

## Agadir Agreement and Entry of Foreign Direct Investment to the Countries of the Zone

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### **Abstract**

*In this article, we used a TOBIT model to determine the effect of the signing of the Agadir agreement on FDI received by the region made up of the four southern Mediterranean countries (Egypt, Jordan, Morocco and Tunisia) over the period 1996-2020. The major advantage of using this model is that it makes it possible to distinguish the FDI created by this agreement from those which may be created by other factors.*

**Keywords:** FDI, Attractiveness, AGADIR Agreement, TOBIT model.

### **INTRODUCTION**

The southern Mediterranean countries of Egypt, Jordan, Morocco and Tunisia have opted for a policy of openness towards the European Union (EU). Today, the four countries cooperate with the old continent within the framework of the Barcelona process initiated in 1995 and establishing a Euro-Mediterranean partnership between the countries of the EU and twelve countries of the South and East of the Mediterranean, of which the four Arab countries are part. Thus, the commercial opening of these countries through their accession to the WTO where, in particular, the signing of the Euro-Mediterranean agreement within a framework of North-South integration had the main objective of boosting the economic growth of these countries. In this context, the Arab-Mediterranean free trade agreement known as the Agadir Agreement, which was signed on February 25, 2004 by Egypt, Jordan, Morocco and Tunisia to promote a market of more than 120 million consumers that could constitute a target for attracting European investment. The particularity of this agreement is that it represents the first south-south agreement under the Barcelona process. This is an important sub-regional free trade agreement with great potential. Several objectives are targeted by this agreement, one of the most important of which is the attractiveness of FDI. These FDI will be dedicated to achieving the objectives of these countries, particularly in terms of economic growth. Indeed, one of the most advanced reasons is the low national savings of these countries which obliges their States to resort, in the majority of cases, to the external debt which weighs heavily on their economies and which constitutes a major obstacle to their growth. By offering the possibility of replacing the weakness of national savings, FDI presents itself as a major solution to this problem. It is for this reason that the intensification of foreign investment flows is considered one of the objectives assigned to the integration of Arab-Mediterranean countries. Indeed, one of the major factors of attractiveness recommended by the liberal theory is regional integration resulting in the increase in the size of the market of the integrated region. It is thus at this level that the problem concerning the relationship between the regional integration of the four countries and FDI arises.

From a purely theoretical point of view, it was first shown that, overall, the economic gain from a regional integration process appeared weaker than that from multilateral integration. This is explained by diversion effects which lead member countries of a regional agreement to source supplies from within the zone rather than from countries outside the zone which would be more competitive (Calcagno, 2010). Regional integration thus appears as “a second-best optimum” engendered by the supposed difficulties of adhering to global free trade.

However, this approach has quickly been nuanced by more and more recent studies. These studies have insisted especially on the importance of this integration in the increase in the size of the market which can influence the world market. This integration will also allow access to more FDI, from a quantitative but also

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qualitative point of view. It is, moreover, recent theoretical but above all empirical studies that have been able to show the importance of regional integration in the attractiveness of FDI. An overview of these studies will be the subject of the first part of this article. We specify, however, in the second part, our TOBIT model in order to analyze, in a panel data study in a precise way, the impact of the Agadir regional integration agreement on the attractiveness of FDI in this area.

**Regional Integration and FDI: Literature Review:**

The impact of regional integration (RI) on the attractiveness of FDI depends according Castilho and Zignago (2015) of three factors. The first and most important is the extent of the RI contemplated by this agreement. The second is related to the credibility of the agreement. The third factor is, however linked to the interdependence between the signature of the agreement and the links between them before the signing of this agreement (measured in particular by the level of barriers to trade and FDI). Dupuch, Mouhoud and Talahite (2020) in their model analyzing the economic integration in Eastern Europe have shown that some FDI will be driven by the reduction of trade barriers between member countries. At this level, a better integration between the countries of the region will lead to an improvement of intra – regional exports and subsequently decreasing the profitability of exports to third countries. In this context, Menon (2019) showed that the investigations conducted upwind of multinationals, particularly in areas such as NAFTA and ASEAN, have all conclude that the size, dynamics and growth potential of the domestic market are the essential factor attracting FDI. Recent explanations of the issue of regional integration and its implications for business and FDI are increasingly geared towards geographic theory. Krugman (1991) is considered the first to fill the theoretical vacuum concerning the consideration of the spatial dimension in the location of multinational enterprises. Thus, Krugman's basic idea was to focus on the spatial organization of industrial activities as well as the different forces that act on localization equilibria. These equilibria are, according to Krugman, the result of the confrontation in time but also in the space of two types of forces. On the one hand, they are centripetal forces that push the polarization of production activities. On the other hand, there are centrifugal forces, which lead to a dispersion of industries. De Sousa and Lochard (2016) of their shares presented a model of three countries comprising a rich country and two developing countries. They have shown that through the regular decline of customs barriers, the multinationals relating to the Northern countries relocate their industries to the countries of the South because these firms benefit mainly from a better access to the market of the north and importing inputs at low prices. Markusen (2003) by studying the strategies of multinationals showed that the choice of the multinational depends on the type of regional integration: South-South (horizontal integration) or North-South (vertical integration). Thus, when developing countries form a region, the increasing of the size of the market presents real investment opportunities for foreign multinationals, including a horizontal strategy. However, when different countries signed in the context of North-South integration, an integration agreement, multinational companies go where production costs are low and serve the country for re-export. Blomstrom and Kokko proposed in 2007 a matrix that showed some recapitulation of the impact of regional integration on FDI. This impact depends on the one hand of environmental changes reflecting the degree of liberalization of trade and investment. It depends on the other hand of the location advantages reflecting the costs of factors of production and availability as well as the overall economic environment.

Matrix effects of regional integration on FDI attractiveness

		Advantages of localization	
		Positive	Negative
Environmental changes	Strong	1	2
	Weak	3	4

Source : Blomstrom andKokko (2007)

Viewpoint empirical modeling, drawing on already existing empirical literature on the determinants of FDI and enriched by the integration of these agreements, these models can be

classified into two gravity models and standard models of the determinants of FDI. Overall, the empirical literature has shown that generally includes, in addition to traditional determinants of FDI, an integration variable that takes different forms in different studies. In all cases, we note that the review of the empirical literature includes in addition to the variable of regional integration, as measured by the size of GDP (Jaumotte (2018)) or a dummy variable (Norbert (2019)) representing other determinants of FDI variable. In addition, the use of two empirical specifications of the gravity equation or the standard models of the determinants of FDI allows us to measure the impact of regional integration on FDI received by the country in a comprehensive manner. However, much of these FDI may not be created by regional integration but by other factors. Thus, the results can be misleading because they fail to distinguish between FDI actually created by this integration agreement and those created by other factors. For these reasons, we will use a simple Tobit model. A more thorough and reasoned explanation will be conducted in the following.

### Empirical Investigation:

#### Specifying of a Tobit Model:

In our case, the objective is to see if the signing of the AGADIR agreement with the EU, in the context of the Barcelona Process, has actually helped the four countries to increase their cash received from FDI. This flow will be designated by *FDI*. We want so to see if one FDI would be observed after the signing of the free trade agreement. In our case, before and after the free trade agreement, FDI is always observed and we cannot really distinguish FDI that is generated by this free trade agreement of the one is not and created by other factors of attractiveness. In order for the association to join the European Union attracts FDI, the AGADIR variable represented by an indicator variable must empirically verify the following relation:

$$FDIflows_t = \alpha + \beta AGADIR + \varepsilon_t \quad (1)$$

With:

AGADIR: An indicator variable denoting the free trade agreement. It takes the value 0 before the signature of the agreement and 1 after.

$\varepsilon_t$ : An error term.

We assume in this case that the free trade agreement cannot generate FDI unless  $FDI > 0$ . That is to say, if the FDI post liberalization is higher than before ( $FDI_t > FDI_{t-T}$ , where T is the period before the signature of the AGADIR Agreement). For models based on a dichotomous approach, it is shown that the use of ordinary least squares leads to biased estimates. For a tobit model, it is shown that the preferred estimation method is the maximum likelihood method (Menon (2019)). We prefer this last one for tests relating to the linear relation 1. Indeed, the relation 1 can be represented otherwise taking into account the loglikelihood associated with the simple Tobit model. Since we cannot distinguish between FDI created by the free trade agreement and those that can be created by other factors to national specificities, we assume in this case that *FDI* is the FDI actually generated by the free trade agreement. Thus, for each country *i*, it is necessary to write:

$$FDIflows_i = \begin{cases} \overline{FDI}_i > 0 & \text{if } FDI_{i,t} > FDI_{i,t-T} \Rightarrow \overline{FDI}_i = \alpha + \beta AGADIR + \varepsilon_i \\ \overline{FDI}_i = 0 & \text{if } FDI_{i,t} \leq FDI_{i,t-T} \end{cases} \quad (2)$$

Where, *FDI* denotes the latent variable linearly dependent of AGADIR variable. It represents the FDI generated by the free trade agreement. The period of analysis runs from 1996 to 2020. Data are taken from the United Nations Conference on Trade and Development and are expressed in logarithm. So that the number of observations does not decrease, when the logarithm is indeterminate, we suppose that it is zero. The results of the study are presented in the following table.

### RESULTS AND INTERPRETATIONS:

To estimate a Tobit model, the most used method is that of maximum likelihood. We will therefore use a cylindered panel data to make this estimate. The results of the study are presented in the following table.

**Results of the effect of AGADIR on FDI for the period (1996-2020)**

	<b>Pooled-OLS</b>	<b>Effets fixes</b>	<b>Effets aléatoires</b>	<b>Tobit</b>
<b>Constant</b>	18,641 (87,542)	19,516 (98,612)	19,512 (63,244)	19,510 -
<b>AGADIR</b>	1,106** (2,776)	1,053** (2,612)	1,056*** (8,881)	1,072*** (2,8981)
<b>R<sup>2</sup></b>	0,18	0,22	0,009	-
<b>Log Likelihood ratio</b>	-	-	-	-5678,0632
<b>F-stat (prob)</b>	0,0001	0,0000	0,0000	0,0012
<b>Hausman test</b>	-	0,011	0,011	-

The significance of the tests is at the threshold of 1 %(\*) and 5% (\*\*). The Student's test statistic is indicated in absolute value in parentheses. Standard deviations are robust to heteroscedasticity

Based on the table above, we notice that the signing of the AGADIR agreement has a positive and significant effect on the attractiveness of the region to FDI. Indeed, a 10% improvement in the perception of the region as integrated is accompanied by an increase of 10.72 in FDI received by the same region considering the Tobit model against 10.56 for the random effects and only 2.106 for the fixed effects. This can be explained by the importance of the perception of investors, especially those in Europe for this agreement. It seems to increase the confidence of these investors for this region since this agreement came as an extension of the Barcelona process which supports economic cooperation between the two shores of the Mediterranean. In this context, the agreement was the subject of several meetings which represented opportunities to make European investors better aware of the environment and the investment opportunities in the member countries of this agreement, knowing that the EU is their first trading partner. Several efforts have also been made to highlight financing and support mechanisms for the private sector, the current and future role of European investments and economic and statistical indicators in the Member States. This has made it possible to strengthen the links of cooperation between the representatives of the European private sector and their counterparts in the Agadir area for networking and partnership in a win-win approach. This has made it possible to increase the capital of investor confidence, particularly those in Europe, which have been reflected in the increase in their FDI flows to the region.

In other words, it seems that the constitution of the Agadir zone constitutes an important justification of sufficient credibility to generate spillovers in itself. These were further explained by the individual potentials of each member.

At this level, it is important to point out that the signing of the Euro-Mediterranean partnership agreement in 1995 represented for the four countries of the Agadir area the most important event of foreign policy and crowned their policy of increased openness towards the EU. Indeed, for the first time since its creation, the EU has defined a global integration project vis-à-vis its South. Today, these free trade agreements signed with the EU are situated in a new context of globalization, financial globalization and multilateralism within the WTO but also within the rise of a new North-South regionalism. The new dynamic of integration of the four countries into the international economy, initiated in particular by the signing of the free trade agreement with the EU, has resulted in increased openness to international capital. Indeed, one of the most important objectives targeted by the Barcelona Agreement was the drainage of FDI which will enable this group of countries to remedy the problems relating to the insufficiency of savings, the creation of jobs as well as the transfer of technology following a modification of productive structures thanks to the FDI received by these countries.

### **Conclusion:**

In this article, we were able to identify through a TOBIT model the effect of the signing of the Agadir agreement on the FDI received by the region made up of the four southern Mediterranean countries. At this level, the results were marked by a clear significant effect for this region, reflecting a real credibility of their regional integration policy after the signing of this agreement.

However, and despite the importance of the Agadir agreement in increasing the capital of confidence among foreign investors, it remains insufficient on its own to attract significant FDI from the point of view of quantity or in particular quality. Indeed, maintaining these countries at the stage of economies driven by, in particular, the low cost of labor cannot alone attract investment.

However, today in this era of enormous competition between sites for the attractiveness of FDI, the Arab-Mediterranean countries, if they want to remain in the race to attract FDI, must stop playing the role of providers of unskilled labor. They must support this policy of openness and regional integration by developing know-how capable of making qualified labor available in a productive and efficient environment.

The Agadir agreement must also go beyond this simple stage of free trade towards a deeper level of integration until the formation of a common market of significant size. Indeed, taken individually, these countries have very limited market sizes. However, Dupuch (2014) have shown that surveys carried out among multinationals all conclude that it is the size, dynamics and growth potential of the domestic market that constitute the essential factor in attracting FDI.

## REFERENCES

- Blomstrom. M and Kokko. A (2007): "Regional Integration and Foreign Direct Investment: A conceptual framework and three cases » PR working papers, World Bank 2007pp1-31.
- Calcagno. A (2010): "Regional Integration and Bilateral Treaties" Economist at UNCTAD.
- Castilho. M and Zignago. S (2015) : « Commerce et IDE dans un cadre de régionalisation : le cas du Mecosur », Revue économique, vol 51, N°3.pp1-20.
- Crozet. M (2010) : « L'impact des choix de localisation des firmes multinationales sur les dynamiques industrielles, Revue économique, Numéro spécial, Vol. 51-3, pp. 735-746.
- De Sousa. J and Lochard. J (2016) : « Investissements directs étrangers et intégration ; quels enseignements pour les PECO ? » Économie et Prévision, 2 n 163, pp.87-100.
- Dupuch. S, Mouhoud. E. M and Talahite. F (2020) : « L'Union Européenne élargie et ses voisins méditerranéens : les perspectives d'intégration » Revue Economie Internationale.FIPA 2020.
- Fontangé et Pajot (1999) : « Investissement Direct à l'Étranger et échanges extérieurs : un impact plus fort aux États Unis qu'en France ». Économie et Statistique N 326-327, pp.71-95.
- Jaumotte. F (2018): " Foreign Direct Investment and Regional Trade Agreements: The Market Size Effect Revisited "IMF Working Paper pp1-31.
- Krugman.P (1991): " Increasing Returns and Economic Geography Journal of Political Economy pp483-499.
- Markusen. J (2002): "Multinational Firms and The theory of international trade "Cambridge: MIT Press, 2002.
- Markusen J.R and Venables A. J (1998): « Multinational Firms and the New trade theory" Journal of International Economics vol 46 pp 183-203.
- Menon. J (2019): « Managing success in Vietnam. Macroeconomic consequences of large capital inflows with limited instruments». ASEAN Economic Bulletin, 26 (1), pp. 77-95.
- Ndi. E (2021) : « Attractivité économique des investissements directs étrangers en zone CEMAC : harmonisation des instruments juridiques aux règles internationales». Université Nice Sophia Antipolis, 2021.
- Norbert. P. V (2019) : « Impact des IDE sur la productivité en république démocratique du Congo: une analyse empirique », IOSR Journal of Economics and Finance, volume 10, pp 84-92.