

**T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF GRADUATE STUDIES**



**INWARD FOREIGN DIRECT
INVESTMENT IN ALGERIA: DETERMINANTS,
PERFORMANCE, CHALLENGES IN THE LAST TWENTY YEARS**

**MASTER THESIS
MOHAMMED K. S. ALAZAIZA**

**Department of Business
Business Administration Program**

AUGUST, 2020

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(Y1712.130184)**

**Department of Business
Business Administration Program**

Thesis Advisor: Prof. Dr. Erginbay UGURLU

AUGUST, 2020

CONSENT FORM

DECLARATION

I, Mohammed Alazaiza, admitted that this thesis, entitled "inward foreign direct investment (FDI) in Algeria: determinants, performance, challenges in the last twenty years "was fully executed under the supervision and direction of Prof. Dr. Erginbay Ugurlu. Also, I declare that this thesis is unique and has not been conducted by any scientific institution before. in addition to my declaration that this thesis has been based on scientific materials, theses, and sources for other researchers.

Mohammed ALAZAIZA

FOREWORD

I would like to thank and appreciate my thesis advisor, Prof. Dr. Erginbay Ugurlu, for his continuous support throughout work in the thesis, and I am grateful to him for his support, motivation, information and time, day and night, and on a personal level, I have learned a lot from him both in the academic field through the wealth of information that he possesses, or in the field of life through his way of thinking, humility, and love for his work. Thank you so much.

In the end, I thank God Almighty for his grace and made the difficult easy, and enable me to be able to complete this academic stage which represents for me a dream that I was seeking to achieve. I also dedicate this thesis to the spirit of my late father.

I must also dedicate this thesis to my mother, who did not stop supporting me in all possible ways, the most important of which is praying for me. Also, I dedicate it to my beautiful sister Shahed, who has always been my best supporter, and I dedicate it to my lovely brother Zaid.

I also thank my friend Dr. Ahmed Musabeh for his continuous support.

In the end, I thank all friends for their support, assistance, and prayers.

August 2020

Mohammed ALAZAIZA

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ABBREVIATIONS

FDI	:Foreign Direct Investment
GDP	:Gross Domestic Product
APSI	:Algerian Agency to Promote, Support, and Monitor Investment
M&A	:Mergers, and Acquisitions
TNCs	:Transnational Corporations
IDP	:Investment Development Path
NOIP	:Net Foreign Investment Position
MNE	:Multinational Enterprises
PMG	:Pool Mean Group
GCC	:Gulf Cooperation Council
CBN	:Central Bank of Nigeria
ADF	:Augmented Dickey-Fuller
MENA	:Middle East and North Africa
IMF	:International Monetary Fund
CPI	:Corruption Perception Index

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CEZAYİR'DE YABANCI DOĐRUDAN YATIRIM: BELİRTİLER, PERFORMANS, SON YİRAN YILDA ZORLUK

ÖZET

Dođrudan yabancı yatırım (DYY), ev sahibi ÷lkelere verdiđi önem nedeniyle ÷lke ekonomilerinde önemli bir unsur haline gelmiştir, böylece ev sahibi ÷lkelerin ekonomik sorunlarını çözerek ev sahibi ÷lkelere ekonomik büyüme sağlamalarına yardımcı olmaktadır.

Bu çalışmada, 1996-2016 yılları arasında Cezayir'de doğrudan yabancı yatırımın belirleyicileri, zorluklarını ve performansını incelendi. Ayrıca Cezayir'deki yatırım ortamının analizini içeren ana yatırım politikaları ele alındı. Cezayir'de ticaret ve yatırım yasalarını gözden geçirerek analizler için Granger nedensellik analizi kullanıldı. Öncelikle ele alınan serilerin durđanlıkları incelendi ve elde edilen sonuçlara dayalı olarak Granger nedensellik sınaması uygulandı. Sonuçlar reel döviz kuru ve GSYİH arasında bir ilişki olduğunu gösterdi. Bu ilişkinin nedenlerinden biri DYY'nin çeşitliliğinin az olması olduğu düşün÷lmektedir. Bu çeşitliliğın azlığı yatırımcıların çođunlukla petrol sektörüne yatırım yapmasıdır.

Anahtar kelime: Cezayir, doğrudan yabancı yatırım, Ekonomik Büyüme, Zaman Serisi Modeli, Granger Nedensellik Testi, Birim Kök Testi

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ABSTRACT

Foreign direct investment has become an essential element in the economies of countries due to its importance to host countries so that it solves many of the host countries' economic problems so that it helps the host countries to achieve economic growth.

In this thesis, we studied the determinants, challenges, and performance of the foreign direct investment (FDI) in Algeria between 1996 and 2016. We used the methodology of the study includes an analysis of the investment environment in Algeria, examining the main investment policies in Algeria by reviewing the trade and investment laws, also we used Time series model for analyses, the results showed that there is a relationship between real exchange rate and GDP, also it showed that there is weak inward FDI in Algeria because there is weak diversity in the investment channels, because the investors invest in one sector which is petroleum manufacturing.

Keyword: Algeria, Inward FDI, Economic Growth, Time Series Model, Granger Causality Test, Unit Root Test

I. INTRODUCTION

In the past few centuries, there have been many changes in the shape and structure of the international and national economies. These changes have increased recently with the emergence of trade openness and increased financial liberalization. Thus, global cash flows have expanded to become vital pillars of the economy. One of the essential forms of international cash flows is a foreign direct investment (FDI), which plays an important role in reviving economies, by its role in creating economic growth, increased development, and attracting this type of investment, in addition to the role of foreign direct investment in improving productivity and introducing modern technology to the host countries. Also, improve financial development, create job opportunities, and promote international trade and exchanges, thus achieving economic growth (Asiedu, 2006 & Pradhan et al., .2016).

Based on these direct and indirect positive effects of foreign direct investment, governments have searched for the best means and policies to try to attract foreign direct investment, so that governments have been attempting to be commercially liberal to attract foreign investors and gain their confidence. As a result, governments have endeavored to create a stable economic environment by setting many economic policies, thereby avoiding risks and facilitating the business of foreign investors.

As stated by Dunning (2002), most countries that want FDI are the developing countries. They want to entice these investments from the advanced industrial countries, in particular, to improve the standard of living of the population and reduce the possible unemployment rate. Given that, these developing countries should seek to expand their international relations and strengthen their policies aimed at attracting FDI and build an infrastructure supportive of these investments and amend trade laws in proportion to economic openness. (Musabeh,2018).

In this regard, the governments in developing countries, after understanding the important role of foreign direct investment and its positive impact on economic progress and achieving economic growth, including North African countries, have undertaken many wide-ranging economic reforms aimed at gradually integrating with

the world's economies, liberalization, and trade openness. But despite the enormous resources that North African countries possess, they still suffer from weak FDI and the difficulty of attracting them. According to the World Bank 2018, Algeria is one of the countries that suffer from weak FDI despite the wealth of its natural resources.

North Africa contained six major countries, one of them is Algeria. It overlooks the Mediterranean, according to the Algerian Population census 2018, the population reached 43 million, and the Algerian economy depends on the oil and natural gas sector and is one of the largest gas exporters around the world. It possesses enormous oil reserves, ranking 14th in the world in the proportion of oil reserves, and among the important sectors in Algeria is the carbohydrate sector, which contributes to the largest share, equivalent to 60% of the total budget revenues. (IMF, 2018). In spite of the multiplicity of resources, their abundance, and the increase in the GDP per capita, the Algerian economy still suffers from problems including high unemployment and relative poverty, unlike other oil countries such as gulf states which are expected to live a life of luxury, due to several reasons.

Economically, the main obstacle in Algeria, the difficulties of creating diversification in the sources of income, so the revenues of exporting gas and oil dominate about 97%, and foreign investments have focused heavily on the oil industries sector (International Trade Center Report, 2014).

In the early nineties, the Algerian government undertook measures to entice foreign direct investment, the most substantial of which was the establishment of the Algerian Investment Agency, whose mission is to promote and encourage foreign direct investment by easing investment constraints, enabling the correct administrative procedures that contribute to reducing corruption and other administrative errors, in addition to providing some tax exemptions and reducing them, and providing many other incentives. At the beginning of the year 2001, the Algerian economy became open, by adopting policies such as corporate privatization and trade liberalization, and also by establishing the Algerian Agency to promote, support and monitor investment (APSI).

However, according to a World Bank report (2019), in the year 2000, there was a significant improvement in the volume of FDI due to the government's adoption of more liberal policies that attract foreign direct investment in addition to the end of the civil war in Algeria. As a result, the level of flow in 2000 increased to 2% as a percentage of what it was in 1997 by less than 0.5%. In 2006, it reached its maximum

level and then began to decline like the rest of the world due to the financial crisis in 2008 that caused negative effects and a decrease in FDI in developing countries, especially in Africa (Musabeh,2018).

Despite the previous indicators that appear positive, and although Algeria has a large wealth of natural resources in addition to its distinguished geographical location, its economy is emerging, and, interestingly, it is still suffering from weak inward FDI, and this is shown through indicators such as the decrease in the income percentage as a percentage of the GDP when compared with the income levels in other Arab countries. (See Figure 1)

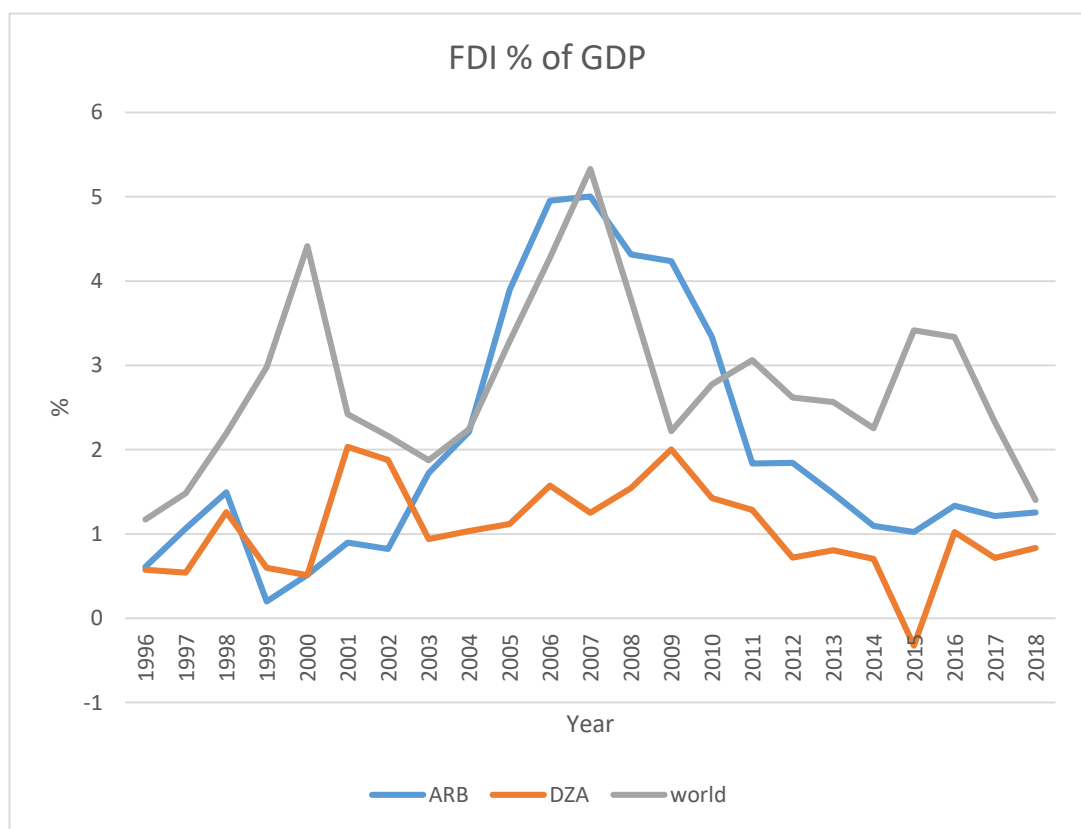


Figure 1 FDI Trends in Algeria compares into other regions (1996-2013) (%GDP)
(Source: World Bank, 2018)

Thus, this thesis investigates the determinants of FDI inflows in Algeria. To achieving the purpose of the study, the Time series data of Algeria is used within the timeframe of 1996 to 2018, and the study adopted three types of variables related to the foreign direct investment that may affect the attractiveness of the host country.

A. Research Purpose and Importance

Due to the positive repercussions of FDI, governments are looking for ways to help FDI by providing facilities and practices aimed at reducing the difficulties and obstacles that may negatively affect FDI, particularly in developing countries that still suffering from weak investment environments and are not stable. Therefore, the main objective of this thesis is to assist governments in making important and clear decisions about how to attract FDI and determine the best investment policies that help in this, through studying the past and the present, in addition to how to encourage foreign investors to invest in developing countries, especially Algeria. This is done through studying the main determinants of FDI flows to Algeria, taking a detailed look, and stopping at the difficulties facing Algeria and the measures adopted to attract FDI.

B. Methods and Techniques

The techniques and methodology of the study include an analysis of the investment environment in Algeria, examining the main investment policies in Algeria by reviewing the trade and investment laws, after that the thesis will shed light on the main obstacles to FDI in Algeria based on the historical classification of this country in terms of relevant indicators; finally, the thesis will examine the main determinants of FDI inflows in Algeria empirically by using Time series analysis.

C. Study Contributions

This study aims to identify the main factors and determinants of FDI to Algeria, and it clarifies the challenges that facing FDI in Algeria in the last 20 years, and this study will include information, data, and studies that contain it to shed light on the problems and limitations that facing FDI in the Algerian economy and trying to find appropriate solutions that will be presented at the end of the thesis, in addition to that it will open the way for other similar studies in some other countries.

D. Limitations Of Study

We have faced many limitations during the study period, including the difficulty of finding data for Algeria, because the Algerian government does not provide its data easily, and accordingly, we have done our best to obtain the necessary data for the study and we did not find data available after 2016, and this problem is often found in countries the third world, especially Arabic ones.

E. Thesis Outline

This thesis was divided into six chapters, in the first chapter is an introductory part, while for the second chapter is a theoretical part of FDI, the third chapter is previous studies related to the main topic of the thesis, while the fourth chapter is about foreign direct investment in Algeria through analyzing the investment environment and clarifying the risks of FDI. Chapter five is the practical part of the thesis and includes data analysis through a set of related tests, and finally, chapter six, which is the results of the thesis and discussion of the hypotheses that will be tested.

II. FOREIGN DIRECT INVESTMENT: THEORETICAL PART

Nowadays, the financial system has gotten increasingly coordinated in terms of trade as well as financial flows (Gregorio, 2012), which classified based on (IMF, 1993) into three categories, which are foreign direct investment (FDI), portfolio investment, and others. This chapter includes the definitions, types, advantages, and disadvantages of FDI, and also it presents the main theories which explain the idea behind firms expanding broadly as FDI—finally doing a literature review of FDI.

A. Definitions of Foreign Direct Investment

Foreign direct investment is a type of cash flow, and it is a broad science related to the economies of the host countries, and it has an important role in achieving economic development and the prosperity of countries, and this is done through the exchange of people experiences and the representation of modern technology among countries around the world, in addition to the role of FDI in reducing the unemployment rate, which leads to an increase in GDP per capita of the host country, and FDI has many definitions, but they flow in the same path, in this part we will review many definitions of foreign direct investment.

There are diverse definitions of FDI, and are different from one to another depends on investment goals and purpose. Based on OECD (2010) and IMF (1996) agree that FDI is a long-term investment, and this investment takes place outside the economic environment of the investor in a foreign country, and foreign investors must own at least 10% of the ownership shares to be classified as a foreign direct investor.

World Bank (2001), has defined FDI as a type of investment through which foreign capital flows to a foreign country other than the investor's country. Also, to categorize this investment as foreign direct investment, the foreign investor should own at least 10 percent or more of the local company, or the foreign investor must obtain a large stake in a global company or build a subordinate company in a foreign country.

B. Types of FDI

There are many types of forms of cross-border capital flows, and under each type of these cross-border capital flows, other types are emanating from it, and each type has its definitions, advantages, and some defects resulting from it, which are developed over time. One of the types of cross-border capital flows are called portfolio investments, and they have their types and definitions, also, bank loans are listed under the types of cross-border capital flows and also have types, definitions, and forms, and interest rates differ in them, and many other types, but the focus of the study is in one of the most important types of cross-border capital flows and the most beneficial to the host countries because of its many advantages, which is called foreign direct investment and under it, many types fall under it, and this section is devoted to explaining the types of foreign direct investment.

According to Figure 2, cross-border capital flows are contained three types of FDI, which are portfolio investment, FDI, and bank loans.

FDI is divided into three types, which are motive, target, and directions.

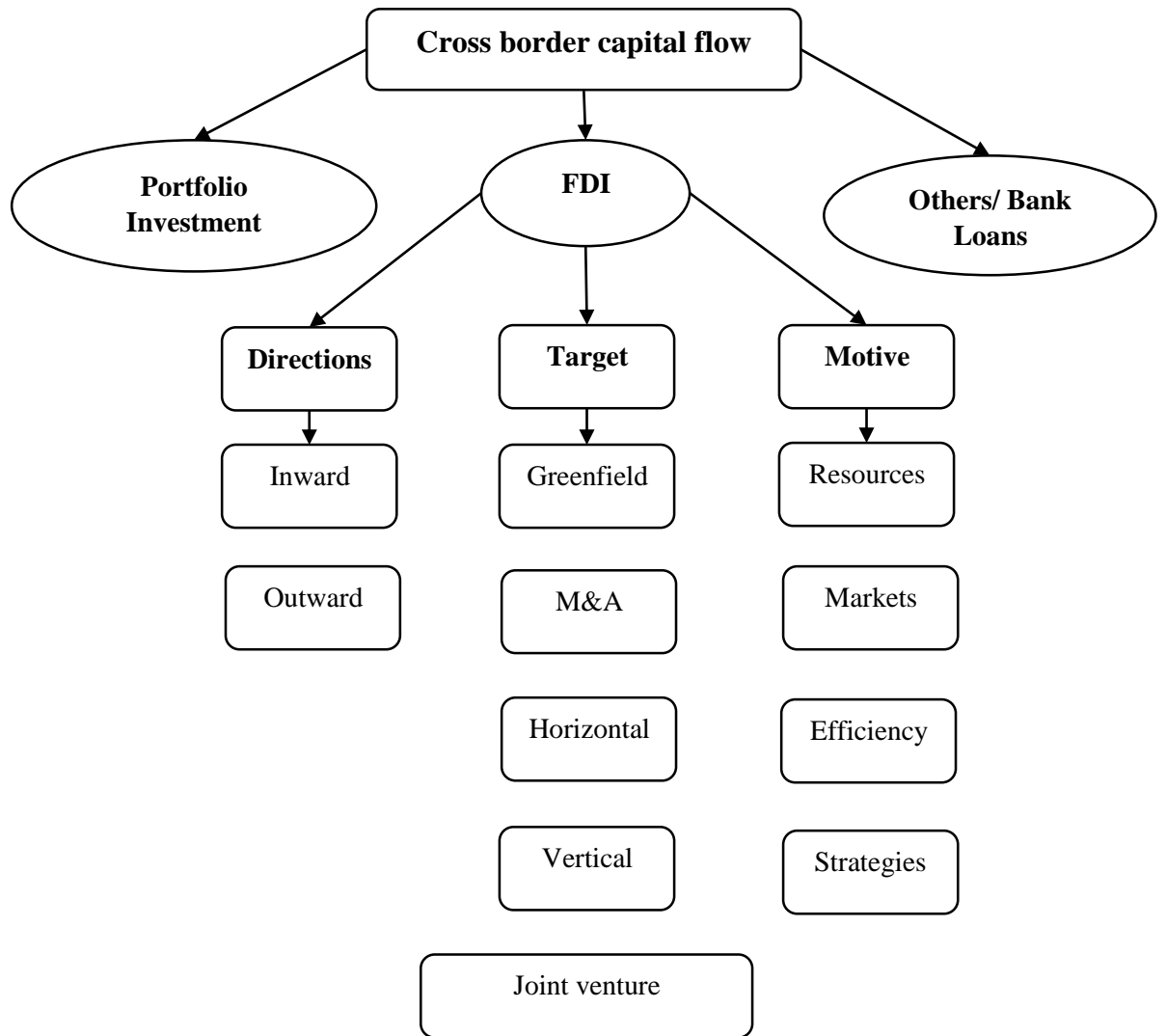


Figure 2 Cross-Border Capital Flows Types

Source: (Musabeh, 2018)

1. Direction Types (Inward & Outward)

Foreign direct investment by direction grouped into two types, outward and inward. Outward is an outflow from one country, and it occurs when local companies expand their activities and operations in a foreign country, by opening their branches in the foreign host country, while inward foreign direct investment is defined as a foreign capital investment in the host country through the use of domestic resources to include the creation of a new company or a purchasing company already established (Erkilek, 2003).

2. Target Types

Foreign direct investment splits into five groups based on the type by a target, which are Greenfield, Mergers and Acquisitions, Horizontal, Vertical, and Joint Venture.

a. Greenfield FDI

Greenfield investment is one of FDI types, it is defined as the establishment of a firm by someone or more of foreign investors who are not living in the host country (non-resident), it is working on the expansion of capacity, and raise in the capital of the firms that previously established. Therefore, foreign direct investment in Greenfield contributes to the expansion of capital in indirect methods such as increasing economic activities that in turn lead to raising the job opportunities and reducing unemployment rates, in addition to contributing to the introduction of modern technology to the host country and raising production efficiency (Canton & Solera, 2016).

The most important advantages of greenfield FDI are avoiding intermediaries, which reduces costs, as well as tight control over commercial operations, the presence of high control over production and manufacturing operations, finding job opportunities which reduce unemployment rates, controlling the brand image, and in addition to developing operations Marketing, research, and production. On the other hand, there are many disadvantages to this type of investment, including that it is a high-risk investment because it is one of the most dangerous types of foreign direct investment because sometimes in some countries, the cost of entry to the market is relatively high. Also, government regulations and laws in some countries may prevent or difficult operations, and one of the disadvantages are the high costs in the beginning, such as construction costs. (Lee & Jang, 2016).

b. Mergers and Acquisitions FDI

Mergers and acquisitions (M&A) are one of the types of foreign direct investment. This type of FDI occurs when the foreign investor wants to invest in companies already existing abroad. A merger is a transaction between two or more companies in which assets and offers are traded. At the same time, acquisitions take place when the management of an organization provides an immediate idea to investors in another organization to obtain a stake in this company (Wall and Bronwen, 2001).

There are many advantages of M&A investment, including that the skilled workforce can be obtained easily, and this type can also obtain tax benefits, access to the best and

largest markets and your portfolio can be diversified, cost less because the process of merging with other companies is less the cost of building a company, and the merger and acquisition process give more financial power, which leads to greater influence. But there are some disadvantages to this type of foreign direct investment, including that high market shares can lead to monopolization and price control, which leads to higher prices for consumers (Vaknin, 2013).

c. Horizontal FDI

Horizontal FDI is a type of FDI, which aims to supply goods to the host countries, it happens when a company increases the number of its subsidiaries that produce similar goods and services in different countries, this type of FDI is named Horizontal due to multinational firms do the same activities in different countries (Tamura, 2018).

Horizontal companies are multinational companies that produce similar goods or provide similar services in many countries, and this is considered a mechanism to reduce import and export costs, and one of the benefits of this proliferation is the service of local markets that suffer from a failure to provide goods and services provided by companies horizontal, and there are factors for the emergence horizontal FDI, including access to markets that cannot be serviced by local investments. Second, horizontal FDI establishes its companies in countries that are similar in some aspects, such as population numbers (Protsenko, 2004).

d. Vertical FDI

Vertical FDI is one of FDI branches, which is an investment happens when a firm established in an industrialized country that has lower cost like low-wage country (Ramondo et al., 2011).

Vertical FDI is multinational companies based on benefiting from the segmentation of production in phases geographically, and the main goal of this type is to reduce costs and increase profits by exploiting differences in cost from one country to another, for example, there are types of products that It has stages that require labor intensity. This production is carried out in countries with low labor costs (Smeets et al., 2008).

e. Joint venture FDI

This type of foreign direct investment means setting up local business in partnership with local investors and foreign investors, so that foreign investors have ownership shares that give them control over the company's decisions, and through this investment in joint ventures becomes an important channel that facilitates the entry and transfer of skills and technology between companies at home and outside. (Raff & Ryan, 2009).

A joint venture is a form of agreement between the different parties in the commercial enterprise, by contributing to the capital through the participation of shares and ownership, and these agreements are very accurate in all respects. These joint ventures have three types: a contractual joint venture and an unincorporated joint venture and corporate joint venture. A predetermined joint venture is a relatively short-term agreement in a specific sector of business, and an unincorporated joint venture is a similar agreement to a separate joint venture for the joint venture, whereas a corporate joint venture is a separate entity formed through a separate contract (Oman, 2000).

3. Motive Types

FDI splits into four groups based on the type by a target, and these are resources, market, efficiency, and strategic asset.

a. Resources- seeking FDI

This type of FDI happens when foreign companies try to search for the necessary resources that the company needs in a foreign country other than its country of origin at the best prices that are commensurate with the capabilities of the company, and that cannot be obtained in its country of origin, and the foreign direct investor searches for resources in a foreign country when there is an urgent need to obtain the resources that help them achieve profits, by obtaining raw materials and energy sources at a lower cost than it can obtain in the country of the foreign investor (Yang, 2012).

One of the most important drivers of foreign investment abroad is to obtain specific resources at a less cost than what can be acquired in their countries of origin, and often the resources they are searching for are impossible to obtain in their countries at all so that the types of foreign investors looking for resources are divided into three types: first of all, companies looking for countries where primary resources like raw materials are available, agricultural products, and other material resources, the second type is

exemplified by those looking for human resources from skilled workers and those with strong motivations, and finally those looking for technological capabilities and management expertise Such as marketing and organizational skills (Dunning, 1993).

b. Market - seeking FDI

This type of FDI tries to obtain newest markets abroad and also increases the percentage of its sales in foreign markets, and the goal of this type is to contain the company's clients and suppliers to include them instead of looking for other competing companies, and the company needs to follow from abroad, through The company's global strategy in marketing and production (Wadhwa &Reddy, 2011).

Market seekers are foreign companies seeking to invest in particular countries to serve this country, regardless of the size of the market or the expected growth of this market to achieve the company's goals. One of the main reasons for investing in these countries is that the company's products are compatible with local tastes and meet market needs and requirements which these countries lack and that can only be achieved through FDI in these countries, also from one of the reasons is that the cost of manufacturing and production in these countries may be less than the cost of importing them from places and long distances, and from the reasons that they seek the global companies are the desire of these companies in the global proliferation and this is part of the international strategy of companies through its existence in leading markets, which has served by competitors in order to achieve a competitive advantage in these global markets (Gao et al., 2008).

c. Efficiency - seeking FDI

This type of FDI aimed to get the most benefit from the diversity of different factors, policies, and systems, to concentrate production in limited locations, and also benefiting from the competencies that exist in foreign countries that cannot be obtained in the country of foreign direct investment, and this type of FDI also aimed to reduce the cost of production operations (Kunda & Newburry, 2015).

There are many reasons and motives for foreign direct investors who are looking for efficiency, including reducing the cost of production and marketing activities, and this is done by building common relationships between foreign companies and governments, which facilitates production operations through relations with governments in geographically separate areas and through these relationships based

on rationalizing the synergy of costs, this is done through two main factors, namely the economies of scale and scope that lead to economic cooperation between countries, and the other is to take advantage of the benefits of the difference in costs. In the country, there are raw materials for manufacturing at specific prices from foreign investors, by the company, while in the other country has a strong and effective workforce at affordable prices, and here comes the benefit of this cooperation (Jain et al, 2015).

d. Strategic asset – seeking FDI

This type of FDI is trying to buy the largest shares of foreign companies 'shares, intending to obtain the largest share of the assets of these companies in order to raise long-term strategic goals, which leads to enhancing the company's international competitive advantages. (Meyer, 2015).

The companies that search for strategic assets are defined as those foreign companies that seek to enhance their strategic goals by maintaining and increasing their international competitiveness aimed at increasing their international spread and achieving a competitive advantage that ensures the achievement of the company's goals, and also researchers seeking strategic assets to developing competencies and benefiting from the advantages of joint ownership through a network of activities and capabilities in different countries (Cui et al, 2014).

C. Advantages and Disadvantages of FDI to the Host Country

1. Advantages of FDI to the Host Country

Foreign direct investment has many advantages for the recipient countries, the most important of which is economic development, by creating an appropriate environment for investments either domestic or foreign, in addition to developing local industries through acquired technology and newly acquired skills, meaning that one of the advantages of FDI is the economic development of the recipient countries. (Harding & Javorcik, 2019).

Another advantage is employment and reducing the unemployment rate besides, and that occurs when FDI comes to the host country by building factories and companies because it needs manpower and employees, and this creates new job opportunities, which leads to higher incomes and thus maintaining the purchasing power of people, thus, this would achieve economic growth for the host country (Inekwe, 2013). Also, FDI helps to make international trade easier, because most foreign companies are international companies and have foreign dealings, and therefore every country must have its own import tariff, too, some industries require a presence in global markets to achieve their goals, so with the FDI, all this will be less difficult (Saggi. 2002).

One of the advantages of FDI to host countries is the development of human capital resources, and their importance is often underestimated, given that their results are not immediate and require time. Human capital is those who are able to work efficiently and with sufficient knowledge, known as the workforce. This is utilized through training, exchange of experiences, and education, which enables the host country to benefit from the human resources of the qualified and experienced gained from the foreign direct investment while maintaining the country's ownership of its human capital (Kokko, 2003).

Tax incentives are also considered one of the advantages of FDI, through the host country obtaining foreign expertise, modern technology, and efficient products. Also, as a foreign investor, you can obtain several advantages, including tax incentives, which are useful in the field of investment work that you choose (Easson, 2004).

Also, FDI enables the transfer of resources, knowledge, and expertise more easily so that countries can access new technologies, methods, technology, and skills (Yusuf & Ismail, 2002). The economic growth of the host countries is stimulated by FDI, through employment and increased national income and high wages, as international

companies offer relatively high salary levels than in local companies, and sometimes international companies provide salaries in foreign currencies, and as a result an improvement in national income (Tang, 2009).

2. Disadvantages of FDI to the Host Country

Foreign direct investment has many disadvantages in the host country so that Maithra (2017) indicates that one of the disadvantages is the detriment of FDI on local investments and that through local investment focuses its investments in the country of the local investor, and this often negatively affects local investments and also, one of the important defects facing FDI are political fluctuations, which are always a negative point in attracting FDI because foreign investors often look for a stable investment and political environment. Jensen (2008) states that among the most serious disadvantages that can threaten the continuity and stability of foreign direct investment are political changes, there are often political changes in countries as well as policy issues with other countries, and policy issues can change immediately, which threatens the stability of FDI. Also, one of the most important defects that can affect FDI is the change in exchange rates and their instability, so that foreign direct investment can affect exchange rates in favor of one country or at the expense of another. (Busse et al, 2010).

Many of the disadvantages of FDI are not only on the economic side but also on the political side of the countries. Cuervo (2017) focused his research on this type of disadvantages so that the high costs of production, employment, etc. in some foreign countries represent a negative point that may threaten the stability of foreign direct investment, for example, if you want to invest in a foreign country, you must study the country the targeted economically and politically before placing investments in them, the cost of production in a particular country may be more expensive than the cost of importing it (Cuervo, 2017). Also, failure to prepare a valid and comprehensive economic feasibility for all aspects is considered one of the most important disadvantages of FDI, it is possible that this type of investment needs a large capital, i.e. what exceeds the ability of the foreign investor, or that this type of investment is not viable in this country or other reasons, so it is important to study in-depth before entering into foreign investment (Nocke & yeaple, 2007).

The last disadvantages of FDI are the countries that have had a history of colonialism so that they are more cautious about foreign direct investment so that they can feel that

it is a form of economic colonialism in the modern era, which makes foreign companies with huge capital are dominant and controlling in the local economy of the host country. (Buelens & Marysse, 2009).

D. The Main Theories of FDI

At present, there is a lot of interest in the issue of FDI, both nationally and internationally. There are several theoretical research studying FDI issues, and major research on the drivers behind FDI has been developed by Dunning (1993). Economists believe that foreign direct investment is an important part of economic development in all countries, specifically in developing countries (Denesia, 2010).

There are different types of theories of FDI, which combines theories of FDI at the micro and macro levels, studying the policies and factors that help to allure foreign direct investment, and why companies prefer investment abroad and how to make them enter abroad countries. Research by Faeth (2009) and Denisia (2010) showed that there is no single theory in the field of foreign direct investment, and their research explains the meaning of foreign direct investment, which defines the form of multinational companies that are a foreign direct investment, and each theory adds some new elements and also there is Criticism of existing theories (Musabeh, 2018).

1. Product Life Cycle Theory

In the post-World War II manufacturing industries, there were many problems and difficulties, especially in Western Europe. In 1966, Vernon sophisticated the production cycle theory where it was used for the first time, a theory to explain specific types of foreign direct investment that American companies made in Western European countries.

Product life cycle theory reveals the characteristics and condition of products in different periods of the market, and at the same time, it reflects the entire life movement process and the base of product development in the market. Due to the changing market environment, consumption demand transmission, fierce competition environment, the emergence of alternative products, level of marketing management, etc., limited life of products on the market, etc. The organization should strengthen the product life cycle management theory, enhance the organization's management of the entire marketing process, and enhance their sense of urgency, so be prepared to

understand the changes in products at different stages of the market, to better meet the market demand and changes (Xu, 2018).

Concerning this theory, foreign companies that make foreign investments at a certain stage of the product life previously presented at the beginning, meaning when doing a new product in the market, companies prefer to keep production near the target customers, but after a period of product success internally and externally and the external demands develop so that the rate of export becomes high, the company is urged to start establishing production lines in some foreign countries, especially in countries that are characterized by low costs, in order to serve foreign markets with the required products and reduce the burden of export costs. Through this theory, we can understand the historical development of FDI well, in recent years, the production system has become almost complicated, for example, when the company introduces a new product in several states at the same time, this requires the presence of production facilities in many countries bear the same specifications and production efficiency to produce a product that conforms to the standards of the parent company at the same time. (Tisdell, 2005).

Given product life-cycle theory, (Flamm,1984) demonstrated that remote speculation by US gadgets organizations is delicate to the pay rate in the host country, with higher wages tending to drive outside interest for low-wage countries. Additionally, an overview of Japanese international firms (Horaguchi, 1992) found that low residential interest was the principal purpose behind withdrawal from remote tasks. Both higher wages and lower requests.

2. Theory of Capital Market

This theory is a part of portfolio investment theory, through which the foundations for the process of developing pricing models for financial assets are presented. The prevailing view of the capital markets depends on the scenario of the ideal world so that the financial markets are effective in terms of abundant information about asset prices, which speak continuously and with full accuracy when new information reaches the market. According to the capital market theory, which is always updated and effective, it avoids risk investors when making decisions (Hodnett, 2012).

The capital market theory is referred to as the "currency area theory", and it is considered one of the oldest theories that explain foreign direct investment, (Aliber, 1971) It was assumed that FDI originated as a result of capital market defects, and

these defects, in particular, is the presence of large differences between foreign currencies. Local currencies and thus weak currencies can attract the largest amount of FDI, through their ability to benefit more from the differences between currencies and also support from the differences in the market capitalization rate compared to stronger currencies. (Aliber, 1971) added that multinational companies in the source country, meaning that their headquarters in foreign currency countries can borrow at an interest rate less than the interest rate in the host country because portfolios investors ignore multinational foreign companies in the source country, which gives the source country an advantage Borrowing, which enables him to obtain cheaper sources of capital for subsidiaries abroad and at home, which enables him to obtain the same money at the same value at a lower interest rate (Nayak & Choudhury, 2014).

3. Internationalization Theory

This theory is examined by comparing the gains from foreign expansion in foreign direct and indirect investment. Supporters of assimilation theory argue that the patterns of expansion of FDI are preferable because the risk of spreading a monopoly of information is less when companies expand using these methods. However, critics argue that there is no way to expand the preferred FDI range because of the agency's high decentralization costs associated with FDI patterns. This sheds some light on the discussion by comparing gains from expansion patterns in both FDI and foreign indirect investment. The results showed that the abnormal returns to shareholders are significantly higher when companies expand using patterns other than FDI associated with FDI patterns (Waheed, 1992).

There are many so-called market failures, as Buckley and Cason (1976) categorized them into several types of market failures that led to internal absorption, for example, government interventions in the market are often an incentive to transfer prices, in addition to the difficulty in predicting and estimating prices in the form correct and ideal. According to Buckley and Casson (2009) due to market failure in intermediate input markets, internal absorption occurs, often resulting in horizontal MNEs (horizontal FDI) integration. additionally, due to market failure in intermediate production markets that lead to vertically integrated multinationals (vertical FDI).

4. Industrial Organization Theory

The theory of industrial organization is one of the first interpretations of investment flows in a state of market monopoly, and it focuses on the means by which transnational corporations can deploy their unique capacity and Cross-border assets to overcome operational and media shortcomings in relation to local adversaries. According to this theory, possessing distinctive capabilities and resources such as distinct and unique products, special technology, management skills, and improving the approach to capital and market distortions imposed by the government, give transnational corporations a competitive advantage over and assisting the original companies of the host country, compensation for work defects in a foreign country. In other words, TNCs derive a competitive advantage from market-based defects in the country of origin resulting from a market monopoly (Nayyar, 2014).

The theory of industrial organization is seen as the basis for an adequate explanation of the motivations of an active multinational company, this theory, in particular, is based on the object that international companies expand their procedures and spread abroad and compete with domestic firms, in order to take advantage of the possibilities in the host countries, and depending on the preference of consumers in the countries for products, companies also benefit from the legal system and culture that other competitors in the countries do not share foreign, this distinction is called "monopolistic advantage" however, the external expansion of foreign companies always exposes them to risks resulting from market imperfections. (Rugman, 2011).

5. The Eclectic Paradigm of Dunning Theory

The Eclectic Paradigm theory was established by John Dunning in 1976, international production of foreign direct investment theory provides that the company will invest straightly in a foreign country only if it meets three conditions. First of all, the company has to possess a proprietary asset, which gives it an edge over other companies that are exclusive to the company. Second, these assets should be absorbed within the company rather than contracted or licensed. finally, there should be an advantage in preparing production in a particular foreign country rather than relying on exports. Various types of ownership, local and internal factors (Blonigen, 2019).

This theory is a mix of three different theories of FDI (O-L-I), which are "O" from ownership, "L" from location, and "I" from internalization (Taylor, 2001).

6. Investment Development Path Theory

The investment development path was invented to understand the dynamic link between foreign direct investment and the level of economic development of a country. The main suggestion for IDPs is for a country to go through five stages of investment development. The different stages relate to different sizes and structures of FDI shares both inside and outside, which supervise to distinctive values in a country's net foreign investment position (NOIP). Incoming foreign direct investment is an investment made by a foreign MNE company in a country. FDI abroad is an investment made by MNE in a foreign country. NOIP is defined as the sum of the difference between the sum of direct investments in foreign countries and total domestic direct investments (Harker, 2018).

The Investment Development Path realizes on two criteria: economic development includes many administrative and structural changes, and these changes build on the interrelated and dynamic relations between the volume of foreign direct investment that the state receives and which it sends abroad, as well as the nature and types of these foreign investments. (Buckley, 1998).

The investment development path model contains five stages. The first stage belongs to the countries that receive any FDI, in the second stage, FDI inflows are received. In the third stage, states start making investments abroad, but they are still a net future for foreign direct investment. In the fourth stage, external investment is higher than domestic investment. In the more developed countries, finally, on average, FDI inflows issued by the next investment are neutralized (Durán, 2001).

III. LITERATURE REVIEW

This chapter contains a literature review, which includes the main variables that affect foreign direct investment and its ways of attracting it, and its role in enhancing the investment environment in the host countries. Therefore, governments have relied on developing policies to enhance the investment environment in order to attract foreign investment and create the appropriate climate for enhancing foreign direct investment. The variables that affect and attract FDI contain the market size, corruption, exchange rate, infrastructure, inflation, trade openness, and natural resources.

Chanegriha (2020) explained the link between economic growth and inward FDI flows and is a recent study, and this study investigated the incidental relationship between the ratio of FDI and its role in achieving economic growth and its impact on GDP, through several advanced tests and a large group from the large-scale data, these data were collected from 136 countries, whether developing or advanced, during the period from 1970 to 2006, and the results appeared positive, that is, there is a positive relationship, the more the percentage of FDI in the country, the desired economic growth will be achieved.

According to Dibly (2014), the researcher implied panel data for the period from 1980 to 2009, for a sample consists of 50 African countries to investigate the effect of FDI on economic growth. The result showed that FDI inflows have a positive effect on economic growth.

Karimi (2009) studied the existence of the causal relationship between FDI and economic growth. Use a time series data covering the period 1970 to 2005 for the Malaysian economy. The study confirmed that there is no evidence for the effecting of the indirect impact of foreign direct investment on growth in Malaysia, and there is no direct causal relationship and a long-term correlation between foreign direct investment and economic growth in Malaysia.

In line with Cavas (1996), examined the impacts of inward foreign direct investment on the host country's economy. The results showed a positive impact of FDI on the

growth of the host country, by promoting technology transfer, introducing a new process, and facilitating access to local and global markets.

A. Market Size

The market size effect is one of the important factors that attracting FDI because foreign profitable companies seek to maximize their profits by opening new markets for them, especially in countries with a population density, meaning that if there is more of the population in a country increases, there is an attraction for foreign investment In this country, this is confirmed by the following studies.

According to Amponsah et al (2019), the study covered the period from 1981-2014 for Sub-Saharan Africa countries, and used unbalanced panel data, the study was about Remittances, Market size, and FDI. The study found that market size has a positive influence on foreign direct investment and economic growth. One more study of Shan et al (2018) investigated the effect of market size and natural resources on Chinese foreign direct investment (FDI) in Africa, the study used a panel data across 22 countries in the duration of (2008-2014), the study showed that natural resources did not attract Chinese investment too much, but the market size did. Islam (2016) studied the relationship between market size on inward foreign direct investment in Bangladesh, the writer was using a VEC model, the period of the investigation is from 1986 to 2012, the long term result showed that there is a positive correlation between economic growth and foreign direct investment inflows, and identified a negative impact of import on FDI, and confirmed that market size impacts positively on foreign direct investment. Also, Islami and Mulolli (2016) investigated the link of the market size and FDI of Western Balkan countries, the study used data that were taken from World Bank, in yearly frequencies 10 years period from 2005 to 2014. After using the Pearson Correlation technique for empirical analysis, the results showed that there is a clear positive relationship between market size and FDI. According to Kimuli (2012) used a sample of 57 developing countries for ten years period from 2000 to 2009 to determine the effect of market size on FDI, the results of this study indicated that the market size is considered as one of the most important determinants of FDI.

Mughal and Akram (2011) this study showed the impact of market size on FDI inflows in Pakistan, the researcher used an error correction model. Time series data from 1984

to 2008 is used for this study, the results showed that market size is important, and attracting FDI inflows to the developing country.

B. Natural Resources

In light of previous studies, some studies have proven a positive relationship between natural resources and FDI, so that countries rich in natural resources help to attract foreign direct investment. On the other side, some studies have been escorted in countries rich in natural resources, but they have shown negative results, that is, they impose laws that make it difficult to attract foreign investment and only limit their natural resources, such as oil. This is presented by some of the following previous studies.

According to Feulefack and Ngassam (2020) study, they investigated the effect of natural resources in Africa on FDI, they used PMG method and tested it to five African oil-exporting countries for the period from 1996 to 2017, the study shows that natural resources have not too much attracted on FDI. On another study of Pephrah and Hongxing (2019). The study explored the relations between inward foreign direct investment inflows and natural resources, this study investigated a sample of ten resourced sub-Saharan African countries, and they used means of panel data for the period from 1990 to 2017, the results showed that there is a positive relationship between natural resources and FDI. In other words, the countries that have natural resources attracted FDI.

Elheddad (2016) study showed that oil countries attract weak FDI because of resource (oil) price instability, this paper examined the natural resources discourage FDI in Gulf Cooperation Council, this paper used a panel data analysis for six oil countries during 1980 to 2013, the results indicated that the natural resources that were measured in oil rents do not have any positive correlation with FDI inflows.

Asif and Majid (2018) study examined the impact of natural resources on FDI in Pakistan, the study covered from 1984 to 2013, the result showed a significant positive relationship in the long and short run on FDI.

Anarfo and Agoba (2017) paper investigated the role of natural resources on FDI inflows in Ghana, the data covered from 1975 to 2014, the finding showed that there is a positive relationship, which means the natural resources attracted FDI in.

C. Corruption

Logically, the countries where corruption exists, foreign investors do not want to invest in them for fear of some of the risks that could endanger their business, and certainly, this is a negative link with corruption and foreign direct investment, and this is what previous studies indicate in some countries like the Middle East countries North Africa and others, despite this, some countries have corruption that attracts foreign investment such as India, and this is what was shown in some studies conducted in India. Here are some previous studies that clarify the relationships between corruption and foreign direct investment.

Zangina and Hassan (2020) study aims to explain the connection between corruption control and FDI in Nigeria, The study used the time series analysis and covered the period from 1984 to 2017, the results showed that there is a positive change in respect of corruption control is positive similarly as statistically significant during long-run, which suggests that there are more FDI inflows when where could be a decrease in corruption control.

Acocella et al (2019) study examined the extent of the impact of corruption on the ratio of foreign direct investment flows in African countries, and the study adopted the gravitational model, so the results confirmed that there is a negative correlation between corruption in African countries and foreign direct investment flows, meaning that it does not directly affect the attraction of foreign direct investment especially investments from African countries to South Africa.

Yadav et al (2019) paper investigated the impact of corruption on FDI inflows in India, the study examined the effect of corruption on FDI by using a secondary data for the period from 1995 to 2017, the results showed how corruption influenced FDI decision of Indian economy in a positive way, which means that corruption in India attracting FDI.

Hakimi and Hamdi (2017) paper analyzed the effect of corruption of FDI and economic growth in 15 (MENA) countries, the study investigated the period from 1958 to 2013 by using a panel cointegration analysis, the results showed that there is a negative relationship between corruption and FDI, which means that the countries that do not have a polices to reduce the corruption have less attract of FDI.

Habib and Zurawicki (2002) study examined the impact of corruption on FDI inflows, the study explains the difference of corruption level, and showed that there is a

negative relationship between corruption and FDI, and suggested the foreign investors avoid the countries that have a corruption.

D. Exchange rate

The exchange rate varies from one country to another, and this is one of the essential factors in attracting FDI to the host countries, while another may be ineffective in other countries, and this is what is explain from previous studies conducted in several different countries.

Collins et al (2016) study investigated the impact of exchange rate on FDI inflows in Nigeria, the study used a descriptive analysis of secondary data on exchange rate data from CBN statistics database, and the results showed that there is a positive relationship between FDI and exchange rate in Nigeria.

This study examined the impact of exchange rate on FDI in India and China, Khandare (2016) study used a regression analysis techniques for analyzing the data, the period that used from 1991 to 2014, and the results showed that there is a positive correlation between exchange rate and FDI in India, but there is a negative correlation in China.

Nyarko (2011) study examined the effect of exchange rate on foreign direct investment inflows in Ghana, the study used a causal model to examine the link between exchange rate and FDI period from 1970 to 2008, the result showed that the exchange rate in Ghana has weak attracting FDI which just 10 percent.

Alba et al (2010) study examined the impact of exchange rate on FDI inflows in the US, the study used an unbalanced industry-level panel data, and the results confirmed that there is a positive effect on FDI inflows.

Kiyota and Urata's (2004) paper examined the impact of the exchange rate on FDI in Japan, the result showed that the depreciation of the currency of the host country attracted FDI, and the study showed also that flexible exchange rate attracted FDI.

Collins et al (2016) study investigated the impact of exchange rate on FDI inflows in Nigeria, the study used a descriptive analysis of secondary data on exchange rate data from CBN statistics database, and the results showed that there is a positive relationship between FDI and exchange rate in Nigeria.

E. Inflation

Some studies find that there is a direct relationship between inflation and foreign direct investment flows so that studies support that this relationship is negative in a large percentage, and this is because exchange rate fluctuations increase the risks and this reduces the flow of foreign direct investment in countries characterized by excessive fluctuations in exchange rates This is what was found in the following studies.

Ibhagui (2019) article investigated the effect of inflation on FDI in 74 countries, the study found that there is a negative relationship between inflation and FDI, which means that the countries that have inflation do not attract FDI.

Mustafa (2019) study explained the relationship between inflation and FDI in Sri Lanka, the study used the time series data to investigate the data for the duration from 1978 to 2017, the results confirmed that there is a slowdown of economic growth because there is a high speed of inflation in Sri Lanka, and there is a negative relationship.

Omankhanlen, (2011) study examined the influence of inflation and the Exchange rate on FDI flows. He employed Nigeria as a case study and used the data from 1980 to 2009, the results confirmed that there is no effect of inflation on foreign direct investment flows.

Asiedu (2006) paper investigated the effect of inflation on FDI was investigated. And the study employed 22 African countries from 1984-2000, the results confirmed that inflation affects significantly (negative) FDI.

Ahn (1998) the role of Inflation and Exchange rate Policies on FDI to developing countries is investigated, the study employed a sample of 23 developing countries over the period 1970-1981 to investigate the effect of inflation on FDI. The findings showed that inflation affects negatively capital inflows.

F. Trade Openness

One of the essential factors in luring foreign direct investment is trade openness, and this is illustrated by previous studies that there is a positive relationship between trade openness and the flow of FDI, and the following studies show that.

Musabeh and Zouaoui (2020) study investigated the main variables and policies that affecting FDI inflows in five North African countries, the authors used a panel data of North Africa in duration from 1996 to 2013, the results show that there is a positive

relationship between trade openness and FDI inflows, which means that trade openness attracted FDI inflows.

Alam et al (2016) study investigated the impact of trade openness and foreign direct investment on life prospect in Pakistan, the study used time series data over the period from 1972 to 2013, the results confirmed that there is a positive relationship between trade openness and FDI, which means that trade openness attracting FDI.

Babatunde (2011) study explored the relationship between trade openness and FDI and economic growth in 42 sub-Saharan Africa countries, the study covered the period from 1980 to 2003, the results showed that there is a positive link between trade openness and foreign direct investment.

Liargovas and Skandalis (2010) investigated the role of trade liberalization for enhancing foreign investments; they used a sample of 36 developing countries over the period 1990-2008. The main observed conclusions of the panel regression analysis told that long-run trade openness offers surely to the inflows of FDI in growing countries.

Rappaport (2000) study investigated the impact of trade openness on increasing foreign direct investment flows and enhancing economic growth. The results indicated that trade openness plays the principal purpose as a channel to obtain economic growth, constant technological spread that has been developed by foreign direct investment. This spillover effects on two ways (horizontal) within the same sector, and vertical through forwarding/ backward linkages.

G. Infrastructure Development

Studies have proven that there is a positive relationship between infrastructure and foreign direct investment so that one of the most important factors that attract foreign direct investment is the port of infrastructure in multiple fields such as transportation, communications, etc., and this, in turn, attracts the interest of investors and this is what the previous studies show in the following.

Mbiankeu (2020) study investigated the effects of infrastructure (communication, energy, and transportation) on FDI in Cameroon, the study used a time series data for the period from 1984 to 2014, and the findings showed that the infrastructure has a positive and significant impact on FDI.

Wang (2019) study aimed to analyze the impact of infrastructure improvement on FDI by using the panel data of Asian countries for the duration from 2003 to 2017, the result showed that the infrastructure improvement attracting FDI inflows in general and in China especially.

Owusu-Manu (2019) paper aimed to explain the short-run causal relationship between infrastructure development and FDI in Ghana, the writer used an augmented Dickey-Fuller test (ADF) to test the situation, the findings showed that there is a positive and significant relationship between FDI and infrastructure.

In Castro's (2007) study, the researcher used Spatial Autoregressive model (SAR), in addition to presenting a model that shows the spatial gap on a board containing 21 Argentine provinces between 1990-2001, which aims to clarify the role and impact of infrastructure on attracting foreign direct investment in the results, it appeared that 10% of the increase in asphalted roads works to enhance foreign direct investment by 17% to 33% in the average of the regional regional economy, while the expansion of the network of asphalt roads in some nearby regions is working to increase by 12% to 14% in foreign direct investment.

Onyeiwu (2003) studied the FDI determinant factors in the MENA countries in analogy to other developing countries. His paper reasons showed that infrastructure has no positive impact on the inflows of FDI to MENA countries. Also, the writer suggested that the absence of infrastructure impacts can be explicated by the high volume of foreign direct investment flows to the MENA region goes to natural-resource exploitation–sectors in which telecommunication means were not significantly important.

H. FDI in Algeria

Many of the previous studies dealt with the issue of foreign direct investment in the countries of MENA countries in particular. Most of these studies cases were talked about the state of Algeria and its relationship to attracting foreign direct investment, but the studies concluded that there is a weakness in attracting foreign investment despite the governments 'amendment of policies that facilitate the process attracting FDI in Algeria, here are some studies that talked about foreign direct investment in Algeria.

In a study by Ali and Mna (2019), the researchers studied the effects of foreign direct investment on the state of domestic investment and economic growth in three developing countries in North Africa, namely Morocco, Algeria, and Tunisia, and the aim of this study is also to demonstrate how foreign direct investment can affect domestic investment in These countries, and the results of this study revealed the relationship between investment and growth, which is a positive relationship, and foreign direct investment has a major role in increasing economic growth in these countries.

Chaib and Siham's study (2014) examines the role of institutional quality in the process of attracting foreign direct investment in Algeria in the period from 1995 to 2011. The Johansen cointegration test was used to verify the existence of long-term relationships between variables and also the analysis of variance was used, and the results of this study showed the existence of a long-term relationship between the variables and the existence of a relationship that has positive effects between the variables. The study proved that the existence of economic freedom helps to provide an excellent investment climate and attracts more foreign direct investment.

In the study of Sissami and Belkacem (2014), the study examined the effect of political risks on foreign direct investment. The study used the case of Algeria as a study sample and examined the relationship between political risks and their effects on foreign direct investment in the period from 1990 to 2012, and the results showed a negative relationship between politics and investment Foreign direct in this period.

Sissami and Belkacem study (2014) studied the determinants of attracting foreign direct investment in host countries and took Algeria as a study sample, and this study covered the period from 1990 to 2012, and from the results of this study, the Algerian government carried out several economic reforms in this period, but the flow of foreign direct investment was Weak.

IV. FOREIGN DIRECT INVESTMENT ENVIRONMENT IN ALGERIA

A. Overview of Algerian Economy

Algeria is an African country, located specifically in North Africa, with an area of 2,382,000 square kilometers, and it is considered one of the desert states because the desert has more than 80% of its total area, and according to the 2015 census, the population of more than 40 million people. Among the most important industries in Algeria on which the Algerian economy depends mainly are the oil and hydrocarbon industries, as they are one of the essential oil and gas producing countries, so that Algeria is one of the most important and largest oil exporters around the world, and it has many oil reserves as its international rank reaches 14th. In addition to the carbohydrate sector, which amounts to 50% of budget revenues (Musabeh, 2018).

Algeria is one of the countries that want to integrate into the global economy by directing its interests in keeping pace with global economic changes, by implementing structural reform programs with the aim of creating a favorable climate for attracting foreign investment, and among the reforms it has undertaken we find investment laws that carry many Guarantees and incentives through which they aim to attract the largest amount of foreign direct investment flows, given the large role that foreign direct investment plays in promoting the economy and achieving economic development (Chaib & Siham, 2014).

Algeria is making continuous efforts to create an appropriate investment climate to attract domestic and foreign investments. Several laws and related legislation have been issued, especially in the 1990s and early 2000s. The issuance of these laws has accompanied the creation of several public bodies in order to facilitate foreign investment operations (Meliani et al, 2004).

The investment climate expresses the ease of legal frameworks and infrastructure to create investments, which means the extent of the availability of competitiveness to

attract investments, despite the efforts made by the Algerian state in this field, however, many institutions ranked Algeria in late ranks regarding the availability of an acceptable business environment. The investment climate is the result of the interaction of economic, social, and political factors, which affect the investor's confidence and work to encourage and stimulate investment (Sissani & Belkacem, 2014).

B. The Sectoral Distribution of Foreign Direct Investment in Algeria.

Table 1 Sectoral distribution of foreign direct investment received in Algeria during (2002-2016).

Sector	Number of projects	Percentage	Amount (in Algerian Dinars)
Agriculture	14	0.2%	4373
Construction	137	3.50%	77661
Industry	495	80.48%	1783922
Medical	6	0.61%	13573
Transportation	25	0.67%	14820
Tourism	14	5.13%	113722
Services	130	5.37%	119113
Telecommunications	1	4.03%	89411

Source: National Agency of investment development (2018).

Table 1 shows that foreign investment is intensive in the industrial sector, as it controls the largest share in terms of the number and value of the completed projects with 495 projects out of a total of 822 projects with a value of 1783922 million Algerian dinars, the construction sector ranks second in the number of projects with 137 projects, with a value of 77661 million Algerian Dinar.

As for the other sectors, they were not satisfied with the desired level of investments, despite their importance, but they did not receive the largest percentages of foreign investments, such as the sectors of agriculture, health, transportation, and tourism.

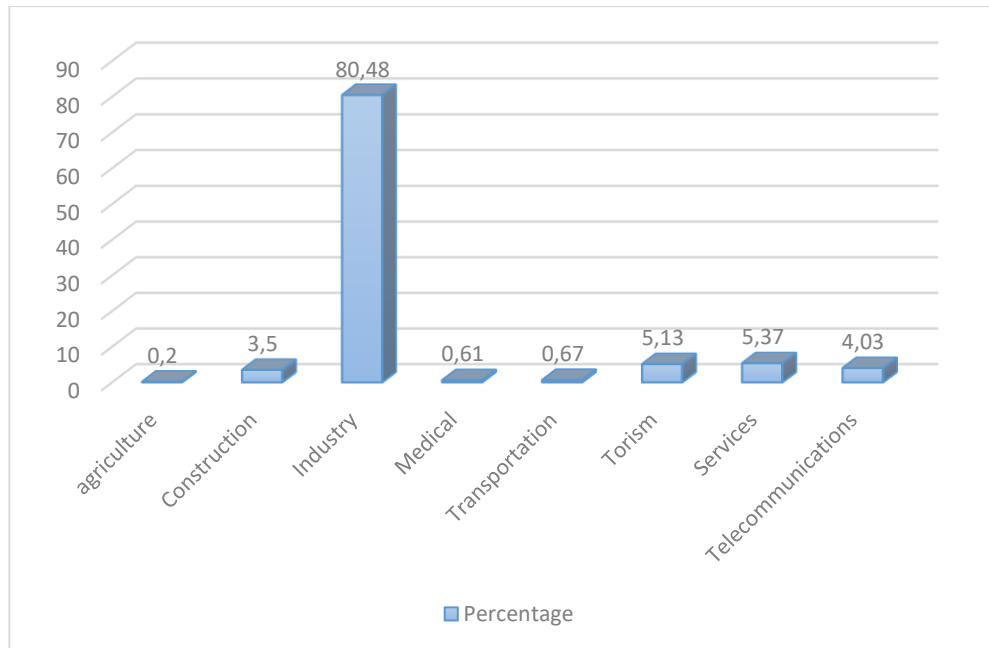


Figure 3 Sectorial percentage distribution of foreign direct investment received in Algeria during (2002-2016)

Source: National Agency of investment development (2018).

Figure 3 shows the percentages of the amounts spent by foreign investors in various sectors in Algeria in the period from 2002 to 2016, so the industrial sector gained the largest share by more than 80%, then the services sector followed by more than 5%, followed by the tourism sector and then the communications sector, but The agricultural sector received the lowest percentage of these foreign investments, as the percentage did not exceed 0.2%.

C. Incentives for FDI in Algeria:

Since the 1990s, Algeria has pursued many economic reforms to move from an economy oriented towards a market economy, and several political and legislative reforms have followed, to provide an appropriate framework for productive economic trends and diversified investments, as many laws and legal decrees have been issued. The first incentive is Algerian economic reforms in the area of attracting foreign direct investment, In the 1990s, and immediately after independence, Algeria adopted the socialist system, or what was known as the planned economy, and with the ineffectiveness of this system in implementing successful policies to attract investment projects, the Algerian state came to see that it is necessary to work to stabilize the economic climate, as this condition is considered one of the most important basic

conditions In attracting investors, this is why Algeria has implemented several reforms since 1989 in order to achieve total stability of the economy and create an attractive environment for foreign direct investment, including the following, the second one is reform the public system to upgrade the private sector, the public authorities have reconsidered public institutions and this by giving them legal and financial independence and exempting them from accumulated debts, as the public authorities entered into the actual financial purification of public institutions in 1991 and this is based on the material extracted from financial laws and internal adjustment programs provided by public economic institutions.

Where the procedures for financial cleansing are defined by the two publications issued in March and August of the year 1991, and according to these two publications, the Financial Purification Fund of the Public Institution for Public Treasury was created. As for the private sector, many legislations guarantee the liberalization and encouragement of the private sector, and this is to transform from the economy directed to the market economy, but this sector remains confined to some medium and small enterprises. As an incentive for Algeria, we have one more different process. In this process; IMF releases prices and cancels the support of the country. The process aims to encourage private and foreign prices. In order to encourage private and foreign investments, the International Monetary Fund stipulated abolishing subsidies for prices with wide consumption in order to reduce the burden on the state's balance sheet and make local prices a function of international prices, and the process of price liberalization made tangible progress as the proportion of liberated goods jumped to 84% Of the total goods included in the consumer price index at the end of 1996, the removal of subsidies from the majority of consumed items led to a decrease in public expenditures, and then the overall deficit in the public budget decreased to 1.4% in 1995, and according to the IMF report for the year 2001, the prices of consumption from 1.3% in 2000 years and 3.7% by 2001 (Chaib & Siham, 2014).

One of the most important incentives that Algerian government did is Tax reform, at the beginning of the year 1991, the government started to introduce fundamental reforms to the tax system and this by creating new taxes TVA - IBS - IRG, and these taxes came to abolish double taxation, in the sense of unifying the tax applied to institutions, whether national or foreign, and within the framework of the principle of universality of rules Taxation, and then entering the market economy, and to support tax rules and combat tax fraud and increase its resources. The finance law of 2001

included several measures, including Reducing rates on value-added fees from (7%, 14%, and 21%) to two rates (7% and 17%). Also financial and banking sector reform is one of the important incentives, In order for the reform process to succeed in the country, you must undertake the reform process in the financial sector in general, because the success of the reform in other sectors is related to this sector. From this standpoint, Algeria sought to define the banking sector, and this was done in accordance with the money and loans law (10-90) issued in 1990, and this law established several principles, including separating the monetary circle from the real circle and separating the monetary circle from the budget department general of the state, separating the General budget department from the loans department, and establishing a single and independent monetary authority (Meliani et al, 2004).

Privatization and liberalization of foreign trade are one of the incentives which the Algerian government started to reduce its control over public institutions, including legal and financial independence, wherein 1994 for the first time public institutions were allowed to waive their assets or open their social capital, and thus the government decided to establish the Algiers Stock Exchange related to the transfer of values exchange, and by the end of 1998 more than 800 companies were privatized Local. As for the foreign trade liberalization policy, the authority's gradually liberalized foreign trade as the beginning was in 1988, according to the (narrowing) law, which relatively abolished import restrictions that were reserved for the state, and in 1990 with the issuance of the supplementary finance law that allowed the use of intermediaries from. In order to complete the transactions with foreign countries, and as a result of the financial imbalances in 1992, the public authorities tightened restrictions on foreign exchange and reduced the imports, as transactions exceeding 100,000 USD were subject to approval by a special committee (Musabeh, 2018).

D. Obstacles to Foreign Direct Investment in Algeria

In spite of the attempts and reforms undertaken by Algeria and consecrated to the promotion and encouragement of foreign investments, the percentage of foreign direct investments display in the country was not proportional with the level of ambitions, these investments were far from what was expected from the expansion in granting incentives and facilities for foreign investors, this can be attributed to a group of economic, legal and political obstacles (Sissani & Blekacem, 2014).

Among the economic obstacles that contributed to the weakness of foreign investments received in Algeria and hindering FDI is the problem of ownership, as real estate is a very beneficial factor in the stability of foreign investors, as the problem mainly lies in the length of time it takes for the authorities to repay the decision to exploit the property, sometimes it may take a year. Also Funding problem and the banking sector deficit, since the transitional period, the process of benefiting from financing faces obstacles related mainly to the formation of the financial and banking system of Algeria, which is subject to high control of the state and the lack of liberation of banks and financial institutions from the power and impact of the state in addition to that there are restrictions that hinder the rehabilitation of the banking sector (Meliani et al, 2004).

One of the most important obstacles is the problem of the informal sector, the Algerian economy experienced in its various steps of development from the spread of the informal economy and in many areas of economic activity and is devoted in the transition from the system of the directed economy to the system of the free economy, the consequence of this stage is the weakening of the state's economic role, low employment rates and the incomes of individuals, which led to the emergence of practices that paved the way for the establishment and spread of the informal sector in the country (Chaib & Siham, 2014).

Also the problems of the Algerian private sector, FDI is closely related to the ability of the private sector to carry out investment and participation operations, as it shows that this sector has not reached the level required of it although its activity represents 44% of the national activity, in addition to this the lack of experience and expertise in this sector, as the private sector in some countries is considered a factor in attracting foreign direct investments because of its experience and its special relationship with foreign investors, in addition to that the foreign investor cannot venture unless he notices that the private sector ventures in the host country, but what It is observed in the economy.

The Algerian business that import-related business is predominant and this is because of its high cost-effectiveness compared to investment activity, and facilities and manipulations in this field encouraged people to continue this activity instead of venturing into investment activity, this matter not only supports the national economy's tendency to play the consuming role by raising the share of imports, it also

supports foreign investors' view of Algeria as a market for their products and not as a base for productive branches (Musabeh, 2018).

There are a lot of obstacles related to legal and regulatory impediments. Legal instability is one of the obstacles and barriers that stand in the way of the foreign investor and makes him hesitate to invest in Algeria, especially if it is radical investing. Another obstacle is lack of transparency in customs interests, among the sectors that encourage the transfer of foreign direct investments in the presence of interests that operate transparently in host countries, and the viability of this is effective in receiving foreign investors and this is at the beginning of a survey visit to learn about the economic, social and political conditions of the host countries and is noticeable in many developing countries, including Algeria, which are characterized by a rotting apparatus, led many businessmen to return from where they came due to the arrogant transactions of some customs, and therefore customs play an effective role in this process (Sissani & Belkacem, 2014).

Administration bureaucracy and poor law enforcement are one of these obstacles, despite the efforts made by the state to get rid of the bureaucratic troubles and facilitate administrative procedures in front of local and foreign investors as unified windows have been set up that include a group of offices affiliated to several bodies to provide services to foreign investors, but the problem is common to all management circles, It is considered one of the most important obstacles facing foreign investors.

Also, administrative corruption is an important obstacle, if the bureaucracy is the negligence in performing tasks and imposing measures that are useless except to exhaust the foreign investor financially and morally, then administrative corruption is the misuse of the position of authority for personal purposes, and that is by blackmailing dealers or obtaining bribery (Meliani et al, 2004).

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The last type is political and security obstacles, which means political instability. Politically, we can point to the side of the security and its effective role in attracting foreign direct investments, as the weak political and security stability causes investors to reduce their investments or to withdraw completely from the investment scene. In Algeria, for a long time, the security developments dominated the political developments, which became a major impediment to the flow of foreign investments, as the size of this last in the nineties was non-existent, as the economic image of Algeria was distorted at the regional and international levels (Chaib & Siham, 2014). As Table 2 shows, the report of the Arab investment and export credit guarantee corporation in 2017 ranked the most important investing countries in Algeria for the period 2012-2016, China got the topping of the ranking with total investments amounting to the 3509 million dollars, followed by Singapore and Spain, respectively, at 3151 million dollars and 2247 million dollars to occupy fourth place Qatar with investments amounting to 2150 million dollars, table 2 shows the most important countries investing in Algeria for the period 2012-2016.

Table 2 The most important countries investing in Algeria in the period (2012 - 2016)

Country	Cost (millions of dollars)	Number of projects	Number of firms
China	3509	6	6
Singapore	3151	3	1
Spain	2247	8	4
Qatar	2510	2	2
Turkey	1598	2	2
Germany	380	7	7
South Africa	350	1	1
Switzerland	293	3	3
France	268	10	8
UK	234	4	3
Others	1093	31	31
Total	15273	77	68

Source: (The Arab investment and export credit guarantee corporation, Algeria report, 2017).

E. Real Exchange Rate in Algeria

The real exchange rate (RER) has been corrected by the ratio of the value of foreign currencies to the local price level, and in several studies, the real exchange rate (RER) has been determined in the context of the model of the type of economy approved with negotiable and non-negotiable goods. In this setup, the real exchange rate (RER) is defined as the local relative price of tradable and non-tradable goods (Balassa, 1964).

The equilibrium real exchange rate (ERER) is defined as the relative negotiable price to the non-negotiable, concerning certain sustainable (equilibrium) values from other related variables such as technology, taxes, etc., resulting in simultaneous balanced internal and external acquisition (Cashin et al, 2002).

Algeria, like other developing countries, seeks to enhance its external balance and achieve economic stability, so that Algeria has relied on many different exchange rate regimes in the past decades. In 1974, the Algerian dinar exchange rate was related to several currencies, but the US dollar had the largest weight in view its importance in export earnings, but after the oil shock in 1986, the Algerian bank left the local currency down against other currencies, and in 1994, one of the most important goals of the adjustment program was to correct the previous true appreciation of the Algerian dinar, since in 1995 the exchange rate policy was aimed at shear in order to maintain a stable exchange rate through the application of the systematic floating system that has continued today, the bank of Algeria through its interventions adjusts the nominal exchange rate periodically and continuously in order to achieve the real exchange rate (Yahia et al, 2018).

The changes in the real exchange rate in Algeria respond to the three forces, which are the differences between the balance of the real exchange rate and its different actual value, the imbalance in the overall economy (the difference between supply and demand) on money, and the lowering of the nominal value which are positive parameters. Thus, an adjustment to the fundamentals that affect the real exchange rate of equilibrium (for example, increased spending from increased oil production, and changes in import protection) to fade excess supply or demand by adjusting prices and wages, which will gradually bring the real exchange rate closer to the equilibrium level. Monetary pressure (for example, from increasing reserves from higher oil exports). On the other hand, tends to cause real appreciation by increasing the supply

of money demand. Changes in the nominal exchange rate affect RER only if it is not in equilibrium. Thus, exchange rate manipulation will not have a long-term effect on the equilibrium price (Sorsa, 1999).

V. AN EMPIRICAL ANALYSIS OF DETERMINANTS OF FDI INFLOWS OF ALGERIA

In this section, we investigated selected variables to explore their moves in 2000-2018. The variables are real exchange rate, corruption, inflation, gross fixed capital formation (GFCF), trade openness, real GDP, GDP per capita, and inward FDI. The real exchange rate is named as *EXCHG*, and the source of the variable is World Bank data, and According to the World Bank data (2020), has defined the real exchange rate as a specific measure to measure the true value of the currency against the weighted average calculation of other foreign currencies, and this average is divided by the price contraction factor or another indicator, which is the cost index.

Corruption is named *CORRUPTION*, and the source of the variable is the Corruption Perceptions Index (CPI), which defined corruption as a measure that rates countries based on their perceived level of corruption. The CPI was created and used by Transparency International.

Inflation is named as *INFLATION*, and the source of the variable is World Bank Data, and according to the World Bank data, inflation is defined as the annual percentage that measures the change in the cost of production and that is reflected on the average consumer when he gets many goods and services that affect the consumer, positively or negatively, and that can be repaired or changed at certain times, for example annually.

Gross fixed capital formation is named as *GFCF*, and the source of the variable is World Bank data. Gross fixed capital formation (GFCF) includes many fields, including land reclamation and improvement, and many state facilities such as schools, hospitals, and commercial buildings such as malls, commercial stores, offices, country-specific homes, factories, and other facilities. According to SNA 1993, capital formation includes net valuables such as gold and others (World Bank, 2020).

Trade openness is named as *OPENNES*, and the source of the variable is World Bank data. According to the World Bank's definitions, it defines what is called trade

openness as the sum of exports and imports in the country, which are the goods and services produced, which are calculated as a percentage of the GDP, meaning that the higher the proportion of exports and imports in the country, this indicates that this country is distinguished with trade openness and vice versa

Real GDP is named as *RGDP*, and the origin of the variable is World Bank data, The World Bank data has defined the real GDP as the sum of the total added value by all companies producing in the country plus all taxes, such as taxes on products, minus from this total any values and bonuses that are not officially added in the value of the products. This equation is calculated by conducting any discounts such as the depreciation of assets, a decrease of natural resources, or other reasons.

GDP per capita is named as *GDPPER*, and the source of the variable is World Bank data, The GDP per capita is determined based on the purchasing power parity (PPP) of the individual in the country, meaning that the GDP per capita is measured in a way that the GDP is in the currency of the dollar because it is an international currency, divided by the population of the country to show the result that determines the per capita GDP total, which is also purchasing power parity (PPP) (World Bank, 2020).

Inward FDI is named as *INFW*, and the source of the variable is World Bank data, According to the World Bank Data, the inward FDI was defined as the net outflow of foreign investors operating in a foreign economy other than that of the foreign investor and through which the foreign investor obtains a permanent administrative interest by establishing a company or buying shares in a company. It is the sum of long-term capital, capital in the form of investment stocks, and short-term capital, as explained in the equilibrium amount of payments found in state records (World Bank, 2020).

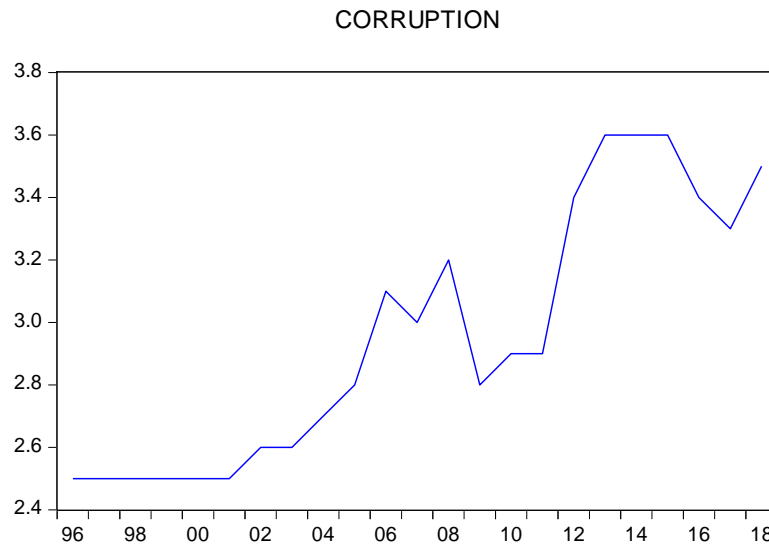


Figure 4 Corruption

Figure 4 explains the rates of corruption from 1996 to 2018, since the beginning of the year 2001 the indicators of corruption began to increase, moving from 2.5 to 2.6 in 2002, and this increase continued to increase until the year 2006 to reach 3.1. In 2008, it reached to 3.2. At the beginning of the year 2009, the decrease came back to the index to 2.8, then it continued to increase gradually until 2013 to reach its highest level, which is 3.6 but then it decreased to 3.3 in 2017.

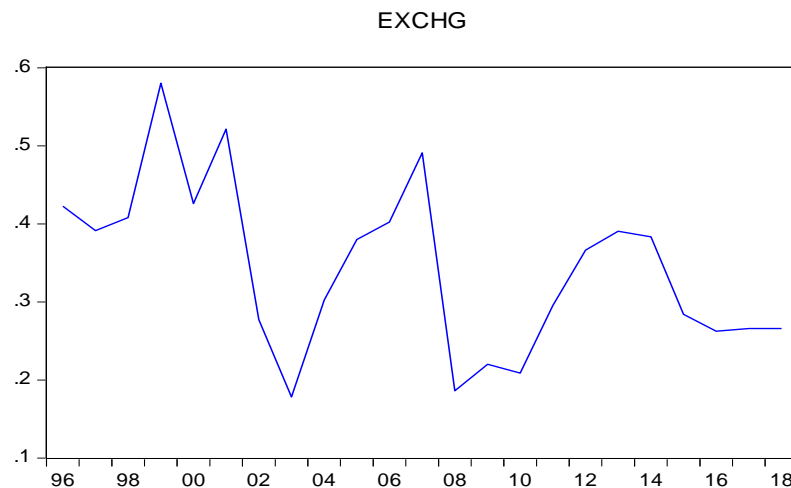


Figure 5 Exchange rate

Figure 5 shows the changes in the exchange rate from 1996 to 2018, and as the graph shows there is instability in the exchange rate over these years, in 1996 the average exchange rate was 4.2. In 1997 there was a significant increase to reach its highest level in 1998, which is 5.9, after which the exchange rates decreased slightly to reach 4.3 in the year 2000. In the year 2001, an increase occurred to register 5.0, but after

this, there was a strong collapse in the exchange rates to reach 1.9 in 2003. Then there was a fluctuating increase to reach about 4.7 in 2006, then it gradually decreased, reaching to 1.9 in the year 2007, then, there was a fluctuating increase to reach to 3.5 in the year 2013, then it decreases to 2.5 in 2015 to maintain stability in this number, which 2.5 is until 2018.

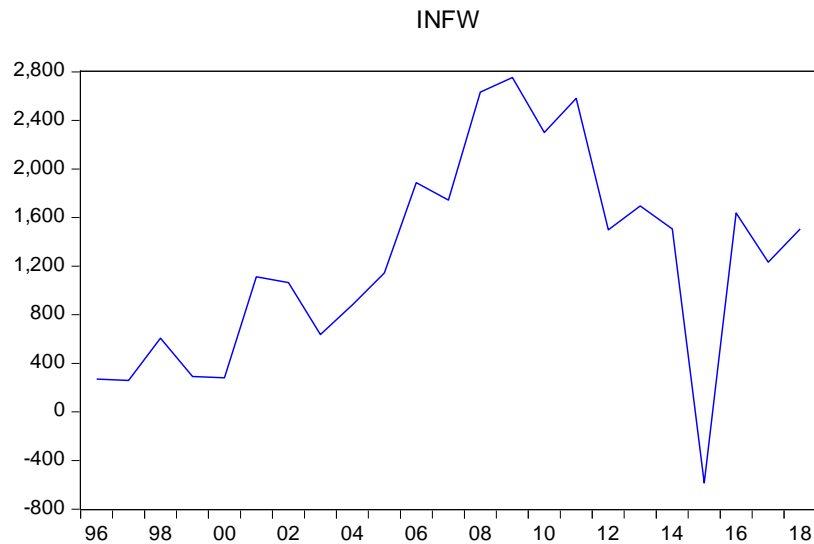


Figure 6 Inward FDI

Figure 6 shows foreign direct investment in Algeria is shown from 1996 to 2018, in 1996 the indicator was 270.0, then it increased to 606.0 in 1998, then the index decreased to 280.1 in the year 2000, to increase significantly to reach 1065.0 in the year 2002, then it decreased in the year 2003 to reach the index to 637.9. Then the index increased significantly to reach the highest percentage in 2009 to reach the index to 2753.8. There was a breakdown in the index to reach -584.5 in 2015, and then increased significantly in 2016 to reach the index to 1637.0, then the index stabilized to reach 1506.3 in 2018.

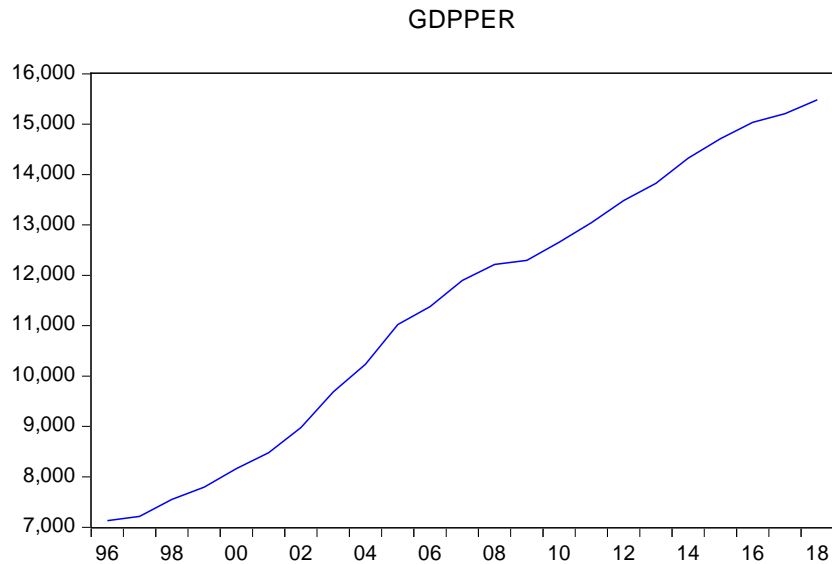


Figure 7 GDP Per Capita

GDP per capita is the total gross domestic product split by the population in a particular country, and the result is the annual per capita share in US dollars in this graph, and here we see in figure 7 that the GDP per capita is constantly increasing, as we see in In 1996, the GDP per capita was 7129 USD, to continue to increase to reach 15481 USD in the year 2018.

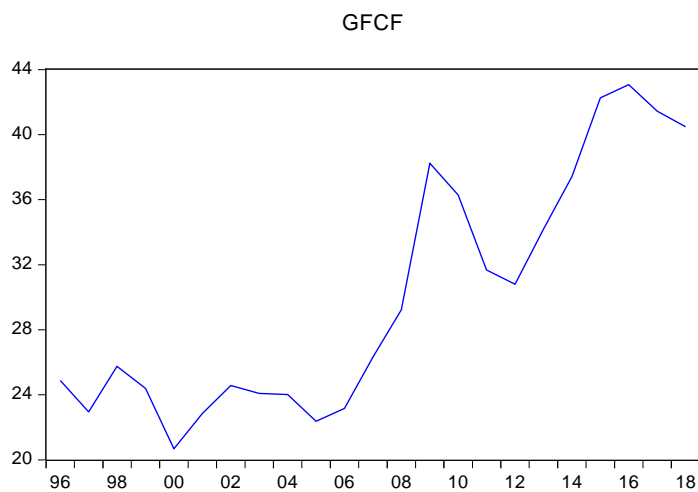


Figure 8 Gross Fixed Capital Formation

In figure 8, the gross fixed capital formation in Algeria from 1996 to 2018 varied between increase and decrease, in 1996 the indicator was 24.87, then this indicator declined in 1997 to 22.95, and in 1998 the index increased to 25.79, and between the slight increase and decrease the indicator reaches to 26.32 in 2007, in the year 2009 the index reached to 38.23, then it continued to decrease to reach 30.79 in the year 2012,

then it increased significantly to 42.25 in 2015, then the index reached to 40.48 in 2018.

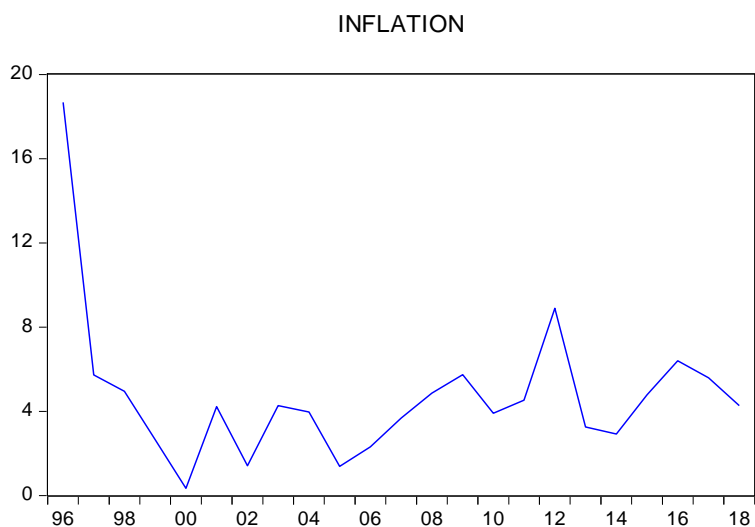


Figure 9 Inflation

Figure 9 shows the rate of inflation in Algeria from 1996 to 2018, the inflation index in 1996 was at its highest to reach 18.6, then it decreased significantly in 1997 to reach the index to 5.7, to continue its decrease to reach 0.3 in the year 2000, then it increased again in 2001 to reach 4.2, and this increase continued to reach to 8.8 in 2012, and then decreased significantly in 2013 to reach 3.2, then the index increased again to reach to 6.3 in 2016, and in 2018 the index reached to 4.2.

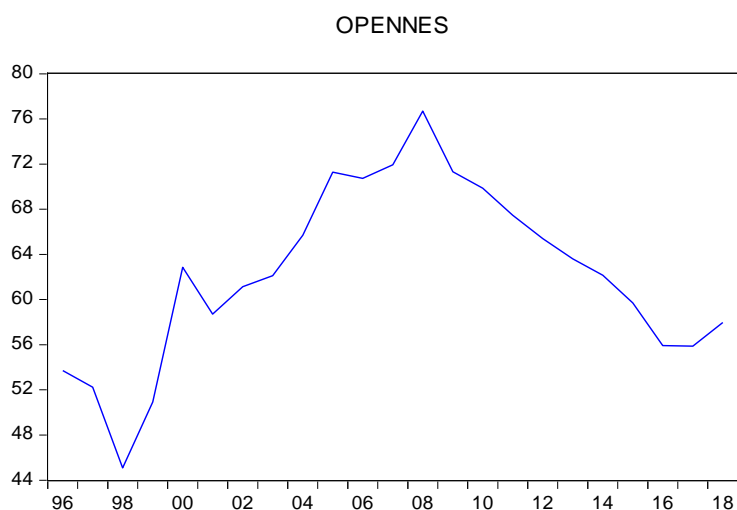


Figure 10 Trade Openness

Figure 10 shows the indicators of trade openness in Algeria in the years from 1996 to 2018, beginning in 1996 the index was 53.7, but the index of trade openness in 1998 decreased to 45.0, then the index increased rapidly to reach 62.8 in the year 2000, and

this continued the increase in indicators to reach the index in the year 2005 to 71.2, and this increase continued to reach to 76.6 in the year 2008, then gradually decreased for several years to reach in the year 2016 to 55.9, and at the end of the year 2018, the index of trade openness reached to 75.9.

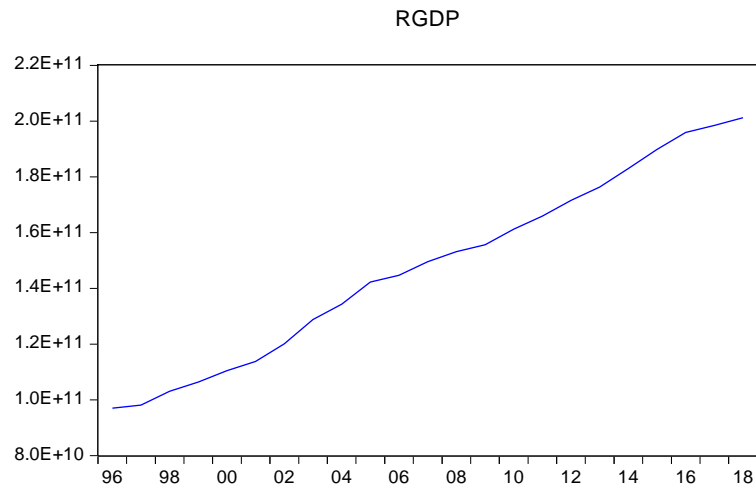


Figure 11 Real GDP

Figure 11 shows the real GDP in Algeria from 1996 to 2018 when the index in 1996 was less than 1.0E+11, and this indicator continued to increase gradually to reach 2.0E+11 in 2018. Real GDP is a measure of the total economy of the value of the economic adjustment Output according to price changes. This adjustment transforms the measurement of the value of money, nominal GDP, into an indicator of the amount of GDP (Kohli, 2004).

Table 3 Descriptive Statistics

	Corruption	EXCHG	INWARD	GDPPER	GFCF	INFLATION	OPENNES	RGDP
Mean	2.956522	0.343878	1258.446	11383.46	30.04827	4.727487	62.27936	1.48E+11
Median	2.900000	0.366397	1232.319	11897.10	26.32417	4.268954	62.14586	1.50E+11
Maximum	3.600000	0.580055	2753.760	15481.79	43.07460	18.67908	76.68583	2.01E+11
Minimum	2.500000	0.178200	-584.4600	7129.638	20.67811	0.339163	45.09445	9.70E+10
Std. Dev.	0.413220	0.107450	863.1619	2803.782	7.471528	3.552876	7.868675	3.40E+10
Skewness	0.333216	0.327554	-0.051861	-0.131156	0.505264	2.696777	-0.212594	0.019481
Kurtosis	1.622202	2.423074	2.456697	1.668626	1.729442	11.59692	2.449472	1.769594
Jarque-Bera	2.244855	0.730259	0.293189	1.764640	2.525672	98.70597	0.463705	1.452274
Probability	0.325489	0.694107	0.863644	0.413822	0.282851	0.000000	0.793063	0.483774
Sum	68.00000	7.909186	28944.25	261819.5	691.1103	108.7322	1432.425	3.40E+12
Sum Sq. Dev.	3.756522	0.254001	16391066	1.73E+08	1228.122	277.7044	1362.153	2.54E+22
Observations	23	23	23	23	23	23	23	23

This data was conducted on Algeria in a period of 23 years from 1996 to 2018, and it covered several variables, corruption, exchange rate, FDI/GDP, GDP per capita, gross capital fixed formation, inflation, trade openness, and real GDP. Table 3 shows several statistics, which are mean, median, maximum proportion, minimum proportion, standard deviation, skewness, and kurtosis.

As table 3 shows, the mean proportion of corruption is 2.95, while the median proportion is 2.90. The maximum proportion of corruption is 3.60, on the other side, the minimum proportion is 2.50. The standard deviation proportion of corruption is 0.41. The skewness proportion of corruption is 0.33, and the kurtosis proportion is 1.62.

The mean proportion of the exchange rate is 0.34, and the median proportion is 0.36. The maximum proportion of the exchange rate is 0.58, while the minimum proportion is 0.17. Also, the skewness proportion of the exchange rate is 0.32, and the kurtosis proportion is 2.42.

Inward FDI variable has proportions which are the mean proportion is 1258.44 and the median proportion is 1232.31. The maximum proportion of FDI/GDP is 2753.76, while the minimum proportion is -584.46. The standard deviation proportion of inward FDI is 863.16. The proportion of skewness of FDI/GDP is -0.05, and the proportion of kurtosis is 2.45.

The mean proportion of GDP per capita is 11383.46, while the median proportion is 11897.10. The maximum proportion of GDP per capita is 15481.79, and the minimum proportion is 7129.638. The standard deviation of GDP per capita is 2803.782, and the skewness proportion is -0.13, but the kurtosis proportion is 1.66.

Gross fixed capital formation proportions are the mean proportion is 30.04, while the median proportion is 26.32. The maximum proportion of GFCF is 43.07, while the minimum proportion is 20.67. Also, the standard deviation proportion is 7.47. The skewness proportion of GFCF is 0.50, while the kurtosis proportion is 1.72.

The mean proportion of inflation is 4.72, whereas the median proportion is 4.26. And the maximum proportion of inflation is 18.67, but the minimum proportion is 0.33. The standard deviation of inflation is 3.55. The skewness proportion of inflation is 2.69, while the kurtosis proportion is 11.59.

The mean proportion of trade openness is 62.27, whereas the median proportion is 62.14. And the maximum proportion of trade openness is 76.68, but the minimum proportion is 45.09. The standard deviation proportion of trade openness is 7.86. The skewness proportion of trade openness is -0.21, while the kurtosis proportion is 2.44.

The mean proportion of real GDP is 1.48, while the median proportion is 1.50. The maximum proportion of real GDP is 2.01, but the minimum proportion is 9.70. And the standard deviation proportion of real GDP is 3.40. The skewness proportion of real GDP is 0.01, while the kurtosis proportion is 1.76.

Table 4 Descriptive Statistics for (2000-2009)

	RGDP	CORRUPTION	EXCHG	INWARD	GDPGER	GFCF	INFLATION	LEXC	OPENNES
Mean	1.35E+11	2.780000	0.338482	1414.021	10435.34	25.55244	3.218280	-1.149266	67.24844
Median	1.38E+11	2.750000	0.341207	1129.223	10628.54	24.05286	3.820398	-1.081755	68.21420
Maximum	1.56E+11	3.200000	0.521192	2753.760	12294.61	38.23521	5.737060	-0.651636	76.68583
Minimum	1.10E+11	2.500000	0.178200	280.1000	8162.588	20.67811	0.339163	-1.724847	58.70830
Std. Dev.	1.64E+10	0.248551	0.123887	821.0352	1553.424	5.026479	1.752494	0.392284	5.908214
Skewness	-0.284019	0.468640	0.065380	0.462841	-0.201899	1.753258	-0.294752	-0.270875	0.025583
Kurtosis	1.653889	1.888463	1.649347	2.066755	1.560827	5.187414	1.849848	1.659303	1.710374
Jarque-Bera	0.889450	0.880836	0.767234	0.719931	0.930947	7.116848	0.695985	0.871234	0.694064
Probability	0.641000	0.643767	0.681392	0.697700	0.627838	0.028484	0.706104	0.646865	0.706783
Sum	1.35E+12	27.80000	3.384822	14140.21	104353.4	255.5244	32.18280	-11.49266	672.4844
Sum Sq. Dev.	2.43E+21	0.556000	0.138132	6066890.	21718137	227.3894	27.64112	1.384983	314.1629
Observations	10	10	10	10	10	10	10	10	10

This data was conducted on Algeria in a period of 10 years from 2000 to 2009, and it covered several variables, corruption, exchange rate, FDI/GDP, GDP per capita, GFCF, inflation, trade openness, and real GDP. Table 4 shows several statistics, which are mean, median, maximum proportion, minimum proportion, standard deviation, skewness, and kurtosis.

The mean proportion of real GDP is 1.35, this proportion is greater than the full sample, while the median proportion is 1.35, and this proportion is less than the full sample. The maximum proportion of real GDP is 1.56, this proportion is less than the full sample, but the minimum proportion is 1.10, this proportion is less than the full sample. And the standard deviation proportion of real GDP is 1.64, this proportion is less than the full sample. The skewness proportion of real GDP is -0.28, this proportion is less than the full sample, while the kurtosis proportion is 1.65, also this proportion is less than the full sample.

The mean proportion of corruption is 2.78 but it is less than the full sample, while the median proportion is 2.75, also it is less than the full sample. The maximum proportion of corruption is 3.20, it is less than the full sample. On the other side, the minimum proportion is 2.50, it is a similar proportion of the full sample. The standard deviation proportion of corruption is 0.24, it is also less than the full sample. The skewness proportion of corruption is 0.46, the proportion here is greater than the full sample, and the kurtosis proportion is 1.88, also here the proportion is greater than the full sample.

The mean proportion of the exchange rate is 0.33, the proportion is less than the full sample, and the median proportion is 0.34, also it is less than the full sample. The maximum proportion of the exchange rate is 0.52, the proportion is less than the full sample. While the minimum proportion is 0.17, where the proportion is a similar proportion of the full sample. The standard deviation of the exchange rate is 0.12, the proportion is greater than the full sample. Also, the skewness proportion of the exchange rate is 0.06, the proportion is less than the full sample, and the kurtosis proportion is 1.64. Also here the proportion is less than the full sample.

Inward FDI variable has values which are the mean value is 1414.02, the proportion is greater than the full sample, and the median value is 1129.22, where the proportion is less than the full sample. The maximum value of FDI/GDP is 2753.76, where the value is similar to the value of the full sample, while the minimum value is 280.10, the proportion is greater than the full sample. The standard deviation of FDI/GDP is

821.03, the proportion is less than the full sample. The proportion of skewness of FDI/GDP is 0.46, the proportion is greater than the full sample. The proportion of kurtosis is 2.06, the proportion is less than the full sample.

The mean proportion of GDP per capita is 10435.34, this proportion is less than the full sample, while the median proportion is 10628.54, and also this proportion is less than the full sample. The maximum proportion of GDP per capita is 12294.61, this proportion is less than the full sample, and the minimum proportion is 8162.58, this proportion is larger than the full sample. The standard deviation of GDP per capita is 1553.42, this proportion is less than the full sample, and the skewness proportion is -0.20, this proportion is larger than the full sample, but the kurtosis proportion is 1.56, this proportion is less than full sample.

Gross fixed capital formation proportions are the mean proportion is 25.55, this proportion is less than the full sample, while the median proportion is 24.05, and also here the proportion is less than the full sample. The maximum proportion of GFCF is 38.23, the proportion is less than the full sample, while the minimum proportion is 20.67, and the proportion is a similar proportion of the full sample. Also, the standard deviation proportion is 5.02, the proportion is less than the full sample. The skewness proportion of GFCF is 1.75, the proportion is larger than the full sample, while the kurtosis proportion is 5.18, and the proportion is greater than the full sample.

The mean proportion of inflation is 3.21, the proportion is less than the full sample, while the median proportion is 3.82, and the proportion is less than the full sample. And the maximum proportion of inflation is 5.73, the proportion is less than the full sample, but the minimum proportion is 0.33, the proportion is similar to the full sample. The standard deviation of inflation is 1.75, the proportion is less than the full sample. The skewness proportion of inflation is -0.29, the proportion is less than the full sample, while the kurtosis proportion is 1.84, the proportion is less than the full sample.

The mean proportion of trade openness is 62.27, the proportion is a similar proportion of the full sample, while the median proportion is 62.14, and also the proportion is a similar proportion of the full sample. And the maximum proportion of trade openness is 76.68, the proportion is a similar proportion of the full sample, but the minimum proportion is 45.09, also here the proportion is a similar full sample. The standard deviation proportion of trade openness is 7.88, the proportion is greater than the full sample. The skewness proportion of trade openness is -0.21, the proportion is a similar

proportion of the full sample, while the kurtosis proportion is 2.44, also it is a similar proportion of the full sample.

Table 5 Descriptive Statistics for (2010-2018)

	RGDP	CORRUPTION	EXCHG	INWARD	GDPPER	GFCF	INFLATION	LEXC	OPENNES
Mean	1.83E+11	3.355556	0.302505	1486.205	14196.74	37.51289	4.949015	-1.215047	61.99625
Median	1.83E+11	3.400000	0.283992	1506.730	14326.28	37.41881	4.524212	-1.258810	62.14586
Maximum	2.01E+11	3.600000	0.390570	2580.350	15481.79	43.07460	8.891451	-0.940149	69.86757
Minimum	1.61E+11	2.900000	0.208775	-584.4600	12655.14	30.79846	2.916927	-1.566496	55.87915
Std. Dev.	1.47E+10	0.278887	0.063103	886.1194	1000.507	4.603590	1.830348	0.209291	5.025185
Skewness	-0.120859	-0.869452	0.253724	-1.339683	-0.227546	-0.237967	1.076966	-0.013723	0.172872
Kurtosis	1.575338	2.261901	1.801816	4.622116	1.686415	1.597644	3.418772	2.037005	1.748941
Jarque-Bera	0.783033	1.338218	0.634931	3.678848	0.724730	0.822418	1.805546	0.348042	0.631758
Probability	0.676031	0.512165	0.727992	0.158909	0.696028	0.662848	0.405444	0.840279	0.729148
Sum	1.64E+12	30.20000	2.722542	13375.84	127770.7	337.6160	44.54114	-10.93542	557.9662
Sum Sq. Dev.	1.72E+21	0.622222	0.031856	6281661.	8008107.	169.5443	26.80138	0.350423	202.0199
Observations	9	9	9	9	9	9	9	9	9

This data was conducted on Algeria in a period of 9 years from 2010 to 2018, and it covered several variables, corruption, exchange rate, FDI/GDP, GDP per capita, gross capital fixed formation, inflation, trade openness, and real GDP. Table 5 shows several statistics, which are mean, median, maximum proportion, minimum proportion, standard deviation, skewness, and kurtosis.

The mean proportion of real GDP is 1.83, this proportion is greater than the full sample, while the median proportion is 1.83, and also this proportion is greater than the full sample. The maximum proportion of real GDP is 2.01, this proportion is a similar proportion of the full sample, but the minimum proportion is 1.61, this proportion is less than the full sample. And the standard deviation proportion of real GDP is 1.47, this proportion is less than the full sample. The skewness proportion of real GDP is -0.12, this proportion is less than the full sample, while the kurtosis proportion is 1.57, this proportion is less than the full sample.

The mean proportion of corruption is 3.35, this proportion is larger than the full sample, while the median proportion is 3.40, and this proportion is also less than the full sample. The maximum proportion of corruption is 3.60, this proportion is a similar proportion of the full sample, on the other side, the minimum proportion is 2.90, this proportion is greater than the full sample. The standard deviation proportion of corruption is 0.27, this proportion is less than the full sample. The skewness proportion of corruption is -0.86, this proportion is less than the full sample, and the kurtosis proportion is 2.26, this proportion is greater than the full sample.

The mean proportion of the exchange rate is 0.30, this proportion is less than the full sample, and the median proportion is 0.28, also this proportion is less than the full sample. The maximum proportion of the exchange rate is 0.39, this proportion is less than the full sample, while the minimum proportion is 0.20, this proportion is less than the full sample. The standard deviation of the exchange rate is 0.06, this proportion is less than the full sample. Also, the skewness proportion of the exchange rate is 0.25, this proportion is less than the full sample, and the kurtosis proportion is 1.80, this proportion is less than the full sample.

Inward FDI variable has proportions which are the mean proportion is 1486.20, this proportion is greater than the full sample, and the median proportion is 1506.73, this proportion is greater than the full sample. The maximum proportion of FDI/GDP is 2580.35, this proportion is less than the full sample, while the minimum proportion is -584.46, this proportion is a similar proportion of the full sample. The standard

deviation of FDI/GDP is 886.11, this proportion is greater than the full sample. The proportion of skewness of FDI/GDP is -1.33, this proportion is less than the full sample, and the proportion of kurtosis is 4.62, this proportion is larger than the full sample.

The mean proportion of GDP per capita is 14196.74, this proportion is greater than the full sample, while the median proportion is 14326.28, this proportion is less than the full sample. The maximum proportion of GDP per capita is 15481.79, this proportion is a similar proportion of the full sample, and the minimum proportion is 12655.14, this proportion is greater than the full sample. The standard deviation of GDP per capita is 1000.50, this proportion is less than the full sample, and the skewness proportion is -0.22, this proportion is less than the full sample, but the kurtosis proportion is 1.68, this proportion is greater than full sample.

Gross fixed capital formation proportions are the mean proportion is 37.51, this proportion is greater than the full sample, while the median proportion is 37.41, this proportion is greater than the full sample. The maximum proportion of GFCF is 43.07, this proportion is a similar value of the full sample, while the minimum proportion is 30.79, this proportion is greater than the full sample. Also, the standard deviation proportion is 4.60, this proportion is less than the full sample. The skewness proportion of GFCF is -0.23, this proportion is less than the full sample, while the kurtosis proportion is 1.59, this proportion is less than the full sample.

The mean proportion of inflation is 4.94, this proportion is greater than the full sample, while the median proportion is 4.52, this value is greater than the full sample. And the maximum proportion of inflation is 8.89, this proportion is less than the full sample, but the minimum proportion is 2.91, this proportion is greater than the full sample. The standard deviation of inflation is 1.83, this proportion is less than the full sample. The skewness proportion of inflation is 1.07, this proportion is less than the full sample, while the kurtosis proportion is 3.41, this proportion is less than the full sample.

The mean proportion of trade openness is 61.99, this proportion is less than the full sample, while the median proportion is 62.14, this proportion is a similar proportion of the full sample. And the maximum proportion of trade openness is 69.86, this proportion is less than the full sample, but the minimum proportion is 55.87, this proportion is greater than the full sample. The standard deviation proportion of trade openness is 5.02, this proportion is less than the full sample. The skewness proportion

of trade openness is 0.17, this proportion is greater than the full sample, while the kurtosis proportion is 1.74, this proportion is less than the full sample.

Table 6 Correlation Coefficient

Sample: 1996 2018

Correlation		INFW	CORRUPTION	EXCHG	GDPPER	GFCF	INFLATION	OPENNES	RGDP
Probability									
INFW		1.000000							
p		-----							
CORRUPTION		0.292877	1.000000						
p		0.1750	-----						
EXCHG		-0.379887	-0.304632	1.000000					
p		0.0738	0.1576	-----					
GDPPER		0.462967	0.920171	-0.480861	1.000000				
p		0.0261	0.0000	0.0202	-----				
GFCF		0.287241	0.771799	-0.499902	0.858945	1.000000			
p		0.1839	0.0000	0.0151	0.0000	-----			
INFLATION		-0.120503	-0.049100	-0.013687	-0.108880	0.106046	1.000000		
p		0.5839	0.8239	0.9506	0.6209	0.6301	-----		
OPENNES		0.665734	0.240399	-0.341535	0.346262	-0.007837	-0.275353	1.000000	
P		0.0005	0.2692	0.1107	0.1055	0.9717	0.2035	-----	
RGDP		0.416868	0.916622	-0.479110	0.997179	0.874627	-0.104408	0.286328	1.000000
P		0.0478	0.0000	0.0207	0.0000	0.0000	0.6354	0.1853	-----

Table 6 shows the correlation coefficient between inward FDI and exchange rate is statistically significant at the 10% level, there is a weak negative relationship between inward FDI and exchange rate, and they increase and decrease together.

Inward FDI and GDP per capita have a correlation coefficient which is statistically significant at 5%, there is a weak positive relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between inward FDI and trade openness is statistically significant at 1%, there is a moderate positive relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between inward FDI and real GDP is statistically significant at the 5% level, there is a weak positive relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between corruption and GDP per capita is statistically significant at the 1%, there is a very strong relationship between inward FDI and exchange rate.

The correlation coefficient between corruption and gross fixed capital formation (GFCF) is statistically significant at the 1%, there is a strong relationship between inward FDI and exchange rate.

The correlation coefficient between corruption and real GDP is statistically significant at the 1% level, there is a strong relationship between inward FDI and exchange rate.

The correlation coefficient between the exchange rate and GDP per capita is statistically significant at the 1%, there is a weak positive relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between exchange rate and gross fixed capital formation (GFCF) is statistically significant at 5%, there is a weak negative relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between the exchange rate and real GDP is statistically significant at 5%, there is a weak negative relationship between inward FDI and exchange rate, and they increase and decrease together.

The correlation coefficient between GDP per capita and GFCF is statistically significant at 1%, there a strong positive relationship between inward FDI and exchange rate.

A. UNIT ROOT TEST

Most of the time series data are variable and unstable due to the many changes such as the change in the general trend, seasonal changes, period changes and occasional changes, and these changes cause the so-called false decline. This false regression occurs when the regression results appear as a statistically significant coefficient, but this relationship between the variables in the model is not related. Widarjono (2007: 339). Non-stationary data is constant when there is a tendency that the mean and the variance are not stable. Here we need to check the stationary of the variables by performing several formal and informal tests, and through it, the monitoring of the stationary of the variables can be done through the graph, which is the unofficial test, either in the formal test through conducting the Augmented Dickey-Fuller Test (ADF). In this paper, we will investigate the stationary of the variables by performing the ADF test if a time series has a unit root problem, the first difference of such a time series is 'stationary'.

The Results of these formal tests are summarized in the following tables, indicating that the first differences of all variables are stationary

Table 7 Result of unit Root Test (Augmented Dickey-Fuller) Level

Result of Unit Root Test (Augmented Dickey-Fuller) Level		
	Model with constant	The model with constant and trend
INWF	-2.8167(0.0757)	-2.9667(0.1671)
EXCHG	-2.9300(0.0614)	-4.1918(0.0202)
LGDP	-5.3629(0.0006)	-2.4162(0.3592)
OPEN	-0.7650(0.8049)	-1.1377(0.8929)

Table 8 Result of Unit Root Test (Augmented Dickey-Fuller) First Log- Difference

	Result of Unit Root Test (Augmented Dickey-Fuller) First Log- Difference	
	Model with constant	The model with constant and trend
INWF	-6.5174(0.0000)	-6.5361(0.0003)
EXCHG	-5.3263(0.0005)	-5.2807(0.00027)
LGDP	-1.9113(0.3191)	-3.0510(0.1499)
OPEN	-5.8406(0.0002)	-6.1678(0.0005)

The unit root results show that only LGDP is stationary but only in the constant model. The rest of the variables are not stationary. They are stationary in the first difference. Therefore we will take all variables I (1) and we will construct a Granger Causality test with first differenced values.

B. Granger CAUSALITY TEST

In the Granger-sense X is a cause of Y if it is beneficial in forecasting Y. In this structure, "useful" means that X can raise the efficiency of the forecast of Y regarding a forecast, thinking only past values of Y. Such a test will not only test the connection between two variables but which of the variables that influence each other.

Before Granger Causality Test we have to find its number of lags. To find it, we estimated the VAR model and used lag length selection criteria. The results of the criteria show that 2 lags are chosen. You can see the output of the lag length test in the a-Appendix (Musabeh, 2020).

Table 9 Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
DINW does not Granger Cause DEX	17	0.13357	(0.8762)
DEX does not Granger Cause DINW		0.61538	(0.5566)
DLGDP does not Granger Cause DEX	15	2.93391	(0.0994)
DEX does not Granger Cause DLGDP		3.47662	(0.0714)
DOPEN does not Granger Cause DEX	17	0.21695	(0.8081)
DEX does not Granger Cause DOPEN		0.35345	(0.7093)
DLGDP does not Granger Cause DINW	15	0.48097	(0.6318)
DINW does not Granger Cause DLGDP		0.31285	(0.7383)
DOPEN does not Granger Cause DINW	17	1.17135	(0.3430)
DINW does not Granger Cause DOPEN		0.35024	(0.7115)
DOPEN does not Granger Cause DLGDP	15	1.95746	(0.1917)
DLGDP does not Granger Cause DOPEN		1.63986	(0.2421)

Notes: Lag 2 is selected based on BIC.

The results show that the null hypothesis is rejected for DLGDP and DEX. GDP Granger cause of the exchange rate and exchange rate Granger cause of GDP, which means that when GDP in Algeria increases, the exchange rate will increase, and when the exchange rate in Algeria increase, GDP will increase.

For all other variables, probability values are greater than 0.10 which means the variables fail to reject, which means there are no Granger causes between DINW and DEX, and also no Granger causes between DOPEN and DEX, also DLGDP and DINW, and DOPEN and DLGDP.

In the relationship between GDP and exchange rates, the study of Rodrik (2008) and Isard et al (1999) found that there is a positive relationship between exchange rates and GDP, that is, the higher the exchange rates lead to the greater the proportion of GDP, in Wong et al (2005) the authors found that the countries that there is a high economic growth supported by export growth, and hence the rise in the value of exchange rates due to increased demand for the local currency, which helps the good exchange rate to liquidate the capital markets, which leads to increased liquidity in the market, which in turn leads to achieving economic growth.

Algeria, like other developing countries, seeks to enhance its external balance and achieve economic stability, so that Algeria has relied on many different exchange rate regimes in the past decades. In 1974, the Algerian dinar exchange rate was related to several currencies, but the US dollar had the largest weight in view its importance in export earnings, but after the oil shock in 1986, the Algerian bank left the local currency down against other currencies, and in 1994, one of the most important goals of the adjustment program was to correct the previous true appreciation of the Algerian dinar, since in 1995 the exchange rate policy was aimed In shear to maintain a stable exchange rate through the application of the systematic floating system that has continued today, the bank of Algeria through its interventions adjusts the nominal exchange rate periodically and continuously to achieve the real exchange rate (Yahia et al, 2018).

The changes in the real exchange rate in Algeria respond to the three forces, which are the differences between the balance of the real exchange rate and its different actual value, the imbalance in the overall economy (the difference between supply and demand) on money, and the lowering of the nominal value which are positive parameters. Thus, an adjustment to the fundamentals that affect the real exchange rate of equilibrium (for example, increased spending from increased oil production, and changes in import protection) to fade excess supply or demand by adjusting prices and wages, which will gradually bring the real exchange rate closer to the equilibrium level. Monetary pressure (for example, from increasing reserves from higher oil exports). On the other hand, tends to cause real appreciation by increasing the supply of money demand. Changes in the nominal exchange rate affect RER only if it is not in equilibrium. Thus, exchange rate manipulation will not have a long-term effect on the equilibrium price (Sorsa, 1999).

VI. CONCLUSION AND RECOMMENDATIONS

In this thesis, FDI inflows were studied in Algeria in a study that covered the years from 1996 to 2016, where the determinants, performance and challenges were studied in this period, and this thesis highlights the conditions of the investment environment in Algeria in the last twenty years, and in the end, the main results are summarized with suggestions for future studies in the area of foreign direct investment.

In the section of research methodology and data analysis of this study, it was divided into four main parts, in the first part, a general introduction was made about the main variables that are directly related to foreign direct investment so that the data were analyzed in the form of graphs that change the indicators in the period between 1996 to 2016, in the second part descriptive statistics were used, and we divided it to two periods which are (2000-2009) and (2010-2018), then we compared the results of the two periods, in the third part the unit root test was used, and in the last part, Granger causality test was used in the analysis of causal relationships.

In the theoretical part, the results indicated that foreign direct investment in Algeria is weak and suffering, sometimes it rises and sometimes it decreases, so that there is no stability, so the results revealed that the diversity in the field of foreign investment is weak, as the largest share in foreign direct investment is in one area It is the field of petroleum industries, due to weak economic reforms, weak technology, weak investment incentives, high corruption, and others.

Through the use of time-series data analysis, the results showed a continuous rise in corruption rates, an increase in real GDP and a slight increase in foreign direct investment inflows, while indicators show a decrease in rates of trade openness, and a lack of stability in indicators of market size and exchange rate, while inflation is stable. Unit Root Test (ADF) was used to detect unit root, the results showed that the only GDP is stationary, but only in the constant model. Other variables are not stationary like inward FDI, Exchange rate, and Trade openness.

We used is the Granger causality test, the results of this test showed that there is a relationship between GDP and Real exchange rate, which means when the GDP

increases, the real exchange rate will increase, and when the real exchange increasing, the GDP will increase. And the results showed that there is no Granger causality between other variables.

About the inward FDI in Algeria, the results showed that foreign direct investment in Algeria is relatively weak due to the lack of diversity in the field of foreign direct investment, as the largest proportion of foreign direct investment is limited to the field of petroleum industries and the field of natural resources extraction.

In the end, despite the abundance of natural resources in Algeria and the possession of a distinct geographical location, and other advantages, but it is still the investment environment in Algeria suffering greatly, due to several reasons, the most important of which are the absence of effective and real economic reforms, in addition to the near lack of diversity economic, so that the petroleum industries dominate the largest share of foreign investments by about 97%, not only that, despite the high gross domestic product per capita in Algeria, the unemployment rate is high and is increasing continuously, and also the business environment also suffers from restrictions that limit of investment expansion despite the government's efforts to promote it through some measures such as granting tax exemption to investors.

In light of the previous results, and through seeing the indicators and studying them, the research found that if there is a desire for the Algerian government to attract FDI, because of its positive benefits and effects on Algeria, the Algerian government should build strategic plans aimed at economic diversification, and develop attractive policies for FDI by facilitating the procedures that attract foreign direct investments, creating an appropriate and attractive environment for FDI, and this is done through the devotion of the Algerian government to its interests and efforts in improving and enforcing the attractive laws for investments through innovative and contemporary methods that will have a significantly positive impact on Algeria's ability to attracting many foreign investments in various fields of the state, such as all kinds of industries, especially petroleum, and FDI in the agricultural, services, and other sectors of the state.

VII. REFERENCES

BOOKS

- BLOMSTROM, M., & Kokko, A. (2003). **Human capital and inward FDI**.
- BLONIGEN, B. A. (2019). **Foreign direct investment**. World Scientific Publishing Company Pte. Limited.
- BUCKLEY, P. J., & Casson, M. (1976). **The future of the multinational enterprise**. Springer.
- BUCKLEY, P. J., & Castro, F. B. (1998). The investment development path: the case of Portugal. **Transnational Corporations**, 7, 1-16.
- BUSSE, M., Hefeker, C., & Nelgen, S. (2010). Foreign direct investment and exchange rate regimes. *Available at SSRN 1593002*.
- CASHIN, P. L. Céspedes, and R. Sahay, Keynes, Cocoa, and Copper: In Search of Commodity Currency, International Monetary Fund Working paper, 02/223, Washington, 2002.
- CASTRO, L. (2007). Infrastructure and the Location of Foreign Direct Investment A Regional Analysis.
- EASSON, A. J. (2004). **Tax incentives for foreign direct investment**. Kluwer Law International BV.
- FLAMM, K. (1984). The Volatility of Offshore Investment. **Journal of Development Economics** 16:231-248.
- IBHAGUI, O. (2019). Inflation and Foreign Direct Investment in Developed and Developing Economies. *Available at SSRN 3517919*.
- INEKWE, J. N. (2013). FDI, employment and economic growth in Nigeria. **African Development Review**, 25(4), 421-433.
- LIARGOVAS, P. a. (2010). Foreign direct investment and openness in developing economies. *Springer, 106(2), 323-331*.

RAPPAPORT, J. (2000). How Does Openness to Capital Flows Affect Growth?".
Mimeo, Federal Reserve Bank of Kansas City.

WALL, S. and Bronwen, R. (2001). Introduction to International Business, Pearson
Education, Malaysia

ARTICLES

ACOCELLA, N., Jovanovic, M. N., Mariolis, T., Leriou, E., Soklis, G., Hatemi-J, A.,
... & Nthebe, T. C. (2019). **Does Corruption Hamper Inward FDI in South
Africa from other African Countries? A Gravity Model Analysis.**

AHN, Y. S. (1998). The Effects of Inflation and Exchange rate Policies on Direct
Investment to Developing Countries. **International Economic Journal**, 12(1):

Alam, M. S., Raza, S. A., Shahbaz, M., & Abbas, Q. (2016). Accounting for
contribution of trade openness and foreign direct investment in life expectancy:
The long-run and short-run analysis in Pakistan. **Social Indicators
Research**, 129(3), 1155-1170.

ALBA, J. D., Wang, P., & Park, D. (2010). The impact of exchange rate on FDI and
the interdependence of FDI over time. **The Singapore Economic
Review**, 55(04), 733-747.

ALI, W., & Mna, A. (2019). The effect of FDI on domestic investment and economic
growth case of three Maghreb countries. **International Journal of Law and
Management.**

Al-QAISI, K. M. (2017). Foreign Direct Investment and its Literature Review. **Journal
of Reviews on Global Economics**, 6, 105-112.

ASIF, M., & Majid, A. (2018). Institutional quality, natural resources and FDI:
empirical evidence from Pakistan. **Eurasian Business Review**, 8(4), 391-
407.

BABATUNDE, A. (2011). Trade Openness, Infrastructure, FDI and Growth in Sub-
Saharan African Countries. **Journal of Management Policy &
Practice**, 12(7).

BALASSA, B. "The purchasing-Power Parity Doctrine: a Reappraisal", **Journal of
Political Economy**, 72, 584-96, 1964.

- BEUGELSDIJK, S., Smeets, R., & Zwinkels, R. (2008). The impact of horizontal and vertical FDI on host's country economic growth. **International Business Review**, 17(4), 452-472.
- BRONER F, T Didier, A Erce and S Schmukler (2013), 'Gross Capital Flows: Dynamics and Crises', **Journal of Monetary Economics**, 60(1), pp 113–133.
- AMPONSAH, W. A., Garcia-Fuentes, P. A., & Smalley, J. A. (2019). Remittances, market size, and foreign direct investment: a case of sub-Saharan Africa. **Journal of Economics and Finance**, 1-20.
- BROUTHERS, L. E., Gao, Y. A. N., & McNicol, J. P. (2008). Corruption and market attractiveness influences on different types of FDI. **Strategic management journal**, 29(6), 673-680.
- BUCKLEY, P. J., & Casson, M. C. (2009). The internalisation theory of the multinational enterprise: A review of the progress of a research agenda after 30 years. **Journal of International Business Studies**, 40(9), 1563-1580.
- BUELENS, F., & Marysse, S. (2009). Returns on investments during the colonial era: the case of the Belgian Congo 1. **The Economic History Review**, 62, 135-166.
- CANTON, E., & Solera, I. (2016). *Greenfield Foreign Direct Investment and Structural Reforms in Europe: what factors determine investments?* (No. 033). **Directorate General Economic and Financial Affairs (DG ECFIN)**, European Commission.
- CHANEGRIHA, M., Stewart, C., & Tsoukis, C. (2020). Testing for causality between FDI and economic growth using heterogeneous panel data. **The Journal of International Trade & Economic Development**, 1-20.
- COLLINS, A., Paago, J. K., Igbara, F. N., & Domale, E. (2016). Exchange rate and foreign direct investment (FDI): Implications for economic growth in Nigeria. **Equatorial Journal of Finance and Management Sciences**, 1(1).
- CUI, L., Meyer, K. E., & Hu, H. W. (2014). What drives firms' intent to seek strategic assets by foreign direct investment? A study of emerging economy firms. **Journal of World Business**, 49(4), 488-501.

- DENISIA, V. (2010). Foreign direct investment theories: An overview of the main FDI theories. **European journal of interdisciplinary studies**, (3).
- DJANKOV, S., & Hoekman, B. (2000). Foreign investment and productivity growth in Czech enterprises. **The World Bank Economic Review**, 14(1), 49-64.
- DUNNING, J. H. (2001). The eclectic (OLI) paradigm of international production: past, present and future. **International journal of the economics of business**, 8(2), 173-190.
- ELHEDDAD, M. (2016). Natural resources and FDI in GCC Countries. **International Journal of Business and Social Research**, 6(7), 12-22.
- GAO, Z., & Tisdell, C. (2005). Foreign Investment and Asia's, Particularly China's, Rise in the Television Industry: The International Product Life Cycle Reconsidered. **Journal of Asia-Pacific Business**, 6(3), 37-61.
- HABIB, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. **Journal of international business studies**, 33(2), 291-307.
- HAKIMI, A., & Hamdi, H. (2017). Does corruption limit FDI and economic growth? Evidence from MENA countries. **International Journal of Emerging Markets**.
- HARDING, T., Javorcik, B. S., & Maggioni, D. (2019). FDI Promotion and Comparative Advantage.
- HODNETT, K., & Hsieh, H. H. (2012). Capital market theories: Market efficiency versus investor prospects. **International Business & Economics Research Journal (IBER)**, 11(8), 849-862.
- ISLAM, R. (2016). Impact of Market Size and Foreign Trade on FDI Inflow in Bangladesh: A VEC Approach. **Journal Of Business Studies**, 9, 75.
- ISLAMI, X., & Mulolli, E. (2016). Does the Economy Size Affect FDI?-Evidence from Western Balkan Countries (2005-2014). **Global Journal of Management and Business Research: B Economics and Commerce**, 16(4).
- JENSEN, N. (2008). Political risk, democratic institutions, and foreign direct investment. **The Journal of Politics**, 70(4), 1040-1052.

- Kalloub, M., & Musabeh, A. (2020). Syndicated Loans and Economic growth: Empirical Evidence from G7 countries. *International Research Journal of Finance and Economics*.
- KHANDARE, V. B. (2016). Impact of exchange rate on FDI: A comparative study of India and China. *IJAR*, 2(3), 599-602.
- KIMULI, H. a. (2012). Determinants of Foreign Direct Investment Flows to Developing Countries. . *SBP Research Bulletin*: 8(1) .
- KIYOTA, K., & Urata, S. (2004). Exchange rate, exchange rate volatility and foreign direct investment. *World Economy*, 27(10), 1501-1536.
- KOHLI, U. (2004). Real GDP, real domestic income, and terms-of-trade changes. *Journal of International Economics*, 62(1), 83-106.
- LEE, J., & Jang, Y. J. (2016). The effect of comparative advantage of host country's industry on multinationals' M&A vs greenfield FDI decisions. *Journal of Korea Trade*.
- MAITHRA, D. (2017). Foreign direct investment and economic growth in India. *IJAR*, 3(5), 308-311.
- MEYER, K. E. (2015). What is "strategic asset seeking FDI"? *The Multinational Business Review*.
- MUGHAL, M. M., & Akram, M. (2011). Does market size affect FDI? The Case of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 2(9), 237-247.
- Musabeh, A., Alrifai, K., & Kalloub, M. (2020). Financial Development, Economic Growth and Welfare: Evidence From Emerging Countries. *Journal of Business Economics and Finance*, 9(2), 118-131.
- MUSABEH, A., & Zouaoui, M. (2020). Policies and Variables affecting FDI: A Panel Data Analysis of North African Countries. *İktisat Politikası Araştırmaları Dergisi*, 7(1), 1-20.
- NAYAK, D., & Choudhury, R. N. (2014). *A selective review of foreign direct investment theories* (No. 143). ARTNeT Working Paper Series.

- NAYYAR, R. (2014). Traditional and modern theories of FDI. **International Journal of Business and Management Innovation**, 3(6), 23-26.
- NOCKE, V., & Yeaple, S. (2007). Cross-border mergers and acquisitions vs. Greenfield foreign direct investment: The role of firm heterogeneity. **Journal of International Economics**, 72(2), 336-365.
- NYARKO, K. (2011). Parental school involvement: The case of Ghana. **Journal of Emerging Trends in Educational Research and Policy Studies**, 2(5), 378-381.
- OMAN, C. (2000) Policy Competition and Foreign Direct Investment: A Study of Competition Among Governments to Attract FDI. Paris: OECD.
- OWUSU-MANU, D. G., Edwards, D. J., Mohammed, A., Thwala, W. D., & Birch, T. (2019). Short run causal relationship between foreign direct investment (FDI) and infrastructure development. **Journal of Engineering, Design and Technology**.
- PEPRAH, P. A., Hongxing, Y., & Dankyi, A. B. (2019). Foreign Direct Investment Flow to Africa: Does Natural Resources Matter?, **International Journal of Economics and Finance**, 11(9), 1-67.
- RAFF, H., Ryan, M., & Stähler, F. (2009). The choice of market entry mode: Greenfield investment, M&A and joint venture. **International Review of Economics & Finance**, 18(1), 3-10.
- RUGMAN, A. M., Verbeke, A., & Nguyen, Q. T. (2011). Fifty years of international business theory and beyond. **Management International Review**, 51(6), 755-786 .
- SAGGI, K. (2002). **Trade, foreign direct investment, and international technology transfer: A survey**. *The World Bank Research Observer*, 17(2), 191-235.
- SCHELLENBERG, M., Harker, M. J., & Jafari, A. (2018). International market entry mode—a systematic literature review. **Journal of Strategic Marketing**, 26(7), 601-627.
- SHAN, S., Lin, Z., Li, Y., & Zeng, Y. (2018). Attracting Chinese FDI in Africa. *critical perspectives on international business*.

- SISSANI, M., & Belkacem, P. Z. (2014). The Determinants of Foreign Direct Investments Attractiveness to Host Countries: Case studied Algeria. **European Journal of Business and Management**, 6, 105-110.
- SISSANI, M., & Belkacem, Z. (2014). The Effect of Political Risk on Foreign Direct Investment: The Case of Algeria. **Hyperion Economic Journal**, 2(3), 29-35.
- TANG, C. F. (2009). Electricity consumption, income, foreign direct investment, and population in Malaysia. **Journal of Economic Studies**.
- UĞURLU, E . (2009). REEL DÖVİZ KURU VE EKONOMİK BÜYÜME: TÜRKİYE. *Manas Üniversitesi Sosyal Bilimler Dergisi* , 11 (22) , 191-212.
- VAKNIN, S. (2013). Foreign direct investments (FDI)-pros and cons. *Retrieved March, 20, 2013*.
- WADHWA, K., & Reddy, S. S. (2011). Foreign direct investment into developing Asian countries: The role of market seeking, resource seeking and efficiency seeking factors. **International Journal of Business and Management**, 6(11), 219.
- WAHEED, A. (1992). The internalization theory of foreign direct investment: some empirical evidence. **Journal of Multinational Finance Management**, 2(1), 75-83.
- WANG, X. (2019). FDI and Infrastructure Improvement of ASEAN. **International Journal of Economics and Finance**, 11(10), 140-147.
- XU, J. (2018, May). Research on Enterprise Marketing Strategy Based on Product Life Cycle Theory. **In 8th International Conference on Social Network, Communication and Education (SNCE 2018)**. Atlantis Press.
- YADAV, A., Sahu, D., & Singh, A. (2019). EFFECT OF CORRUPTION ON FDI INFLOWS AND ECONOMIC GROWTH: AN INDIAN PERSPECTIVE. **Journal of Commerce & Accounting Research**, 8(4).
- YAHIA, S. A., DJEDDI, T., & LOUAFI, T. (2017). Estimating the Equilibrium Real Exchange Rate in Algeria during the period: 1980-2015. **Journal of Finance and Economics**, 5(5), 211-218.

YUSSOF, I., & Ismail, R. (2002). Human resource competitiveness and inflow of foreign direct investment to the ASEAN region. **Asia-Pacific Development Journal**, 9(1), 89-107.

ZANGINA, S., & Hassan, S. (2020). Corruption and FDI inflow to Nigeria: a nonlinear ARDL approach. **Journal of Financial Crime**.

ZHAO-YANG, L. L. Z. (2012). Is China's Outward FDI Seeking Resources?[J]. **Journal of International Trade**, 2.

ENCYCLOPEDIAS

BRUNNERMEIER, M., De Gregorio, J., Eichengreen, B., El-Erian, M., Fraga, A., Ito, T., ... & Ramos, M. (2012). Banks and cross-border capital flows: Policy challenges and regulatory responses. **Committee on International Economic Policy and Reform**.

CLAESSENS, S., Klingebiel, D., & Schmukler, S. L. (2001). FDI and stock market development: Complements or substitutes. *World Bank Working Paper*.

DUNNING, J.H. (1993): *Multinational Enterprises and the Global Economy*. Harlow, Essex: Addison-Wesley Publication Company.

DURÁN, J. J., & Ubeda, F. (2001). The investment development path: a new empirical approach and some theoretical issues. *Transnational corporations*, 10(2), 1-34.

ELECTRONIC SOURCES

Sun, Q., Tong, W., & Yu, Q. (2002). Determinants of foreign direct investment across China. *Journal of International Money and Finance* (Vol. 21).
[https://doi.org/10.1016/S0261-5606\(01\)00032-8](https://doi.org/10.1016/S0261-5606(01)00032-8).

DISSERTATIONS

ANARFO, E. B., Agoba, A. M., & Abebreseh, R. (2017). Foreign direct investment in Ghana: The role of infrastructural development and natural resources. **African Development Review**, 29(4), 575-588.

ASIEDU. (2006). *Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Instability*. *United Nations University*.

- CHAIB, B., & Siham, M. (2014). The impact of institutional quality in attracting foreign direct investment in Algeria. **Topics in Middle Eastern and African Economies**, 16(2), 142-163.
- COSSON, J., Phillips, M. and Reed, B., 2004. U.S. Net Foreign Direct Investment Position, ECON 8860: Economics of Global Science course lecture notes, Georgia State University, Atlanta, USA.
- CUERVO-CAZURRA, A., & Un, C. A. (2017). Advantage and Disadvantage of Foreignness and Foreign Direct Investment. *Available at SSRN 2944956*.
- ERDILEK, A. (2003). A comparative analysis of inward and outward FDI in Turkey. **Transnational corporations**, 12(3), 79-106.
- FEULEFACK, L., & Ngassam, B. (2020). Natural resources, quality of institutions and foreign direct investment in Africa. **Economics Bulletin**, 40(1), 148-162.
- GUI.DIBLY. (2014). Impact of foreign direct investments on economic growth in Africa: Evidence from three decades of panel data analyse. **research in economics** vo68.
- HORAGUCHI, H. (1992). Nihon Kigyo No Kaigai Chokusetsu Toshi (Foreign Direct Investment of Japanese Firms). Tokyo: **University of Tokyo Press**.
- JAIN, N. K., Kundu, S. K., & Newburry, W. (2015). Efficiency-seeking emerging market firms: Resources and location choices. **Thunderbird International Business Review**, 57(1), 33-50.
- KARIMI, M. a. (2009). FDI and economic growth in Malaysia. .
- MBIANKEU Nguea, S. (2020). *The Impact of Infrastructure development on Foreign Direct Investment in Cameroon*. HAL.
- MUSABEH, A. (2018). Investment policies and determinants of FDI inflows: an analysis of the last two decades in five North African countries.
- MUSTAFA, A. M. M. (2019). The relationship between foreign direct investment and inflation: econometric analysis and forecasts in the case of Sri Lanka. *J. Pol. & L.*, 12, 44.

OMANKHANLEN, A. E. (2011). The effect of exchange rate and inflation on foreign direct investment and its relationship with economic growth in Nigeria. **Annals of “Dunarea de Jos” University of Galati.**

ONYEIWU, S. (2003, December). Analysis of FDI flows to developing countries: Is the MENA region different. **In ERF 10th Annual Conference, December, Marrakech, Morocco.**

PROTSENKO, A. (2004). *Vertical and horizontal foreign direct investments in transition countries* (Doctoral dissertation, lmu).

R.CAVES. (1996). *Multinational Enterprise and Economic Analysis*. Cambridge university press .

RAMONDO, N., Rappoport, V., & Ruhl, K. J. (2011). *Horizontal vs. vertical fdi: Revisiting evidence from us multinationals*. New York: Leonard N. Stern School of Business, Department of Economics.

SAQIB, N., Masnoon, M., & Rafique, N. (2013). Impact of foreign direct investment on economic growth of Pakistan. **Advances in Management & Applied Economics**, 3(1), 35-45.

TAMURA, A. (2018). Firms' Investment Strategies and the Choice of Foreign Direct Investment. **The Institute Of Comparative Economic Studies Hosei University**, (32), 13-23.

OTHER SOURCES

International Monetary Fund (IMF). (2011). *Regional Economic Outlook*, October. Middle East and Central Asia Department. Washington DC: United Nations.

SORSA, M. P. (1999). *Algeria: the real exchange rate, export diversification, and trade protection*. International Monetary Fund.

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