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# The Impact of Foreign Direct Investment (FDI) on Economic Growth (EG) : Evidence from Djibouti

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**Abstract:** *The achievement of EG and development is considered the core objective for both Developing Countries (DCs) and Least Developed Countries (LDCs), so countries try to get adequate funding to achieve this goal through optimal macroeconomic policies and different strategies. Countries prefer other mechanisms with less burden and cost to achieve economic growth, such as FDI flows. International development-oriented institutions such as WB and IMF recommend and consider FDI flows are the most important factors of the modern technology transfer, management, and know-how, which is necessarily needed in the local investment projects in poor countries, so FDI represents optimal external sources of growth. The objective of this study is to explain the impact of FDI on the EG of Djibouti. To achieve this objective the study used a secondary annual time series data for the period 1985-2019 by the method of Ordinary Least Square (OLS).*

*The study results showed that FDI in the case of Djibouti tends to be statistically insignificant effects and a limited impact on Djibouti's EG. Moreover, other factors such as the Human Development Index(HDI), and Gross Fixed Capital Formation(GFCF), Trade Openness(TOP) shows significant effects on the Gross Domestic Product (GDP). Finally, the Consumer Price Index (CPI) has no significance in the EG of Djibouti.*

*The findings provide critical information to Djibouti policy decision-makers to make an informed decision with regard to attracting investment sectors and policies in encouraging foreign investors to invest in the country.*

**KEYWORDS:** *Foreign Direct Investment, Economic Growth, Djibouti, Empirical Analysis.*

## I. INTRODUCTION

The contribution of FDI to the EG of host countries cannot be overstated. Most countries highly sought FDI because it was seen as a major catalyst for EG in developing countries. According to (Osuna Antwi et al. 2013), the ability of FDI to meet two major obstacles; Specifically, the lack of financial resources, technology and skills has made it the focus of policy makers in low-income countries in particular. Most of the emerging African countries suffer from a shortage of capital and hence the need for FDI. Foreign Direct Investments (FDI) can also be considered as cross-border financial investments between companies belonging to the same multinational group (Jannick et al., 2019).

The impact of FDI on economic growth has been a topic of major debate in many African countries. Since the early 1990s, FDI has become the most important source of foreign capital for emerging market economies (Hussain and Haq, 2016). However, not all FDI puts capital at the service of productivity gains. (Jannick et al., 2019 p.12) It appears that the achievement of FDI targets has been limited in Africa. In fact, FDI flows to Africa have recently continued to decline, reaching \$42 billion, down 21% from 2016 (UNCTAD, 2018).

The relationship FDI and EG has attracted great interest from academics and developing country governments (Dinh, DH Vo, TC Nguyen, 2019)

Since Egypt, one of its main concerns has been to prioritize policies related to attracting FDI during the process of geographical representation and development in these countries (Nguyen et al. 2019).

In this area of globalization, where economic, trade and technological barriers are disappearing, developing countries focus on FDI due to its positive effects (Demirsel et al. 2014). Although each country has its own characteristics and strengths that must be taken advantage of when working towards Egypt, foreign direct investment still plays an essential role among the main factors that directly affect growth. FDI is key to global economic integration, providing financial stability, advancing Egypt, and improving social welfare (Borensztein et al.1998; Nguyen et al. 2019).

In general, FDI not only increases the supply of capital, but can, under appropriate host country policies, facilitate technology, and technology transfer contributes to human capital formation that can enhance the prospects for visual representation. In other words, FDI can facilitate the EG process through direct and indirect channels (Osano, Hzon Mogaka.2016).

### A. Purpose of the study

The objective of this study is to explain the impact of FDI on the EG of Djibouti. The study also aims at measuring the impact of FDI on economic growth of Djibouti by building a standard model that helps analyze this relationship, Provide recommendations to the Government of Djibouti decision-makers to help them take the appropriate steps and decisions to correct the mechanism of action taken in dealing with FDI, as well as its role in achieving targeted EG.

### B. Significance of the study

The importance of FDI and the EG of the host country occupy a prominent place in the priorities of economic decision-makers in all countries when formulating EG plans, where studies and research in this area are particularly important.

There are many studies and research in this area, whether in a group of countries or in a country. But it's different when it comes to the Republic of Djibouti (RoD) being one of the LDCs in the world, there is growing interest from successive governments to achieve rapid and sustainable EG by attracting more FDI. There are no studies on this subject in the State of Djibouti so this study will shed light on them and know the impact of foreign investment in Djibouti growth, and this study will serve future studies, I will provide new evidence in this area.

### C. FDI in Djibouti

Countries have grown and demonstrated importance over the past decade and are now more than a third of global flows. Several developing economies have attracted foreign investment economies, including China, India, Brazil, the Republic of Korea, Malaysia, South Africa, Mexico, Hong Kong and Singapore. All these countries have improved their share of the flow of FDI, according to other countries, and many countries have changed their constitution (law) related to FDI because they wanted to attract international companies that want to invest and benefit from the resources from these countries. To strengthen Macroeconomic stability, tax reform and capital account liberalization, (Mohamed Mire, Isak 2017).

Djibouti is a piece of a few provincial associations, for example, the Normal Market for Eastern and Southern Africa (COMESA), made out of 19 part states assembled under a typical market, the Intergovernmental Expert on Advancement (IGAD) and a part association. World Exchange Association (WTO) since May 31, 1995 (GATT: December 16, 1994).

Djibouti's National Investment Promotion Agency (NIPA), made in 2001, promotes private sector investment, facilitates investment operations, and works to modernize the country's administrative system. The Ministry of Finance oversees NIPA and assists unfamiliar and domestic investors by disseminating data and streamlining administrative procedures.

As indicated by the UNCTAD World Investment Report 2020, FDI inflows to Djibouti came to \$ 182 million out of 2019, up from \$ 170 million of every 2018. The absolute stock unfamiliar direct investment was estimated at \$ 1.8 billion of every 2018 and 2019. The service sector receives most of the FDI; the main investors are the Gulf States, Ethiopia, Yemen, China, the United States, France, Brazil, India and Turkey. As a COMESA member ready to attract more FDI, Djibouti specifically aims to build closer ties with the Gulf Cooperation Council and India (UNCTAD, 2020).

The main attractive feature for investment in the country is its strategic geographic location, which is located at the crossroads of sea routes between the Far East, the Persian Gulf, Africa and Europe, making deep port facilities and major railway's assets. Moreover, Djibouti has a stable, freely convertible currency pegged to the US dollar. Moreover, the government, which is implementing an ambitious infrastructure program, is offering substantial tax breaks to foreign investors.

Table 1 FDI in Djibouti

FDI	2017	2018	2019
FDI Inward Flow (million USD)	165	170	182
FDI Stock (million USD)	1,403.4	1,573.4	1,755.4
Number of Greenfield Investments	1.0	1.0	3.0
Value of Greenfield Investments (million USD)	10	186	181

Source: UNCTAD - Latest available data

**Note:** Greenfield Investments are a form of FDI where a parent company starts a new venture in a foreign country by constructing new operational facilities from the ground up.



#### D. Literature Review

The existing empirical literature on FDI and EG has been estimated by estimating its effect on factors, such as GDP growth/efficiency or the determinants of FDI. An examination by Ridzuan (2017) found that it has a significant and positive impact on EG, as it reduces the problem of wage imbalance, and the information in the example is based on annual information covering the period 1970-2013. The long-term resilience shows that FDI inflows not only lead to expanded economic growth and environmental quality, but also to a country's wage imbalance, which may upset its central objective. In light of the results, the two stimulated more stable EG and reduced environmental corruption. This variable does not significantly affect payment terms in Singapore. Ali (2014) extraordinary speculation plays an important role in improving non-industrialized countries, such as Algeria. Descriptive statistical methods. Using a small number of intermediate specialists and ANOVA models to prove the theory, the Kolmogorov-Smirnov test was used to demonstrate the systematic accumulation. Tolerance survivors were tested with the Durbin-Watson test, which showed no programmed contact. Abdel-Rahman (2015) Economic Indicators of GDP, Inflation, and the Exchange Balance. Multiple regression analyzes were used to determine the relationship between free factors (FDI) and rich factors (macroeconomic indicators). The results presented in this article show a negative relationship between FDI and EG. Woldekidan (2015) revealed a positive and a huge relationship between FDI and real GDP growth, a positive relationship between export performance and FDI, and a negative and non-material relationship between FDI relationship and the viral effects in Ethiopia. Since 1992, the current framework has made remarkable attempts to attract unfamiliar direct projects and encourage positive improvement effects. The current framework provided extensive attempts to enter into an uncommon straightforward adventure. Constructive consequences of transforming events. Berhane (2015) investigation of FDI in Ethiopia based on tests using the combined VAR approach during the period 1974/75 to 2013/14 G Based on his findings, in the long run, explanatory variables such as infrastructure development, the domestic market size, Human Capital, openness, and external debt are found positively related and statistically significant while the inflation rate is negatively related and statistically significant. In the short run, Gross Fixed Capital Formation and inflation become negatively related and they are statistically significant while Gross Domestic Product is positively related and statistically significant. While the remaining variables of debt servicing, openness, and human capital has a positive coefficient, but is insignificant in the short run. He is also found that there is a bidirectional causality between Gross Fixed Capital Formation and FDI. Explanatory variables of inflation, Gross Domestic Product, Debt Servicing, Openness and Human Capital cause foreign direct investment but not the other way around. In general, the major determinants of foreign direct investment are infrastructural activities, market size, macroeconomic stability, and openness in the long run. EG has positive and significant effect on FDI. These suggest the decisive role of growth in stimulating investment by foreign as well as domestic investors. Zekarias (2016) he analyzed the impact of FDI on EG in East Africa. Using 34-year panel data (1980-2013), dynamic GMM estimators were used after confirmation autocorrelation and model specification tests. Developing countries have attracted FDI while trying to reduce resource gaps, technological gap, and unemployment and trade deficits. The results confirm that FDI has marginally significant effect of FDI on EG, the conditional economic convergence rate of 5%, significant exclusion of FDI domestic investment, interdependence of domestic investment and trade openness in the sub region. Thus, discover that FDI is a key driver of EG and a catalyst for conditional economic convergence in East Africa; Thus, the sub region needs to attract more FDI by improving investment environment, strengthen regional integration, develop human capital and basic infrastructure, and promote export-oriented investment. Multi Chanie (2017) He found that the growth effects of domestic capital investment, international trade, and labor force growth rates are positive and statistically. And the structural dummy variable shows a marked improvement in FDI inflows and EG after 1991 in Ethiopia.

## II. METHODOLOGY

The purpose of this study is to assess and analyze the impact of inward FDI on EG in Djibouti and identify the relationship and significance of the independent variables with the dependent variable inward of FDI. Therefore, time serious study of the period from 1985 to 2019 G.C. Has been applied. It adopts a quantitative approach using ordinary least square regression model. The OLS method is selected due to its' commonly used by most previous researchers on this topic area and its capability to minimize bias on the analysis.

The historical data from 1985 to 2019 for (GDP growth) and independent variables (Foreign Direct Investment (FDI), Domestic Capital (GFCF), Trade Openness (TOP), and Human Development Index (HDI), consumer Prices Index (CPI)) of the research study were collected from Djibouti government offices like the Djibouti Investment Commission, Ministry of Finance and Economic Cooperation, and Statistical Agency. The World Bank and United Nations Conference for Trade and Development reports and publications that can be found from their websites also used as a data source.

# A. Establishment of Empirical Models

1) *Model Specification and Estimation:* To investigate the impact of FDI on EG, the dependent variable is EG, and independent variables include FDI, Domestic Capital (GFCF), and Trade Openness, Labor Force.

$$Y = F(\text{FDI, GFCF, TOP, HDI, CPI}) \dots \dots \dots (1)$$

Where:

Y, Goss Domestic Product FDI is the of FDI net inflows, the GFCF is Gross Fixed Capital Formation, TOP is a Trade Openness, LF is the Labor Force.

$$\text{LnGDP} = \beta_0 + \beta_1 \text{LnFDI} + \beta_2 \text{LnGFCF} + \beta_3 \text{LnTOP} + \beta_4 \text{LnHDI} + \beta_5 \text{LnCPI} \quad \epsilon \dots \dots \dots (2)$$

Where LnGDP denotes Gross Domestic Product, LnFDI denotes, Ln GFCF denotes Domestic Capital, and LnTOP the Trade Openness, LnHDI denote Human Development Index, LnCPI denote Consumer Price Index.

$\beta_0$  = constant term

$\beta_i$  = Regression coefficients.

$i = 1, 2, 3, 4, 5$

$\epsilon$  = the error term

# B. Measurement Data

Table 2 Macroeconomic variables

LABEL	DESCRIPTION	SOURCES
Y	Gross Domestic Product	WDI, 2018
FDI	FDI alludes to coordinate venture value streams in the revealing economy. It is the total of value capital, reinvestment of profit, and other capital. The direct investment is a classification of cross-out skirt speculation related to an occupant in one economy having control or a huge level of effect on the administration of an endeavor that is an inhabitant in another economy. Responsibility for percent or a greater amount of the standard offers of casting a ballot stock is the measure for deciding the presence of an immediate venture relationship.	UNCTAD, 2018
GFCF	Gross fixed capital formation (formerly a gross domestic fixed investment) ncorporates land upgrades (wall, trenches, channels, etc); plant, hardware, and gear buys; and the development of streets, railroads, and such, including schools, workplaces, medical clinics, private residences, and business and modern structures. As per the 1993 SNA, net acquisitions of assets are likewise thinking about capital formation	WDI, 2020
TOP	Trade openness refers to the inward and outward orientation of economies to take or overlook the advantage of the opportunities to trade with other countries. The trade openness of economies can be indicated by the ratio of trade to the gross domestic product of the country. Most researchers argued that trade openness brings many economic benefits including technology transfer, knowledge and skill transfer, labor & total factor productivity improvement, and EG.	WDI, 2020
HDI	The HDI was made to underscore that individuals and their abilities ought to be a definitive rules for surveying the improvement of a country, not financial development alone. The HDI can likewise be utilized to address public arrangement decisions, requesting how two nations with a similar level from GNI per capita can wind up with various human advancement results. These differentiations can invigorate banter about government strategy needs. The Human Improvement Record (HDI) is a synopsis proportion of normal accomplishment in key elements of human turn of events: a long and solid life, being educated and have a respectable way of life. The HDI is the mathematical mean of standardized records for every one of the three measurements.	UNCTAD I,2020
CPI	The Consumer price index reflects changes in the expense for the normal purchaser obtaining a bushel of labor and products that might be fixed or changed at indicated spans, like yearly. The Laspeyres equation is for the most part utilized	WDA, 2020

Source: Author, 2019 (Compiled from WDI, UNCTAD)

### C. Results and Discussion

Table 2 Regression results for Factors affecting GDP in Djibouti

Dependent variable: GDP				
Independent variables: FDI,GFCF, TOP, HDI,CPI				
Number of observations: 34				
Variable	Coefficient	Std. Error	T –Statistic	Prob
FDI	-0.1089427	0.0357544	-3.05	0.005
GFCF	0.0453542	0.0107183	4.23	0.000
TOP	0.322342	0.0538889	5.98	0.000
HDI	2.362967	0.5653789	4.18	0.000
CPI	0.048802	0.0403359	1.21	0.236
Cons	5.239286	0.4088841	12.81	0.000
R-squared 0.96; Adj R-squared 0.95; Prob (F-statistic) value, 0.0000,				

Source: own computation using Stata software.

After rejecting the results of the estimation of the OLS regression in the table above that the R-square showed that the independent variables explain about 96% of the changes in the EG (dependent variable). The adjusted R-Squared value of **95%** supports the fact that the model is nicely fitted and the Prob (F-statistic) value of 0.0000 indicates that the regression model is significant.

The p value of FDI is **0.005** it shows significant value, but Coefficient value shows a negative relationship between FDI and Djibouti growth, which is **-0.108**, The result is in line with the study of Bashir, Taqadus (2014), and Meskerem Demissie (2015).

But, the relationship between Domestic Capital and Growth Domestic Product is positive as shown in the above table, the coefficient of Domestic Capital has a positive sign and statistically significant on GDP.

Whereas in our case found, trade (a proxy for the economy's openness) ,positively associated with GDP growth, and statistically significant impact on GDP.

The coefficient for the human development index is found to be significantly and positively related to EG in Djibouti. This is due to the availability of education and income levels in the Djiboutian economy. This means that a good level of the HDI is the contribution of FDI to growth because the HDI is one of the main pillars of Djibouti's socio-economic development policy, because of its central importance to the country's sustainable development. Proposing the HDI as one of the reasons for differential response to FDI at different income levels.

In our case consumer price index found positively associated with GDP growth, but statistically insignificant impact on GDP. The coefficient defined that a 1% increase in CPI volume would decrease the GDP by **0.048802** %.

This study explores the impact of FDI on economic growth (GDP), focusing on foreign direct investment, and human development index, and domestic capital, trade openness, and consumer price index in affecting the economic growth in Djibouti.

Previous studies have identified that FDI, labor force, and domestic capital, trade openness, may affect positively or/and negative on GDP. The principal objectives of this study are to quantify the relative impact of those factors on GDP in the last three decades and explore if such impact changes over time For this reason, I utilized the OLS relapse model to accomplish the targets of the examination.

The aim of this study was to know how FDI affects EG in Djibouti. According to the findings, the results demonstrated that FDI and CPI have a limited effect on EG.While Domestic Capital and Human Development Index and Trade Openness has a positive effect on EG. These results suggest that in order to boost Djibouti's GDP, there is a need to improve on these variables.

Specifically, in order to encourage EG, policymakers should encourage FDI, therefore, the considered view of the researcher, it has to make the required amendments to the investment law and remove any obstacle posed by the current law, it is most important to grant incentives, privileges, and facilities, and The government should work to improve infrastructure such as expanding roads in the rural areas and the expansion of electric power to the various regions of Djibouti and the development of the performance of electric power and work to find alternative sources of energy such as gas, solar and wind energy Considering that electricity is the most important elements of investment success. And involving the private sector in the creation of some of the infrastructure, and this method may help to attract foreign investment to contribute to infrastructure projects such as electricity. And the government of

Djibouti should verify that the existing policies, regulations, and institutions are adequate, and consultations with all stakeholders. For further empirical studies, it will be interesting to study how FDI inflow contributes to economic development in Djibouti.

The government should also work on the establishment of industrial zones as considering one of the most important methods to attract local and foreign investments, that is, the presence of industrial zones with infrastructure will achieve a profitable and competitive return.

The rationale for investment in improvements in vocational education to attract foreign firms is strengthened by the likelihood that they will improve the business environment for indigenous firms as well. Since multinational corporations are often attracted to developing nations by the abundance of their cheap labor, the higher level of the labor force is a good indicator of the availability of skilled workers, which, along with cheap labor, can significantly boost the locational advantage of a host country and Djibouti's location is suitable.

Working to promote trade openness policy through bilateral and regional cooperation with countries and economic blocs, especially with countries and regional blocs which near' Djibouti, such as GAFTA and GCC, in addition to the need to work hard in order to achieve optimum utilization of the advantages resulting from applied of trade agreements with these countries and economic blocs. As well as to maximize the benefit of Djibouti's strategic location in the world, this would serve to reduce production costs and create new markets for exports thus contribute to achieving EG.

The study suggests a research increase on the topic of FDI in Djibouti and an assessment of the extent of benefit from FDI by highlighting other economic indicators.

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