

## Foreign Direct Investment and Tax Revenue in Morocco : The Moderating Role of Trade Openness.

Auteur 1: NACIRI MOHAMED,

Auteur 2: ZAHRA MANSOURI,

**NACIRI MOHAMED**

<https://orcid.org/0009-0007-5341>

(doctoral student in economics and management)

IBN TOFAIL University Kenitra Morocco

**ZAHRA MANSOURI**, (Professeur)

Economics and Organisation Management Laboratory-LEMO

IBN TOFAIL University Kenitra Morocco

**Déclaration de divulgation** : L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

**Conflit d'intérêts** : L'auteur ne signale aucun conflit d'intérêts.

**Pour citer cet article** : NACIRI .M & MANSOURI .Z (2025). « Foreign Direct Investment and Tax Revenue in Morocco : The Moderating Role of Trade Openness», African Scientific Journal « Volume 03, Num 32 » pp: 1208 – 1230.



DOI : 10.5281/zenodo.17521572

Copyright © 2025 – ASJ



### **Abstract**

In the context of increasing globalization, foreign direct investment (FDI) is widely acknowledged as a significant source of external financing for countries. This study aims to empirically evaluate the influence of FDI on tax revenues in Morocco while considering the moderating effect of trade openness. The research covers the period from 1990 to 2022. The results obtained through Generalized Method of Moments (GMM) modeling reveal that both inward and outward FDI have a negative impact on Morocco's tax structure. These findings can primarily be attributed to tax optimization strategies and the relocation practices of multinational companies. Additionally, when examining the interactive term of the transmission channels of trade openness, which includes customs duties, import liberalization, export promotion, and exchange rate variability, it is observed that trade taxes decrease, while domestic tax revenues increase.

**Keywords : FDI, Tax revenues, Trade openness, GMM**

## 1. Introduction

Foreign direct investment (FDI) holds significant importance in the internationalization process of companies. Technological advancements, liberalization of business investment regulations, and developments in capital markets have driven these changes, leading to significant transformations in the size, scope, and methods of FDI.

Productive FDI is characterized by sustainable and stable capital flows in the form of long-term investments in a country's assets. This injection of capital stimulates aggregate demand and contributes to economic growth. Local companies face competitive pressure from FDI presence, prompting them to increase productivity to effectively compete with foreign firms. This, in turn, boosts national income growth (Merajothu, 2020). FDI also plays a positive role in job creation, as increased productivity and competitiveness lead to more jobs and help integrate the economy into the global context. Advances in information technology systems and reduced global communication costs have significantly improved the efficiency of foreign investment management compared to the past (Saucedo et al., 2020).

In the era of increasing globalization, FDI is recognized as a crucial external finance source for all countries, but a substantial financing gap poses a threat to achieving the Sustainable Development Goals (SDGs), particularly in developing nations. According to the United Nations Conference on Trade and Development (UNCTAD) in 2020, developing countries need \$9,000 billion annually to meet their financing needs, but only \$4.5 trillion can be raised. Hence, it becomes imperative to mobilize all available funding sources.

FDI is the primary external finance source for developing countries, surpassing remittances and official development assistance (ODA). Moreover, FDI can create fiscal space for countries seeking to mobilize public financial resources. By taxing profits, wages, and other contributions related to foreign companies' activities, FDI can boost host countries' tax revenues. This increased revenue provides governments with additional means to finance development initiatives and strengthens their ability to mobilize domestic financial resources.

Theoretical evidence supports the positive impact of FDI on companies' productivity, leading to higher industrial and commercial profit (ICP) and a broader tax base for corporation tax, resulting in increased tax revenues. FDI in labor-intensive sectors also creates more jobs and expands the personal income tax base. Additionally, technology transfer and knowledge diffusion from FDI enhance host country productivity, generating more revenue (Gajigo et al., 2012; Nguyen et al., 2014), benefitting both multinational companies and the public administration through income tax.

At the national level, Morocco heavily relies on tax revenues, accounting for over 80% of its total income. Despite tax reforms between 1980 and 2000 aimed at diversifying the tax base and increasing domestic resource mobilization, Morocco still maintains a relatively high tax burden compared to other

African countries, representing 26% of GDP. This high tax pressure hampers investment levels and limits companies' maneuverability, resulting in reduced state revenue and encouraging fraud, corruption, and tax evasion. Furthermore, agriculture's dependency on rainfall conditions, industry's vulnerability to oil price fluctuations, and the prevalence of services in the informal sector have motivated Morocco to liberalize trade, attracting multinational companies and increasing FDI milestones.

### **Objective of the research**

Despite numerous studies on taxation, the structure of Moroccan tax revenues has not received much empirical attention concerning the impact of FDI flows. This study aims to explore the relationship between FDI and tax revenue mobilization, incorporating the moderating effect of trade openness instruments, such as customs duties, import liberalization, export promotion, and exchange rate variability.

Given the significance of international taxation as a primary funding source for the Moroccan state budget, two main questions arise : **To what extent does FDI affect the Moroccan tax structure ?**

### **What about the transmission channels of trade openness ?**

The research hypotheses are as follows :

**H1:** FDI had a positive and significant impact on tax revenues;

**H2:** Lowering customs duties would lead to a negative relationship between FDI and tax revenue;

**H3:** import demand would moderate a positive link between FDI and tax revenues ;

**H4:** A depreciation of the domestic currency generates a negative relationship between FDI and tax revenues.

### **Structure of the research**

**This paper is structured into three main parts.**

The first part deals with the literature review related to FDI, trade openness, and fiscal performance. The second is devoted to the presentation of the research methodology, including the econometric specification, the source of the variables and the estimation technique. The last part will be devoted to the results and discussions, and including recommendations.

## **2. Literature review**

### **2.1. Foreign direct investment and tax revenue**

The existing literature on foreign direct investment (FDI) partly suggests that FDI can potentially have a positive influence on tax revenues. However, other studies indicate that the positive effects of FDI on tax revenues are not systematic. In fact, FDI can even have negative effects on tax revenues, through a variety of mechanisms. The direction of FDI's impact is intrinsically linked to the political and economic structure prevailing in the host country.

### **2.1.1 The positive impact of FDI on tax revenues**

Foreign direct investment (FDI) positively impacts tax revenues through various mechanisms, such as increased productivity, technology transfer, and job creation. Additionally, it also indirectly influences consumption, trade, and employment in the host country. FDI flows provide financial resources for formal sector activities, leading to higher value-added tax revenues, as indicated by UNCTAD (2012). Furthermore, by promoting the creation of new jobs, FDI generates additional tax revenues from labor income (Fuest and Riedel, 2009 ; UNCTAD, 2012).

According to (Fuest and Riedel, 2009), FDI can improve customs revenues by stimulating exports and facilitating market access and supplies (Anwar and Nguyen, 2011). Additionally, it contributes to revenue generation through knowledge transfer and technology diffusion, especially in natural resource exploitation. Capital gains and profits from FDI impact corporate tax revenues in the host country (Danielova and Sarkar, 2011 ; UNCTAD, 2012). Broadening the tax base through FDI flows can enhance revenue collection and encourage investment and employment opportunities.

For countries rich in natural resources, democratic institutions with higher transparency levels, as researched by Ehrhart (2011), positively affect tax revenues from initial resource rents. Transparency in resource-rich countries can enhance the revenues generated by FDI, as most investment goes into natural resource exploitation in developing nations. A solid and transparent institutional environment attracts more foreign investors, ensuring their effective contribution to tax revenues.

### **2.1.2 The negative impact of FDI on tax revenues**

Numerous studies detail how foreign direct investment (FDI) can adversely impact tax revenues through various mechanisms. Tax incentives, tax evasion, and tax avoidance by multinational companies can compromise tax revenue mobilization. Furthermore, FDI's intense competition can displace domestic companies, leading to reduced tax revenues.

UNCTAD's research (2012) indicates that FDI may cause outflows of financial resources due to revenue or cost repatriation. Gropp and Kostial (2000) found that multinational groups can transfer taxable income to countries with lenient tax systems using mechanisms like transfer pricing and debt financing, thus reducing the tax base in FDI host countries.

For instance, Gropp and Kostial (2001) provided a specific case where a multinational establishes itself in a high-tax country but sources inputs from a low-tax subsidiary. By overstating input prices during trading, the multinational inflates profits in the low-tax country while diminishing profits in the high-tax country, reducing its global tax liabilities.

Fuest and Riedel (2009) confirm that multinationals manipulate profits through artificial trade price shifts. Goods exported to developing countries have inflated prices, artificially increasing incomes there, while goods imported from developing countries have artificially low prices, benefiting developed

economies. This enables multinationals to shift added value from developing to developed countries, maximizing their profits.

Research by Zee et al (2002) highlights the widespread use of tax incentives to attract FDI, leading to negative consequences such as lost tax revenue. Tax incentives, like free economic zones with low or zero corporate tax rates, reduce the tax base and distort resource allocation, favoring sectors benefiting from tax advantages.

Furthermore, tax exemptions create opportunities for corruption and rent-seeking, negatively impacting tax revenues due to the lack of transparency in their treatment. The IMF (2011) emphasizes that significant tax reductions applied to FDI can considerably reduce their effects on tax revenues. Hence, tax incentive policies must be designed carefully to maximize tax revenues while attracting FDI.

### **2.1.3 Overview of other previous empirical work**

Research by Dunning (1993) and Raff and Srinivasan (1998) focused on outward FDI's impact on tax revenues. Dunning suggested that the impact of FDI on the welfare of the host country depends on its bargaining power with foreign investors, manifested through fiscal incentives, such as tax reductions on production or labour costs, aimed at attract foreign investment, or through the tax imposed on foreign investors.

Okey (2013) studied the effect of foreign direct investment on tax revenue collection in West African countries from 1989 to 2009. The author concluded that FDI inflows had a positive impact on tax revenue, but specifically for French-speaking ECOWAS countries.

Bunescu and Comaniciu (2014) analyzed factors influencing tax revenues in 27 European Union countries from 1995 to 2011. The researchers found a moderate positive impact of FDI flows on tax revenues in these countries. In another study, Tabasam (2014) investigated the interaction between tax revenue and foreign capital flows in Pakistan over a period from 1975 to 2012. He concluded that FDI inflows had a detrimental effect on tax revenues. Aslam (2015) examined the long-term relationship between FDI inflows and tax revenues in Sri Lanka from 1990 to 2013. His results revealed a significantly positive contribution of FDI inflows to tax revenues in this country.

Bal and Fazl (2016) Analyzed the influence of FDI inflows on tax payments of firms operating at different technology levels in Turkey, from 2004 to 2012. Their results revealed an increase in corporate tax payments with higher impact in high-tech firms. Odabas (2016) studied the causal relationship between tax receipts and FDI receipts in seven EU transition economies from 1996 to 2012. The study revealed the existence of a one-way causal relationship from FDI receipts to tax receipts.

Gnangnon (2017) analyzed that FDI's impact on government revenue covering the period from 1980 to 2013 depends on FDI inflow levels, with higher FDI having a more significant impact, While low levels of FDI have only a limited impact on government revenue.

Bayar and Ozturk (2018) studied the effect of foreign direct investment flows on tax revenues in 33 OECD countries from 1995 to 2014. The results revealed the existence of a unidirectional causality between FDI inflows and total tax revenues in OECD countries.

Basheer et al (2019), identified that that tax revenues are influenced by a various domestic financial and economic factors, particularly the cash surplus deficit and net FDI inflows.

Camara (2019) examined the impact of FDI inflows in tax revenue mobilization in developing countries from 1996 to 2017. The results showed that FDI inflows lead to increased tax revenues in developing countries, except for resource-exporting countries.

Gaspareniene et al, (2022) analyzed the effect of FDI on tax revenues and competitiveness in EU countries from 1999 to 2019. Their empirical results revealed that outward FDI stimulates total tax revenues, while inward FDI moderates tax revenues. Analysis of the lagged effect of FDI on tax revenues demonstrated a significant lagged effect of outward FDI. The estimates indicate that the lag effect is incentive-based. No significant lagged effect of FDI inflows on tax revenues was found.

## **2.2 Trade openness and foreign direct investment**

Ghosh and Idradeep (2007) conducted a study examining the link between trade openness and FDI commitments in developing countries. Their dynamic panel estimation revealed First of all a positive effect of trade openness on FDI commitments. Secondly, using the Granger test, they established a unidirectional causality from FDI to trade openness.

Panagiotis et al, (2012) analyzed 36 developing economies from 1990 to 2008 to assess the trade openness's effect on FDI flows. The main finding from their panel regression analysis indicated that, trade openness contributes positively to FDI flows in the long run for these developing economies.

Fazekas and Gabor (2016) conducted an analysis on the influence of trade openness on FDI in Central and Eastern Europe. Their research revealed that international trade serve as an effective transmission channel to attract foreign capital. However, the attraction of foreign capital may varies from countries and sectors in the region. Additionally their correlation analysis highlighted differences between Central and Eastern European countries in terms of how Chinese investors react to the level of trade openness in countries such as Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania and Romania.

Adow and al, (2018) assessed the effect of trade openness on FDI in the Sudanese economy from 1990 to 2017 using Johansson's cointegration technique. The results showed that there is a long-run equilibrium relationship between trade openness and FDI flows. Thus, Cantah et al, (2018) suggested that an open economy attracts FDI. The study recommends efforts to reduce the cost of trade in Sub-Saharan Africa.

Mudiyanselage and al, (2021) investigated the causal relationship between trade openness and FDI inflows in Romania from 1997 to 2019. Based on the ARDL model, their results showed a negative and

statistically significant long-run and short-run relationships between trade openness and FDI inflows in Romania. They suggested that higher level of openness lead to a reduced likelihood of attracting FDI in the long term. The Granger causality test indicated a unidirectional relationship between trade openness and FDI in Romania.

### 3. Trade openness and tax revenues

Agbeyegbe, Stotsky and WoldeMariam (2006) studied trade openness, exchange rates, and tax revenues on a panel of 22 sub-Saharan African countries from 1980 to 1996 using the generalised method of moments (GMM). The results indicated that trade openness has no significant effect on total tax revenues, but showed a weak positive correlation with trade taxes. Additionally, the exchange rate had no impact on tax revenues.

Khattry and Rao (2002) analyzed a panel of 81 developing countries from 1978 to 1999 to assess the impact of trade liberalization on tax revenues. Their findings suggested that trade liberalization has a negative effect on total tax revenues as well as on tax revenues from foreign trade, attributed decreased customs tariffs. This lead to challenges for the State in generating domestic tax revenues, resulting in a decline in total tax revenues and, consequently increased debt.

The Economic Commission for Africa (ECA, 2004) conducted a study on African countries using the method of moments (GMM) on a panale data from 1980 to 2012, highlighting how trade openness can lead to fiscal instability due to the dependence of these economies on international trade taxes. The main conclusion showed that the decrease in trade taxes can be offset by an increase in domestic revenues, particulary value-added tax (VAT).

Khattry (2003) investaigates the relationship between trade liberalization and revenue composition. Results indicated that trade liberalization leads to a reduction in tax revenues and exacerbates the budget deficits. Governments, in ordre to offset this reduction may reduce public spending or borrowing, both domestically and internationally, increasing public debt and interest charges on the debt.

Keen and Ligthart (2002) found that trade liberalization, including reduction in tariffs, significantly impacted developing countries' tax structures and positively effecting national taxation, particularly income and consumption taxes. However, the results showed a reduction in revenue from trade taxes. Consequently, trade liberalization reduces fiscal dependence on foreign trade by compensating for the loss of trade tax revenue through increased income and consumption taxes.

Baunsgaard and Keen (2005) studied the issue of offsetting tax revenue losses from trade taxes through domestic tax revenues through a panel data of 125 countries from 1975 to 2000. They concluded that trade liberalization in low-income countries did not compensate for lost tax revenues.

Keen and Simone (2004) discovered that trade opening had a negative impact on tax revenues when accompanied by a reduction in customs tariffs. However, they pointed out that trade opening could have

a positive effect on tax revenues if paired with a reduction in non-tariff barriers, simplifying of customs procedures, limiting import quotas and lowering customs duty rates. Rodriguez and Rodrik (1999) found a positive correlation between trade openness and tax revenues, emphasizing the crucial role of the state and the quality of institutions in a context of increased trade liberalization. They stressed that the quality of institutions and effective regulations are essential factors in ensuring that trade openness translates into increased tax revenues.

### 3. Methodological framework

#### 3.1. Specification of the empirical model

In this subsection, we present the various econometric specifications to estimate the effect of foreign direct investment on tax revenues. The fundamental empirical specification capturing this effect is as follows :

$$FR_t = \alpha + \beta FR_{t-1} + \gamma FDI_t + \theta X_t + \varepsilon_t \quad (1)$$

Where :

X: the matrix of economic explanatory variables represents the variables that reflect the level of the tax base resulting from the taxpaying capacity of each sector of the Moroccan economy.

FDI : foreign direct investment as a percentage of GDP.

FR : total tax revenue as a percentage of GDP.

FR<sub>t-1</sub> Total tax revenue as a percentage of GDP from the previous year.

The following econometric specifications detail the macroeconomic control variables' structure that influence tax mobilization, including FDI :

$$FR_t = \beta_0 + \beta_1 FR_{t-1} + \beta_2 \text{LogGDPH}_t + \beta_3 \text{AGVA}_t + \beta_4 \text{MVA}_t + \beta_5 \text{INFLR}_t + \beta_6 \text{LogAWP}_t + \beta_7 \text{IQI}_t + \beta_8 \text{FDI}_t + \varepsilon_t \quad (2)$$

$$RF_t = \beta_0 + \beta_1 FR_{t-1} + \beta_2 \text{LogGDPH}_t + \beta_3 \text{AGVA}_t + \beta_4 \text{MVA}_t + \beta_5 \text{INFLR}_t + \beta_6 \text{LogAWP}_t + \beta_7 \text{IQI}_t + \beta_8 \text{FDI}_t * \text{COR}_t + \varepsilon_t \quad (3)$$

To achieve our research objectives, we have constructed a time series dataset from 1990 to 2022. The data used in this econometric study sourced from two data sources. The macroeconomic variables are obtained from the World Bank, while the institutional quality index is sourced from the ICRG (International Country Risk Guide) database.

#### 3.2 Definition and Selection of Variables

In this section, we define the variables used in our study and provide the rationale behind their selection.

- **Dependent Variable : Tax Revenue (RF)**

Tax revenue refers to the income generated by the State from various tax sources at central and local levels, including income taxes, VAT, customs duties, sales taxes, excise duties, social contributions, and others. The tax revenue-to-GDP ratio indicates the proportion relative to economic size, reflecting the

country's fundraising capacity for financing public spending, investments, and social services. Ratios vary across countries due to economic structure, tax policies, and development level.

- **Main Explanatory Variable : Foreign Direct Investment (FDI)**

Foreign direct investment (FDI) is capital flow and investment by foreign entities in an economy. We study the impact of inward and outward FDI on host and home countries' economies. Inward FDI occurs when foreign investors invest in a country's projects or assets, while outward FDI happens when domestic investors invest abroad to expand business or access new markets.

- **Moderating Variable : Commercial Opening Rate (COR)**

Trade openness, expressed as the ratio of exports and imports to GDP, can influence tax mobilization. Increased trade openness may stimulate trade volume, leading to higher trade taxes and potentially enhancing tax revenue. However, trade liberalization policies in developing countries, involving customs duty reductions, could result in a loss of tax revenue.

- **Gross Domestic Product per Inhabitant (GDPH)**

GDP per capita measures development, indicating a higher capacity to pay and collect taxes. As development increases, there is typically higher demand for public goods and services (Wagner's law). Therefore, we anticipate a positive impact of GDP per capita on tax revenues.

- **Agricultural Value Added (AVA)**

The ratio of agricultural value added to GDP serves as an indicator of the economic structure or sectoral composition. In developing countries, taxing the agricultural sector effectively is challenging due to factors like smallholders' dominance, informal markets, and lack of formal accounting systems. Consequently, we expect a negative effect of agricultural value added on tax revenues.

- **Manufacturing Value Added (MVA)**

The ratio of manufacturing value added to GDP indicates economic structure or sectoral composition. A larger manufacturing industry is generally easier to monitor and tax, leading to higher tax performance. Thus, we expect a positive effect of manufacturing value added on tax revenues.

- **Inflation Rate (INFL)**

The inflation rate measures the variation in the prices of goods and services, indicating changes in consumers' purchasing power. High inflation can have negative consequences for the economy, potentially affecting tax revenues.

- **Institutional Quality Index (INST)**

The Institutional Quality Index evaluates the quality and effectiveness of a country's institutions in delivering public services, enforcing the law, protecting property rights, fighting corruption, and other governance aspects. Stronger and more effective institutions generally lead to better tax collection mechanisms and revenue generation.

- **Employed Labour Force (LF)**

The employed labour force includes people employed full-time or part-time, wage earners or self-employed, in the formal or informal sector. It reflects the level of employment in an economy and generally has a positive relationship with tax collection.

### 3.3 Econometric estimation method

When conducting an estimation of the baseline specification, several econometric issues require careful consideration and resolution. Firstly, we must address the potential endogeneity of Foreign Direct Investment (FDI) due to the reverse causal relationship between tax policy and investment decisions. It is plausible that the government might reduce tax burdens to attract foreign investors, creating a correlation between FDI and the error term in the model. To account for this, we need appropriate methods.

Furthermore, the presence of a lagged dependent variable among the explanatory variables introduces bias in dynamic modeling (Nickell, 1981) because of the correlation between the lagged dependent variable and the error term. In such a scenario, using an Ordinary Least Squares (OLS) estimator would not be appropriate (Roodman, 2009). Alternative estimation techniques are required to handle this situation effectively.

#### 3.3.1 Estimation Method - GMM Estimator :

In line with the empirical literature, we use the instrumental variable GMM estimator. Gnanon (2017) and others take the same approach using the GMM estimator to estimate the impact of FDI flows on total tax revenue.

The GMM estimator is given by :

$$=(X'Z(Z'\Phi Z)^{-1})^{-1} X'Z (Z'\Phi Z)^{-1} Z'Y$$

With :

Y: the variable to be explained

X: explanatory variables

Z: instruments (used to address endogeneity).

$\Phi$  The variance-covariance matrix of the residuals estimated in the first stage using the instrumental variables method.

#### 3.3.2 Endogeneity Test - Wu-Hausman Test :

In time series, this estimation technique consists of testing the endogeneity of explanatory variables assumed to be exogenous using the Wu-Hausman test according to the following hypothesis :

H0 : the variable is exogenous

H1 : the variable is endogenous

Under hypothesis H0, the Hausman statistic is given by the following formula :

$$H = \text{DMC} - \text{MCO}' \text{VarDMC} - \text{VarMCO} - 1(\text{DMC} - \text{MCO})$$

The Hausman test statistic follows a chi-square distribution with  $k$  ddl. If the probability associated with the Hausman test is less than 5%, we accept  $H_0$ , which represents the endogeneity hypothesis.

### 3.3.3 Instruments Validity Test - Sargan Test :

We then turn to the validity of the instruments in the GMM estimation and use the Sargan test to check the over-identification restrictions used in the regressions.

Consider the following hypothesis test :

$H_0$  : instruments are not correlated with a set of residuals

$H_1$  : Instruments are correlated to a set of residuals

The test is based on the statistic :

$$S = n^2 \mathbf{V}'\mathbf{Z}'\mathbf{Z}\mathbf{Z}'\mathbf{V}\mathbf{Z}'\mathbf{Z}$$

- Where  $Z_t$  is the instrument matrix.
- The test statistic follows the Chi-square distribution with  $I-P$  degrees of freedom, where  $I$  is the number of instruments and  $P$  is the number of parameters to be estimated.

If the P-value associated with the Sargan test is greater than 5%, we accept  $H_0$ , indicating that the instrumental variables are valid, and therefore they are not correlated with the residual term.

## 4. Results and discussion

In this section, we present the empirical estimates of the various econometric models that explore the relationship between FDI and tax revenues. Additionally, we model the moderating effect of trade openness indicators.

Firstly, we present the various estimates obtained from the econometric specifications. Secondly, we validate the main stochastic hypotheses, with a particular focus on the endogeneity hypothesis. Lastly, we explain the results obtained from our analysis.

**Table 1: The effect of foreign direct investment on tax revenues**

<b>Estimator : GMM</b>					
<b>T= 1990-2022</b>					
<b>Variables</b>	<b>FRT</b>	<b>FR_IR</b>	<b>FR_CT</b>	<b>FR_VAT</b>	<b>FR_ET</b>
<b>explanatory</b>					
<b>L.FR</b>	0,452*** (0,000)	0,311*** (0,000)	0,237*** (0,000)	0,551*** (0,000)	0,277*** (0,000)
<b>LogGDPH</b>	0,870*** (0,004)	0,812*** (0,000)	0,516*** (0,000)	0,930*** (0,000)	0,870 (0,108)
<b>AGVA</b>	-0,477*** (0,000)	-0,522*** (0,000)	-0,420*** (0,003)	-0,577*** (0,000)	-0,301*** (0,000)
<b>MVA</b>	-0,190** (0,040)	-0,078** (0,020)	-0,088*** (0,000)	-0,260** (0,010)	-0,079* (0,080)
<b>INFL</b>	-0,305*** (0,000)	-0,150*** (0,000)	-0,097** (0,040)	-0,101** (0,033)	-0,005* (0,093)
<b>LogPOP</b>	-0,944*** (0,007)	-0,405** (0,027)	-0,380*** (0,000)	-0,551*** (0,001)	-0,256** (0,022)
<b>INST</b>	-0,054 (0,110)	-0,503 (0,168)	-0,209 (0,448)	-0,522 (0,301)	-0,381 (0,770)
<b>FDI_IN</b>	-0,409*** (0,000)	-0,118** (0,040)	-0,150*** (0,000)	-0,301** (0,030)	-0,211** (0,051)
<b>FDI_OUT</b>	-0,611*** (0,000)	-0,204*** (0,000)	-0,329* (0,094)	-0,366*** (0,001)	-0,130*** (0,000)
<b>Constant</b>	3,332*** (0,000)	12,764* (0,082)	5,076*** (0,002)	2,330** (0,040)	7,990*** (0,000)
<b>R2</b>	0,722	0,697	0,811	0,880	0,791
<b>Wu-Hausman</b>	0,029	0,000	0,005	0,000	0,046
<b>Sargan</b>	0,176	0,662	0,093	0,401	0,117
<b>Significance : *** 1% ; ** 5% ; *10%</b>					
<b>Probability values are in brackets (.)</b>					

Source : Compilation by the author

**Table 2: The moderating role of trade openness in the effect of foreign direct investment on tax revenues**

<b>Estimator : GMM</b>					
<b>T= 1990-2022</b>					
<b>Variables</b>	<b>FRT</b>	<b>FR_IR</b>	<b>FR_CT</b>	<b>FR_VAT</b>	<b>FR_ET</b>
<b>explanatory</b>					
<b>L.FR</b>	1.330*** (0.004)	1.110*** (0.000)	0,973*** (0.001)	1.522*** (0,000)	1.050** (0.049)
<b>LogGDPH</b>	13,829* (0.060)	16.132*** (0,000)	16.196*** (0.000)	17.004*** (0.000)	17.839*** (0.000)
<b>AGVA</b>	-0,940*** (0,005)	-0,202 (0,323)	-0,788* (0,069)	-0,800** (0,051)	-0,351* (0,071)
<b>MVA</b>	-0,832*** (0,000)	-0,875*** (0,000)	-0,977*** (0,000)	-0,680*** (0,000)	-0,930*** (0,000)
<b>INFL</b>	-0,699 (0.102)	-0,588*** (0.019)	-0,367 (0.127)	-1.044*** (0,001)	-0,436 (0.293)
<b>LogPOP</b>	-0,816*** (0.003)	-0,884*** (0.000)	-0,795*** (0.000)	-1.161*** (0,000)	-0,530 (0.289)
<b>INST</b>	6,210 (0,133)	5.146 (0,119)	5,677 (0,207)	3,715 (0,199)	2,402 (0,286)
<b>FDI*TCER</b>	0,244*** (0,000)	0,119*** (0,000)	0,104** (0,030)	0,174* (0,072)	-0,061*** (0,000)
<b>FDI*M/GDP</b>	0,211*** (0,000)	0,204* (0,061)	0,228*** (0,000)	0,211** (0,052)	-0,062** (0,030)
<b>FDI*X/GDP</b>	0,510*** (0,000)	0,310** (0,051)	0,227* (0,074)	0,311*** (0,000)	-0,108*** (0,009)
<b>FDI*CD</b>	-0,622*** (0,000)	-0,597*** (0,000)	-0,553*** (0,000)	-0,877** (0,059)	-0,448** (0,044)
<b>Constant</b>	-50.258* (0,073)	-29,805 (0,189)	-13,171 (0,605)	-45,362 (0,105)	35,758 (0,611)
<b>R2</b>	0,7991	0,8586	0,8200	0,8083	0,7895
<b>Wu-</b>	0,0178	0,0833	0,0381	0,0479	0,0006
<b>Hausman</b>					
<b>Sargan</b>	0,6412	0,1180	0,6881	0,2148	0,9725
<b>Significance : *** 1% ; ** 5% ; *10%</b>					
<b>Probability values are in brackets (.)</b>					

- Source: Authors' compilation

#### **4.1. Statistical interpretation of estimated models**

The estimated models demonstrate significant overall significance and a satisfactory fit, with large coefficients of determination. The Wu-Hausman test's probabilities are all below 5% in each specification. Thus, we reject H<sub>0</sub> (variable exogeneity) and accept H<sub>1</sub> (variable endogeneity). These results confirm endogeneity of trade openness and institutional quality. The Sargan test assesses restrictions of over-identification, testing if instrumental variables are uncorrelated with residuals, implying validity. Sargan's test probabilities exceed 5%. Therefore, we accept H<sub>0</sub> (valid instruments), indicating appropriate instrumental variables not correlated with residuals.

#### **4.2. The effect of inward FDI**

According to the results, inward foreign direct investment (FDI) negatively affects Morocco's overall tax structure. The negative impact on corporation tax receipts is due to multinational companies engaging in tax optimization, transferring profits to low-tax jurisdictions. FDI also erodes the tax base as companies benefit from tax deductions and incentives, reducing their tax liability. While the government may grant tax benefits to encourage FDI, it can result in reduced tax revenues from corporation tax, leading to a potential increase in personal income tax.

Regarding income tax receipts, FDI's impact remains negative because it does not significantly influence the labor market in Morocco. As a result, workers' personal income does not generate sufficient tax revenues from employee income tax.

The negative impact on value-added tax (VAT) receipts can be attributed to VAT fraud and tax evasion. Some companies in Morocco exploit cross-border transactions to avoid applying VAT or manipulate VAT rules to reduce their tax liabilities.

Multinational companies investing through FDI in Morocco use tax avoidance strategies, including VAT, by transferring goods or services between subsidiaries to artificially reduce income subject to VAT.

Furthermore, FDI negatively affects business taxes, as Morocco often attracts foreign investment through advantageous tax regimes, including reductions or exemptions from trade taxes like customs duties and taxes on imports or exports. Free trade zones and special economic zones also offer tax exemptions or customs advantages to foreign companies, resulting in lower tax revenues for Morocco.

Multinational companies use profit transfer mechanisms to reduce their exposure to trade taxes by shifting profits to low-tax jurisdictions or using artificially low transfer prices in Morocco.

In some cases, FDI leads to a decline in local economic activity, especially in competing sectors, as foreign companies import goods or services at more competitive prices, reducing demand for locally produced goods or services.

### **3. The effect of outward FDI**

The negative impact of outward foreign direct investment (FDI) on tax revenues can be attributed to profit relocation. Domestic companies engaging in outward FDI use tax optimization strategies to reduce their tax burden. They transfer profits to subsidiaries in low-tax countries using profit transfer mechanisms, high license fees, royalties, or interest charges. This practice of offshoring profits reduces corporation tax revenues in the home country (Morocco).

Outward FDI also leads to a reduction in taxable profits in Morocco. When domestic companies invest abroad, they deduct associated costs like research and development expenses, operating costs, or interest charges on loans, further impacting tax revenues.

Similarly, outward FDI has a negative effect on personal income tax revenues due to job relocation. Domestic companies relocating activities to countries with low labor costs result in job losses in the country of origin and a reduction in taxable income for local workers.

Economic modeling indicates a negative impact on value-added tax (VAT) and foreign trade tax revenues. Outward FDI leads to a relocation of production to low labor cost countries or tax-advantaged jurisdictions, reducing local production, sales, and consequently VAT receipts.

The fragmentation of supply chains is another explanation for this result. Outward FDI leads to the division of production and operations between international subsidiaries, resulting in commercial transactions at reduced prices or with tax exemptions, thereby reducing VAT revenues in Morocco.

Regarding foreign trade revenues, trade taxes like customs duties or sales taxes also decrease as fewer goods are imported or produced locally, and fewer trade transactions occur due to outward FDI. Additionally, companies use outward FDI to avoid or reduce customs duties on imported products by setting up subsidiaries or production plants in countries with advantageous trade agreements or free trade zones, allowing them to avoid paying customs duties that would apply if the products were imported directly.

#### **4.4. The moderating effect of openness trade indicators**

##### **4.4.1. The exchange rate**

The modelling results show that exchange rate fluctuations have a significantly negative impact on trade revenues, while they have a positive influence on domestic tax revenues, particularly those linked to corporation tax (CT), income tax (IR) and value added tax (VAT).

These results provide a better understanding of the impact of exchange rate devaluation policies. Such policies are beneficial for overall economic activity, leading to an increase in domestic tax revenues. It should be noted that devaluation leads to an increase in the cost of imported goods, resulting in a decrease in trade-related tax revenues. However, this leads to an increase in the cost of consuming tradable goods,

which encourages consumers to shift their preferences towards non-tradable goods. This shift results in an increase in domestic demand, leading to an increase in domestic tax revenues.

#### **4.4.2. Exports**

According to economic theory, trade openness should boost a state's domestic tax revenues via two channels : economic growth and export earnings. However, in Morocco, trade openness has limited impact on economic growth, and export revenues remain low due to limited exportable supply quality. The ratio of exports to GDP does impact domestic revenues positively, but this contradicts theoretical expectations, as it cannot be solely attributed to trade openness.

The positive impact of the export/GDP ratio on domestic tax revenues results from contributions made by exporting companies, paying Corporation Tax (CIT), Income Tax (IT), and Value Added Tax (VAT). This contribution, however, is seen as inequitable since large multinationals benefit more from tax advantages while smaller businesses face higher taxation.

Modeling indicates that the share of exports in GDP negatively affects tax revenues related to foreign trade. Morocco, lacking abundant natural resources or being an oil-exporting nation, anticipates lower export revenues. Moreover, though economic openness rates are high, the real challenge lies in improving the quality of Morocco's exportable supply.

#### **4.4.3. Imports**

It is important to note that the reduction in customs duties did not have a proportional impact on tax revenues. While the reduction led to an increase in imports rather than exports, it only partially offset tax revenues. In fact, econometric analysis reveals that the import/GDP and export/GDP ratios have a positive and significant influence on local tax revenues, although their impact remains weak. Conversely, the impact on foreign trade revenues is statistically negative.

Domestic tax revenues, such as corporation tax, income tax and value added tax, are positively affected by the import/GDP ratio through the import demand channel. This is because the behaviour of imports largely reflects economic activity, which translates into domestic tax revenues. On the other hand, the negative effect on trade revenues can be explained by several factors, including free trade agreements, tax exemptions, the prevalence of the informal sector and imperfect competition between companies.

#### **4.4.4. Customs duties**

Customs duties in Morocco have a significant negative impact on the tax structure, aligning with prior research (Khattry and Rao, 2002). Trade liberalization and reduced duties result in decreased foreign trade and total tax revenue. Lower customs duties lead to reduced import VAT, as they are deducted at each import stage, impacting the tax base.

The correlation between customs duties and corporation tax revenue is negative due to increased costs for some importing companies, like higher raw material prices and currency depreciation. This lowers

selling prices and profit margins, thus reducing the tax base for corporate income tax. However, the connection between customs duties and income tax base, mainly comprising wages, remains uncertain. Wages are not directly linked to customs duties.

#### **4.5. The effect of control variables**

##### **4.5.1. The effect of GDP per capita**

The effect of GDP per capita on tax revenues was analyzed in relation to development and citizens' ability to pay taxes. The estimated models confirmed the positive correlation between GDP per capita gross domestic product and tax structure, aligning with previous studies (Lotz and Morss, 1967; Chelliah, 1971).

Higher GDP per capita was found to positively influence the value-added tax rate, as increased production leads to higher consumption and subsequently more VAT collection. Income tax also displayed a significant correlation with GDP per capita, signifying substantial citizen contributions to Moroccan tax revenue.

However, GDP per capita did not show statistical significance in foreign trade revenues. This outcome can be attributed to stimulating foreign trade policies, like free trade agreements and tariff dismantling. Unfavorable international economic conditions with rising prices on tradable goods could further weaken the relationship between GDP per capita and trade revenues, indicating reduced purchasing power for imported goods and services. Consequently, trade revenues experienced a decline.

##### **4.5.2. The effect of agricultural value added**

The shortfall in tax revenue within the agricultural sector can be attributed to its substantial share in the Moroccan economy. Estimates show that value added in the agricultural sector has a significant negative impact on tax revenues. This outcome is primarily influenced by the dominant role of agricultural activity in the economy and the considerable tax exemptions granted to this sector. As results, countries with a higher share of agriculture tend to benefit from a significant percentage of income tax revenues. However, the estimates revealed a negative contribution from agriculture to income tax revenues, which can be explained by the low wages SMAG (agricultural minimum wage) as well as the high unemployment rate prevalent in the agricultural sector.

##### **4.5.3. The manufacturing value added effect**

Manufacturing value added has a negative and significant effect on Morocco's tax composition. This can be explained by the fact that manufacturing companies can benefit from various tax incentives, such as tax reductions or exemptions, to encourage their development and competitiveness. This reduces the tax revenues from these companies.

#### **4.5.4. The effect of inflation**

The estimate also showed a significant negative impact on tax revenues. This empirical result means that inflation reduces the purchasing power of consumers, as the prices of goods and services rise. This leads to a fall in consumption and investment and, consequently, a reduction in tax revenues from value added tax (VAT) and corporation tax.

#### **4.5.5. The effect of institutional quality**

The econometric results indicate that institutional quality plays no role in the collection of Moroccan tax revenues. Statistically, the coefficients associated with institutional quality have a non-significant and negative effect. This result can be explained by corruption, fraud and tax evasion, which could be undermining the effectiveness of the institutions responsible for tax administration.

#### **4.5.6. The effect of population growth**

Population growth has a negative effect on the tax structure. This is due to the growing needs of the population itself (social services), which require more financial resources. This situation increases the tax administration's costs in terms of tax control and audit (the fight against tax evasion and fraud). As a result, the rate of tax collection will be very low.

## 5. Conclusion

Foreign direct investment (FDI) plays a crucial role in driving economic growth in developing countries, fostering the transfer of financial resources and technological knowledge from home to host nations. This, in turn, spurs domestic investment, leading to tangible improvements in human capital and institutional quality. Consequently, FDI has the potential to boost tax revenue mobilization in these countries.

Our empirical study focuses on Morocco, examining the impact of FDI on tax mobilization while also considering the role of trade openness. Utilizing a GMM econometric approach, our research covers the period from 1990 to 2022. The results reveal that both inward and outward foreign direct investments have a significant negative impact on Morocco's tax structure. This outcome can be attributed to various factors, such as tax optimization, tax evasion, and relocation.

Furthermore, we explore the impact of trade openness on tax revenues using indicators such as customs duties, imports/GDP, exports/GDP, and exchange rate volatility. The findings validate our hypothesis, indicating that reduced customs duties negatively affect revenues from international trade and, consequently, overall tax revenues. Both imports/GDP and exports/GDP ratios show a negative and significant effect on foreign trade revenues but a positive and significant effect on national tax revenues. Exchange rate volatility affects trade revenues negatively but has a positive effect on domestic tax revenues, likely due to devaluation policies.

Our control variables also support our theoretical assumptions. GDP per capita is positively related to domestic revenues and negatively related to trade taxes. The decline in tax revenues in the agricultural and manufacturing sectors can be attributed to the predominance of agriculture and the informal sector in the Moroccan economy, along with tax exemptions and derogations. These benefits primarily favor the cash economy. Population growth negatively affects the tax structure due to increased tax audit costs. The institutional quality index does not significantly impact the tax structure, highlighting the need to improve tax administration effectiveness.

Based on our findings, we propose several guidelines for Moroccan economic decision-makers to maximize tax revenue mobilization from FDI :

**Foster International Cooperation :** Combat tax base erosion caused by multinational companies' tax avoidance practices through international collaboration. Harmonize tax regulations, exchange information, and coordinate efforts to combat cross-border tax evasion.

**Encourage Economic Diversification :** Reduce reliance on specific sectors by facilitating investments in non-traditional sectors and supporting innovation and local businesses, thus expanding the tax base.

**Evaluate and Eliminate Unjustified Tax Exemption Schemes :** Regularly assess tax exemption schemes granted to foreign direct investment to ensure their long-term justification and benefits, eliminating inefficient or distorting exemptions.

**Strengthen Tax Authority Capacity :** Invest in training and capacity building for tax authorities, specifically focusing on FDI-related industries and detecting tax evasion practices.

**Promote Corporate Social Responsibility (CSR):** Encourage companies to adopt CSR practices, leading to increased tax contributions. Introduce targeted tax incentives for socially responsible companies investing in beneficial projects.

Additionally, our research suggests improving the economy's tax-raising capacity. This involves reducing the weight of the informal economy and broadening the tax base by reducing exemptions and special regimes, thereby capturing a larger share of the economy's revenue. Moreover, raising awareness and educating citizens about the significance of tax compliance can foster a culture of fiscal responsibility. Implementing a fair tax policy that distributes the tax burden equitably among different taxpayer categories can strengthen the legitimacy of the tax system and further encourage tax compliance.

## Bibliographical references

- (1) Adow, Anass Hamedelneel, and Abdel Mahmoud Ibrahim Tahmad. (2018). « The impact of trade openness on foreign direct investment in Sudan by sector in the 1990–2017 period : An empirical analysis ». *Economic Annals*, 17(2) : 14–21.
- (2) Anwar, S., and Nguyen, L. P. (2011). « Foreign direct investment and trade : The case of Vietnam ». *Reverché in International Business and Finance*, 25(1), 39–52.
- (3) Aslam, A. M. (2015). « A case study of cointegration relationship between tax revenue and foreign direct investment : Evidence from Sri Lanka ». 2nd International Symposium, FIA, South Eastern University of Sri Lanka, 241, 251.
- (4) Agbeyegbe, T. D., Stotsky, J. and WoldeMariam, A. (2006). « Trade liberalization, exchange rate changes, and tax revenue in Sub-Saharan Africa ». *Journal of Asian Economics*, 17 n°2 : 261-284.
- (5) Bunesco, L., and Comaniciu, C. (2014). « Analysis Of Correlation Between Tax Revenues And Other Economic Indicators In European Union Member States ». *Studies in Business and Economics*, 9(1).
- (6) Bal, E., and Fazl, B. (2016). « Does Foreign Capital Increase Tax Revenue : The Turkish Case ». *International Journal of Economics and Financial Issues*, 6(2).
- (7) Bayar, Y., and Ozturk, O. F. (2018). « Impact of foreign direct investment inflows on tax revenues in OECD countries : A panel cointegration and causality analysis ». *Theoretical and Applied Economics*, 25(1).
- (8) Basheer, M., Ahmad. A., & Hassan, S. (2019). « Impact of economic and financial factors on tax revenue : Evidence from the Middle East countries ». *Accounting*, 5 (2). 53–60.
- (9) Baunsgaard, Thomas and Michael Keen. (2005). « Tax revenue and (or ?) trade liberalization ». IMF Working Paper WP/05/112.
- (10) Cantah, Godfred William, Gabriel William Brafu-Insaidoo, Emmanuel Agyapong Wiafe, and Abass Adams. (2018). « FDI and Trade Policy Open-ness in Sub-Saharan Africa ». *Eastern Economic Journal*, 44(5) : 97–116.
- (11) Camara, A. (2019). « The effect of foreign direct investment on tax revenue in developing countries ». University Clermont Auvergne, CNRS, IRD, CERDI.
- (12) Danielova, A., and Sarkar, S. (2011). « The effect of leverage on the tax-cut versus investment-subsidy argument ». *Review of Financial Economics*, 20(4), 123–129.
- (13) Dunning, J. H. (1993). « MNEs, the Balance of Payments and the Structure of Trade ». *Multinational Enterprises and the Global Economy*, Addison-Wesley, Wokingham, UK and Reading, MA.
- (14) Ehrhart, H. (2011). « Assessing the relationship between democracy and domestic taxes in developing countries ». *Economics Bulletin, AccessEcon*, vol. 32(1), pages 551-566.

- (15) Fuest, C., & Riedel, N. (2009). « Tax evasion, tax avoidance and tax expenditures in developing countries : A review of the literature ». Report Prepared for the UK Department for International Development (DFID), Oxford University Centre for Business Taxation, Oxford, 1–69.
- (16) Fazekas and Gabor. (2016). « The Role of Trade Openness in The Chinese Inward FDI In Central and Eastern Europe ». Romanian Journal of Regional Science, 10(7) : 100–14.
- (17) Gajigo, O., Mutambatsere, E., and Mdiaye, G. (2012). « Gold mining in Africa : Maximizing economic returns for countries » (Vol. 147). Citeseer.
- (18) Ghosh, Idradeep. (2007). « The Relation between Trade and FDI in Developing Countries—A Panel Data Approach ». Global Economy Journal 7(3) : 3-19.
- (19) Gropp, R., and Kostial, K. (2000). « The disappearing tax base : Is foreign direct investment eroding corporate income taxes ? ».
- (20) Gropp, R., and Kostial, K. (2001). « FDI and corporate tax revenue : Tax harmonization or competition ? ». Finance and Development, 38(2), 10–10.
- (21) Gnanon, S. K. (2017). « Impact of Foreign Direct Investment (FDI) Inflows on Non-Resource Tax and Corporate Tax Revenue ». Economics Bulletin, 37(4), 2890–2904.
- (22) Gaspareniene, L., Klietstik, T., Sivickiene, R., Remeikiene, R., & Endrijaitis, M. (2022). « Impact of Foreign Direct Investment on Tax Revenue : The Case of the European Union ». Journal of Competitiveness, 14(1), 43–60.
- (23) International Monetary Fund Staff. (2011). « Regional Economic Outlook, October 2011 : Sub-Saharan Africa, Sustaining the Expansion ». International Monetary Fund Stationery Office.
- (24) Khattry, B., Rao, M.J. (2002). « Fiscal Faux Pas ? : An analysis of the revenue implications of trade liberalization ». World Development, 30, n° 8 : 1431-1444.
- (25) Khattry, B., (2003). « Trade Liberalization and the Fiscal Squeeze : Implications for Public Investment ». Development and Change 34(3) : 401-424.
- (26) Keen, Michael, Ligthart, Jenny. (2002). « Coordinating tariff reductions and domestic tax reform ». Journal of International Economics, 56, 407-425.
- (27) Keen, Michael and Alejandro Simone. (2004). « Tax Policy in Developing Countries : Some Lessons from the 1990s, and Some Challenges Ahead ». IMF Working paper, 62/83.
- (28) Liargovas, Panagiotis, and Konstantinos S. Skandalis. (2012). « Foreign Direct Investment and Trade Openness : The Case of Developing Economies ». Social Indicators Research 106 : 323–31.
- (29) Lobanova, J., Kračun, D., & Kavkler, A. (2018). « Effects of cross-border mergers and acquisitions on GDP per capita and domestic investment in transition countries ». Journal of Business Economics and Management, 19 (1), 124–137.

- (30) Malsha Mayoshi Rathnayaka Mudiyansele, Gheorghe Epuran and Bianca Tescaşiu. (2021). « Causal Links between Trade Openness and Foreign Direct Investment in Romania ». *Journal of Risk and Financial Management*, 14(3) : 90-108.
- (31) Merajothu, D. (2020). « An empirical study on foreign direct investments impact on economic growth of India ». Retrieved from : [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3598037](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3598037)
- (32) Nguyen, H. T. T., Nguyen, M. H., and Goenka, A. (2014). « How does FDI affect corporate tax revenue of the host country ». *Document De Recherche Epee, Centre D'études Des Politiques Economiques De L'universite D'evry*, Retrieved August, 10, 13–03.
- (33) OECD (2012). « Model Tax Convention on Income and on Capital 2010 (Full Version) », Washington : OECD Publishing.
- (34) Odabas, H. (2016). « Foreign direct investment inflows on tax revenues in the transition economies of European Union ». *New Trends and Issues Proceedings on Humanities and Social Sciences*, 2 (2), 17–22.
- (35) Okey, M. K. N. (2013). « Tax revenue effect of foreign direct investment in West Africa ». *African Journal of Economic and Sustainable Development*, 2(1), 1–22.
- (36) Raff, H., and Srinivasan, K. (1998). « Tax incentives for import-substituting foreign investment : Does signaling play a role ? ». *Journal of Public Economics*, 67(2), 167–193.
- (37) Saucedo, E., Ozuna, T. & Zamora, H. (2020). « The effect of FDI on low and high-skilled employment and wages in Mexico : a study for the manufacture and service sectors ». *J Labour Market Res*, 54, 9, 23-36.
- (38) Tabasam, F. (2014). « Impact of foreign capital inflows on tax collection : A case study of Pakistan ». *Issues*, 2(2), 202–2.
- (39) UNECA. (2004). « Economic Report on Africa ». United Nations Economic Commission for Africa, Annual report 2004, Addis Ababa.
- (40) UNCTAD, G. (2020). « World investment report : Towards a new generation of investment policies ». United Nations. New York and Geneva.
- (41) Zee, H. H., Stotsky, J. G., and Ley, E. (2002). « Tax incentives for business investment : A primer for policy makers in developing countries ». *World Development*, 30(9), 1497–1516.
- Zhang, K. H. (2001). « How does foreign direct investment affect economic growth in China ? ». *Economics of Transition*, 9(3), 679–693.