability of FDI to accelerate growth in the host country is not strongly supported by the most aggregated analyzes. However, some of these analyzes seek to show how effects act indirectly on growth. In this study which was done by using the panel data between the period 1990-2016 and by utilizing the Vector Error Correction Model (VECM) methodology with four chosen variables: Foreign Direct Investment, Export, Investment and
Labor Force. The collected data from the World Bank for the both countries were analyzed by using the tools, the Augmented Dickey Fuller (ADF) test, then Johansen test for Cointegration, there after VECM, and finally Impulse Response Function (IRF). ADF test indicates that all the variables were not stationary in level I (0), but after taking the first difference become stationary at 1% and 5% significance levels. The cointegration test found that the FDI inflow and GDP for Turkey and Morocco cointegrate in the long run. According to the Long Run Relationship Test, in Turkey, the FDI has an important positive correlation with economic growth. Percent change in FDI drives to 0.244 percentage increase in GDP, on the other hand, in Morocco; the FDI has a significant negative linkage with economic growth. A percent change in FDI ends by 0.008 percentage decrease in Gross domestic product (GDP). In Morocco, the impulse response function displayed that the reaction of a shock on foreign direct investment and export was positive, whereas the reaction to a shock in labor force and investment was negative, while in Turkey the impulse response function (IRF) can be seen that following a shock to FDI, export, investment and labor force. The GDP was found to respond positively from the first period horizon up to the tenth period.

As a Result, in Turkey, FDI affects positively the economic growth in the short run and long run, while in Morocco, it has seen that the FDI affect positively the economic growth just in the short term while in the long term has a negative effects. The recommendations of the study to Morocco include that the challenge would be not only to increase and facilitate the entry of foreign investment, but also to target specific categories of investment with significant technological content, and avoid attracting FDI that has a high social cost in terms of tax revenues. However, for Turkey, it is recommended to focus on improving the export sophistication index and should not depend totally on the FDI rather it is recommended to consider to the domestic investments.

Finally, the microeconomic incentive policies that are often at the heart of attractiveness policies are then socially optimal only if they intervene at an already advanced stage of the structural development of an economy, or if they are integrated into more formal wide strategies, aiming to develop in parallel all the factors that are complementary to FDI in determining growth.

**Keywords**: FDI, Economic Growth, Turkey, Morocco

**AKDENİZ ÜLKELERİNDE DOĞRUDAN YABANCI YATIRIMLARIN EKONOMİK BÜYÜME ÜZERİNDEKİ ETKİSİ: TÜRKİYE VE FAS ÖRNEĞİ**

**ÖZET**

Bu çalışmanın amacı doğrudan yabancı yatırımların Akdenize kıyısı olan ülkelerden Türkiye ve Fas'ın ekonomik gelişimine olan etkilerini analiz etmektir. Çalışma doğrudan yabancı yatırımların ülkenin ekonomik gelişimine her zaman olumlu etkisini olup olmadığını Türkiye ve Fas üzerinden karşılaştırmalı olarak incelemeyi hedeflemektedir. Çalışmada 1990-2016 yılları arası için Dünya Bankasından elde edilen veriler panel

Anahtar Kelimeler: FDI, Ekonomik Büyüme, Türkiye, Fas


INTRODUCTION

Currently, the attractiveness of foreign direct investment is at the center of development strategies of all countries. Foreign direct investment (FDI) was viewed with great mistrust by many countries. It was seen as a threat to national sovereignty, moreover multinationals were suspected of reducing social welfare by manipulating price transfer and forming enclaves. Confronted with the trends of globalization of markets, production and the internationalization monetary policies, there is a radical change in the attitude of developing countries which are now obliged to seek sources of income, non traditional, non debt-generating investments. This is why they have turned to FDI. These investments are stable and less sensitive to financial crises.

From them, in order to increase their investment capacities, to act positively on the balance of payments, to compensate for the insufficiency of national savings, to create new opportunities for quality jobs offering better remuneration or better working conditions and ensuring a high growth rate, the Mediterranean countries are trying to make FDI one of the most powerful pillars in the Med zone development strategy.

Morocco has taken a major step on the road to an economic and institutional reform, which has been under way for a long time as part of a broad-based economic recovery policy. In recent years, the Kingdom has shown a strong desire to foreign direct investments (FDI) as an essential component of economic growth. With an economic growth rate of close to 3% at the end of 2016 and the ambition to double in the emergence plan targets, which highlights the priority of promoting economic growth through FDI.

In the other side, The Turkish Government has undertaken a major project of institutional reforms aimed at creating a favorable climate for the creation of exporting companies and private investment. The advantages available to the country (political stability, economic dynamics as well as the panoply of incentives (tax benefits, labor costs) offered to investors make the country an attractive destination in the Mediterranean region.
In the light of the mentioned information above, we try to link the foreign direct investments and economic growth in a way to make a comparative study between two different countries localised around mediterranean sea.

**LITERATURE REVIEW**

Steve Loris and Gui-Diby (2014) investigates the effect of foreign direct investment on economic growth in Africa by employing a panel data analyses from three decades of fifty African countries between the periods 1980 to 2009. Its findings indicate that in the African region the economic growth is affected significantly by the FDI inflows. Where from 1980 to 1994 the effect of FDI on economic growth was negative, whereas from 1995 to 2009 was found positive. Moreover, the impact of FDI cannot be limited by the low level of human resources.

Alvarado et al. (2017) examined the effect of FDI on economic growth for 19 Latin American countries by using panel data. Findings suggest that the impact differs from a country to country depending on their income level. FDI has positive and significant impacts on production in high-income countries, while it has shown an uneven and non-significant in upper-middle-income countries, and negative and statistically significant effects in lower-middle-income countries. Therefore, the authors found that except of high-income countries, the FDI is not a mechanism to accelerate economic growth in Latin America.

Iamsiraroj (2016) investigated the link between the economic growth and FDI for 124 country from 1971 to 2010 by using system of equations approach. Findings indicate that the existed impacts of foreign direct investment are linked positively with the economic growth and vice versa, while the economic growth, labor force and trade openness are determinants of FDI that promote income growth.

Feeny et al (2014) examined the effect of FDI to the Pacific region. The findings suggest that the effects of FDI is higher in host countries on average comparing with the Pacific countries. Moreover, the authors find that foreign direct investment is linked with higher economic growth rates in the Pacific, consequently. This result can be explained that FDI is taking the place of domestic investment in the Pacific.

Su and Liu (2016) investigated the impact of FDI and human capital on economic growth for Chinese cities. Results indicate the existence of a negative correlation between the GDP and population growth rate and a positive correlation between the GDP and investment rate. They also founded that FDI has positive effects on growth rate and the human capital. Consequently, the FDI and human capital importantly contribute to economic growth in Chinese cities.

Azeroural (2016) investigated the impact of FDI on total factor productivity (TFP) in Morocco during the period 1980-2012, according to the source of FDI. The results obtained using the Vector Error Correction Model (VECM) show that FDI does not explain TFP in the same way. In this respect, only FDI originating from France has a positive effect on TFP. This is due, according to his first observation, to the concentration of these investments in the industrial sector, which is one of the catalytic sectors of transfer of knowledge, technology and economic growth.

Simionescu (2016) examined the relationship between economic growth and foreign direct investment inflows in the European Union in 2008, the period of the economic crisis. The study was done between 2008 and 2015 by using a panel vector-autoregressive model. The results indicated that there is a mutual positive linkage between FDI and economic growth, and was found that higher GDP rate play a bigger role in attracting the foreign investors in the EU countries.

Alaya’s (2006) study on Tunisia, Turkey and Morocco indicates that there is a negative impact of FDI on economic growth, and clarified that economic growth is determined by domestic investments and exports.
Another study also confirmed the Alaya’s analysis was done by Darrat et al. (2005) which examine the effect of FDI on economic growth in two regions: CEE and MENA. Employing data from the period 1979-2002 about 6 MENA and 17 CEE countries. The study suggests that the effect Foreign direct investment on economic growth in MENA and in non–EU accession countries is negative, while economic growth is stimulated by the FDI in the EU accession countries.

Li and Liu (2005) investigated the relationship between FDI and economic growth, on a panel of (21 developed and 63 under development), demonstrated that FDI promotes economic growth through direct effects, but also through their interactions with human capital.

**METHODOLOGY**

In this study, Vector Error Correction Model (VECM) methodology employed to check the relationship among the variables. The Augmented Dickey Fuller (ADF) test was used to test stationarity of the series and once they were found to be integrated of order one. We have employed Johansen Cointegration Test to examine the long run association among variables, then the variables were found cointegrated, the VECM was employed to identify the long run and short run relationship among the variables. Finally, Impulse Response Function (IRF) used for analyzing the collected data.

Data of the variables were collected from the World Bank development Indicators between the periods 1990-2016, and were analyzed by using the E-Views 9 software.

**Model Specification**

For examining the relationship between the variables, the model is written as follow:

\[ GDP = f (FDI, EXPORT, INV, LAB) \] (1)

In order to cater for the problem of outliers and heteroskedasticity, the series are taken in their log form. Hence, the model can be mathematically specified as:

\[ LNGDP = a_0 + \beta_1 LNFDI + \beta_2 LNEXP + \beta_3 LNINV + \beta_4 LNLAB + \epsilon_t \] (2)

Where: GDP = Gross Domestic Product.
FDI = Foreign Direct Investment Inflows.
EXP = Export volume.
INV = Investment (Gross Domestic Capital Formation)
LAB = Total Labor Force.

The VAR Model is introduced as follow:

\[ Y_t = C + \Pi_1 Y_{t-1} + \Pi_2 Y_{t-2} + \ldots + \Pi_p Y_{t-p} + \epsilon_t \] (3)
The Effect of Foreign Direct Investments on the Economic Growth of the

$$Y_t$$ is a vector of endogenous variables = $$(\begin{array}{c} GDP \\ FDI \\ EXP \\ INV \\ LAB \end{array})$$

$$C$$ is a vector of intercept term.

$$\Pi_1$$ is an (n x n) coefficient matrix.

$$\varepsilon_t$$ is a vector of error term.

The long run cointegrating equation is specified as:

$$U_t = GDP - a_0 - \beta_1 FDI - LNEXP \cdot \beta_2 INV \cdot \beta_3 LAB$$ \hspace{1cm} (4)

The Vector Error Correction Model (VECM) is specified as:

$$\Delta Y_t = C + \sum_{i=1}^{n} \Gamma \Delta Y_{t-i} + \gamma (U_{t-1}) + \varepsilon_t$$ \hspace{1cm} (5)

Where:

- $$\Gamma$$ = Short run coefficient matrices.
- $$\gamma$$ = Error correction term/ speed of adjustment.
- $$\Delta$$ = Short run operator.
- $$U_{t-1}$$ = One lag of long run cointegrating equation.
- $$\varepsilon_t$$ = Vector of error term.

**FINDINGS AND DISCUSSION**

**Stationarity Test**

In every time series analysis, in order to check the variables to see whether they are stationary or not. To do this, the first step starts by applying the Augmented Dickey Fuller (ADF) test. The results of the test is presented in the following table 1.0.
### Table 1: ADF Test Results

#### Turkey

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level I(0)</th>
<th>First Difference</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intercept</td>
<td>Intercept and trend</td>
<td>Intercept</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.66</td>
<td>-2.31</td>
<td>-5.56**</td>
</tr>
<tr>
<td>EXP</td>
<td>-0.41</td>
<td>-0.83</td>
<td>-4.10</td>
</tr>
<tr>
<td>INV</td>
<td>-0.81</td>
<td>-2.79</td>
<td>-6.59**</td>
</tr>
<tr>
<td>FDI</td>
<td>-0.81</td>
<td>-0.43</td>
<td>-2.17</td>
</tr>
<tr>
<td>LAB</td>
<td>-1.02</td>
<td>-2.12</td>
<td>-5.06**</td>
</tr>
</tbody>
</table>

#### Morocco

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level I(0)</th>
<th>First Difference</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intercept</td>
<td>Intercept and trend</td>
<td>Intercept</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.66</td>
<td>-2.73</td>
<td>-3.97</td>
</tr>
<tr>
<td>EXP</td>
<td>-0.29</td>
<td>-2.04</td>
<td>-4.82</td>
</tr>
<tr>
<td>INV</td>
<td>-0.33</td>
<td>-3.14</td>
<td>-4.61</td>
</tr>
<tr>
<td>FDI</td>
<td>-1.04</td>
<td>-3.24</td>
<td>-7.15**</td>
</tr>
<tr>
<td>LAB</td>
<td>-3.25</td>
<td>-1.33</td>
<td>-4.51</td>
</tr>
</tbody>
</table>

**H0: Series is non-stationary. * and ** indicates rejection of H0 at 5% and 1% sig level**

The table 1 presents the results of ADF test, which indicate that all the variables were not stationary in level I (0), but after taking the first difference become stationary at 1% and 5% significance levels. Once, the critical ADF value is less than the ADF test statistic then we say that a variable is stationary.

**Cointegration Test**

The next step, after finding all our variables are integrated of order one. In order to find out whether the variables are cointegrated or not and for testing the long run relationship, A Johansen cointegration test will be used. The results is reported in table 2.0.
According to the presented results in the table 2.0. While, the trace statistic is bigger than 5 percent critical value statistic then, the null hypotheses are rejected. In Turkey, the trace test marks the existence of three cointegrating relationship among the variables, while the maximum Eigen test indicates the existence of one cointegrating relationship amongst the variables. In Morocco, the trace test shows the existence of five cointegrating relationship among the variables, whereas the maximum Eigen statistic marks the existence of two cointegrating relationship amongst the variables. This means that, the FDI inflow and GDP for Morocco and Turkey cointegrate in the long run.

**Long Run Relationship Test**

After confirming above the existence of long run association between the variables, the following phase in our research is checking the long run cointegration .The normalized long run cointegration of Turkey among the variables is as follow:

\[ \text{GDP} = 6.9661 + 0.244 \times \text{FDI} + 0.237 \times \text{EXP} + 0.088 \times \text{INV} + 0.78 \times \text{LAB} \]

According to the long run estimation above, in Turkey, the FDI has an important positive correlation with economic growth. Percent change in FDI drives to 0.244 percentage increase in GDP. Export was seen that had a positive impact on economic growth. A percentage change in export increases the economic growth by 0.237,also the investment indicates a significant positive impact on Gross domestic product, a percent change in investment drives to a 0.088 percentage increase in GDP.

On the other hand, the normalized long-term association of Morocco between the variables is presented as follow:

\[ \text{GDP} = 24.76 - 0.008 \times \text{FDI} + 0.661 \times \text{EXP} + 0.35 \times \text{INV} - 0.165 \times \text{LAB} \]
From the long estimation above, in Morocco, the FDI has a significant negative linkage with economic growth. A percent change in FDI ends by 0.008 percentage decrease in Gross domestic product (GDP). Export was seen to have a considerable positive effect on GDP. A percentage change in exports increases economic growth by 0.661. The investment has a significant positive effect on the economic growth. A percentage change in Investment rises the GDP by 0.35. Labor force has insignificant negative impacts on economic growth. A percentage change in labor force leads to 0.165 percentage decrease in GDP.

**Vector Error Correction Model (VECM)**

The VECM is applied to examine the short run dynamics of the model besides the error coefficient. The VECM' results is shown in table 3.0. and table 4.0.

**Table 3: Vector error correction results of Turkey.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>T- Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECT</td>
<td>-0.706</td>
<td>-2.037</td>
</tr>
<tr>
<td>D(FDI (-1))</td>
<td>-0.058</td>
<td>-0.788**</td>
</tr>
<tr>
<td>D(INV(-1))</td>
<td>-0.118</td>
<td>-0.363</td>
</tr>
<tr>
<td>D(LAB(-1))</td>
<td>1.638</td>
<td>1.101</td>
</tr>
<tr>
<td>D(EXPT(-1))</td>
<td>-0.005</td>
<td>-0.00013</td>
</tr>
<tr>
<td>C</td>
<td>0.030</td>
<td>0.573</td>
</tr>
</tbody>
</table>

**R. Squared** | **0.3046**

**And * indicates statistical significance at 1% and 5%.**

The estimated results in the Table above indicate that the error correction term shows the adjustment speed towards long run equilibrium following a shock in the economy. The coefficient -0.706 shows that in a year about 70.6% correction across long-term equilibrium is finished. Short run dynamic shows a negative and insignificant relation between foreign direct investment and gross domestic product, a percentage change in FDI decreases the GDP by 0.06 percent. The effect of investment and exports was insignificantly negative, whereas the short run was statistically insignificant in the LAB. R-squared coefficient indicates that 30.44% difference in the dependent variables can be explained by the independent variables.

**Table 4: Vector error correction results of Morocco.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>T- Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECT</td>
<td>0.726</td>
<td>1.96*</td>
</tr>
<tr>
<td>D(FDI (-1))</td>
<td>0.022</td>
<td>1.203</td>
</tr>
<tr>
<td>D(FDI(-2))</td>
<td>0.011</td>
<td>0.764</td>
</tr>
<tr>
<td>D(EXPT(-1))</td>
<td>0.418</td>
<td>1.288</td>
</tr>
<tr>
<td>D(EXPT(-2))</td>
<td>-0.257</td>
<td>-0.727</td>
</tr>
<tr>
<td>D(Inv(-1))</td>
<td>0.455</td>
<td>0.908</td>
</tr>
<tr>
<td>D(Inv(-2))</td>
<td>0.421</td>
<td>1.007</td>
</tr>
<tr>
<td>D(labor(-1))</td>
<td>-8.23</td>
<td>-1.611</td>
</tr>
<tr>
<td>D(labor(-2))</td>
<td>-10.243</td>
<td>-2.219</td>
</tr>
<tr>
<td>C</td>
<td>0.392</td>
<td>2.286</td>
</tr>
</tbody>
</table>

**R. Squared** | **0.356**

**And * indicates statistical significance at 1% and 5%.**

From the estimated short model above in table 4, it can be noticed that most of the variables are statistically insignificant. This is not surprising considering the fact that the VAR model is over
parameterized. For this reason, we do not consider the individual coefficient estimates. To analyze the short run relationship among the variables, we will employ the impulse Response function (IRF).

Another variable of interest in the short term is the error correction term (ECT). The ECT tells us the adjustment speed of the economy across long run equilibrium following a shock in the economy. From our model, the ECT coefficient of 0.726 shows that in a year about 73% correction across long term equilibrium is finished. The R-squared coefficient indicates that 36% differences in the dependent variables is caused by the independent variables.

**Residual Diagnostics**

In order to be the model accepted. The residual diagnostics must be satisfied. In the model employed on the both countries, it can be shown the absence of hetroskedasticity in the residuals in Breuch-Pagan-Godfrey Hetroskedasticity. Also Breusch–Godfrey test indicates the non-appearance of the correlation on the models of the both countries: Morocco and Turkey.

**Impulse Response Function (IRF)**

The last step in this analysis is to employ the Impulse response function (IRF) which provides a comprehensive picture of the reaction of an economy’s variables over a given period because of an exogenous shock. The IRF of Turkey and Morocco is presented below.

The impulse response function results of Turkey.

![Figure 1](image1.png)  
![Figure 2](image2.png)

According to the IRF graph above in figure 1, it has shown that the reaction of GDP to an exogenous shock in FDI had an increasing positive response from the first period until the third period, and then it declined slightly and remained at a stagnation point to the tenth period. In fig 2, the reaction of GDP to shock in INV was negative in the first and second period. Then by the third period, the response started to be positive until the fourth period, after the five period until the end of the periods, the IRF declined marginally, though still positive.

1 See appendix one.  
2 See appendix two.
The IRF’s graphs indicate the reaction of GDP to an exogenous shock in LAB and Exports, where it can be seen that GDP has a progressive positive response to shocks in LAB and EXPT. From what is shown above, we can conclude that LAB and EXPT have a positive effect on GDP.

**The impulse response functions results of Morocco**

From the IRF graph above fig.5, it can be seen that following a shock to FDI, GDP was found to respond positively from the first period horizon up to the tenth period. In fig.6 The response of GDP shocks to exports was found the have a positive, it reached its peak in the fourth period then continued to fluctuate, but afterwards declined marginally, though still positive. We could thus conclude that the effect of FDI and exports on GDP in the short run is positive.
The Effect of Foreign Direct Investments on the Economic Growth of the…

Figure 7

The figure 7 indicates the response of GDP to unexpected change in INV. It can be seen that the response is negative through all the periods. It started descending from the first period until the third period, after it has shown a fluctuation between the third period and the sixth period then, it rose to zero in the seventh period and afterwards fluctuate down until the end of the periods. The reaction of the GDP to shock in LAB was negative also during all the periods. Concerning the relationship between labor and the economic growth, Afşar et al. (2017) in their study ‘Economic growth and employment relationship: application of Turkey 2000-2015, found that the relationship between them is week. The results displayed that the unemployment rate decreased by 0.1% when the economic growth increase by 1%.

CONCLUSION AND DISCUSSION

The purpose of this paper was to analyze the effect of FDI on the economic growth between Turkey and Morocco. Findings shows that in Turkey, FDI affects positively the economic growth in the short run and long run, while in Morocco, it has seen that the FDI affect positively the economic growth just in the short term while in the long term has a negative effects. It has widely known that the existence of foreign firms or attracting more foreign direct investment can positively affect the economic growth and the aggregate productivity through capital, knowledge transfer and technology in the developed and developing countries. However, according to the literature review and the study we have done on Morocco and Turkey, it is found, that in Morocco, the FDI affect negatively the GDP in the end through the non-existence of response of GDP to labor force and investment. Moreover, the GDP shocks to export declined marginally. Even though, the outcomes of the effect of FDI on the economic growth were positive, but this positive impacts did not reach to the expected level, and this is seen in the impulse response functions results, where the response of GDP to all variables recorded a decline starting from the fourth period to the last period.

As policy recommendations, Morocco and Turkey should satisfy some of the conditions in order to make the FDI affect positively the economic growth. And among the conditions for making the FDI positively influences a country's growth is to analyze how the effect of FDI on growth is influenced by the level of other domestic variables. Indeed, it is possible to imagine that inward FDI flows play a favorable role in growth only if they are combined with other complementary factors. These complementary FDI variables may be the factors usually used to explain growth, such as work, capital and technical progress, investment, exports (etc).
For Morocco, the results of the effect of FDI on GDP can be explained by the origin of the inwards foreign direct investments to Morocco in order to provide responses to decision makers in terms of selection and targeting of investments from countries with a high impact on the performance of the national economy. In this respect, Azeroual (2016), in his study, found that FDI from France is significant and positively affects economic growth, in the short term and long term. On the other hand, FDI from Spanish origin and those emanating from the Gulf countries seem significant, but act in a negative way on economic growth. Similarly, these investments did not allow local industrial integration. As a result, few domestic value chains are created and most of the inputs are imported, aggravating the current account deficit of the country. Based on these observations, it should be noted that the volume of FDI is not always synonymous with a positive effect on economic growth. The case of Spain is enlightening in this respect; although it is the second largest source of FDI in Morocco, just after France, we note that their effect on growth is negative. The recommendations of the study to Morocco include that the challenge would be not only to increase and facilitate the entry of foreign investment, but also to target specific categories of investment with significant technological content, likely to have a positive effect on the productivity of the national economy, particularly through the transfer of sophisticated technologies and good managerial practices. It is recommended also to developing human skills so that the country can both attract FDI and fully exploit these effects on the productivity of the national economy through the assimilation of foreign technologies.

For Turkey, it is recommended that FDI-led growth policy need to be pursued by the government. Moreover the policymakers and economists should choose the right types of foreign capital flow, as like as how much should be received into country and which sector should be open up to the multinational companies and finally, the government should not depend totally on the FDI rather it’s recommended to consider too the domestic investments. Moreover, Hüseyin and Çakmak (2017), suggest in their study that, Turkey in order to increase its GDP it needs to focus on improving the export sophistication index. In another study done by Sugozi, et al. (2017), recommend to decrease the interest rates, because the reduction in the investments and in national income is due to the high interest rate which affect negatively the economic growth and income per person.

REFERENCES


APPENDIX ONE.

Breusch-Godfrey Serial Correlation LM Test: (Turkey)

<table>
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<tr>
<th>Statistic</th>
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<th>Prob.</th>
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<tr>
<td>F-statistic</td>
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<tr>
<td>Obs*R-squared</td>
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Breusch-Godfrey Serial Correlation LM Test: (Morocco)

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APPENDIX TWO.

Heteroskedasticity Test: Breusch-Pagan-Godfrey (Turkey)

<table>
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Heteroskedasticity Test: Breusch-Pagan-Godfrey (Morocco)

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