Moroccan Foreign direct investment and Human development in ECOWAS countries: an econometric modeling using dynamic panel cointegration panel approach.

Abstract: This work establishes an empirical relationship between Moroccan foreign direct investment (FDI) and the social and human development (HDI) of ECOWAS member countries in the context of the bivariate cointegration approach with dynamic panel data and Causality at meaning of Granger over the period 2002-2015. The result supports evidence of panel cointegration between FDI and HDI. As a result, we have found that FDI has a positive impact on social and human development in the long term. The results also support evidence of long-term causality ranging from HDI to FDI and from FDI to HDI in the short and long term. Our empirical results support the idea that South-South cooperation benefits both parties in the framework of Co-development.

Keywords: FDI, Human and social development, Panel Cointegration, Causality.
INTRODUCTION:

The intensification of competition in European markets is pushing Moroccan companies to enter the African market since it is becoming an area of entrepreneurial development and a strategic partner for Morocco. In addition, the global crisis of 2007 has significantly impacted Morocco as a trading partner of the European Union, which encourages Morocco to diversify its trading partners to absorb the exogenous shocks of the global economy. Eventually, Africa becomes the "New Eldorado" for the world in general and for Morocco in particular. Moreover, sub-Saharan Africa has the potential to occupy an undeniable position in the future because according to the reports of the "Moroccan Center of Conjoncture" (2015) and "Mckinsey Global Institute" (2010), the emergence can take place by 2040 due to the three major factors: firstly, a gigantic demographic potential that will result in a densification of its population of 1.1 billion people of working age, secondly a rise in the price of materials first, which will increase their GDP to 1,800 billion euros, and thirdly, an emergence of the middle class of 128 million households with a regular income and a significant consumption expenditure.

The objective of our paper is to analyze the impact of Moroccan foreign direct investment (FDI) on the social and human development of the ECOWAS countries measured by the Index. Human Development (HDI) and relying on two-way causality between the two variables in the short term and long term.

Our paper is organized as follows: Section 1 discusses the literature concerning the relationship between FDI and human and social development. Section 2 examines some numbers about the foreign exchange between morocco and the sub-Saharan countries. And finally section 3 analyzes empirically the relationship between Moroccan FDI and the social development of ECOWAS countries.
1. THE LITERATURE REVIEW ON THE RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENT AND THE SOCIAL DEVELOPMENT OF THE HOST COUNTRY:

It is widely accepted among economists that economic growth contributes positively to the human and social development of the host country. If this assumption is correct, then FDI can be expected to have an indirect effect on human and social development through its relation to economic growth. Compared to studies on the relationship between FDI and economic growth, studies on analyzing the impact of FDI on human and social development are relatively scarce. However, over the past decade, literature on the latter has grown rapidly as a result of a paradigm shift stating that the ultimate goal of investment policies should be to improve human development.

Starting with the work of Blomström and Kokko (2001), FDI has created a favorable climate for human capital development in East Asia and Latin America. First of all, in both regions, the training of local employees has improved and their level of education has increased thanks to FDI, and for this purpose they could use a more advanced technology in the production process. Thus, alongside human development, we observe that FDI supports technological progress in the host country. Sharma and Gani (2004) examined the effect of FDI on human development by measuring the Human Development Index (HDI) scores for middle and lower income countries. They observed that FDI had a positive effect on human development through its economic contribution and infrastructure development in recipient countries, resulting in an increase in human capital. Arcelus, Sharma and Srinivasan (2005) examine the effect of FDI on human development using the HDI scores for low- and middle-income countries with time series from 1975 to 1999. They find that the FDI has a positive and significant impact on human development for both groups of countries. Srinivasan (2005) examines the effect of FDI flows on the three components of the HDI, namely GDP per capita, life expectancy and school enrollment. He finds that the effect of FDI on human development depends on several factors, the most important of which is scale efficiency. Moreover, the causality between the IDE and the IDE can be reversed. According to the work of Majeed and Ahmad (2008), the highest HDI scores could be an additional factor of FDI attractiveness, since multinational firms that plan to invest in other countries generally prefer markets with good conditions, economies developed to choose a place to invest effectively. Inward FDI flows were detected by the authors, mainly because the quality of the work and the ability to learn depend on the health of the employees. It may be implicit that FDI inputs that positively affect the HDI will definitely attract other IDEs to a particular region.
Gohoun and Soumare (2012) study the impact of FDI on poverty reduction, which is a key determinant of human development, for the period 1990-2007 in five African regions using net inflows of FDI and the HDI as the main variables. Their findings provide evidence of a positive and significant relationship between FDI and poverty reduction. Thus, this impact is stronger for the poorest regions. Finally, Osenwengie and Sede (2013) more critically examine the contribution of FDI to poverty reduction in Nigeria between 1981 and 2010 using the cointegration method and the Vector Error Correction Model (VECM). They take the HDI and life expectancy at birth as proxies for poverty reduction in two distinct models. Their results show a long and short-term relationship between FDI and HDI.

2. MOROCCO-SUB-SAHARAN ECONOMIC RELATIONS:

2.1. Foreign exchanges between Morocco and the sub-Saharan Africa:

An average annual growth rate of 9% between 2008 and 2016 (Figure 1). The share of Sub-Saharan Africa in Moroccan foreign trade from 2% in 2018 to 3% in 2016. A surplus Trade balance of 12 billion dirham in 2016. The largest trading partner is West Africa\(^1\) with 50% of the commercial account. The first partner in terms of exports is West Africa, which receives 65% of Moroccan exports to sub-Saharan Africa. The first partner in terms of imports is Southern Africa\(^2\), which is the source of 50% of Moroccan imports from sub-Saharan Africa. The main receiving markets for Moroccan exports: Ivory Coast, Senegal, Equatorial Guinea. The main source suppliers of Moroccan imports: South Africa, Central African Republic, Gabon, Congo, Ivory Cost. The weight of Morocco in the African market is up trend from 0.14% in 2009 to 0.40% in 2012.

\(^1\) West Africa: Senegal, Ivory Coast, Nigeria, Guinea, Mali, Ghana, Togo, Benin, Niger, Burkina Faso, Mauritania, Gambia, Sierra Leone, Liberia, Guinea-Bissau, Cape Verde.

\(^2\) Southern Africa: Namibia, South Africa, Swaziland and Botswana.
2.2. Moroccan investment in sub-Saharan Africa:

2.2.1. Moroccan direct investments abroad in sub-Saharan Africa in terms of flows:

An average annual growth rate of FDI flows of 4.5% between 2008 and 2016 (Figure 2). The average annual flows of FDI in 2010 are estimated at 1 billion dirham, moreover these flows to sub-Saharan Africa represent 92% of the total flow of Moroccan direct investment abroad (Table 1). The average annual flows of FDI in 2015 are estimated at 3 billion dirham, which represents 40% of all flows of Moroccan direct investment abroad.

The distribution by destination of FDI flows: 65% in West Africa, 25% in Central Africa\(^3\), 10% in East Africa\(^4\). The first receivers of Moroccan FDI flows are Ivory Coast and Nigeria. Distribution of Moroccan FDI flows by sector: 44% in the banking sector, 21% in holding companies, 9% in real estate, and the rest of the flows are divided between the telecommunications, transport, insurance, energy and mining sectors, etc.

\(^3\) Central Africa: Angola, Congo, Gabon, Cameroon, Equatorial Guinea, Democratic Republic of Congo, Chad and Central African Republic.

\(^4\) East Africa: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Uganda, Tanzania, Zambia and Zimbabwe.
2.2.2. Moroccan direct investment abroad in Sub-Saharan Africa in terms of stocks:

An average annual growth rate of FDI stocks of 23% between 2008 and 2016 (Figure 3). The average annual stocks of FDI in 2015 are estimated at 17 billion dirham, which represent 50% of the total flow of Moroccan direct investment abroad.

The distribution by destination of FDI stocks: 80% in West Africa, 20% is divided between Central Africa and East Africa. The largest recipient of Moroccan FDI stocks is the Ivory Coast, with 28% of all Moroccan investments abroad. Distribution of Moroccan FDI flows by sector: 41% in the banking sector, 34.4% in telecommunications, 13% in insurance, 5.6% in
industry, and the rest of the stocks are divided between the transport sectors, energy and mines, etc.

Figure 3: The evolution of stocks of Moroccan investments in Africa.

3. THE EMPIRICAL ANALYSIS OF THE IMPACT OF MOROCCAN FDI ON THE SOCIAL DEVELOPMENT OF THE ECOWAS COUNTRIES:

In our paper, the precise question for the empirical framework is formulated in which the long-term relationship and causality between Foreign Direct Investment (FDI) and the Human Development Index (HDI) must be examined. The important question of research is as follows: To what extent do direct Moroccan investments contribute to the social and human development of the ECOWAS countries? On the one hand, the overarching research question can be empirically tested for all countries that have important data available for both variables in both country and time dimensions. On the other hand, the subjacent questions are the methodology and the model to be adopted, the steps of empirical estimation and the description of the data.

3.1. The adopted methodology:

According to a review of abundant theoretical and empirical literature, there are several channels\(^5\), through which, FDI can influence the Human Development Index (HDI) in host countries. As a result, panel cointegration analysis is not intended to isolate the effects of FDI

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\(^5\) These channels can be concretized by positive externalities of Research and Development in the form of technology transfer and knowledge, the quality of institutions, telecommunication infrastructures and logistics networks, etc.
on HDI by working on specific transmission channels; on the contrary, its goal is to capture its overall effects. This provides a major argument in favor of the bivariate approach (or the two-dimensional approach) and the control of variables (such as exchange rate, infrastructure, labor productivity). Therefore, serious problems of estimation are also avoided.

Roughly speaking, the growing number of literature recognizing the theoretical possibility of two paths of feedback between FDI and social development, and their long-term and short-term dynamics, justifies the choice of the bivariate dynamic panel cointegration methodology, which aims to fill the gaps in previous work using one way estimating. In addition, almost all studies of the impact of FDI on development lack a cointegration test between these two variables.

3.2. The empirical model:

In line with the current practice of studies using the panel cointegration approach (Herzer and Nunnenkamp 2012, Arshad Khan and Ali Khan 2011, Mehmoud and Seddiqui 2013, Ajaga and Nunnenkamp 2008 and Chakraborty and Nunnenkamp 2008), two bivariate models are estimated the following form:

Equation (1) presents the two-dimensional long-term relationship between FDI and HDI:

\[ \text{HDI}_{it} = \alpha_i + \beta_i \text{FDI}_{it} + \varepsilon_{it} \]  

(1)

With:

\( \text{HDI}_{it} \): HDI of a country \( i \) in year \( t \);

\( \text{FDI}_{it} \): FDI inflows in country \( i \) in year \( t \);

In addition, we include:

\( \alpha_i \): (1, 2... 6) the country-specific fixed effect for controlling country-specific omitted factors that are relatively stable over time.

Equation (2) presents the short-term and long-term two-dimensional causality between the IDE and the HDI; this relationship can be obtained by estimating the Dynamic Error Correction Model (DECM) as follows:
\[ \Delta \text{HDI}_{it} = \alpha_{1t} + \lambda_{1i} \varepsilon_{it-1} + \sum_{q} \theta_{1iq} \Delta \text{HDI}_{it-q} + \sum_{q} \beta_{1iq} \Delta \text{FDI}_{it-q} + \mu_{1it} \]

\[ \Delta \text{FDI}_{it} = \alpha_{2t} + \lambda_{2i} \varepsilon_{it-1} + \sum_{q} \theta_{2iq} \Delta \text{FDI}_{it-q} + \sum_{q} \beta_{2iq} \Delta \text{HDI}_{it-q} + \mu_{2it} \]  \hspace{1cm} (2)

Where:

- \( q \): The optimal lag length for each country in the panel;
- \( \theta_{i} \): Speed of adjustment to the long-term equilibrium path;
- \( \lambda_{i} \): The long-term effect of FDI on the HDI and vice versa;
- \( \beta_{i} \): The short-term effect of FDI on the HDI and vice versa; and
- \( \mu_{i} \): The error term BB.

3.3. the steps of the empirical procedure:

Our empirical study of the association between FDI and HDI is based on the procedures proposed by Basu et al. (2003), Chakraborty and Nunnenkamp (2008), Archad Khan and Ali Khan (2011). The four steps of the econometric procedure are presented as follows:

**Step 1. Non-stationarity: testing the unit root of the panel.**

Testing the unit root in time series studies is becoming a common practice among applied research, and an integral part of econometric courses. Here, they are briefly described: panel unit root tests are based on two competitive hypotheses: the hypothesis of homogeneity versus the hypothesis of heterogeneity.

The "common root" indicates that tests are estimated assuming a common structure (AR) for all series. The tests of Levin, Lin and Chu (LLC), Breitung and Hadri assume that there is a common unit root process (homogeneity), so \( \rho_{16} \) is identical across sections. On the other hand, the "individual root" indicates that the tests are estimated assuming a different structure (AR) for each panel series. The tests of Im, Pesaran and Shin (IPS, 2003), maddala and Wu (1999), and Choi (2001) assume that there is an individual unit root process (heterogeneity), so \( \rho_{i} \) is different at through the sections.

**Step 2. Testing the cointegration of the panel:**

6 The autoregressive coefficient.
If, as expected, the variables are non-stationary (due to the presence of a unit root), the next step is to test the cointegration. Like panel unit root tests, panel cointegration tests can be motivated by searching for more powerful tests than those obtained by applying cointegration tests of individual time series. The panel cointegration tests fall into two categories, the first category tests are based on residues (Kao 1999, and Pedroni 1999), and the second category tests are developed by Johansen (1995), two of which types are often used: the trace test and the maximum eigenvalue test (Max-Eigenvalue).

**Step 3. Determining the long-term relationship parameters:**

If there is evidence of cointegration between FDI and HDI, the long-run effect of FDI on the HDI is estimated using fully modified OLS estimators (FMOLS) and least Dynamic Ordinary Squares (DOLS), estimators proposed by Pedroni (2001).

**Step 4. Long-term and short-term causality between HDI and FDI:**

Asserting that HDI and FDI stocks are cointegrated, long-term and short-term Granger causality is tested using a dynamic error-correction model. As proposed by Engle and Granger (1987), and demonstrated by Granger et al. (2000), the causality test itself is a two-step estimation process for estimating equation (2). The first step concerns the estimation of the residue of the cointegrated relation represented in equation (1). By integrating the residual as an exogenous variable, the dynamic error correction model is estimated in the second step to draw conclusions about Granger's short-term and long-term causality.

According to Engle and Granger (1987), for the country in the panel, the existence of cointegration between the variables mentioned indicates the causal links between the set of variables that is manifested by $|\lambda_1| + |\lambda_2| > 0$. Therefore, the failure to reject $H_0: \lambda_i = 0$ for all $i, i = 1, 2 ... 6$, implies that the IDE does not Granger cause HDI for the countries included in the panel in the long-run. Conversely, do not reject $H_0: \lambda_{2i} = 0$ for all $i, i = 1, 2 ... 6$, implies that HDI does not Granger cause FDI in countries in the long-run panel.

On the other hand, the set of coefficients $\beta_{1iq}$ and $\beta_{2iq}$ capture provisional effects and reflect the process of adjustment between the set of associated variables in response to a random shock. Therefore, the failure to reject $H_0: \beta_{1iq} = 0$ for all $i$ and $q, (i = 1, 2 ... 6, q = 1, 2 ... q)$, implies that the IDE does not Granger cause the HDI for countries included in the short-term
panel. On the other hand, do not reject $H_0$: $\beta_{2iq} = 0$ for all $i$ and $q$, $(i = 1, 2 \ldots 6, q = 1, 2 \ldots q)$, implies that the HDI does not Granger cause FDI in countries in the short-term panel.

3.4. The descriptions of the data:

To evaluate the proposal to find a relationship between the HDI and FDI, the empirical analysis is based on panel data from the 6 ECOWAS member countries over 14 years. For Moroccan FDI in ECOWAS countries, the only source of the data comes from “l’Office des Changes” within the framework of the establishment of the Balance of Payments and the Global External Financial Position. The countries taken into account are six: Nigeria, Ivory Coast, Senegal, Mali, Burkina Faso, and Guinea. The other member countries of ECOWAS are not included in the empirical study because of the lack of data for some and the non-significance of Moroccan FDI for others. Regarding the temporal data, the data were taken between 2002 and 2015 according to the documents published by l’OC concerning the Balance of Payments and the Global External Financial Position. Data on the HDI are extracted from the databases provided by the World Bank and the United Nations Development Program (UNDP).

3.5. Empirical outputs and results discussion:

<table>
<thead>
<tr>
<th>Variable :</th>
<th>Common unit root</th>
<th>Individual unit root</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LLC</td>
<td>Breitung</td>
</tr>
<tr>
<td>HDI</td>
<td>I(1)**</td>
<td>I(0)*</td>
</tr>
<tr>
<td>FDI</td>
<td>I(1)*</td>
<td>I(1)**</td>
</tr>
</tbody>
</table>

Step 2: Testing the cointegration of the panel.

<table>
<thead>
<tr>
<th>Pedroni</th>
<th>Within-Dimensions</th>
<th>Between-Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panel rho</td>
<td>Panel PP</td>
</tr>
<tr>
<td></td>
<td>-0.60 *</td>
<td>-3.37 *</td>
</tr>
<tr>
<td>Kao</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johansen</td>
<td>Trace</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COI≤1*</td>
<td></td>
</tr>
</tbody>
</table>

Step 3: Estimating the long-term parameters.

<table>
<thead>
<tr>
<th>Panel method</th>
<th>Grouped</th>
<th>pooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDOLS</td>
<td>0.002462 **</td>
<td>0.000217 *</td>
</tr>
<tr>
<td>FMOLS</td>
<td>0.000962 *</td>
<td>0.000225 *</td>
</tr>
</tbody>
</table>

Step 4: Estimating causality in Granger-Engle’s sense.

<table>
<thead>
<tr>
<th>Dependant variable</th>
<th>Independant variable</th>
<th>$E_{t-1}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\Delta HDI$</td>
<td>0.000962 (0.000)*</td>
<td>-1.50$^2$-12 (0.000)*</td>
</tr>
<tr>
<td>$\Delta FDI$</td>
<td>1039.638(0.000)*</td>
<td>-2.32$^2$-11 (0.0128)**</td>
</tr>
</tbody>
</table>
Moroccan Foreign direct investment and Human development in ECOWAS countries: an econometric modeling using dynamic panel cointegration panel approach

Source: Author's estimates.

Note: *, **, *** indicate significance respectively at the level of 1%, 5% and 10%. The maximum delay selection is automatic by the software using the SIC as a benchmark.

We start with the common unit root tests which assume the existence of homogeneity between countries. First, according to the LLC, Breitung and Hadri tests, the time series of the HDI and the IDE are significantly non-stationary at the 1% threshold level: we cannot reject the null hypothesis that these series having a common unit root for the LLC and Breitung tests, and one can reject the null hypothesis of Hadri test that it does not have a common unit root, therefore, one accepts the alternative hypothesis. In addition, these variables become stationary in first difference: according to the LLC, Breitung and Hadri tests, the two variables do not have a unit root in their first difference series: we can reject the null hypothesis of LLC tests, Breitung that time series having a common unit root at the threshold of 1%. The Hadri test, we cannot reject the null hypothesis of absence of a unit root in the series of two variables at the 1% threshold. Then, the time series at first difference are stationary. Generally, we conclude that the series of our variables are non-stationary in level and stationary in first difference: The variables are integrated first-order I(1).

Now, we reject the hypothesis of the homogeneity of the variables and we accept the hypothesis of heterogeneity, namely that the results differ from one country to another. Moreover, the heterogeneous IPS and ADF tests confirm the existence of an individual unit root: the null hypothesis cannot be rejected as individual series with a unit root at the 1% threshold. However, only the PP test contradicts the other tests by rejecting the null hypothesis of existence of an individual unit root. On the other hand, these tests reject the null hypothesis of stationarity of the individual series as the first difference and accept the alternative hypothesis of the absence of a unit root.

Following the results of the panel unit root tests, and the confirmation of an integration of the two first-order variables I(1), we proceed to the next step by testing the panel cointegration between the two variables.

Assuming an intercept and a trend in the test equation, we can reject the null hypothesis of no cointegration between DH and FDI, and we accept the alternative hypothesis of cointegration within and between dimensional at the threshold of 1% (Panel rho tests, Panel PP, Panel ADF, PP Group and ADF Group). However, according to the Kao test, using the ADF statistic, one cannot reject the null hypothesis of non-cointegration between FDI and FDI. The third method is the Johansen test using these two types: the Trace test and the Max-Eigen test. First,
in the specification of the deterministic trend, we assume the exclusion of a trend and an intercept. Under this assumption, the two tests, Trace and Max-Eigen, succeed in rejecting the null hypothesis of non-cointegration by accepting the alternative hypothesis of a cointegration between the two variables at the 1% significance level, and they assert the null hypothesis that there is at most 1 cointegration relationship at the 1% significance level. Roughly speaking, the two types of Johansen, Trace and Max-Eigen tests, the two IDE and IDH variables are cointegrated and there is at most one cointegrating relationship.

In conclusion, according to the majority of panel cointegration tests, the two IDE and IDH variables are cointegrated in the long term, which means that they are positively associated with each other.

With the assertion that the HDI and the IDE are cointegrated, the long-run relationship is estimated using the two cointegration regression techniques: FMOLS and PDOLS proposed by Pedroni (2001). These estimators have the advantage of producing unbiased estimators even with endogenous regressors and allowing the coefficients to differ between countries. Two panel methods were chosen: the pooled estimate and the grouped mean estimate. The Pooled estimate performs the estimation of FMOLS and PDOLS on the pooled sample after removing the deterministic components of both the dependent variable and the explanatory variables, while the pooled-mean estimate calculates the mean sections of the individual FMOLS and PDOLS estimators of the sections. According to Pedroni (200), an advantage of the "grouped-mean" estimator on Pooled estimators is that the t-statistic for this estimator allows a more flexible alternative hypothesis. Indeed, grouped-mean estimators are based on panel inter-dimensions, while pooled estimators are based on panel intra-dimensions.

Assuming in the deterministic trend specification in the equation, the PDOLS and FMOLS estimators using both panel methods, pooled and grouped-mean are significant at the 1% threshold. These estimators show that the effect of FDI on the HDI is statistically significant and positive. Note that the DOLS estimator is slightly higher than its FMOLS counterpart, which could be due to the loss of degrees of freedom as a result of the addition of a lag and lags of the explanatory variable.

Assuming a constant in the deterministic trend specification in the equation, only estimators using the grouped-mean method are significant at the 1% (FMOLS) and 5% (PDOLS) thresholds. It is therefore concluded that there is a long-term impact of Moroccan FDI stocks on the HDI of ECOWAS member countries.
Short-term and long-term causality between FDI and HDI is now being analyzed using Engle-Granger's two-step procedure. First, as the HDI is the dependent variable, and the IDE is the explanatory variable, we can reject the hypothesis of non-causality in Granger sense of the short-term HDI at the significance level of 1%, and the null hypothesis of Granger non-causality from FDI to long-term HDI can also be rejected at the significance level of 1%, which means that Moroccan investments in ECOWAS countries contribute to their social development.

On the other hand, the null hypothesis of Granger short-term non-causality of the HDI to FDI can be rejected the significance of 1%, and the hypothesis of Granger long-run non-causality of HDI to FDI can be rejected at the significance of 5%, which means that the social development of these countries contributes to the attractiveness of Moroccan FDI.

From a theoretical point of view, these results go with the "Co-Development" theory, namely a mutual gain between the two parties of South-South cooperation. Generally, there is a two-way causality between the HDI of ECOWAS member countries and long-term and short-term Moroccan FDI.

**CONCLUSION:**

Since the upgrading of the relationship between the Kingdom of Morocco and the countries of Sub-Saharan Africa in general, and the ECOWAS country in particular, trade has been on an upward trend. In terms of investment, Moroccan FDI flows and stocks have in turn experienced a remarkable increase in the various sectors. Moreover, as part of the strengthening of South-South cooperation, Morocco deploys economic diplomacy as a model of Co-development that is based on mutual and equitable gain among stakeholders. As a result, the impact of increased Moroccan FDI on the level of social and human development (HDI) was assessed by applying the dynamic panel cointegration approach over the period 2002-2015. It has been found that FDI has a positive effect on social and human development in the long-run. The results also support evidence of long-term causality ranging from HDI to FDI and from FDI to HDI in the short and long term. Our empirical results support the idea that South-South cooperation benefits both parties in the framework of Co-development.

**BIBLIOGRAPHICAL REFERENCES:**


