Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Master's Thesis

The Effect of Foreign Direct Investments on both the Unemployment Rate and GDP in Egypt

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Bc. Rafik Sedky Tawadros Shinouda

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The effect of foreign direct investments on both the unemployment rate and GDP in Egypt

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Objectives of thesis

The main objective of this thesis is to examine the impact and results of foreign direct investments on both the unemployment rate and GDP in the Egyptian economy and to achieve this objective we need to identify and analyze the trends and patterns of foreign direct investment and, to identify the primary variables that influence the growth of employment, and the factors influence the GDP in the Egyptian economy. Certain economic recommendations will be proposed based on these estimates and study results.

Methodology

The study uses both econometric and descriptive methods of data analysis. Descriptive statistical methods are used to investigate and analyze the significant indicators of the Egyptian economy, highlight most of the workers in the economy, as well as current policy efforts aimed at lowering unemployment and increasing GDP. The econometrics analysis uses OLS regression analysis to model the linear relationship between Unemployment and FDI, and the relationship between GDP growth and FDI.

This regression analysis will be followed by statistical verifications. In addition, certain economic recommendations will be proposed based on the analysis and study results.

The proposed extent of the thesis

40 – 60 pages

Keywords

FDI, GDP, unemployment, Egyptian economy, Egypt

Recommended information sources

Bayar, Y., & Sasmaz, M. U. (2017). Impact of foreign direct investments on unemployment in emerging market economies: a co-integration analysis. International Journal of Business and Economic Sciences Applied Research (IJBESAR), 10(3).

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Declaration

I declare that I have worked on my master's thesis titled " The effect of foreign direct investments on both the unemployment rate and GDP in Egypt" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 30/Nov/2021 _____

Rafik Sedky Tawadros Shinouda

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The Effect of Foreign Direct Investments on both the Unemployment Rate and GDP in Egypt

Abstract

The low GDP and high rate of unemployment are two of the macroeconomic problems for most developing countries and have a great influence on the economy of Egypt which is on the emerging Lower-middle income economy. Developing countries face several challenges when it comes to generating income and creating jobs. There are two methods to address such critical issues, borrowing money. Which is a costly option or encourages foreign direct investment. For the past few years, the Egyptian government is striving to grow the economy and compete on a global scale. This study examined the effect of Foreign Direct Investment (FDI) on both the GDP and the rate of unemployment in Egypt over the period 2010-2019. The most essential goal of this thesis is to quantify the inflow of foreign direct investment and its influence on the Egyptian rate of unemployment and GDP.

Keywords: Egypt, Foreign Direct Investment, Unemployment, GDP.

Vliv přímých zahraničních investic na obojí míra nezaměstnanost a HDP v Egyptě

Abstrakt

Nízký HDP a vysoká míra nezaměstnanosti jsou dva z makroekonomických problémů většiny rozvojových zemí. a mají velký vliv na ekonomiku Egypta, která je na vznikající ekonomice s nižšími středními příjmy.

rozvojové země čelí několika výzvám, pokud jde o vytváření příjmů a vytváření pracovních míst. Existují dva způsoby, jak řešit takové kritické problémy, Půjčování peněz. Což je nákladná možnost, nebo Podporuje přímé zahraniční investice. V posledních několika letech se egyptská vláda snaží o růst ekonomiky a konkurenceschopnost v celosvětovém měřítku. Tato studie zkoumala vliv přímých zahraničních investic (FDI) na HDP a míru nezaměstnanosti v Egyptě v období 2010–2019. Nejdůležitějším cílem této práce je kvantifikovat příliv přímých zahraničních investic a jejich vliv na egyptskou míru nezaměstnanosti a HDP.

Klíčová slova: Egypta, míra nezaměstnanosti, HDP, přímé zahraniční investice.

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List of Abbreviations

FDI: Foreign Direct Investment
GDP: Gross Domestic Product
IMF: International Monetary Fund
M&A: Merger and Acquisition
AD: Aggregate demand
ILO: international labour organization
OECD: Organization for Economic Co-operation and Development
PPP: Purchasing Power Parity
MNEs: multinational enterprise
USD: United States dollar
CBE: Central bank of Egypt
MTI: Ministry of Trade and Industry
UNIDO: United Nations Industrial Development Organization
IDA: Industrial Development Authority
IT: Information Technology
SME: Small to Medium Enterprise
WB: World Bank
WBG: World Bank Group
WTO: World Trade Organization
CAPMAS: Central Agency for Mobilization and Statistics
FAOSTAT: Food and Agriculture Organization Statistics
ITC: International Trade Centre
UAE: United Arab of Emirates
EGPC: Egyptian General Petroleum Corporation
BPM6: Balance of Payment Manual Sixth Edition
BMD4: Benchmark Definition of Foreign Direct Investment
ERSAP: Economic Reform and Structural Adjustment Program
GAFI: General Authority for Investment and Free Zones
MOF: Ministry of Finance

1 Introduction

Egypt is a top receiver of FDI. Foreign direct investment (FDI) inflows to Egypt have constituted a significant component of the country's overall private investment across several industries. Egypt is in Africa's north-eastern region. At nearly 1 million square miles, it is the 31st biggest country in the world by area. Egypt's natural variety ranges from the scorching Sahara Desert to the magnificent Nile River. Egypt connects the continent to the Middle East via its borders with Israel and the Gaza Strip. Sudan borders it on the south, while Libya borders it on the west. Egypt borders the Mediterranean Sea to the north and the Red Sea to the east. The Egyptian economy is mostly based on agriculture, petroleum, natural gas, and tourism. Egypt is a fortunate country in terms of the distribution of petroleum, natural gas, and crude oil, as well as iron ore and phosphates. Egypt's population has surpassed 100 million in 2018, making it one of Africa's most populated countries. According to the statistics for the year 2019 23.79 percent of the employees working in the agricultural sector, 27.68 percent working in the industry sector, and 48.53 percent working in the services sector. In 2011 Following the army's deposition of longstanding President Hosni Mubarak during Arab Spring demonstrations, the subsequent political instability prompted the army to overthrow Mubarak's elected but increasingly unpopular successor, Muslim Brotherhood leader Mohamed Morsi. President Abdėl Fattah el-Sisi was elected to a four-year term in 2014 and again in 2018 under a new constitution. The president's authority was enhanced by constitutional revisions adopted in April 2019 that might allow el-Sisi to govern until 2030. The Nile Valley is extremely fertile and hosts the majority of commercial activity. Despite periodic terrorist attacks, Egypt's crucial tourist economy has recovered, but the country continues to rely on international financial institutions for assistance. The economic situation was significantly changed over the last 10 years.

2 Objectives and methodology

2.1 Objectives

The main objective of this thesis is to examine the impact and results of foreign direct investments on both the unemployment rate and GDP in the Egyptian economy. and to achieve this objective we need to identify and analyse the trends and patterns of foreign direct investment and to identify the primary variables that influence the growth of employment, and the factors that influence the GDP in the Egyptian economy. Certain economic recommendations will be proposed based on these estimates and study results. The most significant task of this thesis is to quantify the inflow of FDI and its influence on both the unemployment rate and GDP. Their influence on the economic growth and the export's volumes. Evaluate the advantages and main attractions of foreign direct investment to Egypt.

2.2 Methodology

The analysis covers the period from 2010 to 2019 and uses secondary data of the following macroeconomics indicators: Unemployment Rate, Gross Domestic Products, Foreign Direct Investment, Exports and the Labor force participation. All data were collected from the central bank of Egypt, the Central agency for public mobilization and statistics, World Bank data, OECD statistics, international labour organization (ILO).

The study uses both econometric and descriptive methods of data analysis. Descriptive statistical methods are used to investigate and analyse the significant indicators of the Egyptian economy, highlight most of the workers in the economy, as well as current policy efforts aimed at lowering unemployment and increasing GDP. The econometrics analysis uses OLS regression analysis to model the linear relationship between unemployment and FDI, and the relationship between GDP and FDI.

This regression analysis will be followed by statistical verifications. In addition, certain economic recommendations will be proposed based on the analysis and study results.

The econometrics study is to investigate the following assumptions:

1. The FDI has a positive effect on the GDP of Egypt.
2. The FDI has a negative effect on the unemployment rate of Egypt.

3. Literature Review

The literature review of the diploma thesis is covering a deep theoretical description of the foreign direct investment (FDI), FDI global indicators, FDI advantages and disadvantages. GDP and related measures and types. Unemployment reasons, negative impacts, Policies to decrease rate of unemployment, FDI impacts on gross domestic products, and rate of unemployment. Will also cover some empirical studies on FDI impacts.

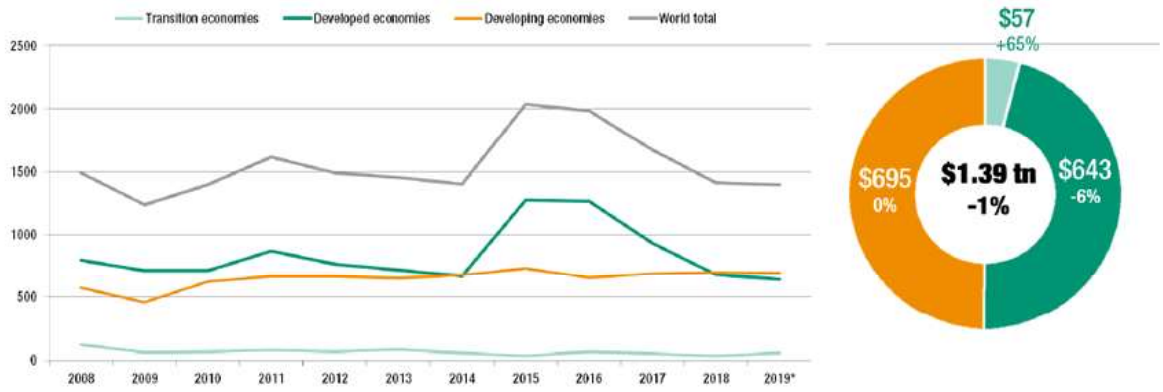
3.1 Foreign Direct Investment

The term "investment" derives from Latin and refers to long-term capital investment in diverse sectors of an economy.

Foreign direct investment (FDI) is an essential component of an accessible and functioning international economic system, as well as a significant driver of growth.

Foreign Direct Investment (FDI), according to the International Monetary Fund (IMF) and the International Organization for Economic Co-operation and Development (OECD), reflects one resident company focused on the long-term investments and interests in another company (the direct investment enterprise). The phrase " long-term " describes the presence of a long-term relationship between the investor and the direct investment enterprise, as well as a considerable degree of control over the latter's management. The possession of 10% or more of the voting power in a business in one economy by an investor in another is proof of such a connection. Foreign direct investment (FDI) is an important component of international economic integration because it establishes solid and long-term ties between economies. Foreign direct investment is an essential path for the transfer of technology between nations, it encourages international trade by providing access to foreign markets, and it can be a powerful economic growth tool. (Froot, 1993)

Figure 1: FDI inflows: global and by group of economies, (2008-2019)



Source: (UNCTAD, 2020)

3.1.1 Types of FDI

Horizontal: A business's local activities are expanded into a foreign country. In this scenario, the company performs the same operations as before, but in a different nation. McDonald's, for instance, would be called horizontal FDI if it opened stores in a new country.

vertical FDI: A business expands into a foreign nation by shifting to a higher level of the supply chain. In other words, a company may engage in a variety of operations outside of its home country, but these activities must be connected to the company's primary activity. Using the same scenario, McDonald's might invest in a farmer's field in Canada to supply beef to its restaurants.

There are also two methods of foreign direct investment, namely: Greenfield and brownfield investment.

Greenfield investments: Under this sort of investment, a foreign company establishes its own manufacturing or company in a separate or host country, where it trains employees to work for them. While Brownfield investment is the foreign investor does not establish a new firm in another country, but rather expands their business operations in the host country through cross-border mergers and acquisitions. This enables the foreign investor to quickly establish operations in the host country. (Ronald B. Davies, 2015)

3.1.2 FDI Global indicators

Some of the determinants and their relationships to FDI will be explored in the following sections.

Market size: big economies, on average, have large markets, and foreign investors will always think about investing in another nation based on market size. The greater the country's economy, the cheaper the typical firm's expenses and the government may provide monetary support to attract multinational corporations to invest. GDP is a significant predictor of the size of the country's market. As a result, countries with large enough markets may attract more FDI. Moore and Frey endorse this viewpoint, arguing that successful economies as domestic also provide foreign businesses with a realistic chance to draw greater revenues and profits while also attracting more FDI (Moore, 1993; Frey, 1984). According to Artige and Nicolini (2005), the most robust FDI determinant in the econometric analysis is market size, as assessed by GDP or GDP per capita. This is the most important factor influencing horizontal FDI. It has no relevance to vertical FDI. According to Jordaan (2004), FDI will flow to countries with large and rising markets and more purchasing power, where businesses can potentially earn a higher financial return and, as a result, and high benefits from their investments. According to (Charkrabarti, 2001), the market-size hypothesis supports the concept that a big market is necessary for effective resource utilization and exploitation of economies of scale: when the market-size increases to some critical value, FDI will begin to increase with its further expansion. This concept has gained traction, with a variable indicating the size of the host country market appearing as an explanatory variable in virtually all empirical research on the drivers of FDI. (Dong-Hyeon Kim, 2013)

Infrastructure: Infrastructure encompasses a wide range of dimensions, from bridges, roads, ports, railroads, water, sewage system, electronic system, and telecommunications networks to institutional growth. According to Jordaan (2004), excellent quality and well-developed infrastructure enhances the productive potential of investments in a nation and hence promotes FDI flows into the country. great infrastructure improves investment productivity and hence encourages FDI inflow. Access to high-quality infrastructure is critical for attracting FDI, particularly in the sectors of telecommunications, transportation, merchandise, tourism, and energy. According to ODI (1997), Inadequate infrastructure, on the other hand, can be considered as both a barrier and an opportunity for foreign

investment. It is widely acknowledged as one of the most significant constraints for the majority of low-income countries. However, international investors see the possibility for large FDI if host governments allow for greater foreign engagement in the infrastructure sector. (Aznin abu Bakar, 2012)

Labour cost: One of the major indications of FDI is the availability of low-cost, trained labour, which has a favourable influence on FDI productivity. According to Dunning (1993), investment leads to lower labour costs and better labour productivity.

Trade openness: Trade openness is beneficial for evaluating the country's trade balance and is seen as a significant predictor of FDI inflows. Easy exchange, access and trade in raw materials, natural resources, export, and import commodities. Access to different markets. Exchange of skilled and qualified labour force. Easy transportation and movement of involved countries, production, and resources. The host country will have a positive influence on its economy which reveals in the transfer of modern technology, particularly in the service sector. And improves the country’s competitive advantage and the management of its resources. According to Edwards (1990), the openness of a country's economy has a beneficial impact on FDI flows. Investors are constantly interested in investing in nations that engage in regional trade unions and trade agreements.

Political stability: Political stability includes a variety of factors, including fraud, institutional power, and the legal system. As a result, global corporations must carefully consider it while choosing an FDI location. Stable political situation countries are more favourable to attract more FDI than the less stable counties. “Investors will be more comfortable investing in a location that has a similar (or more favourable) environment to their own country,” says Investment Monitor chief economist Glenn Barklie. (Caon, 2020)

3.1.3 FDI advantages, and disadvantages

Investors considering any type of FDI should assess the benefits and drawbacks of the investment as FDI has influence on both investors and the host countries.

benefits

Economic growth: FDI promotes broad-scale economic growth. It is a country's major source of external funding as well as increasing income. The most obvious advantage of FDI is the creation of job opportunities, which is one of the primary reasons why a country, particularly a developing country, will seek to attract FDI. As a result of FDI increase in employment demand leads to higher income and boosts the overall country's economic growth.

Easy International Trade: When it comes to importing tariff countries this makes it is hard to trade with. Also, some industries need to be exported to international markets especially since not all goods produced by FDI are for domestic use and consumption. FDI goods should be easily traded and to guarantee that their sales and goals are entirely satisfied all of this will be made easier by FDI.

Technology: Host nations and companies have access to the most recent technology, financial instruments, and operating practices from around the world. The implementation of newer and improved technology results incorporate distribution into the local economy, resulting in increased industry performance and quality.

Human capital development: Human capital includes a workforce's training and expertise. FDI helps with human resource development. By offering appropriate training and abilities that aid in developing their skills. The skills obtained via training and exchanging knowledge would improve a country's education levels and total human development.

Other Benefits: Aside from the points mentioned above, there are a few others that must be addressed. FDI assists countries in becoming industrial regions. FDI promotes a country's currency rate stability and fosters a competitive market by allowing goods produced to be marketed both locally and internationally. (One, 2020)

drawbacks

Despite its numerous advantages, FDI has drawbacks, which are as follows:

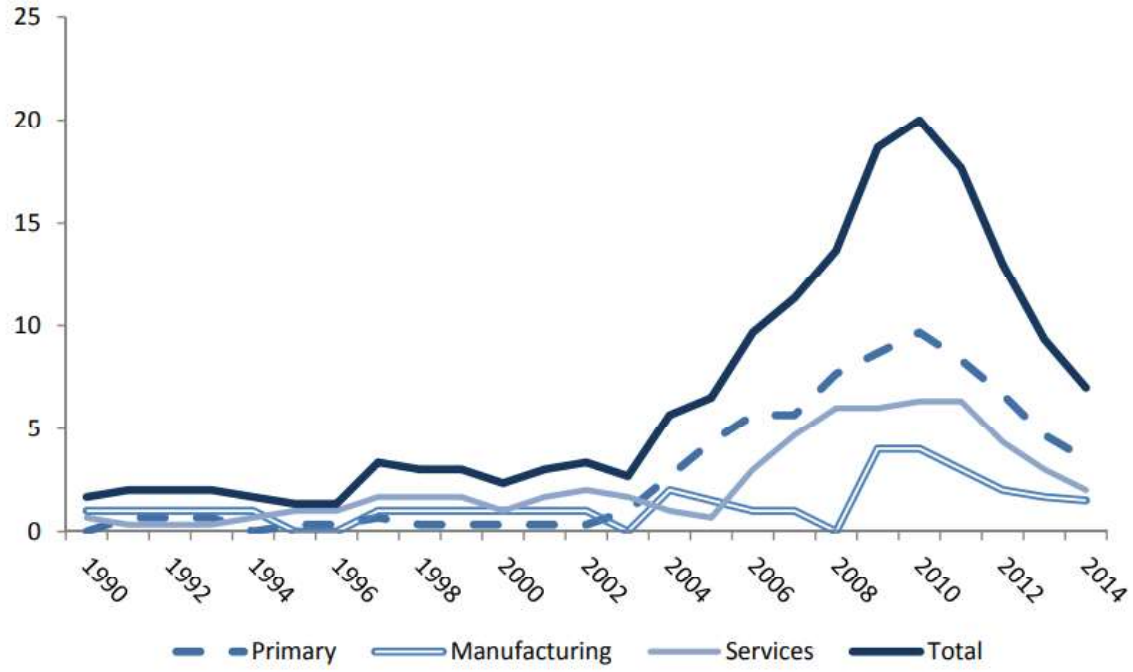
Profit relocation: large corporations, such as Amazon, may replace local enterprises. Amazon is frequently chastised for pushing away small firms that are unable to compete

with its cheaper rates. The major worry in the case of profit relocation is that businesses would not reinvest earnings in the host nation. This results in significant capital outflows from the host country. As a consequence, several nations have laws that restrict foreign direct investment.

Changes in governmental policies: Changes in government policy are unanticipated often and they may have a negative impact on FDIs. and can either be in the investor side or in the host country 'side. For example, the Brexit agreement and the significant reduction in the FDI inflows to the UK.

Expropriation: Keep in mind that incidents might result in expropriation, in that case, the government takes control over your investments, property, goods. Expropriation threatens all foreign direct investment, even that flowing to underdeveloped nations.

Figure 2: Number of Expropriation Acts in All Developing Countries



Source: Hajzler and Rosborough (2016).

Exchange rates: FDI can sometimes impact currency exchange rates in favour of one country but against another.

Domestic Investment loss: As more foreign investment comes to investors, The host country loses part of its domestic capital, which has a negative impact on the employment rate, GDP. and other indicators. (FDI, 2020)

3.2 Gross domestic product (GDP)

3.2.1 GDP Definition

Gross domestic product (GDP) “is the total monetary or market value in local currency of all the finished goods and services produced and country’s total economic activities within a country’s borders during a specific time period”. The Gross Domestic Product (GDP) is a standard indicator of a country's economic health and an indicator of its level of life. Productivity levels between different countries or/and different times can be measured and compared using GDP. also, used to calculate the size and rate of growth of an economy. (institut, 2018)

GDP may be calculated using two basic approaches or formulas:

1. Expenditure Approach

The expenditure method is the most widely used GDP calculation, and it is based on the total expenditure by various economic sectors.

Expenditure approach formula:

GDP = C + G + I + NX

Where

C=consumption.

G=government spending.

I=investment; and

NX=net exports

2. Income Approach

The entire profit earned by the goods and services produced is used in this Approach.

Income approach formula:

GDP = Total National Income + Sales Taxes + Depreciation + Net Foreign Factor Income

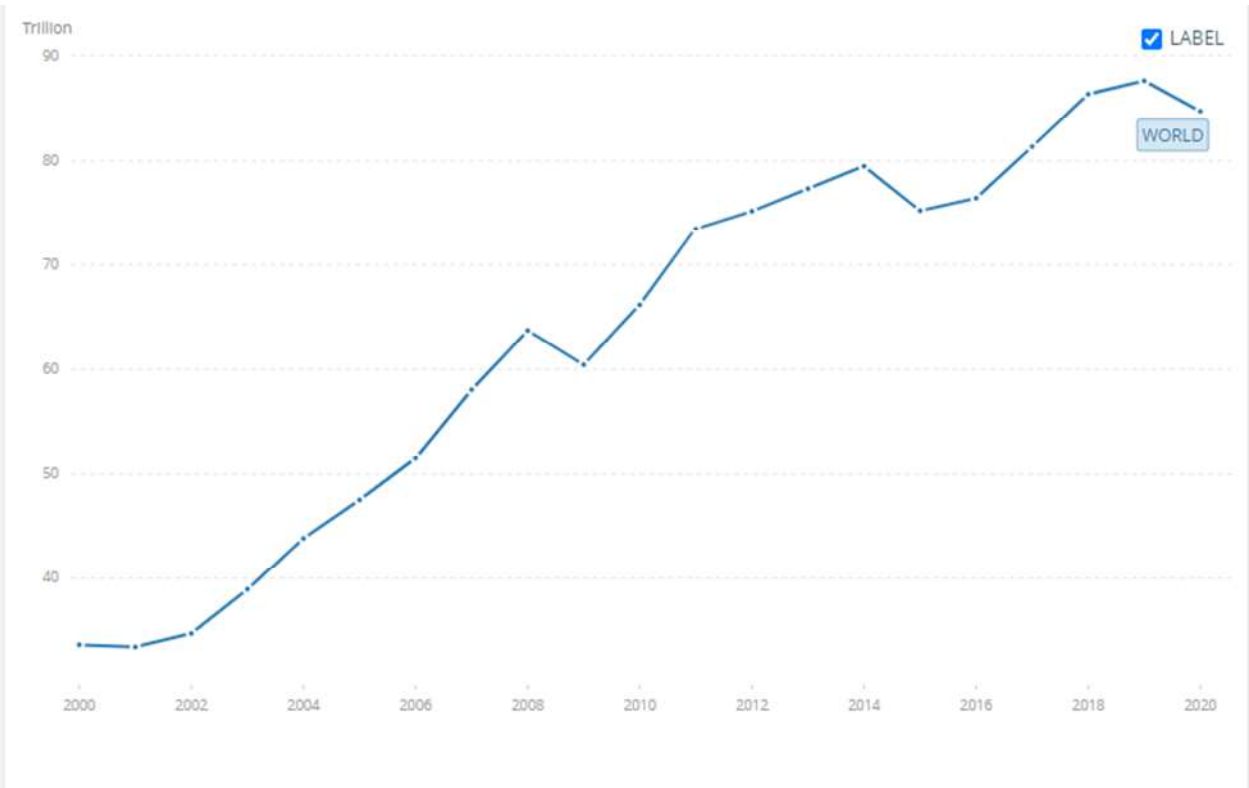
3.2.2 Types of Gross Domestic Product

GPD may be assessed and reported in a variety of ways. Each type presents slightly different information. The most frequent approaches are as follows:

Nominal GDP: The entire worth of all products and services produced at current market prices. This covers any changes in market prices that occur during the current year as a result of inflation or deflation. The whole economy's production recorded in nominal GDP is evaluated at the prices at which they are actually sold that year. Nominal GDP is used in comparing economic outputs in quarters during the same year. (institut, 2018)

Real GDP: The entire worth of all products and services produced at specific prices. The prices used are based on a specific base year. And because it is an inflation-adjusted statistic, this type delivers a more accurate representation of economic growth. inflation-adjusted meaning excluding the effects of inflation or deflation. (institute, 2018)

Figure 3: Real GDP Worldwide, (2000-2020)



Source: World Bank national accounts data, and OECD National Accounts data files.

GDP Per Capita: GDP per capita is calculated by dividing a country's total GDP by its entire population. Also, GDP per capita is often referenced as an indicator of the productivity of the country's labour as well as an important indication of the country's living standards. GDP per capita can be expressed in nominal, real, or purchasing power parity (PPP) measures. (institute, corporatefinanceinstitute, 2018)

Table 1: Types of GDP

	Characteristics	Measurement	Adjustment
Nominal GDP	Used to compare countries' economic growth in financial terms only	Domestic currency	N/A
Purchasing Power Parity (PPP)	Used to compare real output, income, living standards	USD	- Domestic prices - Costs of living
Real GDP	Shows the quantity of goods and services produced by economy in a certain year, with constant annual prices	USD	- Inflation
GDP growth rate	Compares one year (or quarter) of a country's GDP to the previous year (or quarter) to measure how fast economy grows	%	- Inflation - Unemployment rate
GDP per capita	GDP per person in a country's population, the data can be nominal, real or PPP	Domestic currency, USD, %	Adjusted depending on the purpose

Source: Processed according to World Bank, 2021c.

3.3 Unemployment

3.3.1 Unemployment Working Definition and Concept

While it may sound clear, it is necessary to start by defining unemployment. According to the ILO definition, this is currently the most often used definition. The unemployment rate is defined as “those people who have not worked more than one hour during the short reference period but who are available for and actively seeking work”.
As known, the labour market has two sides, the demand side, and the supply side. The labour force provides the supply, While the employers and companies provide the demand. The demand side provides job opportunities for the population who are available and seeking work. While the supply side provides the labour who are actively looking for work. In most nations, the present scenario is that the demand for labour is greater than the supply. As a result, there is an oversupply of workers. The gap between the labour supply and demand is considered unemployment (Olsson, 2013). (ILO) Define unemployment as an economy's inability to create job opportunities for people who want to work but are unable to do so.
Most experts stated that unemployment does not include all the people who are unemployed yet eager to work. Belchamber and Schetagne (2013) defended the idea of unemployment as a challenge to a certain economy particularly in the case of underdeveloped nations. The majority of households are occupied with housework and taking care of their children and families. In that case, those households are considered economically active.

3.3.2 Different Studies and schools of thought view on unemployment

The goal of explaining unemployment is to illustrate the causes and effects of unemployment from various perspectives. Experts consider the causes of unemployment is population growth, economic deficits; others consider the causes could be lack of country resources management, government spending, and foreign debt plus more reasons to clarify the root cause of unemployment.

There are many theories to illustrate the causes and impacts of unemployment.

3.3.2.1 The classical theory of unemployment

The classical theory believes that the economic situation is always in great conditions and in full employment at any given time. As they assume that the labour supply and labour demand is equal, and the unemployment rate is in the perfect situation according to the current time wages. And in that case, the supply is always equal to the demand at the wage rates, and in the case of more jobs available, that will lead to a decrease in wages and eventually will lead to more job seekers getting employed. Plus, the classical economists emphasized the necessity of minimizing government involvement and ensuring that markets are free of possible obstacles to effective functioning. They believe that there is perfect competition in the market, the economy is closed without any kind of foreign investments or trade, the output is fully getting consumed through consumption, goods, and services prices flexible to the market condition. (Pal, 2018)

According to classical unemployment theory, unemployment definition is determined by the level of real wages, which kind of is quite significant. It happens when actual wages specifically are fixed above the equilibrium level because of structural factors caused by minimum-wage legislation, union negotiations, or effective wages, or so they basically thought.

Keynes criticized the classical theory as it is an unreal theory and criticize firstly the underemployment equilibrium assumption as unrealistic as supply always exceeds the demand. As there are millions of people available to work and would accept at the current wages or even below the normal wages but there are no available vacancies for them, plus the involuntary unemployment proves there is no underemployment equilibrium which is abnormal. The Second argument was regarding the self-adjusted economy as Keynes reused that the laissez-faire policy will be performed without governmental intervention. The wealthy have a lot of money, but they don't spend it all on consumption. The poorest are unable to acquire basic commodities due to a lack of funds. As a result, there is a general shortage of aggregate demand compared to aggregate supply, resulting in excess production and unemployment in the economy. (Chand, 2018)

3.3.2.2 The Keynesian theory of unemployment

John Maynard Keynes's theory of unemployment is founded on the concept of effective demand. This means the level of employment or employment rates is determined by the level of demand. Hence, Unemployment is blamed on a lack of effective demand. unemployment is linked to a lack of demand. And to achieve low rates of unemployment it needs an increase in the amount of effective demand. (Pettinger, economics help, 2019)

Effective demand means the overall demand for goods and services. When demand for products and services declines, companies will be incapable to lower their employee's wages or even selling their products and services for a lower price. Therefore, the employees will decide to leave and at this point, the overall production will be decreased. And on the contrary, A decent profit can assist businesses in hiring additional people, producing, and supplying more, increasing employment, and keeping the unemployment rate down.

According to Keynesian theory, a rise in product demand will have the following effects. Products will be in high demand for a limited period of time, Because of the high demand, goods prices will rise, lowering the actual wage rate. As a result, product production and supply will grow. Both the price rise and the increase in overall production will reduce the high demand for items. Following a brief time, the situation will reach a new equilibrium. And after this stage, we will notice that the wage rates are lower and the need for labour will be more than that needed in the old equilibrium. (Dutta, 2015)

It should be remembered that Keynes's theory is just for short time with fixed variables which could be population, Technology, labour, companies, and the economic situation, etc. and as a theory of income determination as one can assure that employment depends on the level of country's economic and especially income.

3.3.3 Policies for reducing unemployment

There are two primary approaches to lowering unemployment:
1- To minimize demand-deficient unemployment, demand-side measures must be implemented.
2- To eliminate structural unemployment, supply-side measures are needed.

Demand-side policies:
Fiscal policy: Fiscal policy can serve to boost aggregate demand and the pace of economic growth which can help to reduce unemployment. The government would have to adopt the expansionary fiscal policy, which entails lower taxes and higher governmental expenditure. and so, contribute to increased spending, resulting in higher aggregate demand (AD). Real GDP will rise in response to an increase in AD. If companies create more, there will be greater demand for employees, resulting in decreased demand-deficient unemployment.
Monetary policy: Interest rates would be reduced as part of monetary policy. Lower interest rates reduce the cost of loans, encouraging individuals to spend and invest. boosts AD while also helping to boost GDP and minimize demand-deficient unemployment.

Supply-side policies:
Education and training: The goal is to teach long-term jobless people new skills that will enable them to obtain work in growing industries.
Employment assistance: Businesses that hire long-term jobless people may be eligible for tax reductions or subsidies. This gives them new confidence and hands-on experience.
Increase labour market flexibility. It is believed that greater structural rates of unemployment in Europe are caused by tight labour markets, which deter companies from hiring workers in the first place. (Pettinger, 2019)

3.4 FDI impacts on gross domestic products

Investment is the dynamic sector of Gross Domestic Product (GDP), the only one that helps domestic production and employment to grow. It influences both consumer and government expenditure, with the latter benefiting from greater tax collections. We should always recognize that in the economy, we do not mean asset in the way of the so economic investing, but also in the useful kind, which would be completed in capital assets – machinery, equipment, structures, and buildings, such as residential construction and allows for increased production of goods. In an economic system, investing equal income, and the latter comes from a country's sacrifice of current consumption. However, in an open economy, investment and saves aren't equal, and therefore investment spending may be larger, equal, or lower than domestic savings. In the case of rising nations, with a persistent trade deficit, the needed investment exceeds national savings, implying that the difference must come from (FDI) or from international income.
Investing equals revenue in an economic system, and the latter derives from a country's sacrificing of current levels. However, in an open economy, investment and saving aren't always equal, thus investment expenditure may be more, equal, or lower than domestic savings. In the case of growing nations, namely a chronic trade deficit, the required investment exceeds national savings, suggesting that the gap must come from foreign direct investment or global income. (State, 2015)

There are several advantages to FDI for both the host nation and the home country, as stated. For example, in addition to providing direct capital finance, FDI may provide important technology and know-how to host developing nations through creating links with local companies. These technical breakthroughs by MNEs play a critical role in the economy and they are some of the most significant areas in which MNEs act as economic catalysts in emerging nations. Multinational enterprises have the financial resources to invest in large-scale plants. Local investors may find this challenging owing to a lack of large investment capital that Multinational enterprises can afford. FDI can make "limited" capital available to developing countries. This is critical for economic progress. Multinational enterprises' capital transfers can supplement domestic savings and contribute to domestic capital formation in capital-constrained nations, thereby increasing domestic investment. Some investments benefit from being managed by a third party. This will

reduce the degree of government intervention to a bare minimum. FDI, more often than not, brings with it strong ownership and autonomous management.
"With the great potential to generate employment, raise productivity, boost exports, and transfer technology, foreign direct investment is a key component in the long-term economic growth of developing nations," said UN Secretary-General Ban Ki-moon. Despite the benefits that may be obtained through FDI, it should be recognized that it can also have certain negative consequences. MNE operations, for example, might displace local companies that are unable to compete with international firms, limiting the growth of local firms. Furthermore, if adequate regulation is not in place in the host nation, FDI can act as a source of capital flight from developing to wealthy countries. For example, if there is no regulation prohibiting such conduct, there may be a substantial movement of money from the host nation to the home country owing to unique dangers in the host country (economic and political risks). Finally, because Multinational enterprises have greater production capacity, FDI can create large-scale environmental harm, which is sometimes not adequately addressed, particularly in the mining industry. It is important to emphasize that the net contribution of FDI to growth can only be calculated experimentally. The following section discusses research on the relationship between FDI and growth. (Adewumi, 2006)

3.5 FDI and The Unemployment rate

In recent years, there has been an increase in interest in the connection between direct foreign investment, unemployment, and economic development. The economic crisis that began in 2008 has raised major worries about rising unemployment and negative growth. Despite the ongoing improvement in most European nations. there are still countries experiencing significant challenges owing to excessive unemployment. In the European Union, unemployment surpassed 26 million people. FDI has been viewed as one of the finest ways for developing countries to fuel economic progress in recent years. The literature has highlighted macroeconomic stability and the economic growth labour market as two of the most important factors that foreign investors consider before choosing a potential host nation. The researchers, who present solid data supporting the premise that FDI brings significant advantages to a host nation, also highlight the reverse impact. An analysis of the employment impacts of FDI has been a major issue in recent years because one of the main reasons governments pursue FDI is to increase employment.

unemployment is high in the region, but the region receives the highest percentage share of FDI inflows, followed by West Africa, North Africa, Central Africa, and East Africa, in that order. The sectoral distribution of FDI in Southern Africa indicates large gains in services (tourism and telecommunications) as well as mining and quarrying, which need highly trained labour. Overall, it appears that FDI has a beneficial impact on labour markets. Wages rise, as do productivity and the labour force's skill level. Even while some lower-skilled employees may suffer unfavourable impacts, and certain local companies may face competition pressure in terms of skilled labour availability, the majority of the evidence shows that FDI improves labour conditions. Inequality may rise as a result of the disproportional growth in demand for skilled labour, causing the labour force to pursue development and skills. Policy Makers find it difficult to establish a link between FDI and unemployment. Some economists claim that FDI inflows only have a positive influence on the labour market for highly qualified workers. This indicates that, in the long run, the workforce's quality is improving. Others say that green investments in high-tech businesses have a long-term positive impact on a country’s economy. As a result, this sort of FDI inflows should be a top priority for government policy, especially given the abundance of natural resources. (Stamatiou, 2014)

3.6 An empirical study of Foreign Direct Investment impacts

Following the theoretical empirical study on Foreign Direct Investment and trade, a significant quantity of empirical research has been performed during the previous three decades. Unlike earlier trade models, which implied that changes in host countries' export were dependent on the technological capabilities of their domestic companies rather than foreign firms in these countries, the new trade models discovered some evidence that the activities of foreign subsidiaries also played an essential part in improving host countries' export competitiveness, because they not only have better access to information and marketing. but also, easy access to parent businesses' advanced technology and monopolistic benefits of parent firms' patents, trademarks, and other investment-related intellectual assets. the first empirical studies on the activities of foreign businesses were descriptive in nature, employing basic export-sales and foreign inputs-total inputs ratios to analyse these firms' trade performance. Recognizing FDI determinants from an MNE's partial equilibrium point of view Following a brief discussion of the internal company-specific reasons that encourage a firm to become an MNE in the first place, we turn our

attention to the external factors that are likely predictors of the location and volume of FDI by multinational enterprises. External variables include currency rates and taxes, as well as those that are likely more endogenous with FDI activities, such as trade protection and trade flows. The factors of MNE decisions and FDI placement are extremely significant, but perhaps still in their infancy. Modelling firm-level choices yielded our theoretical hypotheses. A wide body of work investigates how (exogenous) variables like taxes and currency rates impact these firm-level decisions based on these partial equilibrium forecasts of an MNEs FDI decisions. A more recent body of literature has begun to put such Multinational enterprises' decisions in a general equilibrium framework, producing predictions of how basic country-level characteristics impact aggregate country-level performance.

There still are different sorts of empirical investigations that use the descriptive. The first set of these studies seeks evidence for the validity of FDI. trade-oriented FDI, while the second group analyses variations in. trade-orientation between foreign and local companies in a local population. (ALTINTAŞ, 2006)

4 Practical Part

4.1 An overview of Egypt economy

Egypt, which occupies the northeast corner of the African continent, is divided by the very fertile Nile valley which is the centre of commercial activity. Egypt's economy was heavily controlled during former President Gamal Abdel NASSER's tenure, but it opened significantly under former Presidents Anwar EL-SADAT and Mohamed Hosni MUBARAK. Agriculture, energy, industry, tourism, and other service industries supported the country's diversified economic activities.

According to the CIA World Factbook, considering Egypt's mixed performance in attracting international investment over the last two decades, poor living conditions and restricted employment prospects have led to popular dissatisfaction. These socioeconomic constraints played a significant role in the January 2011 revolution that deposed MUBARAK. Since 2011, the unstable political, security, and policy climate has stifled economic development and failed to alleviate chronic unemployment, particularly among the young people. President Abdėl Fattah el-Sisi was elected to a four-year term in 2014 and again in 2018 under a new constitution. The president's authority was enhanced by constitutional revisions adopted in April 2019 that might allow el-Sisi to govern until 2030.

Since 2014 El-Sisi and the government working hard to boost the economic and political situation in Egypt. Since 2014 the Egyptian government working hard to achieve solid public finances and macroeconomic stability, which serve as the cornerstone for long-term prosperity. fiscal and monetary policies are at the heart of the medium-term transformation plan, with the goal of reducing the country's substantial budget and current account deficits, reducing inflationary pressures, and ensuring stakeholders that funding gaps can be bridged. This policy framework maintains trust and encourage economic players to increase investment and, as a result, consumption, resulting in increased growth. The macroeconomic policies are being supplemented by mechanisms to advance the business environment, a significant increase in public spending on human capital investment, a focus on restructuring and expanding physical infrastructure both in Cairo and throughout the country, and a long-term move to develop several megaprojects.

By the end of 2019 the government's medium-term plan for removing distortions and building a strong economic foundation. Was as follow: Real GDP growth of at least 6%. A higher rate of job creation is required to reduce the unemployment rate to less than 10% and specifically, to address the high percentage of young unemployment. Increased government expenditure efficiency in tandem with a targeted decrease of the fiscal deficit to 8 - 8.5 percent of GDP. inflation is expected to be between 6% and 8%. Increased levels of domestic investment. enhanced export performance. Increased expenditure on health, education, and R&D to promote the growth of the country's human resources (up to at least 10 percent of GDP). Increased national production, as well as ongoing investment in the updating of infrastructure. And encourage foreign direct investment. (Egypt T. g., 2015)

Image 1: Egypt map and surrounding countries

Source: (Alamy,2019)

4.2 Industrial sector in Egypt

The industrial sector is a pillar of the Egyptian economy. In the framework of the industrial sector's ongoing efforts to strengthen the industrial base and promote Egyptian industrial goods in international markets, production capacity in several basic sectors rose by 25% between the mid-1990s and the 2011 revolution. Egyptian industry has also been successfully expanding into new sectors such as sophisticated technology and microelectronic software.

Industrial growth influenced by a variety of business climate factors, such as company licensing, property allocation, and incentive packages for domestic and international investors.

The industrial building is formed around seven industries, which account for more than 80% of all organizational systems. The textile, food and beverage, and furniture industries are the three major industrial activities, followed by mining, chemicals, and Oil and Gas. Egypt launched a series of significant changes in 2016 to encourage the private sector. Exchange rate liberalization, budgetary consolidation measures, and a focused social protection program are among them. To enhance the investment climate, a number of legislative measures have been implemented.

Following the 2011 revolution, several transformational manufacturing businesses saw exceptional growth. according to the Ministry of Trade and Industry the rate of cumulative increase in the value of transformational manufacturing production from 2010 and 2019 by 5.5 percent to reach $ 48.2 Billion with almost 16 % of GDP (Figure 4) compared to $ 35.3 billion in 2010. with 19.27 % increase from 2018.

The food, beverages, and tobacco industries placed first in regard to manufacturing businesses, with 9,143 enterprises of relative strengths accounting for 27.3 percent of the overall cumulative number of manufacturing firms at the end of 2019.

The industrial sector's contribution to GDP now stands between 35 and 36 percent. according to the Ministry of Trade and Industry,

Figure 4: Egypt Manufacturing Output, (2010-2019)

Source: (macrotrends, 2019)

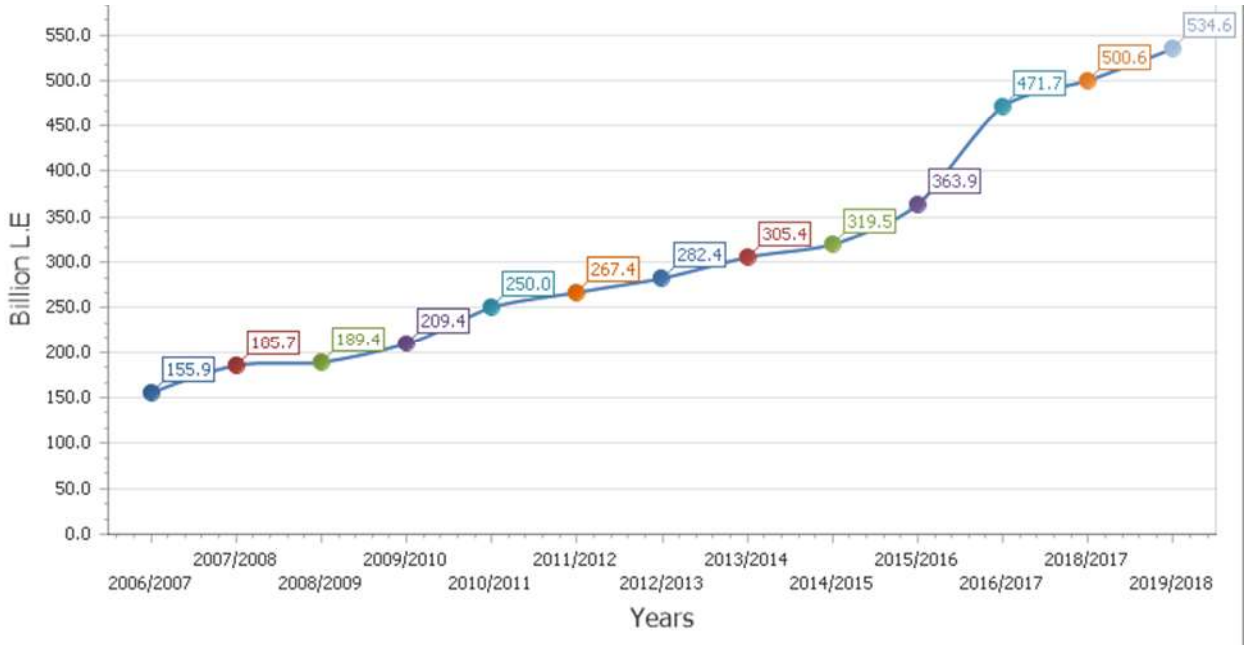
4.3 Agricultural Sector in Egypt

The agriculture industry contributes significantly to Egypt's GDP, jobs, and exports. Agriculture employed 21.3 percent of the workforce and contributed 11.4 percent of GDP in 2019. Food exports made up 15.0 percent of total goods exports.

Egypt is now only realizing 30-40% of its export potential in major Agri commodities. Egypt has an estimated $10 billion in agricultural and food export potential that has yet to be realized (World Bank, 2019). Its sizable domestic consumer market—the largest in the Middle East and North Africa region—is also underutilized.

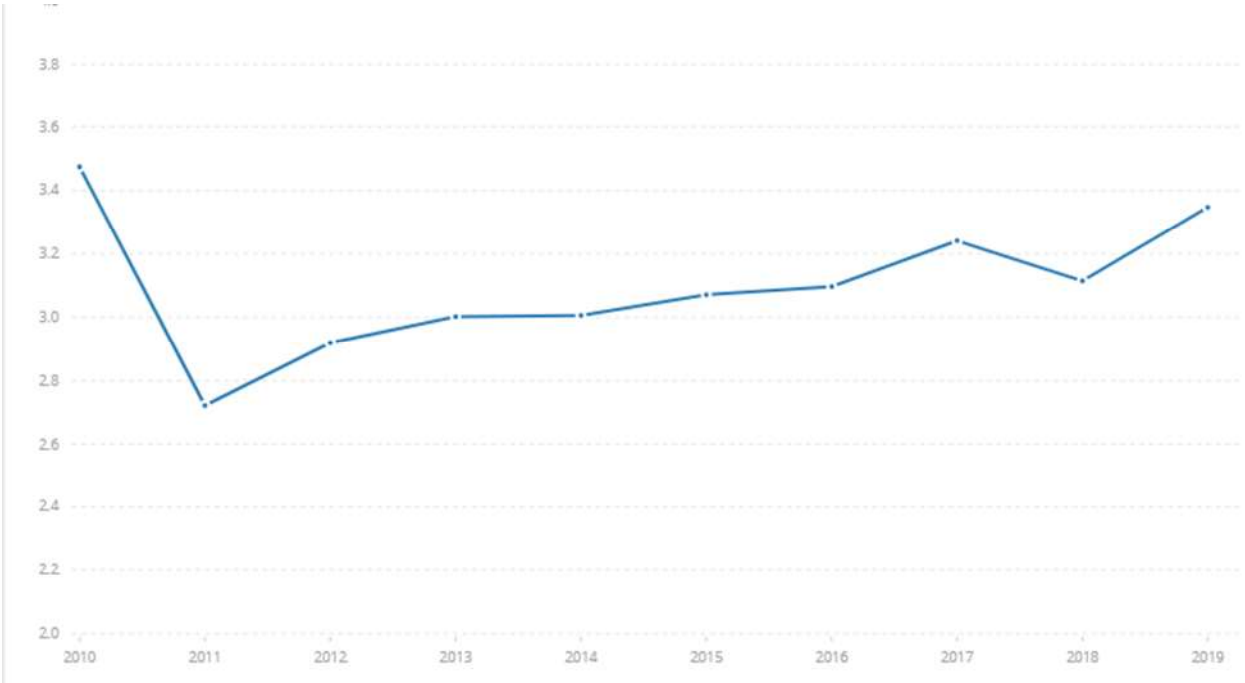
According to figure 5 the agriculture production value in 2006-2007 $155.9 Billion and reached $534.6 Billion by the year 2018-2019. And according to figure 6, the value added in annual growth in the agricultural sector increased from 3.1% in 2018 to 3.4% in 2019.

Figure 5: Value of Agricultural production, (2006/07:2018/19)



Source: (Campas, 2019)

Figure 6: Egypt Agriculture value added (annual % growth)



Source: (Worldbank,2019)

4.4 Tourism Sector in Egypt

Egypt's tourism industry has suffered because of the global financial crisis, along with recent political instability. Tourism has been Egypt's quickest expanding sector, accounting for 11.3 percent of GDP in 2009-2010 when both direct and indirect impacts are taken into account.

Between 2011 and 2017, tourism experienced various crises, beginning with the outbreak of the 25th of January revolution, and following events that impacted security and economic performance. In the 2014/2015 fiscal year, this resulted in a 34.7% fall in tourist numbers and a 47.9% loss in tourism earnings.

In 2016, many terrorist events in Sinai resulted in damages totalling more than $1.5 billion. Furthermore, the bombing of a cathedral in December 2018 resulted in the cancellation of around 40% of hotel reservations in Cairo for the Christmas holiday season from Arab nations, including the UAE and Kuwait, as well as numerous Eastern Asian and European countries.

According to official figures, visitor arrivals decreased by 41.9 percent in July 2016 compared with the same period in 2015. Tourist firms saw a 20% decrease in bookings in 2016, and a stunning 75% decrease overall since 2011.

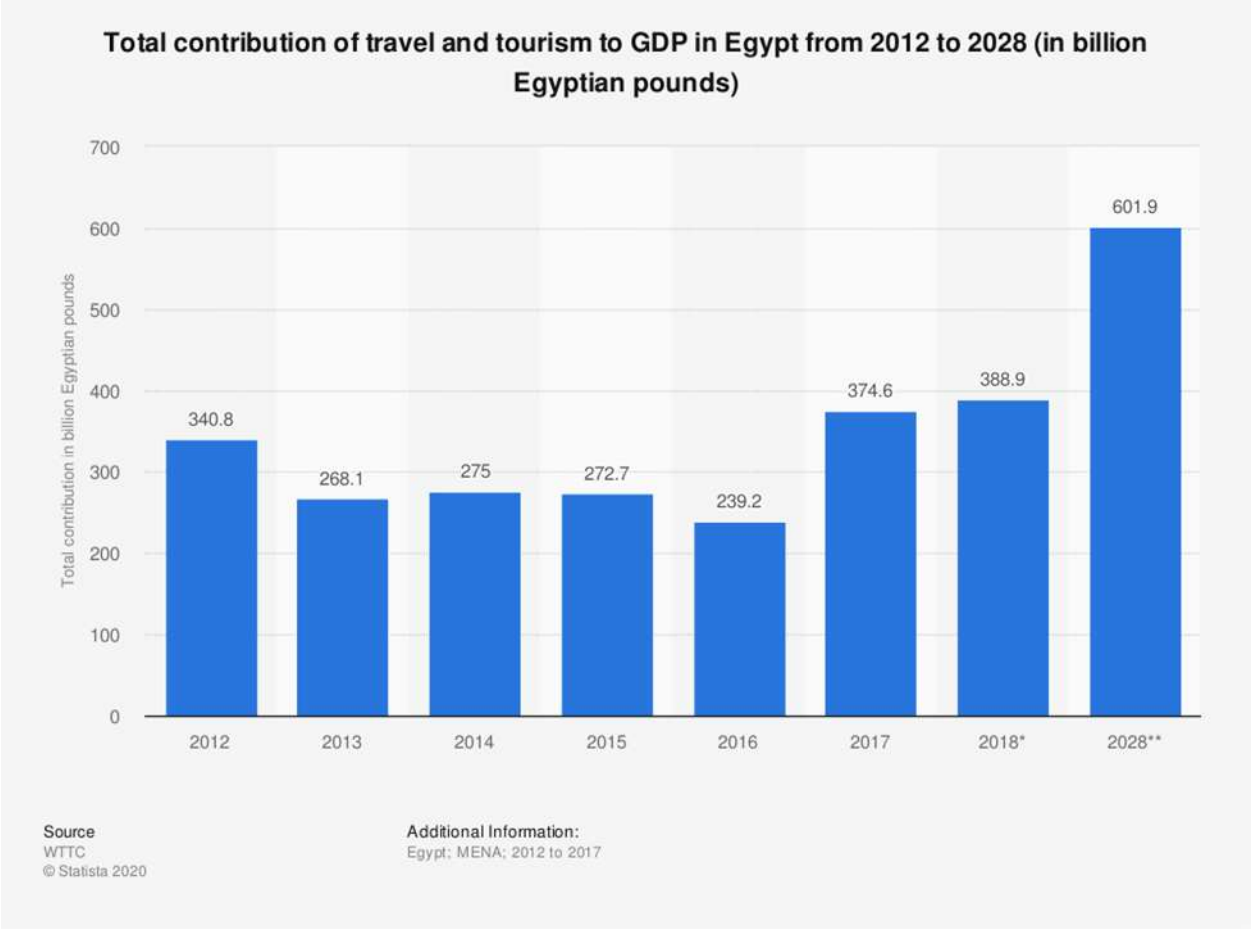
In 2017, Russian visitors to Egypt fell by 60%, British visitors by 17.5%, and German visitors by 10.4%. However, Hurghada began to get a large number of international visitors who had previously avoided visiting Sinai. In 2016 and 2017, the tourism crisis prompted hotel and tourist companies to lay off 720,000 employees out of a totalled of 800,000 people.

According to a recent report on the development of tourism traffic to Egypt, the tourism sector had substantial growth in 2018 when compared to the years after the 2011 revolution. According to figure 7, the numbers of tourists grew around 40% in 2018, hitting about 11.3 million compared to 8.3 million in 2017.

According to data provided by the Central Bank of Egypt, Egypt's tourist sector increased 12.5 percent in 2019, more than $13.03 billion in earnings, up from $11.6 billion in 2018. (CBE). The most recent tourism income numbers for 2019 surpassed the peak year sales of 2010, which totalled $12.5 billion achieving a significant contribution to GDP.

Figure 7: Egypt Tourism Revenues, (2010-2019)

Figure 8: Total contribution of travel and tourism to GDP in Egypt from 2012 to 2028 (In billion Egyptian Pounds)



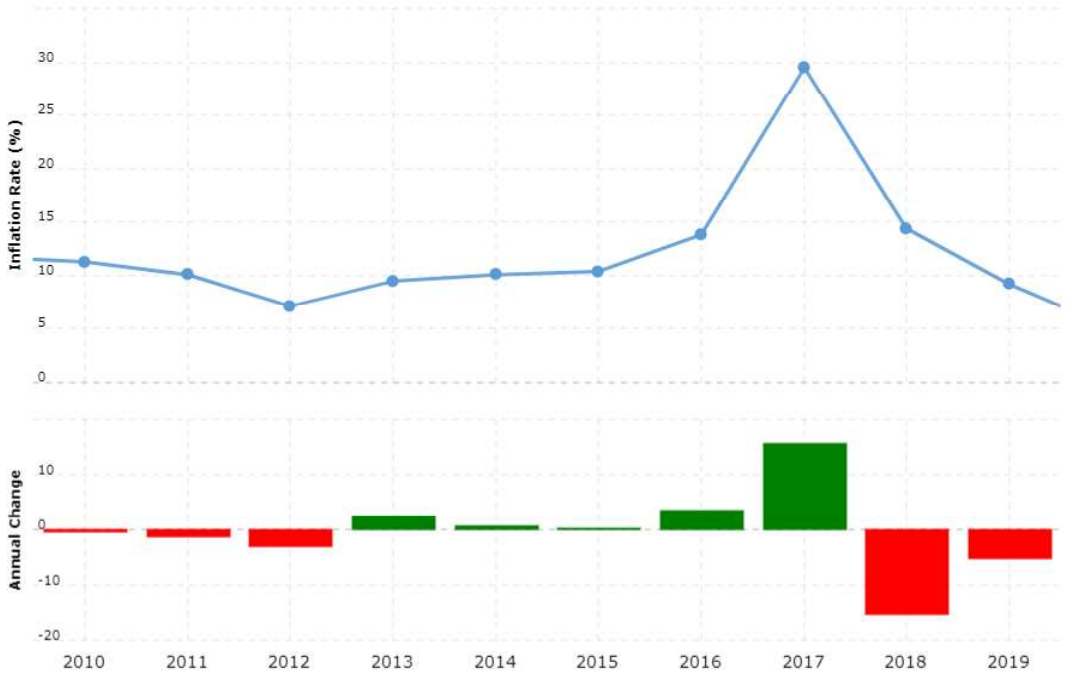
Source: WTTC

4.5 Inflation in Egypt

Egypt has routinely seen quite high rates of inflation over the last decade. However, since the Arab Spring in 2011, the rise in consumer prices has gradually intensified. During the period 2011-2015, the average annual rate of inflation was close to 10 percent, which was much higher than the MENA region's overall rate of six to seven percent. Many forces are at work here to cause inflation to rise. rising global oil prices, rising food prices, a widening budget deficit, and a fast growth in the money supply. In 2016-2017, the picture altered considerably, with inflation reaching a new high. The 12-month inflation rate increased from 10% in January 2016 to nearly 30% in April 2017. The exchange rate was the direct reason of this substantial rise. Despite the substantial political upheaval and severe balance of payments constraints, the Egyptian pound fell by an average of 7% each year from 2011 to 2015. The Egyptian pound was devalued by the Central Bank of Egypt (CBE) by 13% in March 2016, to EGP 8.85 per US dollar. The government and the CBE floated the pound in November 2016, enabling market forces to decide its foreign currency value. Since then, the pound's value has remained stable at roughly EGP 18 to the US dollar. Following the implementation of the new floating exchange rate regime, inflation increased virtually immediately. By the end of 2016, the twelve-month inflation rate had reached 23%. In a system with a variable exchange rate. (Miller, 2017)

According to CBE in 2018 The inflation rate has fallen to 13.6 percent from 33.2 percent in August of 2017. The real estate sector, on the other hand, has seen a drop in prices. According to Capital Economics, property inflation fell to 11.6 percent in August 2018 from 22% in July. Transportation inflation has also fallen to 38.1 percent from 40.5 percent. Furthermore, Fashion and clothes price inflation fell from 15.6 percent to 14.6 percent. In 2018, the health care and education sectors had a stable rate of inflation. Throughout July and August, price inflation in both industries was consistent at 3.9 and 19.6 percent, respectively. In 2019, the inflation rate has been slowly dropping. In June, the inflation rate fell from 13.2 percent to 9.15 percent.

Figure 9: Inflation rate in Egypt, (2010-2019)



Source: (macrotrends, 2019)

4.6 FDI in Egypt

Egypt started an Economic Reform and Structural Adjustment Program (ERSAP) in the early 1990s in an attempt to attain macroeconomic stability. The new reform program acknowledged foreign direct investment as a significant source of overall domestic capital formation. The country's investment strategy is aimed primarily at improving the environment for investment and attracting greater FDI. (UNCTAD, 1999).

The Egyptian administration implemented more changes in 2004 to strengthen macroeconomic stability and the investment climate, with a particular emphasis on attracting FDI (ESCWA, 2008). The changes included the creation of a new Ministry of Investment and the reorganization of the General Authority for Investment and Free Zones (GAFI).

The CBE's database on foreign direct investment in Egypt focuses on greenfield investment and expansion, which accounted for roughly half of all FDI to Egypt between 2005/2006 and 2009/2010. International direct investment (FDI) in the petroleum sector is controlled through concession agreements between foreign investors and the Egyptian General Petroleum Corporation (EGPC).

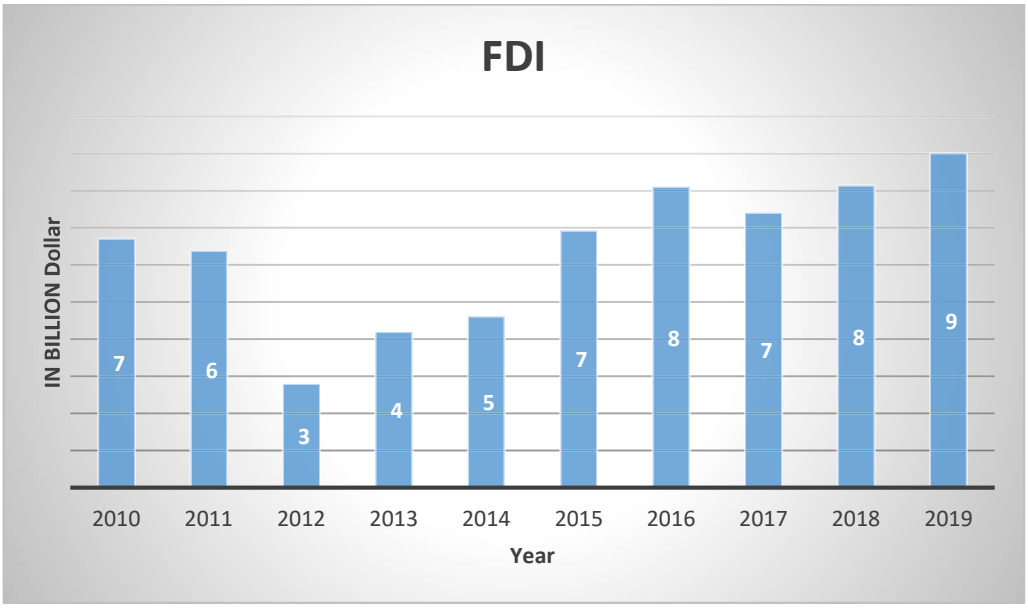
4.6.1 FDI Trends in Egypt

Figure 10 below shows the FDI inflows in Egypt from 2010 to 2019

Egypt remained Africa's top FDI receiver in 2019 (Figure 11), with inflows growing by 11% to $9 billion with 2.7 percent of GDP. The government's economic measures have enhanced macroeconomic stability and increased the confidence of investors in the country. Although the oil and gas industry continue to drive FDI, investments have been made in non-oil sectors such as telecommunications, consumer products, and real estate. While in 2017, the FDI inflows fell to USD 7.4 billion, after increasing by 17% in 2016 to USD 8.1 billion, continuing an upward path that began in 2011.

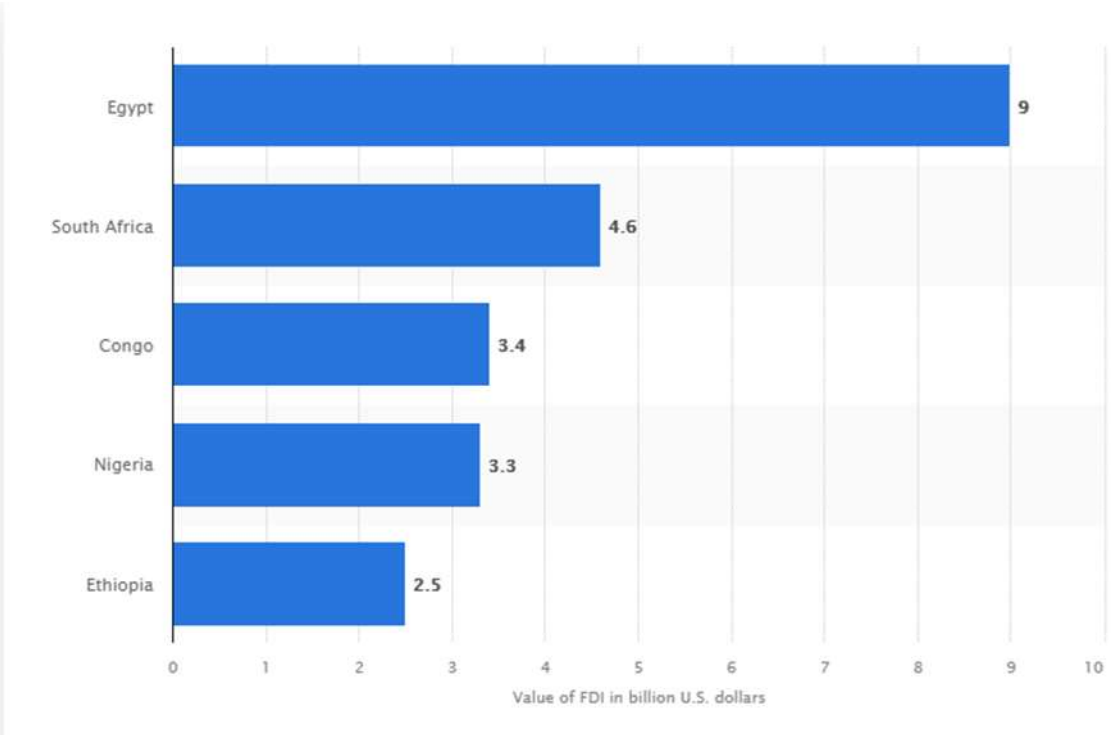
The average value of the FDI during 2010 and 2019 was 6.4 billion USD with a minimum of 2.8 billion dollars in 2012 and a maximum with 9.01 billion dollars in 2019 (Figure 10).

Figure 10: FDI Inflow in Egypt, (2010-2019)



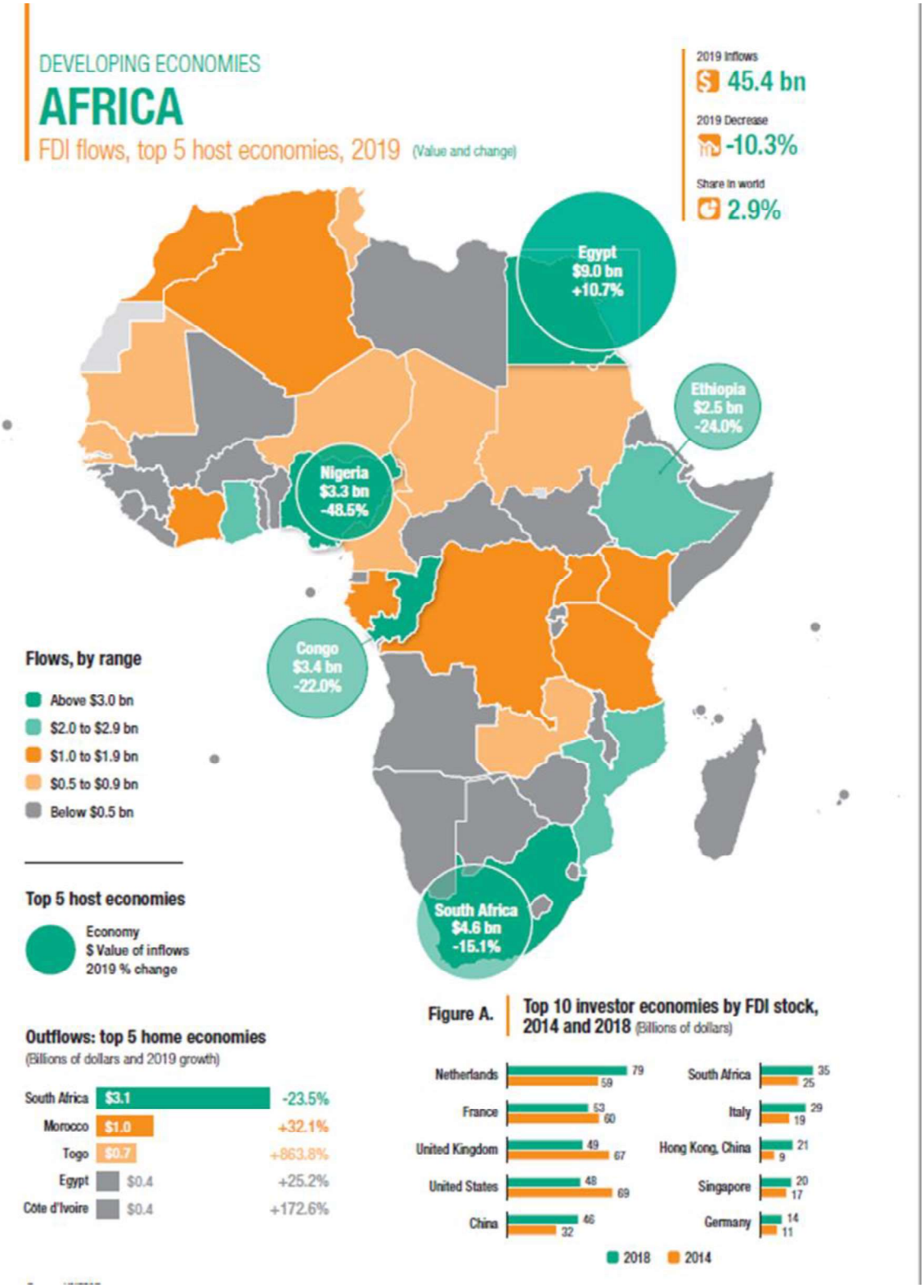
Source: Calculated according to CBE AND WORLDBANK DATA

Figure 11: Value of foreign direct investment (FDI) inflows in Africa as of 2019, by country of destination



Source: (Statista,2019)

Image 2: Africa FDI flows, top 5 host economies, 2019



Source: UNCTAD.

4.6.2 Greenfields and (M&As) Projects in Egypt

The Egyptian government's economic reforms helped restore macroeconomic stability, promoted sustainable growth and increased employment opportunities. Government policies that prioritized infrastructure development, as well as encouraging investment in education and health, have resulted in remarkable growth in the affected sectors. and the digitization of many governments and financial services helped create a more welcoming business and investment environment, leading to an increase in FDI in Egypt.

BMD4 identifies four types of FDI: M&As, all new investments, capital expansions, and financial restructuring; green investments were defined as starting up businesses; The capital increases involved new additional investments in existing holdings. they have a similar impact on the Egyptian economy. The GAFI has the option of using the paid-in capital of newly established direct investment companies, identifying completely new investments, as well as capital increases in existing affiliated companies.

To better understand the impact of entirely new FDI, it is also useful to publish additional economic variables on these new facilities, if available. While these are not all FDI statistics, information about the jobs created or the capital expenditures of such investments can be very useful. According to CBE Table 2 shows that the biggest sector has FDI inflows and projects established in Egypt is the Oil followed by manufacturing, agriculture, and construction.

Table 2: FDI flows in Egypt by economic activity, as a share of total inflows

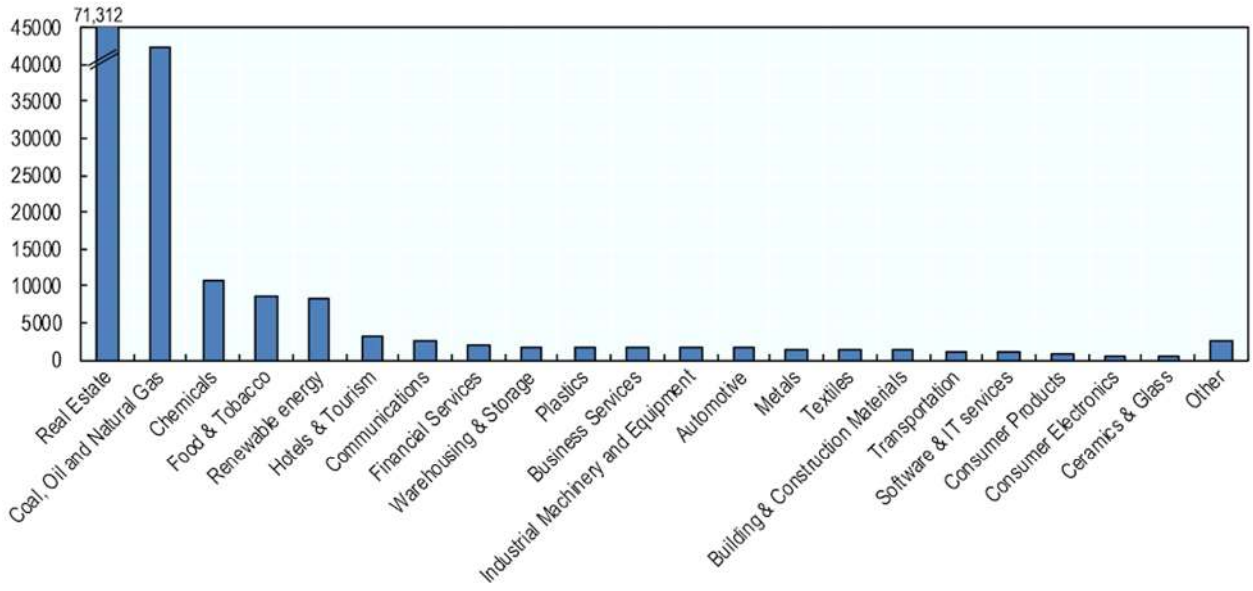
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19*
Oil	71.7	58.4	53.5	61.3	67.3	70.6
Manufacturing	2.0	2.3	3.4	5.8	10	7.1
Agriculture	0.2	0.0	0.0	0.2	0.1	0.6
Construction	2.2	6.0	1.5	0.9	4.5	2.3
Services	4	10.0	10.4	9.4	11.2	15.7
Real estate	1.4	6.2	3.6	3.1	2.7	8.8
Finance	1	2.0	3.8	1.6	1.9	1.9
Tourism	0.1	0.0	0.3	0.4	0.3	0.5
Communications	0.0	0.0	0.5	0.3	3.4	1.1
Other services	1.5	1.8	2.2	4.0	2.9	3.4
Unallocated	19.9	23.3	31.2	22.4	6.9	3.7

Source: Central Bank of Egypt

The GAFI estimates of FDI stocks show a more diversified branch distribution than the flow statistics of recent years the lowest in terms of numbers of FDI projects and countries of origin. The other main FDI activities were finance and manufacturing. And in addition to construction, information and communication technologies, tourism and agriculture, these estimates were based on a compilation system designed by the FATF to bring Egypt into line with the definition of the Sixth Edition of the IMF Balance of Payments Manual (BPM6).

International data on announced completely new FDI projects provide additional information on cross-border investments by economic activity in Egypt. Real estate and mineral resources alone accounted for 70% of the total newly announced FDI capital between 2010 and 2019 (Figure 12). The energy sector was the other most attractive sector for FDI (16% of all new FDI). Manufacturing activities such as automobiles and textiles attracted far less cross-border investment, although FDI projects in the textile sector were among the most numerous. This confirms previous evidence that foreign investment in textiles and clothing has been limited to the labour-intensive segments of the supply chain (Nugent and AbdelLatif, 2010). In addition to real estate and tourism, FDI in services was divided into financial and business services (the largest in terms of the number of projects), communications and logistics.

Figure 12: Greenfield FDI by economic activity, (2010-2019)
Cumulative greenfield FDI capital between January 2010 and September 2019 in USD mil



Source: OECD based on FDI Markets Database.

4.6.3 Foreign investment's impact to Egypt's long-term growth

Beyond its direct contribution to the invested capital, FDI can help the host economy. Under the appropriate conditions, FDI in Egypt may enhance productivity, exports, and involvement in global value chains (GVCs), as well as improve the living standards of various sectors of the population. It has the potential to contribute to employment generation, human capital development, technical advancement, creativity skills, effective resource reallocation, and environmental greening. It can also help domestic businesses get access to foreign markets and participate in global value chains. As a result, FDI in Egypt may play a significant role in advancing the Sustainable Development Goals (SDGs).

The advantages of FDI on sustainable development are not obvious. Private sector reforms and targeted policies in Egypt might enable FDI to enhance sustainable development. The sub-sections that follow employ innovative metrics established by the OECD to illustrate how foreign investment relates to aspects of sustainable development in host economies, including Egypt (Box 1.1). The metrics tracked FDI results in GVCs in terms of productivity and innovation, inclusivity (i.e., employment and work quality, capabilities, and gender), and supply chain connections.

Box 1.1. The OECD FDI Qualities Indicators

FDI Qualities Indicators describe how FDI relates to sustainable development in host countries. They are structured around economic, social and environmental sustainability. An assessment of all 17 SDGs, and their corresponding targets, was undertaken to identify the spectrum of FDI Qualities – that is, areas where FDI contributes to achieving the SDGs. This assessment considers the extent to which FDI potential for advancing the SDGs is reflected in the OECD Policy Framework of Investment including related guidelines such as the OECD Guidelines on Multinational Enterprises and the OECD Policy Guidance for Investment in Clean Energy Infrastructure.

The FDI Qualities Indicators focus on five clusters: productivity and innovation, employment and job quality, skills, gender equality, and carbon footprint. For each of the five clusters, a number of different outcomes are identified and used to produce indicators that relate them to FDI or activity of foreign multinationals, allowing for comparisons both within and across clusters so as to identify potential sustainability trade-offs.

Taking into account the country-specific context, policymakers can use FDI Qualities Indicators to assess how FDI supports national policy objectives, where challenges lie, and in what areas policy action is needed. Indicators also allow cross-country comparisons and benchmarking against regional peers or income groups, which, taking into account the country context, can help to identify good practices and make evidence-based policy decisions.

An important value added of the FDI Qualities Indicators is that they reveal cross-country differences in how FDI relates to sustainable development. Existing studies touch upon some of the outcomes covered in this report, but generally only examine one dimension of sustainability, offering only a partial view of FDI's contribution to sustainable development, without revealing important cross-country and cross-cluster differences.

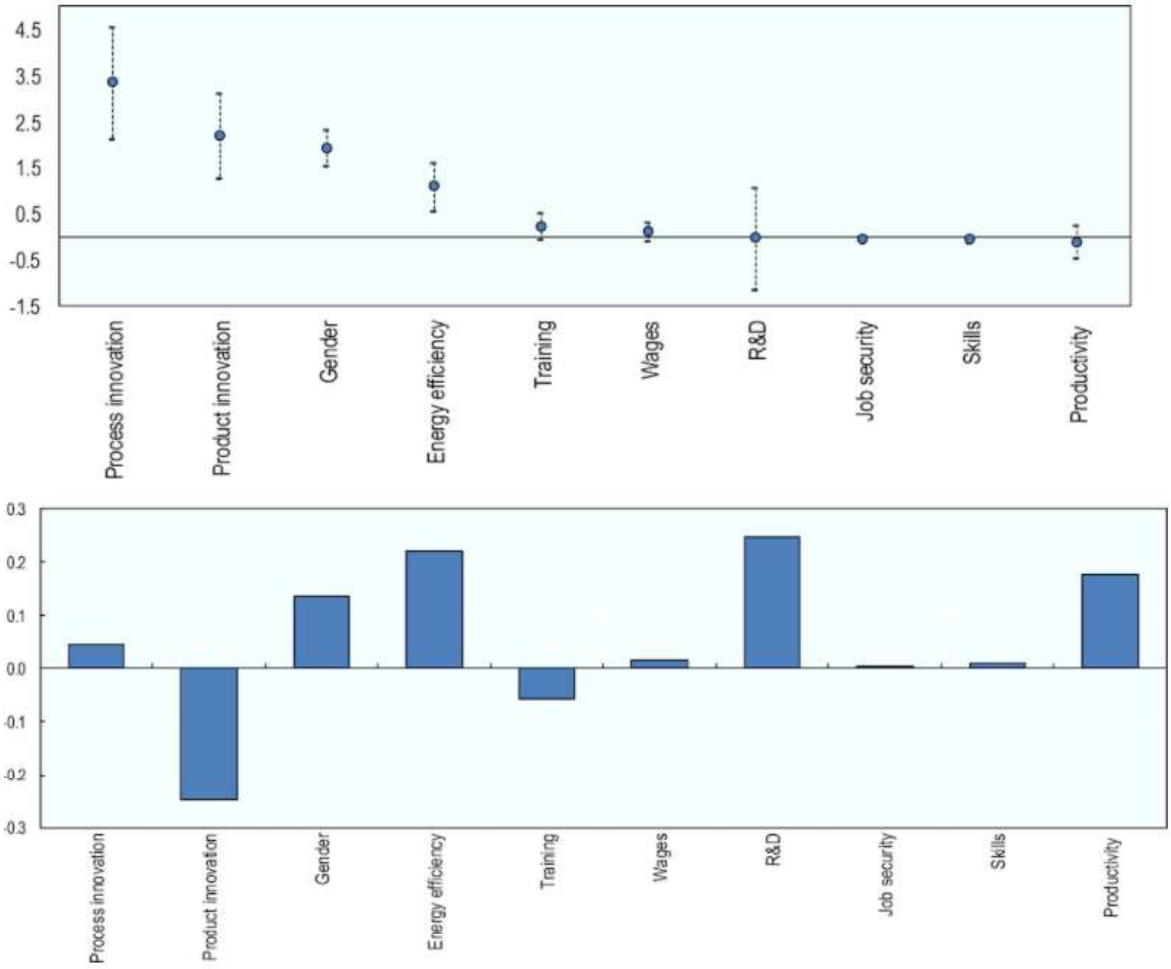
The impact of FDI on sustainable development can be direct and indirect, i.e. through spillover effects. Direct impacts relate to the activities of foreign multinationals and how they affect socio-economic and environmental outcomes. Indirect impacts refer to how foreign firms influence sustainable development through their interaction with domestic firms. FDI Qualities Indicators cannot fully disentangle both effects, but provide some direction as to what mechanisms are at play for a given sustainability outcome.

Source: OECD (2019a)

Source: (OECD, 2019)

European companies dominate domestic firms in some, but not all, development sectors in Egypt (Figure 13). Indicators demonstrate that international enterprises outperform domestic firms in terms of process innovation and product development, gender equality, and energy efficiency. On the contrary, the data suggest that foreign firms in Egypt do not have greater labour productivity or salaries than their local counterparts, as is frequently the case in other nations (OECD, 2019).

Figure 13: FDI relationship to sustainable development outcomes in Egypt



Source: OECD based on the OECD FDI Qualities Indicators.

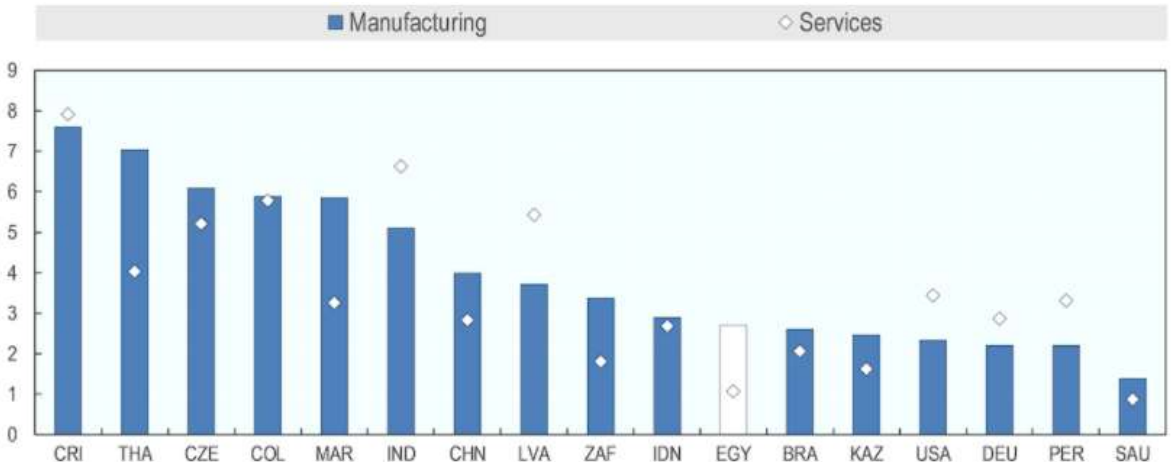
When considerable benefits, market protection, and rents are granted to local companies, generally state-owned firms, affiliates of foreign corporations may be less productive than domestically owned firms (OECD, 2019). foreign businesses formed in Egypt may find it is difficult to enter a market dominated by protected state-owned enterprises, or their entry may be limited owing to regulatory and non-regulatory constraints. It is crucial to emphasize that foreign businesses have a productivity premium in sectors of the Egyptian economy where distortions are less severe.

In Egypt, FDI tends to be focused on industries with higher levels of sustainability. If foreign businesses actively or passively affect sectoral development outcomes, FDI can result in a change in the sectoral mix of economic activity and can affect development favourably or negatively.

The findings suggest that, while MNE affiliates in Egypt are marginally less productive than domestic companies, they are focused on more productive sectors of the economy. Foreign investment, on the other hand, tends to concentrate on economic operations with minimal product and process innovation.

A detailed examination of FDI and job creation reveals that, in comparison to other nations, the number of jobs generated per dollar invested remains low, particularly for service investors (Figure 14). The bulk of occupations continue to be strongly skewed toward low-skilled and labour-intensive activities. However, industries requiring higher technical skills, such as chemicals and electronic components, are attracting more FDI and accounting for a greater percentage of employment growth.

Figure 14: Greenfield FDI and job creation in Egypt and other selected countries
Estimated number of jobs created per one million USD of (announced) greenfield FDI

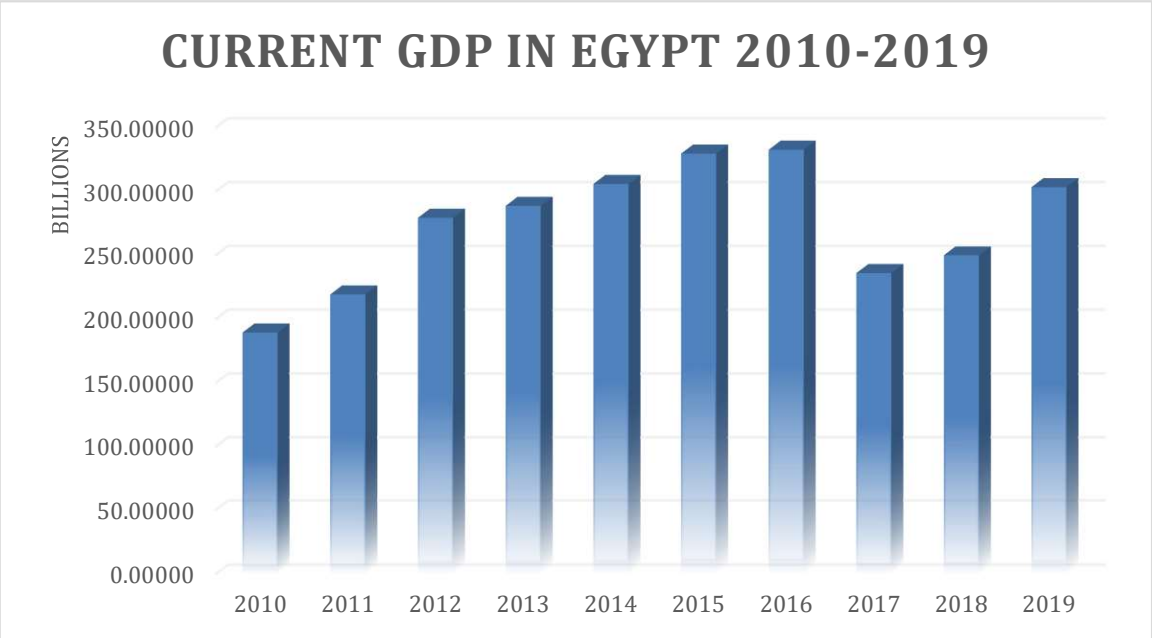


Source: OECD based on the OECD FDI Qualities Indicators and FDI Markets Database.

4.7 GDP in Egypt

GDP growth has quickened, and the growth drivers have lately begun to move toward investment and net exports. Since 2012, natural gas and tourism have been the two major drivers of growth. According to (figure 15) in 2010, the current GDP of Egypt was around $189 Billion dollars and improved until 2016 reached the highest GDP by $332 Billion dollars and declined in 2017 by 17% with a growth rate 4.18%. in 2018 GDP growth was 5.31% with 13% from 2017. 5.56% in 2019 with a 24% increase from 2018. (macrotrends, 2020)

Figure 15: Current GDP in Egypt, (2010-2019)



Source: (Worldbank Data, 2020)

Natural resources and real estate are two of the most important industries contributing to economic growth, despite their low labour intensity and, as a result, restricted job-creation potential. Between 2011 and 2019, oil and gas were the greatest contributor to GDP (almost 13%), followed by wholesale, retail, manufacturing, and agriculture. However, manufacturing was the dominating industry in 2018. The oil industry receives over half of all FDI inflows, while natural resources and agriculture contribute to more than half of Egypt's net exports.

While Egypt's industry has expanded in recent decades to include more manufacturing and services, the nation remains specialized in low-value-added industries within global value chains. Subsidies for energy have also promoted investment in energy-intensive sectors

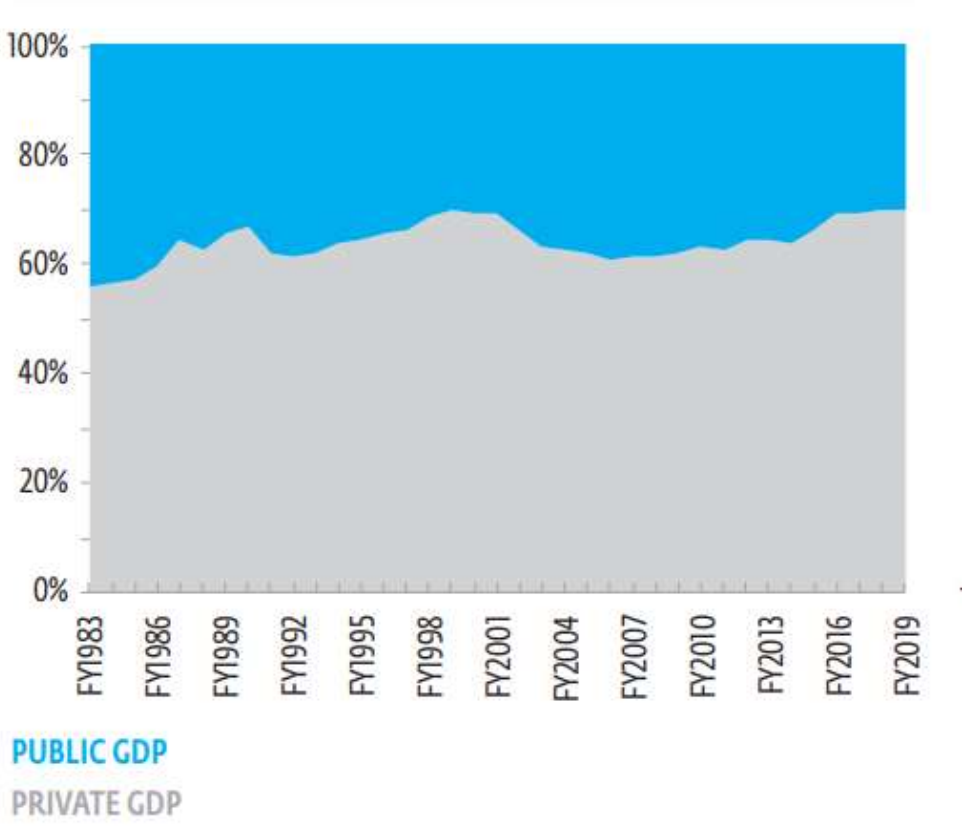
rather than labour-intensive industries (Youssef et al., 2019). Egypt's reform program, which began in 2016, steadily phased off energy subsidies in order to minimize inefficiencies and provide appropriate pricing signals. This should help them attract investments in industries where they have a competitive edge.

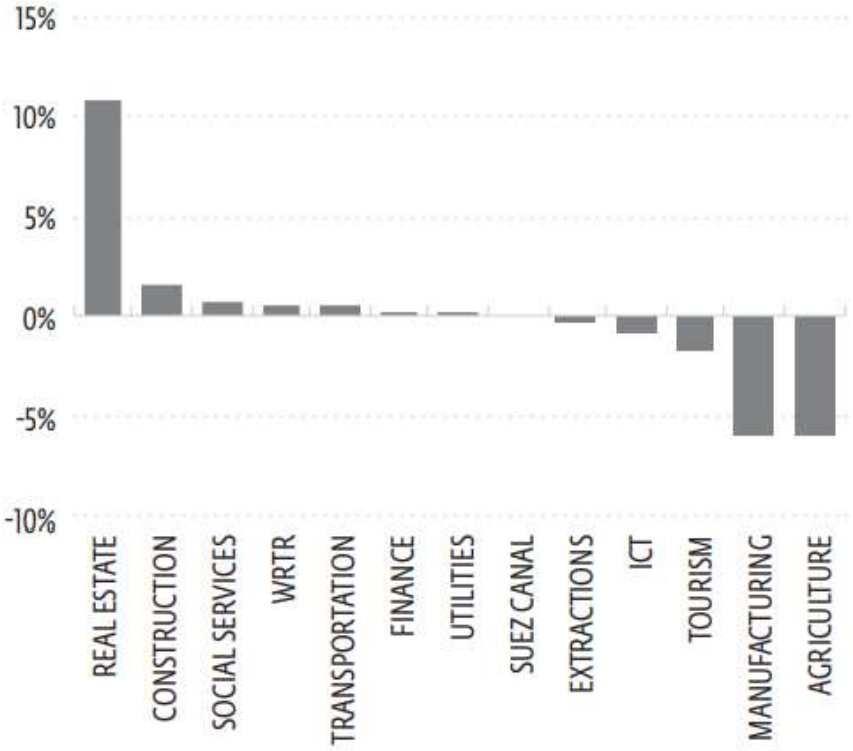
4.7.1 The Private Sector influence in the Economy

In recent years, the private sector's influence in the economy has progressively regained with considerable transformations in sectoral structure. The private sector's contribution of GDP has averaged 64.8 percent during the last two decades. In recent years, there has been a surge, reaching about 70% in FY2019 (figure 16).

This rise is linked to a shift in the sectoral composition of private sector production during the last decade, with agricultural and manufacturing industries dropping in favor of real estate and construction (figure 16). The public sector, on the other hand, accounts for nearly one-third of GDP and continues to be a significant player in local markets, with a significant presence in oil and gas production, petroleum refineries, electricity, and water, along with financial system and insurance.

Figure 16: private sector share in total GDP

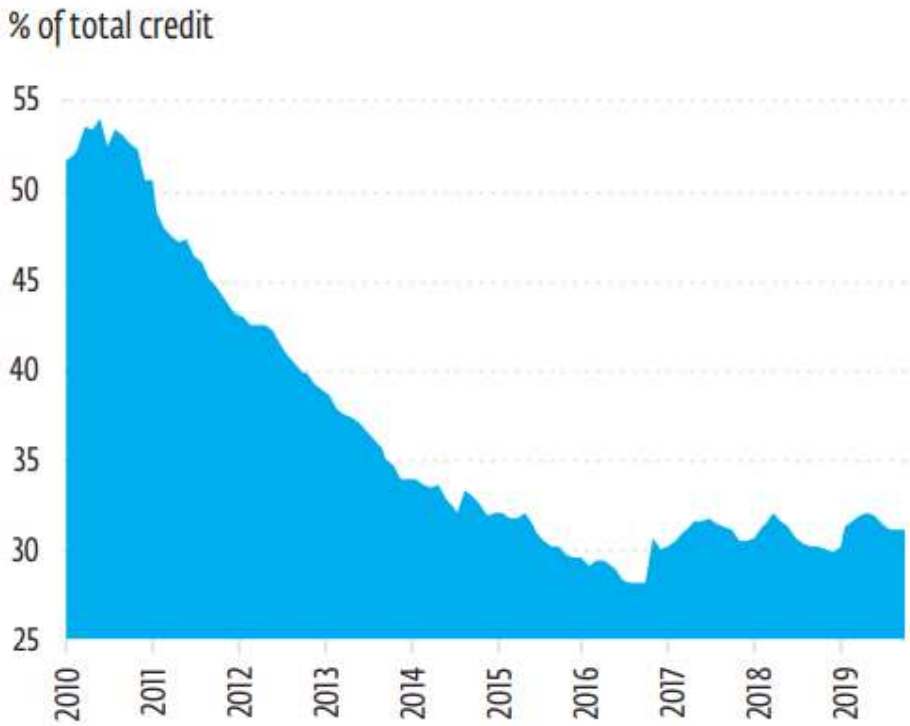




Source: Min. of Planning and Economic Development

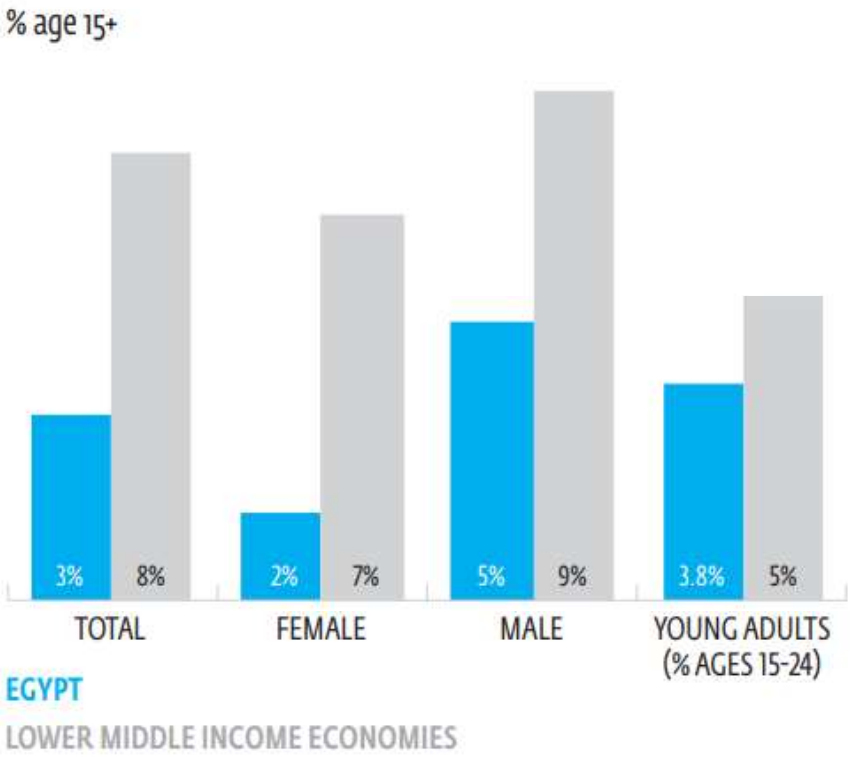
Growing government funding demands have increased borrowing costs and hampered private enterprises' access to capital. Since 2010, the percentage of credit granted to the private sector has steadily declined, reaching 30 percent at the end of fiscal year 2019. The percentage of credit granted to industries and services has been particularly unpredictable in the private sector. Indicators of financial participation also suggest a low level of dependency on financial institutions to conduct business, particularly when compared to lower-middle-income nation counterparts. (Figure 17) For example, Egypt's competitors had a far lower percentage of persons who financed to start, operate, or grow a farm or company (Figure 18).

Figure 17: Credit to private sector



Source: Central Bank of Egypt

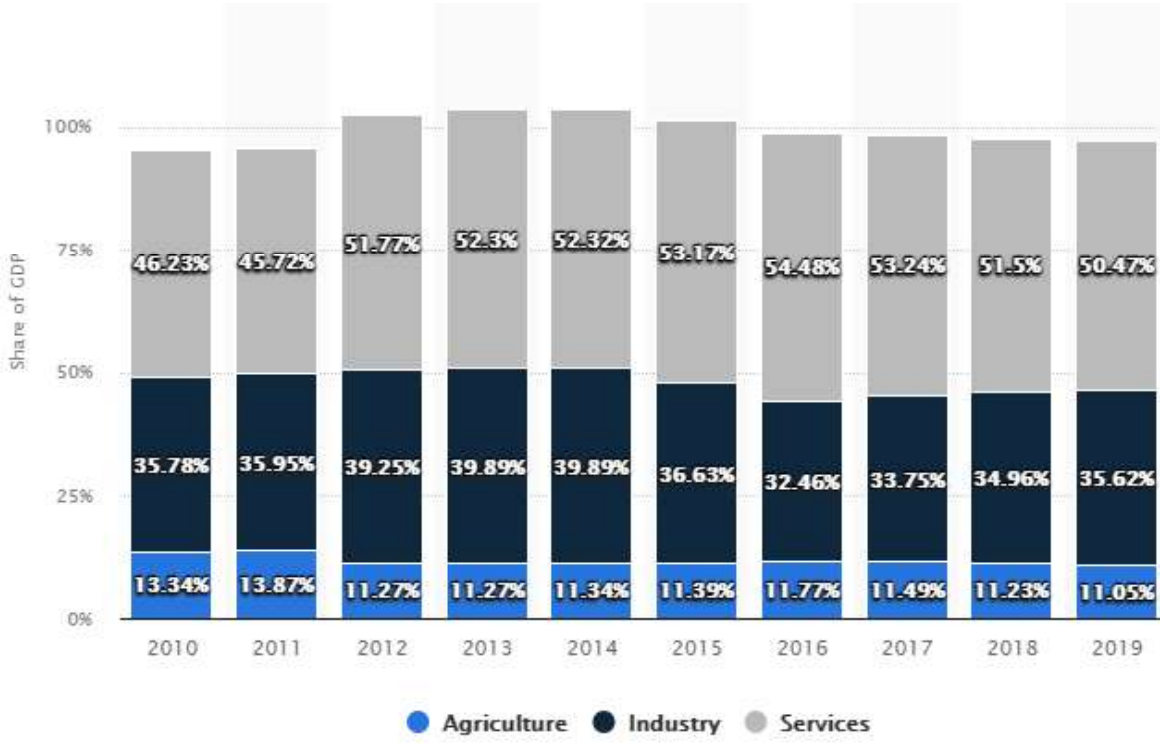
Figure 18: borrowed to start, operate, or expand a farm or business



Source: World Bank, Global Findex 2017

(Figure 19) below showing the GDP distribution across the different economic sectors. Farming, fishing, and forestry are all examples of agriculture. Mining, manufacturing, energy generation, and building are all examples of industries. Government operations, communications, transportation, banking, and any other private economic activity that do not generate tangible commodities are examples of services.

Figure 19: Egypt: Distribution of GDP across economic sectors, (2010-2019)



Source: (statista,2020)

4.7.2 FDI effect on GDP growth

4.7.2.1 Data

Data were collected from the world bank data for the period 2010-2019. The variables are GDP growth (annual %), logarithm Foreign direct investment, net inflows (current US$) and the unemployment, total (% of total labour force).

Table 3: Data set

Unemployment rate	FDI	LN FDI	GDP Growth
9.09	6,711,600,000	22.62710321	4.67
8.76	6,385,600,000	22.57731129	5.15
12.6	2,797,700,000	21.75206349	2.23
13.15	4,192,200,000	22.15649149	2.19
13.1	4,612,200,000	22.2519708	2.92
13.05	6,925,200,000	22.65843277	4.37
12.4	8,106,800,000	22.81596905	4.35
11.74	7,408,700,000	22.72592082	4.18
9.82	8,141,300,000	22.82021571	5.31
9.73	9,010,100,000	22.92161201	5.56

4.7.2.2 Econometric Procedure

For the analysis of the data collected and presented into (Table 3), an OLS regression will be carried out.

Regression analysis

From the OLS regression of Unemployment rate, LN_FDI on GDP Growth the following result was obtained:

Table 4: OLS Regression table

```
Model 5: OLS, using observations 2010-2019 (T = 10)
Dependent variable: GDPGrowth

             coefficient   std. error   t-ratio   p-value
  ---------------------------------------------------------
  const      -44.2912      8.47976      -5.223    0.0012   ***
  LNFDI        2.29687     0.356551      6.442    0.0004   ***
  UNMRate     -0.296789    0.0730323    -4.064    0.0048   ***

Mean dependent var    4.092010   S.D. dependent var    1.235766
Sum squared resid     0.804702   S.E. of regression    0.339054
R-squared             0.941451   Adjusted R-squared    0.924723
F(2, 7)               56.27892   P-value(F)            0.000049
Log-likelihood       -1.590046   Akaike criterion      9.180091
Schwarz criterion     10.08785   Hannan-Quinn          8.184286
rho                  -0.239759   Durbin-Watson         2.346536
```

The formulation of the model in stochastic form is as follows:

LN_GDPt = β0 + β1 LN_FDIt + β3Unemployment rate t + et

Based on the results of the OLS regression, a set of tests for the verification of the Linear Regression Model were performed.

1. **Multicollinearity test**

The following table shows the Correlation Coefficients, using the observations 2010 - 2019
5% critical value (two-tailed) = 0.6319 for n = 10

Table 5: Correlation matrix

	GDP Growth	LN_FDI	Unemployment rate
GDP Growth	1		
LN_FDI	0.896281683	1	
Unemployment rate	-0.77094424	-0.50137625	1

This correlation matrix shows that the independent variables are not highly correlated with one another; with correlation coefficient between LN FDI and Unemployment rate equal to -0.50137625, Thus, it can be concluded that there is no multicollinearity in the chosen model.

2. Autocorrelation test

Hypothesis:

H0: $\partial = 0$ → autocorrelation absence

H1: $\partial \neq 0$ → autocorrelation presence

With significant level α = 0.05

Table 6: Autocorrelation test result

```
Breusch-Godfrey test for first-order autocorrelation
OLS, using observations 2010-2019 (T = 10)
Dependent variable: uhat

             coefficient   std. error   t-ratio    p-value
  ---------------------------------------------------------
  const      -0.865699     8.97197     -0.09649   0.9263
  LNFDI       0.0306291    0.375968     0.08147   0.9377
  UNMRate     0.0152730    0.0800838    0.1907    0.8550
  uhat_1     -0.264167     0.416918    -0.6336    0.5497

  Unadjusted R-squared = 0.062716

Test statistic: LMF = 0.401474,
with p-value = P(F(1,6) > 0.401474) = 0.55
```

From the above result of the Breusch-Godfrey test for the first-order autocorrelation, it is observed that p-value = 0.55 > 0.05, and the null hypothesis of autocorrelation absence is not rejected. There is no autocorrelation presence in the model.

3. Heteroskedasticity test

Hypothesis:

H0: Homoscedasticity

H1: Heteroscedasticity

With significant level α = 0.05

Table 7: Heteroscedasticity test result

```
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2010-2019 (T = 10)
Dependent variable: scaled uhat^2

             coefficient   std. error   t-ratio   p-value
  ---------------------------------------------------------
  const        8.15013     30.1426       0.2704   0.7947
  LNFDI       -0.445987     1.26742     -0.3519   0.7353
  UNMRate      0.255490     0.259604     0.9842   0.3578

  Explained sum of squares = 2.79334

Test statistic: LM = 1.396671,
with p-value = P(Chi-square(2) > 1.396671) = 0.497413
```

This result shows value = 0.497413 > 0.05, thus the null hypothesis is not rejected, and it can be concluded that there is no heteroscedasticity in the Model.

4. Normality test

Hypothesis:

H0: normality presence of random variable

H1: normality absence of random variable

With significant level α = 0.05

Table 8: Normality test result

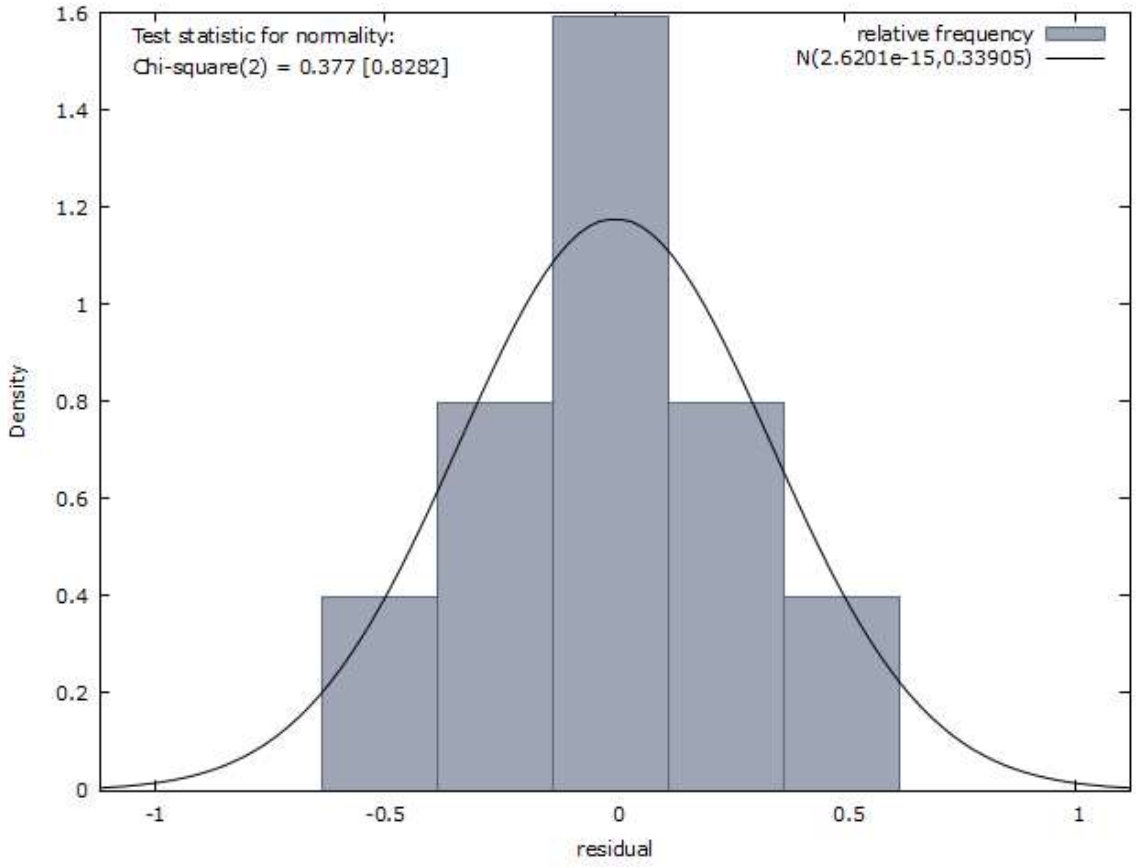
```
Frequency distribution for residual, obs 1-10
number of bins = 5, mean = 2.62013e-015, sd = 0.339054

       interval          midpt   frequency    rel.     cum.

          < -0.38552  -0.51102         1     10.00%   10.00% ***
  -0.38552 - -0.13452  -0.26002         2     20.00%   30.00% *******
  -0.13452 -  0.11647  -0.0090242       4     40.00%   70.00% ***************
   0.11647 -  0.36747   0.24197         2     20.00%   90.00% *******
         >=   0.36747   0.49297         1     10.00%  100.00% ***

Test for null hypothesis of normal distribution:
Chi-square(2) = 0.377 with p-value 0.82825
```

Here the p-value = 0.82825 > 0.05, thus the null Hypothesis of normality presence of random variable is not rejected.



5. Test of significance

From the OLS results, it can be seen that all P-values of the independent variables are lower than the significant level $\alpha = 0.05$. It is concluded that the estimated coefficients are all significant.

6. Test of significance

It can be concluded that the estimated coefficients are all significant. Also, it is observed that: R-squared = 0.941451, which indicates that 94% of the variation in GDP Growth is explained by LN_FDI, and Unemployment rate. Generally, a higher R-squared indicates a better fit for the model.

Statistical result and interpretation of the first model

From the statistical verification of this regression, we can conclude there is no multicollinearity, no heteroskedasticity, no autocorrelation, normality of random variables, and the significance of all estimated coefficients. From the result of those tests and observations, it can be concluded that the OLS coefficient estimate is BLUE (Best Linear

Unbiased Estimate. The ordinary least squares (OLS) regression in this study has produced unbiased estimates that have the smallest variance of all possible linear estimators. The OLS regression led to the obtention of the following equation: GDP Growth = - 44.2912 + 2.29687 *LN_FDI - 0.296789 Unemployment rate + et. It can be concluded that an increase by 1 in a year-to-year value of LN_FDI leads on average to a 2.29% increase in a year-to-year value of GDP Growth. A 1 % increase in a year-to-year value of unemployment leads on average to a 0.29% decrease in a year-to-year value of GDP Growth.

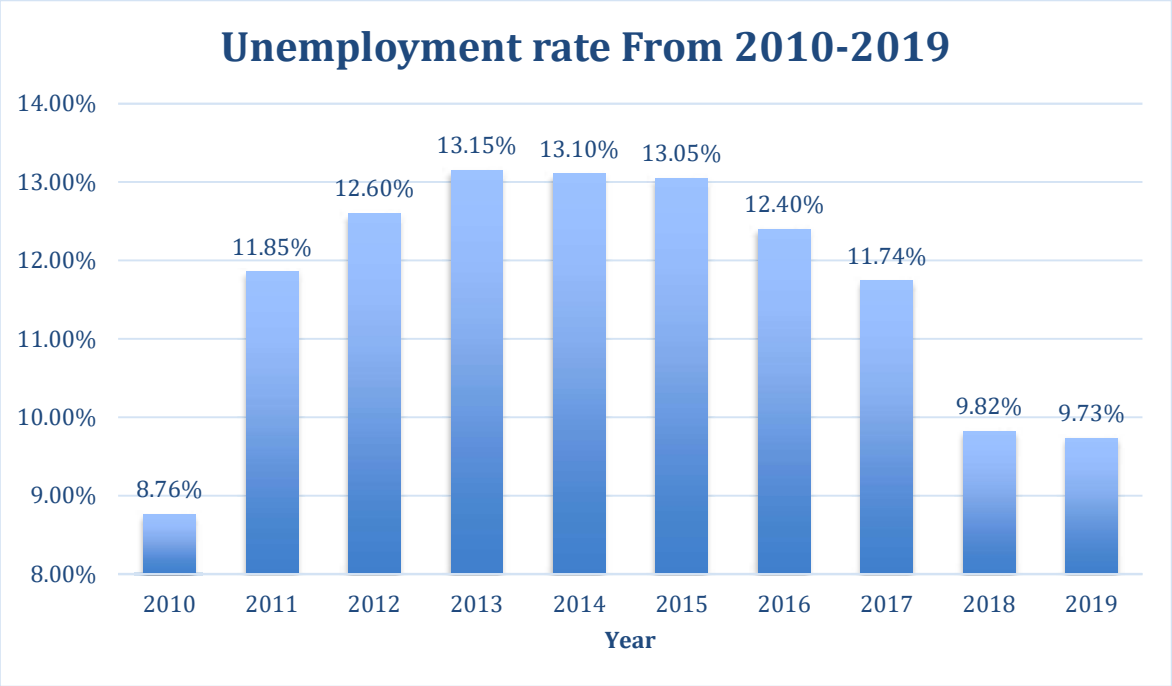
4.8 Unemployment in Egypt

Egypt has had a remarkable demographic expansion during the mid-twentieth century, with its population increasing from 20.9 million in 1950 to 100 million in 2019. The Egyptian population is expected to hit 200 million by 2100 in a no-migration scenario. Since the beginning of the government new strategies were adopted to improve the economic situation in Egypt one of the targets was to achieve a quicker rate of job creation in order to reduce the unemployment rate to less than 10% and, especially, to address the high percentage of young unemployment.

According to CAPMAS Q1 (July/September 2017/2018), the workforce rose by 652 thousand people, or 2.3 percent, compared to the same quarter in FY 2016/2017, reaching 29.5 million people. Similarly, the number of employed people increased by 779 thousand, or 3.1 percent, to 26.0 million. This was linked to seasonal impacts that occur in the same part of the year. Agriculture and fishing continued to serve the vast majority of people (21.4 percent), followed by retail and wholesale commerce (13.5 percent), construction and building (13.3 percent), industries (12.5 percent), and transportation and storage (8.0 percent). Against this backdrop, the number of jobless people declined by 127,500 to 3.5 million. Thus, unemployment fell to 11.9 percent of the entire workforce (from 12.6 percent in the previous quarter), its lowest level in the last five years. It is worth noting that the proportion of unemployed men fell to 8.2 percent in the first quarter of 2017/2018, down from 8.7 percent in the previous quarter. Similarly, female unemployment declined to 24.4 percent from 25.9 percent at the same time last year. According to data, (Campas, 2019)

in 2019 and According to CAPMAS, over 2.2 million Egyptians are now jobless, with virtually equal numbers of males and females. 77.8 percent of the jobless are between the ages of 15 and 29.
In recent years, the government has invested billions of dollars in megaprojects such as new power plants, the New Suez Canal, transportation networks, and the New Administrative Capital, which have employed tens of thousands of Egyptians. (ahram, 2019)

Figure 20: Unemployment rate in Egypt, (2010-2019)



Source: (Worldbank Data,2020)

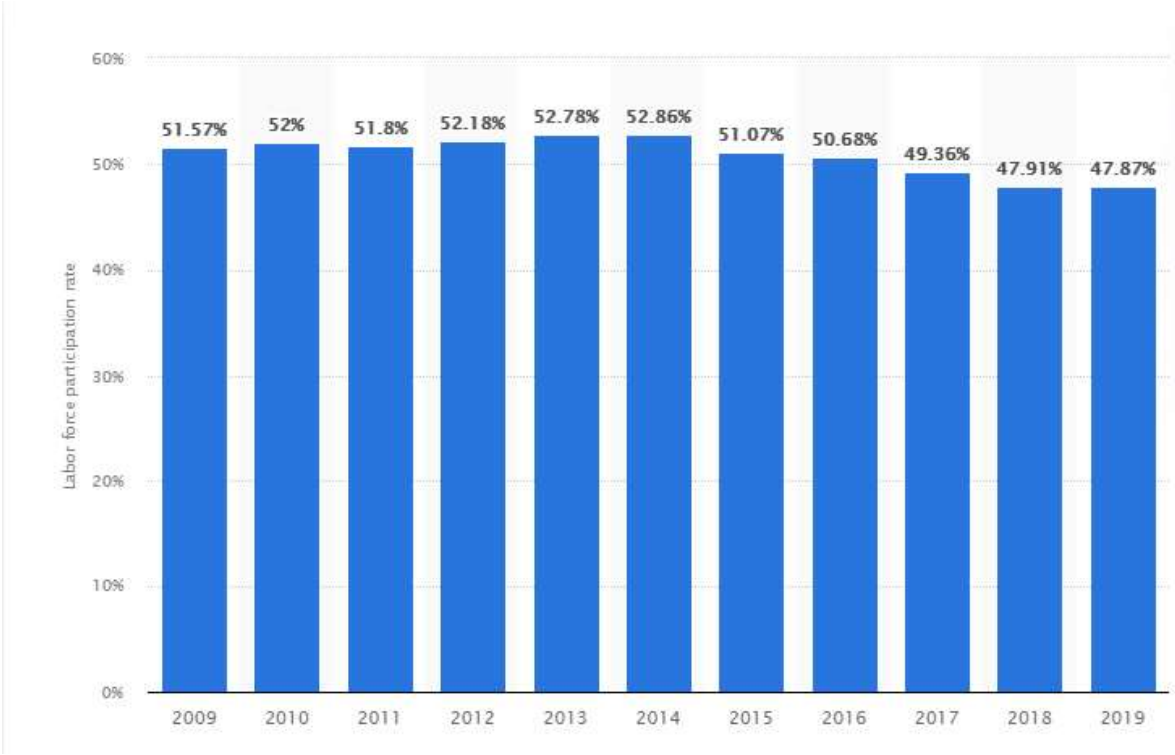
4.8.1 Overview of employment and labour market issues in Egypt

With a working-age population of more than 55 million, one of Egypt's most important social and economic challenges is job development. Labour demand has consistently failed to keep up with labour supply in recent decades, particularly during periods of stronger economic growth, such as the mid-2000s, showing that the employment content of expansion has been insufficient to absorb new labour market entrants. Persistent issues include a dearth of jobs for the vast cohorts of young people that join the labour market each year in pursuit of good and productive work, as well as especially dismal labour market results for women.

These pre-existing issues have been worsened and aggravated after the January 2011 Revolution by a worsening in other parts of the labour market. For example, the labour force participation rate fell from 50.2 percent in 2010 to 47.87 percent in 2019, (Figure 21) while the total unemployment rate increased from 9% to 13.05 percent from 2010 to 2015 (Figure 20). This is largely due to a more than doubling of the number of unemployed males following the Revolution, as protracted periods of turmoil and uncertainty hampered economic activity. Egyptians of all educational levels and financial levels are affected by unemployment. Young graduates have been particularly badly impacted in recent years,

since they tend to wait for positions that are more suited to their new abilities, resulting in extended durations of unemployment in the lack of substantial job growth. However, unemployment is simply one aspect of the labour-market turmoil that Egyptians – particularly young Egyptians and keep improving from 34.46% in 2012 reaching 26.54% in 2019. (Figure 22) Inactivity, underemployment, fragility, and informality all contribute to an even bleaker image. In 2019, women's labour force participation was only 18.6 percent, suggesting that moreover three-quarters of working-age women were out of the labour sector entirely of the women who were working, 46% were in precarious employment, either as self-employed or contributing family workers (see Figure 23), showing that job quality remains a key problem. Wage and salaried employees are frequently linked with higher earnings and working conditions, yet only 6 out of 10 Egyptian men (and 5 out of 10 Egyptian women) were employed on a wage. Women and young people entering the labour market have increasingly had no choice but to engage in relative labour.

Figure 21: Egypt: Labour force participation rate, (2009-2019)

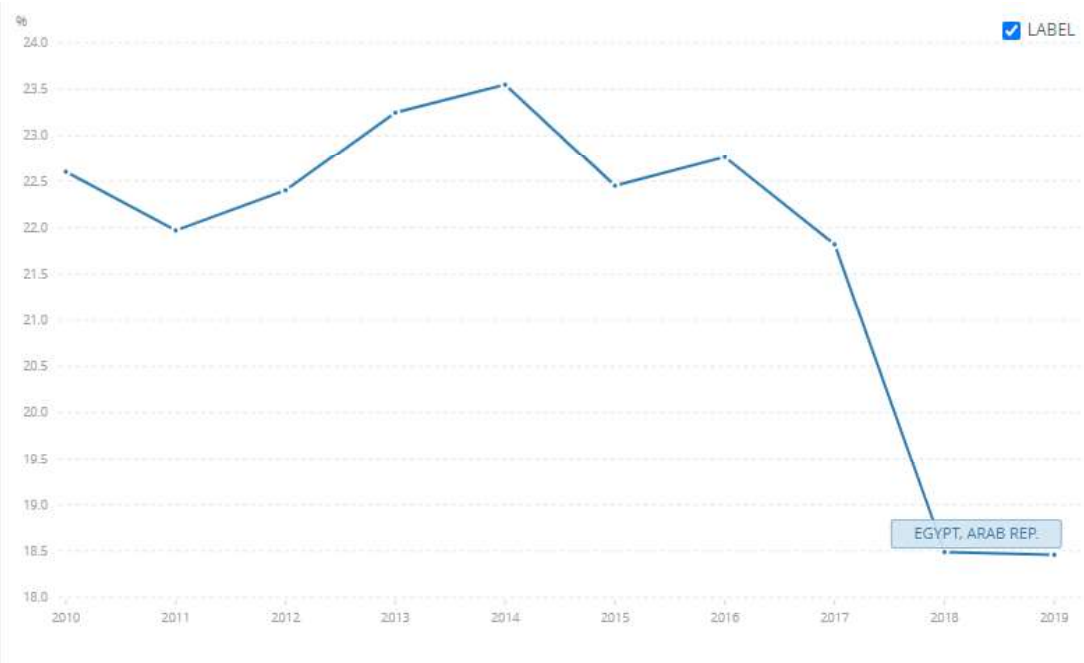


Source: (statista, statista, 2020)

Figure 22: Egypt: Youth unemployment rate, (1999-2019)

Source: (Statista, Egypt; World Bank)

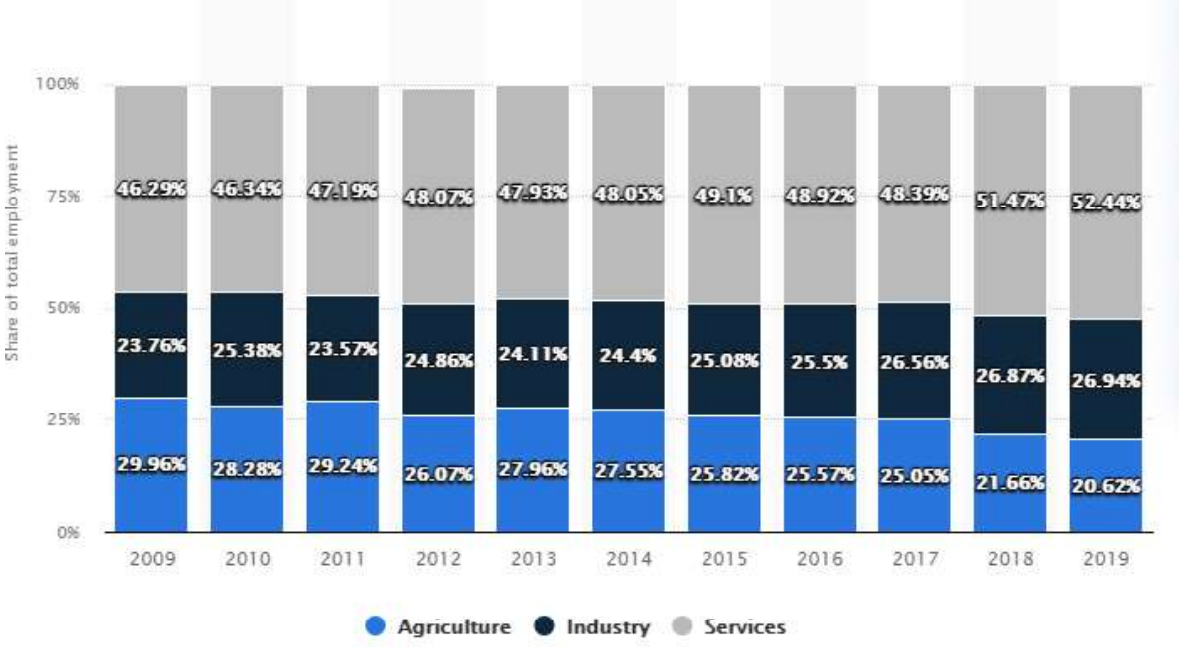
Figure 23: Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate)



Source: (Worldbank Data,2021)

The employment sector is significantly weighted toward services, which accounted for moreover 47% of all occupations in 2011. (See Figure 24). Agriculture employed about 30% of Egyptians, whereas industry, the sector normally associated with better productive occupations, employed less than a quarter. Furthermore, there is still a significant preference for public-sector work, with the government seen as both the employer of the first choice and the employer of the last choice. Privatization-promoting public-sector reforms have failed to change this impression, while severely restricted state resources have made highly sought-after government posts increasingly difficult to come by. (CAPMAS)

Figure 24: Egypt: Distribution of employment by economic sector, (2009-2019)



Source: (Statista, Egypt; World Bank)

In recent years, labour productivity, as measured by production per worker, has increased only little in Egypt and the MENA area as a whole. particularly when compared to some other regions, such as East Asia. Mismatches in education and skills between job searchers and available positions undoubtedly play a role, with private sector businesses frequently criticizing the inadequacy of formal education and training institutions to give new labour market entrants with the skills necessary in the workplace. Other elements, such as better working conditions, entrepreneurial orientation, infrastructure improvements, and a stronger enabling environment for sustainable firms, help to enhance productivity. And the

government working hard to achieve these conditions since 2011. And the good results of these policies start appearing since 2016 up to now.

In recent years, the government has invested billions of dollars in megaprojects such as new power plants, the New Suez Canal, transportation networks, and the New Administrative Capital, which have employed tens of thousands of Egyptians. (ahram, 2019)

4.8.2 FDI effect on the unemployment rate

4.8.2.1 Data

Data were collected from the world bank data for the period 2010-2019. The variables are logarithm Foreign direct investment, net inflows (current US$) and the unemployment, total (% of total labour force), logarithm labor force, total, logarithm Exports (constant 2015 US$)

Table 9: Data set

Unemployment rate	LN FDI	LN Labor Force	LN Exports
9.09	22.62710321	17.09587316	24.60751041
8.76	22.57731129	17.12648789	24.57721746
12.6	21.75206349	17.16834841	24.56635233
13.15	22.15649149	17.19688638	24.61051906
13.1	22.2519708	17.21579649	24.49465056
13.05	22.65843277	17.20129334	24.49425925
12.4	22.81596905	17.21315343	24.33139492
11.74	22.72592082	17.20425192	24.95220416
9.82	22.82021571	17.19225632	25.22645152
9.73	22.92161201	17.20924536	25.20404476

4.8.2.2 Econometric Procedure

For the analysis of the data collected and presented into (Table 09), an OLS regression will be carried out.

Regression analysis

From the OLS regression of Unemployment rate, LN_FDI on GDP Growth the following result was obtained:

Table 10: OLS Regression table

Model 4: OLS, using observations 2010-2019 (T = 10)
Dependent variable: UNMRate

	coefficient	std. error	t-ratio	p-value	
const	−458.273	100.325	−4.568	0.0038	***
LNFDI	−1.91452	0.717250	−2.669	0.0371	**
LNLaborForce	33.4226	5.91090	5.654	0.0013	***
LNExports	−2.49030	0.853658	−2.917	0.0267	**

Mean dependent var	11.34400	S.D. dependent var	1.788551
Sum squared resid	3.008248	S.E. of regression	0.708078
R-squared	0.895512	Adjusted R-squared	0.843267
F(3, 6)	17.14087	P-value(F)	0.002396
Log-likelihood	−8.183249	Akaike criterion	24.36650
Schwarz criterion	25.57684	Hannan-Quinn	23.03876
rho	−0.544006	Durbin-Watson	2.786847

The formulation of the model in stochastic form is as follows:

UNMt = β0 + β1LN_FDIt + β2 LN_Labor Forcet + β3 LN_Exportst + et

Based on the results of the OLS regression, a set of tests for the verification of the Linear Regression Model were performed.

1. **Multicollinearity test**

The following table shows the Correlation Coefficients, using the observations 2010 - 2019
5% critical value (two-tailed) = 0.6319 for n = 10

Table 11: Correlation matrix

	Unemployment rate	LN_FDI	LN_Labor force	LN_Exports
Unemployment rate	1			
LN_FDI	-0.50138	1		
LN_Labor force	0.647443	0.105423	1	
LN_Exports	-0.48525	0.437883	0.155989	1

This correlation matrix shows that the independent variables are not highly correlated with one another; with a correlation coefficient between LN FDI and LN_Labor force equal to 0.105423, the correlation coefficient between LN FDI and LN_Exports equal to 0.437883, and correlation coefficient between LN_Labor force and LN_Exports equal to 0.155989 Thus, it can be concluded that there is no multicollinearity in the chosen model.

2. Autocorrelation test

Hypothesis:

H0: $\partial = 0$ → autocorrelation absence

H1: $\partial \neq 0$ → autocorrelation presence

With significant level $\alpha = 0.05$

Table 12: Autocorrelation test result

```
Breusch-Godfrey test for first-order autocorrelation
OLS, using observations 2010-2019 (T = 10)
Dependent variable: uhat

                coefficient   std. error    t-ratio    p-value
  ------------------------------------------------------------
  const          -9.93421      83.4494     -0.1190     0.9099
  LNFDI           0.861859      0.745006    1.157      0.2996
  LNLaborForce    0.0468360     4.90727     0.009544   0.9928
  LNExports      -0.414612      0.740711   -0.5597     0.5998
  uhat_1         -0.861371      0.447478   -1.925      0.1122

  Unadjusted R-squared = 0.425645

Test statistic: LMF = 3.705421,
with p-value = P(F(1,5) > 3.70542) = 0.112
```

From the above result of the Breusch-Godfrey test for the first-order autocorrelation, it is observed that p-value = 0.11 > 0.05, and the null hypothesis of autocorrelation absence is not rejected. There is no autocorrelation presence in the model.

3. Heteroscedasticity test

Hypothesis:

H0: Homoscedasticity

H1: Heteroscedasticity

With significant level α = 0.05

Table 13: Heteroscedasticity test result

```
Breusch-Pagan test for heteroskedasticity
OLS, using observations 2010-2019 (T = 10)
Dependent variable: scaled uhat^2

                coefficient   std. error   t-ratio   p-value
  ---------------------------------------------------------
  const          147.804       133.581      1.106    0.3109
  LNFDI            1.21601       0.955001   1.273    0.2500
  LNLaborForce    -8.70445       7.87022   -1.106    0.3111
  LNExports       -0.997235      1.13663   -0.8774   0.4140

  Explained sum of squares = 2.68471

Test statistic: LM = 1.342354,
with p-value = P(Chi-square(3) > 1.342354) = 0.719101
```

This result shows that p-value = 0.719101 > 0.05, thus the null hypothesis is not rejected, and it can be concluded that there is no heteroscedasticity in the Model.

4. Normality test

Hypothesis:

H0: normality presence of random variable

H1: normality absence of random variable

With significant level α = 0.05

Table 14: Normality test result

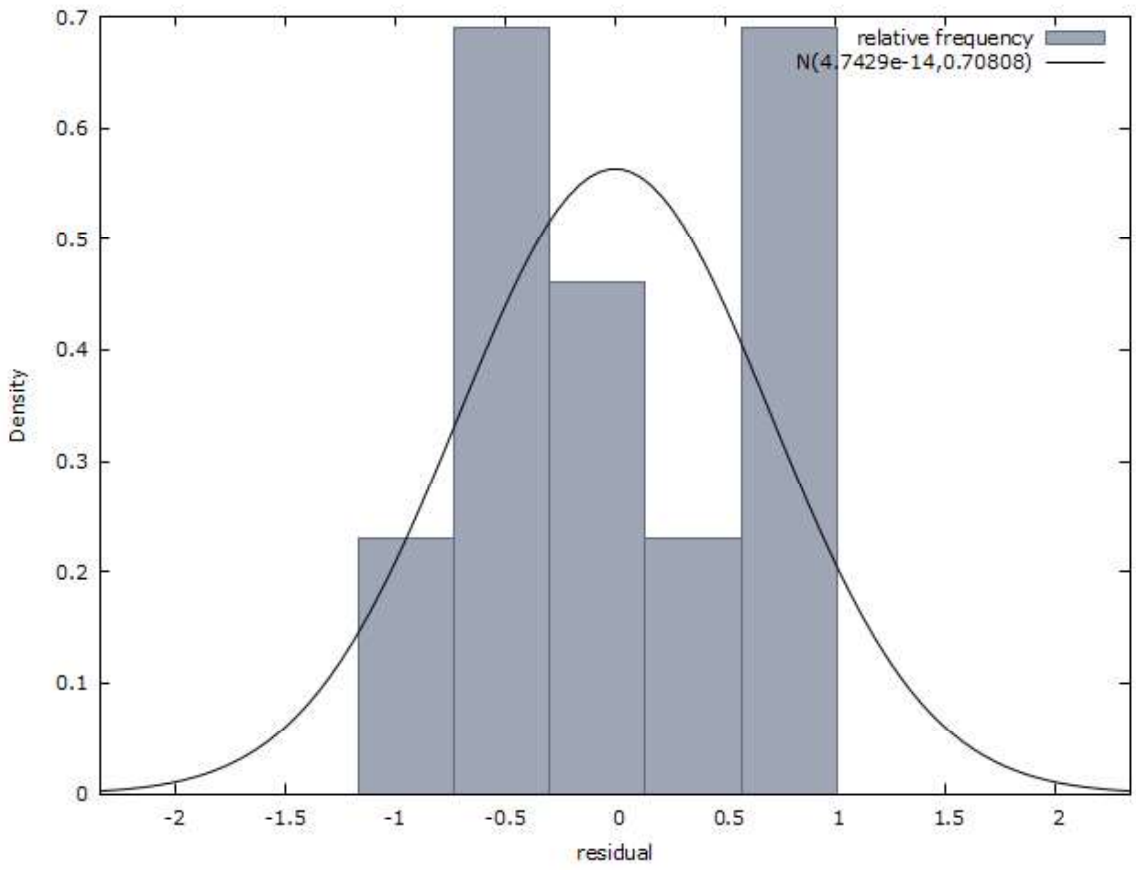
```
Frequency distribution for residual, obs 1-10
number of bins = 5, mean = 4.74287e-014, sd = 0.708078

       interval          midpt    frequency     rel.      cum.

          < -0.73195  -0.94927         1      10.00%    10.00% ***
 -0.73195 - -0.29732  -0.51464         3      30.00%    40.00% **********
 -0.29732 -  0.13731  -0.080003        2      20.00%    60.00% *******
  0.13731 -  0.57194   0.35463         1      10.00%    70.00% ***
         >=  0.57194   0.78926         3      30.00%   100.00% **********

Test for null hypothesis of normal distribution:
Chi-square(2) = 0.272 with p-value 0.87276
```

Here the p-value = 0.87276 > 0.05, thus the null Hypothesis of normality presence of random variable is not rejected.



5. **Test of significance**

From the OLS results, it can be seen that all P-values of the independent variables are lower than the significant level $\alpha = 0.05$. It is concluded that the estimated coefficients are all significant.

6. **R Squared**

It can be concluded that the estimated coefficients are all significant. Also, it is observed that: R-squared = 0.895512, which indicates that 89.50% of the variation in unemployment rate is explained by the LN_ FDI, LN_LF, and LN_E. Generally, a higher R-squared indicates a better fit for the model.

Statistical result and interpretation of the second model

From the statistical verification of this regression, we can conclude there is no multicollinearity, no heteroskedasticity, no autocorrelation, normality of random variable, the significance of all estimated coefficients. From the result of those tests and observations, it can be concluded that the OLS coefficient estimate is BLUE (Best Linear Unbiased Estimate. The ordinary least squares (OLS) regression in this study has produced unbiased estimates that have the smallest variance of all possible linear estimators. The OLS regression led to the obtention of the following equation: Unemployment rate = - 458.273 - 1.91452 LN_FDI + 33.4226 LN_LF - 2.49030 LN_EX + et. It can be concluded that an increase of 1 in a year-to-year value of LN_FDI leads on average to a 1.9 % decrease in a year-to-year value of unemployment rate. An increase of 1 in a year-to-year value of LN_LF leads on average to a 33.4% increase in a year-to-year value of unemployment rate. And an increase of 1 in a year-to-year value of LN_EX leads on average to a 2.4 % decrease in a year-to-year value of unemployment rate.

5 Results and Discussion

The economic well-being of a country, as well as the distribution and long-term economic growth, can be measured using the GDP, inflation rate or employment which shows how well the economy is performing and how well it will do in the future, levels of spending and the country different sectors outcome are essential economic performance indicators because they show whether an economy is growing or collapsing.
In this study, GDP and the unemployment rate have been used as economic performance indicators because both of them are the most common indicators used to monitor the health of a country's economy, and the impact of FDI on both GDP and the rate of unemployment in Egypt.

The goal of this thesis was to determine the effect of Foreign direct investment on the gross domestic products growth and the unemployment rate in Egypt during 2010-2019.
To achieve the following hypothesis:
1: There is a positive effect of FDI on the GDP in Egypt
to achieve this hypothesis the OLS regression model was used contains GDP growth (annual %), logarithm Foreign direct investment, net inflows (current US$) and the unemployment, total (% of total labour force). After the statistical verification of the linear regression model, the result was that all coefficients are significant, there was no multicollinearity, Autocorrelation absence, homoscedasticity, Normality presence of random variable in the model. And the R-square equal 0.941451, which indicates that 94% of the variation in GDP growth is explained by LN_FDI, and the unemployment rate. Generally, a higher R-squared indicates a better fit for the model. The ordinary least squares (OLS) regression in this study has produced unbiased estimates that have the smallest variance of all possible linear estimators. The OLS regression led to the obtention of the following equation: GDP Growth = - 44.2912 + 2.29687 *LN_FDI - 0.296789 Unemployment rate + et. It can be concluded that an increase by 1 in a year-to-year value of LN_FDI leads on average to a 2.29% increase in a year-to-year value of GDP Growth. A 1 % increase in a year-to-year value of unemployment leads on average to a 0.29% decrease in a year-to-year value of GDP Growth.

2: There is a negative effect of FDI on the unemployment rate in Egypt.
to achieve this hypothesis the OLS regression model was used contains logarithm Foreign direct investment, net inflows (current US$) and the unemployment, total (% of total labour force), logarithm labour force, total, logarithm Exports (constant 2015 US$) After the statistical verification of the linear regression model, the result was that all coefficients are significant, there was no multicollinearity, Autocorrelation absence, homoscedasticity, Normality presence of random variable in the model. And the R-square equal 0.895512, which indicates that 89.50% of the variation in the unemployment rate is explained by the LN_ FDI, LN_LF, and LN_E. Generally, a higher R-squared indicates a better fit for the model. The ordinary least squares (OLS) regression in this study has produced unbiased estimates that have the smallest variance of all possible linear estimators. The OLS regression led to the obtention of the following equation: unemployment rate = - 458.273 - 1.91452 LN_FDI + 33.4226 LN_LF - 2.49030 LN_EX + et. It can be concluded that an increase of 1 in a year-to-year value of LN_FDI leads on average to a 1.9 % decrease in a year-to-year value of the unemployment rate. An increase of 1 in a year-to-year value of LN_LF leads on average to a 33.4% increase in a year-to-year value of the unemployment rate. And an increase of 1 in a year-to-year value of LN_EX leads on average to a 2.4 % decrease in a year-to-year value of unemployment rate.

The Egyptian economy growth is dependent on investments, expanding assets, and improving infrastructure. Foreign Direct Investment in an economy indicates that there is a good trend of investment, which eventually results in increasing the GDP growth and decreasing the unemployment rates of the country, as we discovered in our research that the increasing trend of FDI in Egypt increases the GDP and decreases the unemployment rate.

Policy recommendations:

- Egypt should explore implementing pro-competition measures to further level the playing field between new entrants and existing enterprises, particularly SOEs, allowing for better resource allocation to higher-productivity firms. Reforms involve re-evaluating antitrust exemptions granted to incumbent corporations, particularly in commercial sectors and competitive marketplaces, against their policy objectives and, where appropriate, abolishing them.

- The government has taken significant steps to tighten corporate governance requirements for state-owned firms. Nonetheless, the existing dual regulatory structure, in which only a fraction of enterprises follow excellent corporate governance standards, falls short of levelling the playing field between SOEs and their private-sector counterparts. The government could do more to ensure that standards are applied to all state-owned companies and that actions are taken to reduce market inefficiencies caused by publicly-owned firms.
- Improve zone statistics to assist evidence-based policymaking. To untangle the influence of each special regime, more specific information on exports, investment, and jobs in zones are required. The availability of firm-level data, maybe through yearly surveys, would enable authorities to evaluate company characteristics and performance, measure fiscal costs and advantages of zones, and, for example, check smuggling activities. Such information would allow for more focused, evidence-based interventions to guide zone results toward their development objectives.
- Small firms should be targeted for the tax deduction for undocumented expenditures.
- Make electronic tracking of products entering and departing FZs a priority.
- Reduce authorities' discretion in giving tax assistance.
- Encourage meaningful stakeholder participation in the development and implementation of RBC policies and processes. Particular care should be taken to ensure meaningful participation in the early phases of policy formulation. It is especially vital to engage effectively with impacted stakeholders during the development and implementation of state-led initiatives, such as infrastructure projects.
- Egypt should give high concentration on birth control to fight rapid population growth
- Guarantee that infrastructure improvements are driven by efficiency rather than financial incentives. Building the ability of government organizations to assess value for money across the lifetime of an infrastructure asset is critical to ensuring that investments benefit users and society as a whole.

6 Conclusion

Since 2011 revolution the Egyptian government trying their best to make Egypt politically stable and improve the economic situation. Thankful to the ambitious leadership of the country plan to be on the right track through investing in infrastructure, education, health care, agriculture, industries, electricity generation, gas, and oil production. Have helped the country to attract high volumes of foreign direct investments. Egypt Witnessed over the past years rise and growth in the start-up businesses, encourage and support the start-ups getting credit support facilities, significant growth in the construction and the real state continues to be a major source of wealth, Data protection is becoming increasingly important and the government investing in management and controlling of personal data. (Legal500, 2020) Egypt's economy has been somewhat less complicated during the previous 20 years, rising from 70th to 73rd in the ECI ranking. (world, 2021)

The Egyptian government's economic reforms have improved macroeconomic conditions and enhanced investor confidence. Although the oil and gas industry continue to absorb almost two-thirds of overall FDI, investment is also seeping into a varied range of industries, including real estate, communication, electricity, financial services, and consumer products. In addition to supporting activities with technical assistance programs, training, and capacity building, the government has designed its investment regulations to stimulate investment and increase output. Investors have been driven to Egypt's promising combination of strong GDP growth, a strategic geographical location, a talented labour population, and, most importantly, a massive domestic market. Certain investment incentives are subject to performance restrictions under the country's investment legislation. The government has also developed special business zones with tax deductions and faster registration and customs processes.

Tourism, gas and oil production and agriculture play a very important role in Egypt’s economy as the number of people employed in the tourism industry for the year 2019 2.4 million. 20.62% of total employment employed in the agriculture sector with 3rd ranking of employment in the agriculture sector in MENA. (Department, 2020), 26.94% of employment employed in the industrial sector and 52.44% employed in the services sector. The petroleum industry recorded investments of $30 billion in 2019 according to the

petroleum minister Tarek el-mulla. Molla confirmed in a statement in September 2019 that the sector has contributed the most to GDP by roughly 25%, in addition to its contribution of 44 percent in FDI. (staff, 2019) Egypt exported $4.23 billion in crude petroleum in 2019, making it the world's 30th largest exporter of crude petroleum. In the same year, crude petroleum was Egypt's biggest exported product.

For the past years, economic megaprojects have been a key characteristic of Egypt. The government has made major and diversified attempts to build its economy by attracting foreign investment in a variety of economic sectors as well as improving its export potential. Egypt has made concerted attempts in recent years to grow its economy and people outside the major cities and centres. This approach involves attempting to minimize the effects of overcrowding by constructing autonomous city centres and industrial and economic zones that boost development and production.
There are now several ongoing projects totalling more than USD 335 billion in different industries, including hotel, real estate, petroleum, transportation, energy infrastructure, and the hospitality industry which has seen tremendous growth in 2019. With more than $13.03 billion in earnings in 2019.

To summarize, The Egyptian economy growth is dependent on investments, expanding assets, and improving infrastructure. Foreign Direct Investment in an economy indicates that there is a good trend of investment, which eventually results in increasing the GDP growth and decreasing the unemployment rates of the country, as we discovered in our research that the increasing trend of FDI in Egypt increases the GDP and decreases the unemployment rate. FDI positive influence on the Egyptian economy cannot be ignored. More control and improvements still needed to achieve (2030 vision) country roadmap for a long-term sustainable economic development strategy which stated that by 2030 the Egyptian economy will be disciplined market economy that is characterized by stable macroeconomic conditions. the Egyptian economy will be an active player in the global economy, capable of adapting to global variables, maximise the added value and provide job opportunities, as well as making the real GDP per capita reach the ranks of upper middle-income countries. (Euroweek, 2020)

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