Received: 16-06-2024 | Approved: 30-06-2024 | DOI: https://doi.org/10.23882/emss26352

Foreign Direct Investment and Domestic Investment in the Host COUNTRY: The Case of Moroccan industry – Evidence from an ARDL Study

Investissements directs étrangers et investissements nationaux dans le PAYS d'accueil : le cas de l'industrie marocaine – Résultats d'une étude ARDL

Aicha LAMSADDAR
Université Hassan II, Rabat, Maroc
(lamsaddar.a@mail.com)

Abstract:
This paper examines the relationship between Foreign Direct Investment (FDI) and domestic investment in the Moroccan industrial sector, with particular attention to domestic capital as a key spillover channel. Using an econometric ARDL (Autoregressive Distributed Lag) approach, the study analyzes both short-run and long-run dynamics among the variables within a hypothetico-deductive framework. The empirical results show that FDI does not have a significant impact on domestic investment in the short run, as domestic investment is mainly driven by its own lagged values, as well as by exports and human capital. In the long run, FDI also exhibits a negative and statistically insignificant effect on domestic investment, suggesting that foreign capital inflows do not translate into increased domestic investment in the Moroccan context. The study concludes that the benefits of FDI in terms of stimulating domestic investment are not automatic and may be constrained by structural factors such as sectoral concentration of foreign investment, limited technological spillovers, and weak integration of domestic firms into multinational value chains. Accordingly, policy efforts should focus on strengthening the absorptive capacity of the local economy, improving institutional coordination, and enhancing the integration of domestic firms into global production networks in order to better leverage FDI for sustainable industrial growth.

Keywords: FDI, economic growth, domestic capital, spillover, industry.

Résumé:
Cette étude examine la relation entre l'investissement direct international (IDI) et l'investissement domestique dans le secteur industriel marocain, en mettant l'accent sur le capital domestique comme canal potentiel de retombées (spillovers). À l'aide d'une approche économétrique basée sur le modèle ARDL (Autoregressive Distributed Lag), l'analyse explore les dynamiques de court et de long terme entre les variables dans un cadre hypothético-déductif. Les résultats empiriques montrent que l'IDI n'a pas d'effet significatif sur l'investissement domestique à court terme, celui-ci étant principalement expliqué par ses valeurs retardées, les exportations et le capital humain. De même, à long terme, l'IDI présente un effet négatif et non significatif, indiquant que les flux de capitaux étrangers ne se traduisent pas par une augmentation de l'investissement domestique au Maroc. Dans l'ensemble, les résultats suggèrent que les effets de retombées de l'IDI sur l'investissement domestique restent limités dans le contexte marocain. Cela pourrait s'expliquer par des facteurs structurels tels que la concentration sectorielle et géographique des investissements étrangers, la faiblesse des liens avec les entreprises locales et un transfert technologique limité. Dès lors, les politiques publiques devraient viser à renforcer la capacité d'absorption de l'économie locale et à améliorer l'intégration des entreprises nationales dans les chaînes de valeur mondiales afin de mieux tirer parti des retombées de l'IDI.

Mots clés : IDI, croissance économique, investissement local, retombées, industrie.

I. Introduction

Foreign Direct Investment (FDI) has become a key element of development strategies in many emerging economies, especially those aiming to accelerate industrial transformation and economic growth. It is commonly regarded as an important source of productivity gains, technological advancement, and job creation. However, its effects are not automatic and largely depend on the host country's ability to absorb, adapt, and diffuse the benefits generated by multinational enterprises. In Morocco, the industrial sector has become increasingly integrated into global value chains, driven by significant FDI inflows in sectors such as automotive, aerospace, and manufacturing. These developments have raised important questions about the actual contribution of FDI to sustainable economic growth, particularly through its relationship with domestic investment. Domestic capital is often seen as a crucial channel through which spillovers from foreign firms can be transmitted to the local economy, fostering learning, skill development, and productivity improvements. Despite this theoretical perspective, empirical findings remain inconclusive regarding the direction and strength of FDI spillovers on domestic investment and industrial performance. While some studies report positive effects through mechanisms such as technology transfer and human capital upgrading, others point to limited or even adverse impacts depending on structural and institutional conditions.

This paper investigates domestic investment as a spillover channel through which Foreign Direct Investment (FDI) affects economic growth in the Moroccan industrial sector. The analysis is based on an econometric ARDL (Autoregressive Distributed Lag) model, which enables the examination of both short-run dynamics and long-run relationships among the variables. **The main research question is whether FDI inflows exert a significant positive effect on industrial economic growth in Morocco through domestic capital spillovers.** This question is part of the broader debate on the effectiveness of FDI as a driver of development in host countries. To address this issue, the study employs a hypothetico-deductive framework, seeking to empirically test a set of theoretical hypotheses using quantitative techniques. This approach allows a transition from established theoretical assumptions regarding FDI spillovers to their empirical validation within the Moroccan industrial context.

II. Conceptual Overview :

1. Definition of Foreign Direct Investment:

The concept of foreign direct investment (FDI) has undergone significant changes over time and across regions, evolving from the classical definition of capital transfer abroad to a broader

definition that takes into account several parameters distinguishing FDI from other forms of investment. In this section, we present the main definitions of FDI proposed by international organizations and researchers.

According to International Monetary Fund « Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. As well as the equity that gives rise to control or influence, direct investment also includes investment associated with that relationship, including investment in indirectly influenced or controlled enterprises, investment in fellow enterprises, debt, and reverse investment. The Framework for Direct Investment Relationships (FDIR) provides criteria for determining whether cross-border ownership results in a direct investment relationship, based on control and influence »[1]. The definition of direct investment is the same as in the fifth edition of the OECD Benchmark Definition of Foreign Direct Invest ment, which provides additional details on the FDIR and the collection of direct investment data.

According to the OECD « Foreign direct investment reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship. Direct investment includes inward and outward financial transactions/positions between directly and indirectly owned incorporated and unincorporated enterprises The extent of the direct investment relationship is determined according to the framework for direct investment relationships »[2]

According to the World Bank, « *foreign direct investment* refers to net inflows of investment to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor**.** This lasting management interest usually requires ownership of at least 10 % of the voting stock of the enterprise. Foreign direct investment is the sum of equity capital, reinvested earnings, and other capital flows associated with the investment relationship ».[3]

[1] Balance of Payments and International Investment Position Manual Sixth Edition (BPM6),p100
[2] OECD Benchmark Definition of Foreign Direct Investment ,Fifth Edition,p34
[3] Banque Mondiale, 1999, « Rapport sur le développement dans le monde », p.6.

The United Nations Conference on Trade and Development (UNCTAD) defines foreign direct investment as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy in an enterprise resident in another economy. This definition highlights both the *lasting interest* and the *significant influence or control* the investor has over the enterprise, distinguishing FDI from portfolio investment[4].

Of the four definitions, the OECD's definition can be considered the reference**,** as it not only provides the distinguishing criteria found in the other definitions but also includes additional details on the FDI Relationship Framework (SIRID) and the collection of direct investment data. This definition is consistent with the general principles of the System of National Accounts (SNA) and the Balance of Payments Manual (BPM), and is compatible with the concepts and definitions underlying the majority of macroeconomic statistics.

Based on the definitions above, we can conclude that foreign direct investment consists of acquiring a lasting interest in the management of an entity resident in a country other than that of the investor**,** which implies, on one hand, the exercise of significant influence over the activities of that entity, and on the other hand, the medium- to long-term ownership of an asset**.**

2. Literature Review

2.1. The Impact of Foreign Direct Investment on Economic Growth in the Industrial Sector

The impact of foreign direct investment (FDI) on the development of host countries has been extensively examined in the literature from various perspectives. Research in this field considers a wide range of factors, including regional characteristics, sectors of activity, types of investment, and other contextual determinants. The industrial sector, as a key driver of economic growth—particularly in developing countries—has attracted significant scholarly attention. Numerous researchers have investigated the relationship between FDI and industrial output growth, highlighting the complexity and nuances of this crucial linkage for the economic development of host countries. Despite the divergence of empirical findings, the majority of studies examining the relationship between FDI and economic growth confirm the positive impact that this type of investment can exert on host economies, particularly on the industrial sector. However, the magnitude of this impact varies across countries. Developed economies are generally better equipped to absorb the externalities generated by FDI (Globerman, 1979), whereas among developing countries, some are able to benefit from FDI spillovers (Blomström, 1986), while others fail to do so, rendering the effect of FDI on economic growth statistically insignificant (Aitken et al., 1997; Pitic et al., 2014).

[4] UNCTD,2007, « Rapport sur l'investissement dans le monde, Sociétés transnationales, industries extractives et développement », Nations unies. p 245

The literature has primarily focused on the long-term effects of FDI on economic growth through technology transfer between foreign investors and host-country economies. According to many authors, technology transfer constitutes the most significant and decisive channel through which FDI influences growth (Caves, 1974; Hymer, 1976; De Mello, 1997; Blomström & Kokko, 1998; Campos & Kinoshita, 2002; Blonigen & Wang, 2004; Lipsey, 2004; Lin & Saggi, 2005).

In these studies, the concept of technology is broadly defined to encompass production processes, managerial practices, organizational methods, marketing strategies, and distribution systems. By investing abroad, multinational enterprises (MNEs) disseminate new technologies both directly through their foreign affiliates and indirectly within host economies in the form of externalities, commonly referred to as "spillovers." The externalities generated by FDI may take horizontal and/or vertical forms. Horizontal, or intra-industry, spillovers occur when technology transfer takes place between foreign firms and competing domestic firms operating within the same sector (Aitken & Harrison, 1999). Vertical spillovers, by contrast, arise when technology transfer occurs through upstream or downstream linkages involving suppliers and customers within the host economy (Javorcik, 2004).

2.2. The Impact of Foreign Direct Investment on Domestic Investment

The relationship between foreign direct investment (FDI) and domestic investment has been the subject of extensive theoretical and empirical research. This linkage is widely regarded as one of the principal channels through which FDI affects host economies. Numerous studies have highlighted the positive relationship between these two variables and emphasized the beneficial influence of FDI on domestic investment. According to UNCTAD (2001) and the Economic Report on Africa (2005), FDI contributes positively to economic growth in developing countries. Its favorable impact on domestic investment may materialize through several mechanisms, including increased competition and efficiency, the transfer of managerial, organizational, and marketing practices, as well as the introduction of new technologies. The presence of multinational enterprises (MNEs) in developing economies can generate a crowding-in effect by encouraging local investors to expand their investment activities. However, it may also produce a crowding-out effect under certain conditions. Empirical studies conducted in North America and the United Kingdom generally supported the crowding-in hypothesis, suggesting that FDI stimulates domestic investment. In contrast, research focusing on developing countries has often reported evidence of crowding-out effects. Bouklia and Zatla (2001), for example, support the crowding-out hypothesis. They argue that, in addition to possible threshold effects and the limited

technological absorptive capacity of domestic firms, the lack of complementarity between foreign and local capital helps explain the weak contribution of FDI to economic growth in Southern and Eastern Mediterranean countries. Depending on their market-entry strategies, multinational enterprises may establish barriers to entry that exclude domestic firms, thereby discouraging local investment. Furthermore, the presence of MNEs may adversely affect domestic investment through intense competition, as foreign firms often offer products that are more competitive than those produced by local enterprises. This finding was confirmed by Harrison and McMillan (2002) in their study of Côte d'Ivoire over the period 1974–1987. The authors found that multinational firms enjoyed superior access to financing compared with domestic firms, which negatively affected the latter's investment decisions. Agosin and Machado (2005), in their analysis of the effects of FDI on three groups of countries in Asia, South America, and Africa over the period 1970–1995, reported heterogeneous results. In the Asian countries, FDI was found to stimulate domestic investment, generating a crowding-in effect. In South America, however, FDI tended to crowd out domestic investment. In African countries, the overall effect was generally insignificant, although a positive impact was observed in a few cases, notably Côte d'Ivoire, Ghana, and Senegal.Yahia et al. (2018) In their study on Sudan covering the period 1976–2016, the authors empirically examine the impact of foreign direct investment (FDI) inflows on domestic investment. The results reveal that FDI has a crowding-out effect on domestic investment and confirm the existence of a long-run cointegration relationship between domestic investment, FDI, economic growth, trade openness, lending rates, exchange rates, macroeconomic stability, and natural resource rents. Arbia et al. (2026) investigate the impact of foreign direct investment on Morocco's industrial performance using an ARDL bounds-testing approach. Their results show that FDI has a negative long-term effect on industrial production capacity, while its impact on manufacturing value added is statistically insignificant. However, FDI contributes positively to industrial employment, suggesting limited structural upgrading effects in the Moroccan industrial sector.

III. Empiracal study

This study examines a set of key variables that are central to the econometric analysis. Their selection is based on both the existing literature and previous empirical studies, as well as on the theoretical framework underpinning the research.

1. Data and methodology

This econometric study examines the impact of inward foreign direct investment (FDI) on domestic capital formation in Morocco's industrial sector over the period 1977–2024. While the analysis is intended to assess the performance of the Moroccan industrial sector in the post-

independence era, data constraints for certain variables (FDI) during the 1965–1977 period, as well as the unavailability of data for 2025, necessitated limiting the sample period to 1977–2024.The empirical framework incorporates a set of key variables deemed essential for the analysis. The selection of these variables is guided by the underlying theoretical framework and supported by evidence from the existing empirical literature, ensuring their relevance to the objectives of the study. Industrial Gross Domestic Product (IGDP) measures the total value added generated by the industrial sector through the production of goods and services within a given year. Exports (EXPRT) represent the annual value of goods and services sold to foreign markets. Foreign Direct Investment (FDI) is defined as the annual inflow of foreign capital invested in the Moroccan economy. Domestic Investment (DI) reflects the total volume of investment undertaken by domestic economic agents and is proxied by Gross Fixed Capital Formation (GFCF). Human Capital (HC) encompasses the knowledge, skills, competencies, and attributes that contribute to improved economic productivity and social well-being. Due to data availability constraints, human capital is measured using the gross secondary school enrollment rate. Labor (LAB) refers to the total labor force available within the economy. The data employed in this study were obtained from the World Development Indicators (WDI) database of the World Bank and supplemented with information from the databases of the Moroccan Ministry of Finance.

The approach of ARDL

Various econometric methodologies have been applied in the literature to examine the determinants of economic growth. In light of the limitations and criticisms associated with earlier specifications, this study adopts a linear model based on the frameworks proposed by Van den Berg and Ghosh Roy (2006), Bende et al. (2001), and Alaya (2006). This specification enables the analysis of potential complementarities between foreign direct investment (FDI) and other explanatory variables influencing industrial GDP. The baseline model is expressed as follows :

$\mathrm{IGDP}_t = \alpha + \alpha_1 HK_t + \alpha_2 FDI_t + \alpha_3 DI_t + \alpha_4 EXPRT_t + + \alpha_5 PAWF_t + \varepsilon_t$ With :

IGDP : Industrial Gross Domestic Product

DI : Domestic investement

EXPRT : exports

HK : humain capital

FDI : Foreign direct investement

LAB : Potentially available workforce

In this study, we apply an Autoregressive Distributed Lag (ARDL) model developed by M. Hashem Pesaran et al. (2001). The ARDL approach provides a flexible and robust framework for analyzing economic relationships, as it allows for the estimation of both short-run and long-run dynamics while accommodating variables with different integration orders. However, the implementation of this methodology requires several key assumptions and conditions to be met, including consistency with the study's objectives, considerations of causality, model stability, adequate sample size, cointegration properties, the order of integration of the variables, and the stationarity of the time series. These assumptions will be tested and discussed in the subsequent sections of the study. The general ARDL model can be specified as follows :

$$Y_t = \alpha + \sum_{i=1}^{p} a_i Y_{t-i} + \sum_{j=0}^{q} b_j X_{t-j} + \varepsilon_t$$

Where Y_{t-p} is the lagged dependent variable,

X_t denotes the explanatory variables X_{t-q} their lagged values

t: Time unit

ε_t: The error term of the model

In this study, and consistent with the endogenous growth framework, we consider six available variables. In principle, several model specifications could be estimated, with each variable potentially serving as a dependent variable. However, for reasons of economic interpretability, theoretical consistency, and alignment with the main research question on the impact of FDI on domestic investment, the analysis is limited to a single specification. Accordingly, domestic capital is specified as the dependent variable, while all other variables are included as explanatory variables. The resulting model is specified as follows:

$$DI_t = \alpha + \sum_{i=1}^{n} \beta_j IGDP_{t-j} + \sum_{i=1}^{n} \beta_j FDI_{t-j} + \sum_{i=1}^{n} \beta_j DI_{t-j} + \sum_{i=1}^{n} \beta_j EXPRT_{t-j} + \sum_{i=1}^{n} \beta_j HK_{t-j} + \beta_{12} \sum_{i=1}^{n} LAB_{t-j} + \varepsilon_t$$

2. Empirical results

2.1. Stationarity of the Series : ADF Test

To determine the order of integration of the variables included in the model, unit root tests were performed on the level series using the Augmented Dickey-Fuller (ADF) test (1981). The table below reports the ADF test results for the variables considered in this study. The findings indicate that all series are integrated of order one, I(1), except for the labor force series, which is integrated of order zero, I(0). Which provides the appropriate framework for applying the ARDL approach.

Table 1 : ADF Test

Variable	Critical value (Model 3)	Critical value (Model 2)	ADF Probability	Process	Order of Integration	Variable retained for estimation
IGDP	2,06	1,01	1,00	DS	I(1)	D(IGDP)
FDI	3,359	-	0,00	TS	I(1)	D(FDI)
LAB	0.52	2.95	0.000	DS	I(0)	D(PAWF)
DI	2 ,17	0,49	0,00	DS	I(1)	D(ID)
EXP	3 ,73	-	0,0027	TS	I(1)	D(EXPRT)
HK	3,63	-	0,016	TS	I(1)	D(HK)

Prepared by the author using EViews

2.2. Estimation of the ARDL Model :

The ARDL framework allows for the simultaneous estimation of short-run dynamics and long-run relationships between the explanatory variables and the dependent variable, while accounting for temporal lags. The analysis first focuses on the short-run results to assess the immediate impact of changes in the explanatory variables, and subsequently examines the long-run effects to evaluate their sustained influence. This approach provides a thorough assessment of the dynamic relationships within the model.

- **short-run estimation**

The short-run estimation results of the model indicate a significant effect of domestic investment (DI) lagged by one year on current domestic investment, with a coefficient of 0.3946 and a p-value of 0.0002. Regarding exports, the coefficient of D(EXPORT) is -0.2219 with a p-value of 0.0531, suggesting a negative and marginally significant impact on domestic investment. In contrast, the lagged export variable, D(EXPORT (-1)), does not have a significant effect, as indicated by its coefficient of 0.1374 and p-value of 0.2081.

For human capital, the coefficient of D(HK) is -1.2231 (p-value = 0.0000), indicating that changes in human capital have a substantial negative effect on changes in domestic investment. However, the coefficient of D(HK (-1)) is 0.6618 (p-value = 0.0036), showing that past changes in human capital exert a positive influence on current changes in domestic investment.As for our variable of interest,(FDI), the results reveal no significant short-run impact on domestic investment. The error correction term, CointEq (-1), is negative and highly significant (coefficient = -0.9308 ; p-value = 0.0000), indicating a rapid adjustment toward the long-run equilibrium following short-term deviations. Regarding the model's goodness of fit, the R^2 value of 0.7267 suggests that the model provides a good fit to the data.

- **Cointegration Test (Bounds Test)**

The F-statistic is 9.79615, which exceeds the critical values at all significance levels for both asymptotic and finite sample sizes. Therefore, we can reject the null hypothesis of no cointegration across all tested sample sizes. This result suggests the existence of a significant cointegrating relationship among the variables included in the model. See appendix 2.

- **Long-run estimation**

In an ARDL model, long-run estimation aims to capture the stable relationships among the variables under study. This approach makes it possible to measure the long-term impact of changes in the explanatory variables on the dependent variable. The long-run estimation results of the model show that the impact of exports on domestic investment is negative and statistically insignificant, with a coefficient of -0.1102 and a p-value indicating no statistical significance. Regarding our variable of interest (FDI), their impact also appears to be negative and insignificant, with a coefficient of -0.000502 and a p-value of 0.96. Human capital exerts a highly significant effect, with a virtually zero p-value ; however, its coefficient is negative (-0.7717). This implies that a one-unit increase in human capital is associated with a decrease of approximately 0.771 units in domestic investment, holding other factors constant. In contrast, GDP and the labor force have positive and statistically significant effects on the endogenous variable, with coefficients of 2.1960 and 0.5320, respectively, and corresponding p-values of 0.0000 and 0.0185. These results suggest that increases in GDP and labor force participation contribute positively to domestic investment in the long run. See appendix 3.

2.3. Validation of the ARDL Model

- **Breusch–Godfrey Test.**

The results of the Breusch–Godfrey serial correlation test suggest that the residuals of the ARDL model are free from autocorrelation. Since the test probability exceeds the 5%

significance threshold, the null hypothesis of no serial correlation cannot be rejected. This indicates that the error terms are independent over time, confirming the adequacy of the model specification and supporting the reliability and validity of the estimated coefficients.

Table2 : Breusch–Godfrey Test.

F-statistic	Obs*R-squared	Prob. F(2,16)	Prob. Chi-square
3.301746	1.285437	0.0630	0.0016

Prepared by the author using EViews

- **Heteroskedasticity Test (Breusch–Pagan–Godfrey).**

The results reported in the table show that the Breusch–Pagan–Godfrey heteroskedasticity test fails to detect the presence of heteroskedasticity in the model's residuals. Since the associated p-value is greater than the 5% significance level, the null hypothesis of homoskedasticity cannot be rejected. This indicates that the variance of the error terms remains constant across observations, thereby supporting the reliability, consistency, and robustness of the model's estimated coefficients.

Table3 : Test Breusch–Pagan–Godfrey

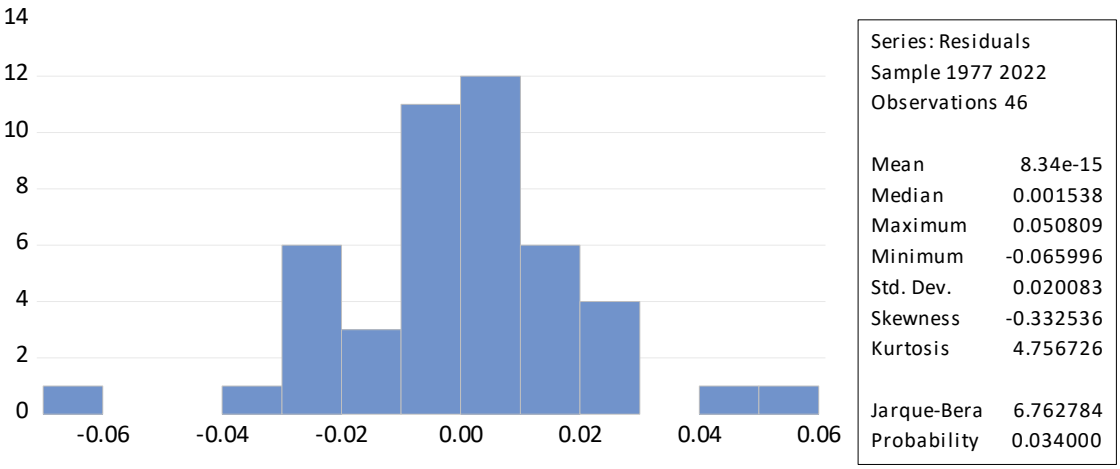
F-statistic	Obs*R-squared	Scaled explained SS	Prob. F(11,34)	Prob. Chi-square
6.909.739	3.178.274	3.261.468	0.0000	0.0008

Prepared by the author using EViews

- **Jarque–Bera Normality Test**

For our model, the Jarque–Bera normality test yields a p-value below the 5% significance level, indicating that the model's residuals do not follow a normal distribution. This result leads to the rejection of the null hypothesis of normality at the 5% level, calling into question the normality assumption of the model and suggesting that a transformation of the data may be required.

Figure 1 : Jarque–Bera Normality Test

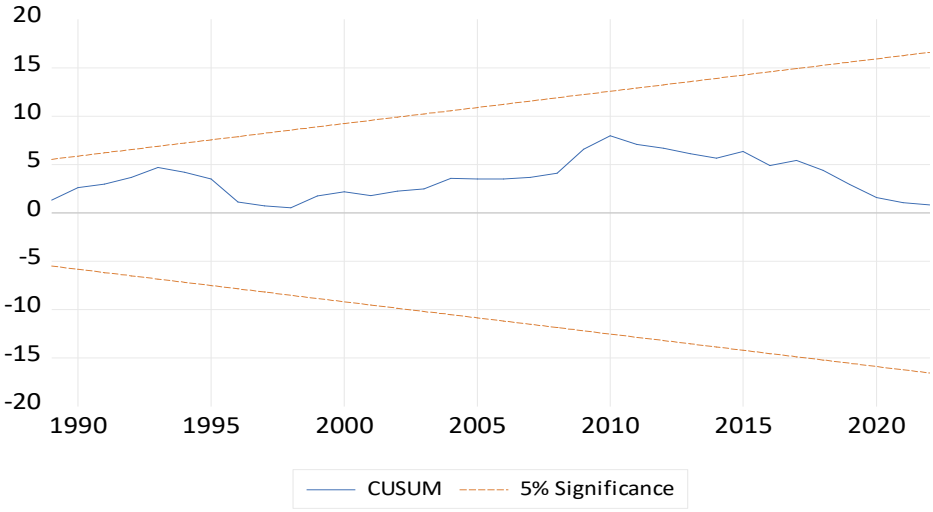


Prepared by the author using EViews

- **Model Stability : CUSUM Test.**

The figure shows that the model parameters are stable, as the blue CUSUM curve remains within the confidence interval bounded by the red lines. This observation allows us to conclude that the estimated model is structurally stable over the sample period.

Figure 2 : CUSUM Test



Prepared by the author using EViews

Overall, the diagnostic tests indicate that the ARDL model is appropriately specified. The results reveal no evidence of autocorrelation or heteroskedasticity in the residuals, while the parameter stability tests confirm the structural stability of the model throughout the sample period. These findings support the validity, reliability, and robustness of the estimated coefficients and the model's overall performance.

3. Discussion :

The short-run estimation results of the model indicate the absence of a significant relationship between FDI and domestic investment. Contrary to both theoretical and empirical studies that suggest a potential link between increasing FDI inflows and the growth of local investment in host countries, this hypothesis is not supported in the Moroccan context. Our empirical findings show that domestic investment is primarily explained by its own lagged values, as well as by lagged exports and human capital. This suggests that variations in domestic investment are mainly influenced by the past performance of these variables rather than by current FDI inflows. The long-run estimation results also reveal that the impact of FDI on domestic investment is negative and extremely small (coefficient = -0.0005) and statistically insignificant, as indicated by a p-value of 0.96, which is well above the 5% significance threshold. This implies that increasing FDI inflows into Morocco do not stimulate domestic investment, contrary to the predictions of some theoretical and empirical studies conducted in other countries.

Overall, the findings of this study suggest the absence of a significant relationship between FDI and domestic investment, indicating that FDI inflows do not exert a measurable influence on local investment. Several contextual and structural factors may explain these results.

First, FDI in Morocco is highly concentrated in specific sectors such as the automotive industry, aeronautics, and infrastructure, which often have limited direct linkages with local firms. Moreover, FDI is geographically concentrated in a limited number of regions, thereby restricting its impact on domestic investment in other areas that do not directly benefit from these investments. Excessive concentration may create economic imbalances, where FDI generates benefits only within certain regions while producing limited spillover effects across the broader national economy.

Second, technological spillovers from FDI may remain limited if domestic firms are insufficiently integrated into multinational corporations' value chains. The advanced technologies and technical expertise brought by foreign investors may not be effectively transferred to local enterprises due to inadequate training, limited absorptive capacity, or weak cooperation between foreign and domestic firms.

Third, institutional and business environment factors may constrain the potential benefits of FDI. Although Morocco has made significant progress in improving its business climate, challenges such as bureaucratic procedures, regulatory barriers, and corruption continue to affect the investment environment. In contexts where institutions are relatively weak or

regulatory obstacles remain significant, FDI may fail to stimulate domestic investment effectively. Furthermore, the ability of local firms to integrate into global value chains may be hindered by insufficient institutional support and inadequate infrastructure.

Finally, a lack of coordination between FDI promotion policies and domestic investment support strategies may reduce the positive impact of foreign investment. If public policies do not actively encourage the integration of FDI into the local economic fabric through partnerships, subcontracting arrangements, and collaboration with domestic firms, the benefits for local investment are likely to remain limited. Effective coordination among key stakeholders—including government authorities, multinational corporations, and small and medium-sized enterprises (SMEs)—is essential to maximize the developmental benefits of FDI and enhance its contribution to domestic investment.

IV. Conclusion

This study investigates the role of domestic capital as a spillover channel through which Foreign Direct Investment (FDI) affects economic growth in the Moroccan industrial sector. Using an ARDL (Autoregressive Distributed Lag) approach, it examines both short-run dynamics and long-run relationships between FDI, domestic capital, and industrial performance within a hypothetico-deductive framework. Overall, the main finding is the absence of a significant relationship between FDI and domestic investment in both the short and long run. In the short run, domestic investment is primarily driven by its own lagged values, exports, and human capital, while FDI does not exert a statistically meaningful effect. In the long run, the impact of FDI remains negative, very small, and statistically insignificant, indicating that FDI inflows do not translate into higher domestic investment in Morocco.Beyond this central result, the study provides three key contributions. First, it highlights the weak transmission of FDI spillovers to domestic investment, challenging standard theoretical assumptions of automatic complementarity between foreign and domestic capital. Second, it shows that domestic investment dynamics in Morocco are largely endogenous, driven more by internal accumulation processes and human capital effects than by external capital inflows. Third, it underscores the importance of structural and institutional constraints, such as limited sectoral linkages, concentration of FDI in capital-intensive activities, and weak integration of local firms into global value chains, in explaining the limited impact of FDI. From a policy perspective, these findings suggest that FDI alone is insufficient to stimulate domestic investment or support sustainable industrial development. Strengthening absorptive capacity through human capital

development, improved firm integration into value chains, and better coordination between investment and industrial policies appears essential. Regarding future research directions, several extensions are suggested. A sectoral disaggregation of FDI would help capture heterogeneous effects across industries. The integration of institutional variables (governance quality, regulatory environment, investment climate) could enrich the analysis. The use of nonlinear models may also reveal more complex relationships between FDI and domestic investment. Finally, comparative studies across MENA countries would enhance external validity and allow for regional benchmarking.

References

Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review, 89*, 605–618.

Aitken, B. J., Hanson, G. H., & Harrison, A. E. (1997). Spillovers, foreign investment, and export behavior. *Journal of International Economics, 43*(1–2), 103–132.

Alaya, M. (2006). Investissement direct étranger et croissance économique : Une estimation à partir d'un modèle structurel pour les pays de la rive sud de la Méditerranée. Université Montesquieu-Bordeaux IV.

Arbia, A., Sobhi, K., Karim, M., & El Asba, O. (2026). *Foreign direct investment and industrial performance in Morocco: empirical analysis using ARDL bound-testing approach*. Journal Africain des Sciences Économiques et de Gestion.

Banque mondiale. (1999). *Rapport sur le développement dans le monde*. Banque mondiale.

Bende-Nabende, A. (2002). Foreign direct investment determinants in Sub-Sahara Africa: A co-integration analysis. *Economics Bulletin, 6*, 1–19.

Blomström, M., & Sjöholm, F. (1999). Foreign direct investment, technology transfer and spillovers: Does local participation with multinationals matter? *European Economic Review, 43*(4–6), 915–923.

Blonigen, B. A. (2005). A review of the empirical literature on FDI determinants (NBER Working Paper No. 11299). National Bureau of Economic Research.

Bouklia-Hassane, R., & Zatla, N. (2001). *L'IDE dans le bassin méditerranéen : ses déterminants et son effet sur la croissance économique*. Cahiers du CREAD, 17(55), 118–143.

Campos, N. F., & Kinoshita, Y. (2003). Why does FDI go where it goes? New evidence from the transition economies (IMF Working Paper No. 03/228). International Monetary Fund.

Caves, R. E. (1974). Multinational firms, competition, and productivity in host-country markets. *Economica, 41*(162), 176–192.

Ghosh Roy, A., & Van den Berg, H. (2006). Foreign direct investment and economic growth: A time-series approach. *Global Economy Journal, 6*(1), 1–21.

Globerman, S. (1979). Foreign direct investment and spillover efficiency benefits in Canadian manufacturing industries. *Canadian Journal of Economics, 12*(1), 42–56.

Hymer, S. H. (1976). *The international operations of national firms: A study of direct foreign investment*. MIT Press.

International Monetary Fund. (2009). *Balance of Payments and International Investment Position Manual* (6th ed.). IMF.

Javorcik, B. S., & Spatareanu, M. (2008). To share or not to share: Does local participation matter for spillovers from foreign direct investment? *Journal of Development Economics, 85*(1–2), 194–217.

Lamsaddar, A., & Ouia, A. (2024). Étude de la relation entre l'investissement direct étranger et la croissance économique : revue de littérature. *International Journal of Accounting, Finance, Auditing, Management and Economics, 5*(6), 450–465.

Lin, P., & Saggi, K. (2005). Multinational firms, exclusivity, and the degree of backward linkages (Kiel Working Paper No. 1250). Kiel Institute for the World Economy.

Lipsey, R. E. (2002). Home and host country effects of FDI (NBER Working Paper No. 9293). National Bureau of Economic Research.

Manuel Agosin & Roberto Machado, 2005. "Foreign Investment in Developing Countries: Does it Crowd in Domestic Investment?," Oxford Development Studies, Taylor & Francis Journals, vol. 33(2), pages 149-162.

Mello, L. R. de. (1997). Investissement direct étranger dans les pays en développement : Un test des approches économiques et politiques. *The Journal of Development Studies, 34*(1), 118–137.

OECD. (2008). *Benchmark definition of foreign direct investment* (4th ed.). Organisation for Economic Co-operation and Development.

UNCTAD. (2001). *World investment report: The rise of services*. United Nations.

UNCTAD. (2007). *World investment report: Transnational corporations, extractive industries and development*. United Nations.

Yahia, Y. E., Haiyun, L., Khan, M. A., Shah, S. S. H., & Islam, M. A. (2018). *The impact of foreign direct investment on domestic investment: Evidence from Sudan*. International Journal of Economics and Financial Issues, 8(6), 185–191.

Appendix 1 : short-run estimation

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ID(-1))	0.394582	0.095631	4.126081	0.0002
D(EXPORT)	-0.221875	0.110745	-2.003478	0.0531
D(EXPORT(-1))	0.137371	0.107043	1.283328	0.2081
D(KH)	-1.223129	0.235526	-5.193189	0.0000
D(KH(-1))	0.661754	0.211903	3.122916	0.0036
CointEq(-1)*	-0.930846	0.103632	-8.982185	0.0000

R-squared	0.726687	Mean dependent var	0.015015
Adjusted R-squared	0.692523	S.D. dependent var	0.038415
S.E. of regression	0.021302	Akaike info criterion	-4.738959
Sum squared resid	0.018150	Schwarz criterion	-4.500441
Log likelihood	114.9961	Hannan-Quinn criter.	-4.649609
Durbin-Watson stat	2.082081		

* p-value incompatible with t-Bounds distribution.

Prepared by the author using EViews

Appendix 2 : Cointegration Test (Bounds Test)

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	9.796815	10%	2.08	3
k	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15
Actual Sample Size	46		Finite Sample: n=50	
		10%	2.259	3.264
		5%	2.67	3.781
		1%	3.593	4.981
			Finite Sample: n=45	
		10%	2.276	3.297
		5%	2.694	3.829
		1%	3.674	5.019

Prepared by the author using EViews

Appendix 3 :

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PIBI	0.902326	0.276101	3.268098	0.0043
POPA	1.137623	0.098684	11.52790	0.0000
IDI	-0.047278	0.009639	-4.904966	0.0001
EXPORT	-0.130537	0.162488	-0.803365	0.4322
ID	-0.173282	0.090824	-1.907888	0.0725
C	-12.37651	1.336298	-9.261790	0.0000

EC = KH - (0.9023*PIBI + 1.1376*POPA -0.0473*IDI -0.1305*EXPORT -0.1733 *ID - 12.3765)

Prepared by the author using EViews