

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Economic Impact of Covid-19 on African Industries, focus on Egypt

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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BACHELOR THESIS ASSIGNMENT

Marwan Nomir

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Economic Impact of Covid-19 on African Industries, focus on Egypt

Objectives of thesis

Objectives of Thesis: The aim of the bachelor thesis is to evaluate the economic impact of COVID-19 on the industry all around the world and specifically for the North African Industry. The study will evaluate and analyze the economic effects of the evolving pandemic in Egypt's industry, specifically the Oil Industries, Gas Industries, Agriculture Industries. The economic situation affected by Covid-19 in Egypt will be compared with the neighboring countries of Egypt and European countries. There will also be a study about the way the industries in the Middle East have adapted to the effects of the pandemic.

Methodology

The information in this bachelor thesis is collected from relevant and published scientific articles, periodicals, and papers in English and analyzing what can be learned through the collection of data. The used internet databases are Web of Science, Science Direct, Google Scholar...etc. In addition, relevant and published books related to the topic will be studied. The bachelor thesis will be relying on previously collected data and information that came from the own experience of the author in the region.

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AGRI-FOOD AND COVID-19 IN EGYPT: Adaptation, Recovery and Transformation Rapid qualitative assessment September 2020

https://www.unido.org/sites/default/files/files/2020-09/IGGE_Agrifood_and_COVID19.pdf

Economic Impact of COVID-19: Powerful Shock to Post-Reform Egypt, June 2020 Hussein Mohammed Suleiman <https://www.euromesco.net/publication/economic-impact-of-covid-19-powerful-shock-to-post-reform-egypt/>

Impact of COVID-19 on the Egyptian economy: Economic sectors, jobs, and households Clemens Breisinger, Mariam Raouf, Manfred Wiebelt, Ahmed Kamaly, Mouchera Karara MENA Policy Note 2020

Impact of the coronavirus on the African economics Africa Union:

https://au.int/sites/default/files/documents/38326-doc-covid-19_impact_on_african_economy.pdf

UNIDO launches guidance on COVID-19 for manufacturing sector in Egypt

<https://www.unido.org/news/unido-launches-guidance-covid-19-manufacturing-sector-egypt>

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Declaration

I declare that I have worked on my bachelor thesis titled "Economic Impact of Covid-19 on African Industries, focus on Egypt" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 15th March 2022

Marwan Nimir

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Economic Impact of Covid-19 on African Industries, focus on Egypt

Abstract

Coronavirus 2019 (Covid-19) has not only caused significant health issues among the populace, but it has also contributed to a larger number of deaths and caused havoc on the global economy on an unprecedented scale. This outbreak has the potential to undermine individual livelihoods, businesses, markets, and entire economies. In addition, the mining sector is not immune to these effects, and the crisis could have long-term, medium-term, and short-term implications for economic activities.

The importance of understanding the history of the pandemic before examining its effects and potential ramifications is illustrated by this thesis, which provides a general understanding of pandemics and their results for humanity and the economy. Furthermore, the thesis examines the significance of these impacts for the industry and provides an understanding of their nature.

The aim of the thesis to research the economic impacts of Covid-19 on the Egyptian industries. The paper examines how the outbreak has impacted the economic section such as unemployment, inflation, Import-Export, GDP. And Government Debt based on reliable collected data. The average annual unemployment rate in Egypt in 2020 indicated 10.45% which is 0.72% increase from 2019, however, Egypt exports didn't get impacted as like European countries and the African countries as Egypt was exporting good with the value of 26.63 billion Dollars while the import decreased to -17.89% in 2020. The inflation rate in Egypt was 7.4%. The government debt of Egypt during the pandemic of Covid-19 is 89.84%. This amount means that the debt in 2020 reached 89.84% of Egypt GDP, a 5.63 percentage point rise from 2019, when it was 84.21% of GDP.

Keywords: Impact of Covid-19, economic impact, impact on tourism, focus on Egypt, Africa and covid-19, impact on agriculture, impact on food, industries, Oil industries.

Ekonomický dopad Covid-19 na africký průmysl, zaměření na Egypt

Abstraktní

Korona virus 2019 (Covid-19) způsobil nejen závažné zdravotní problémy mezi obyvatelstvem, ale také přispěl k většímu počtu úmrtí a způsobil zmatek v globální ekonomice v bezprecedentním měřítku. Tato epidemie má potenciál podkopat živobytí jednotlivců, podniky, trhy a celé ekonomiky. Těžební sektor navíc není vůči těmto vlivům imunní a krize by mohla mít dlouhodobé, střednědobé i krátkodobé dopady na ekonomické aktivity.

Tato práce ilustruje, jak je důležité porozumět historii pandemie před dopadem jejích účinků a potenciálních důsledků a poskytuje obecný přehled o pandemiích a jejich důsledcích pro lidstvo a ekonomiku. Dále práce zkoumá význam těchto dopadů pro průmysl a poskytuje vysvětlení jejich podstaty.

Cílem práce je studie ekonomických dopadů Covid-19 na egyptský průmysl. Článek zkoumá, jak epidemie ovlivnila ekonomické faktory jako je nezaměstnanost, inflace, import-export, HDP, a i vládní dluh na základě spolehlivých údajů. Průměrná roční míra nezaměstnanosti v Egyptě v roce 2020 se zvýšila na 10,45 %, což je o 0,72 % nárůst oproti roku 2019, nicméně egyptský export nebyl ovlivněn tak jako to ovlivnilo evropské a africké země, protože Egyptský export vyvážel v hodnotě 26,63 miliard dolarů, zatímco dovoz se v roce 2020 snížil na -17,89 %. Míra inflace v Egyptě byla podobu sledovaného období

7,4 %. Vládní dluh Egypta během pandemie Covid-19 je 89,84 %. Tato částka znamená, že dluh v roce 2020 dosáhl 89,84 % HDP Egypta, což je o 5,63 procentního bodu nárůst oproti roku 2019, kdy to bylo 84,21 % HDP.

Klíčová slova: Dopad Covid-19, ekonomický dopad, dopad na cestovní ruch, zaměření na Egypt, Afriku a covid-19, dopad na zemědělství, dopad na potraviny, průmysl, ropný průmysl.

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List of Abbreviation

CEMAC	Economic and Monetary Community of Central Africa
IMF	International Monetary Fund
GDP	Gross Domestic Product
SBA	Stand-by Agreement
UNECA	United Nations Economic Commission for Africa
IATA	Air Transport Association
UNIDO	United Nations Industrial Development Organization
EU	European Union
AUC	African Union Commission
LNG	Liquefied Natural Gas
SUMED	Arab Petroleum Pipelines Company

1. Introduction

A novel coronavirus infection (COVID-19) was first identified as an infective topmost respiratory illness in China. Ever since then, the disease has spread worldwide, one of the worst worldwide public health emergencies in history.

Health implications resulting from a pestilence are generally negative. However, financial impact will result mainly from the precautionary measures taken by the authorities to limit the spread of the pestilence. Several regions have implemented key metrics limiting the expansion of pestilences. It has also been observed that there have been temporary border closures, full or partial market closures, as well as a temporary shutdown of schools and many other socio-cultural systems in order to limit the expansion of the border.

The result of these metrics, however, has been considerable disappointment for African markets, particularly in terms of economic output and commerce both within and across states. In particular, these metrics have put significant pressure on almost all critical economic expansion industries and thus their total earnings in many markets. As a result, various organisations have provided an approximation of the financial damage that could result from the implementation of these metrics. According to the International Air Transport Association (IATA), budget shortfalls of up to US\$113 billion are anticipated for Africa, and the United Nations Economic Commission for Africa (UNECA) has forecast budget shortfalls of approximately US \$65 billion for the 10 largest petroleum extracting countries in Africa. (IATA, 2020)

Furthermore, the World Bank forecasted a drop in global commerce from 13 to 32 % in 2020 because of interruptions in chain stores of worldwide significance caused by COVID-19. All things considered, an unprecedented economic downturn is predicted, with a worldwide GDP decline ranging from 0.5 % to 3.8 %.

Although the local and national influences of COVID-19 in Europe and North America may be comparable based on which industries were greatly impacted, the risks of the disease being seriously detrimental to Africa are higher because of a lack of financial adaptability and diversification in the country, and the lack of financial adaptability and diversification in the country. Africa was experiencing the consequences of COVID-19, as it was the last geographical area to report cases, as well as through its ties to the Eurozone (EU), United States

(USA), and China, the latter of which is generally reflected in a shrinking market for African trade.¹

In addition, whereas the disease price in these areas has begun to level off as a result of financial stimuli and asset contingency planning, the opposite is true in Africa. While the number of novel situations in Africa has yet to achieve an important turning point, the number of confirmed incidents in other parts of the world, such as China and Europe, are decreasing. Even though many countries are gradually restarting companies in order to recover from the worldwide downturn, the trend in developing countries indicates the potential for a profound downturn. If the number of viruses keep rising, it is likely that the countries will experience increased investment and export restrictions.

¹ <https://unctad.org/webflyer/assessing-impact-covid-19-africas-economic-development>

2. Objectives and Methodology

2.1 Objectives

On 14th of February 2020, Egypt documented first ever COVID-19 complaint. Cases were reported in 52 countries since then. Initially limited to metropolitan areas, occurrences are now being noted in a growing sample of countries and regions. On May 4, 2020, the number of confirmed COVID-19 cases had risen to 44 873, with 1 807 deaths. The African areas with the maximum number of infections were South Africa, Egypt, Morocco, and Algeria. Even so, the full extent of the pandemic is unknown because occurrences are unreported and data gathering precision differs greatly.

The objectives of the report are to evaluate the economic impact of COVID-19 on the industry all around the world and specifically for the North African Industry. The study will evaluate and analyse the economic effects of the evolving pandemic in Egypt's industry, specifically the Oil industries, Gas industries and agricultural industries.

2.2 Methodology

The information in this bachelor thesis is collected from relevant and published scientific articles, periodicals and papers in English and analysing what can be learned through the collection of data. The used internet databases are web of Science, Science Direct and Google Scholar etc. In addition, relevant and published books related to the topic will be studied. The bachelor thesis will be relying on previously collected data and information that came from the own experience of the author in the region.

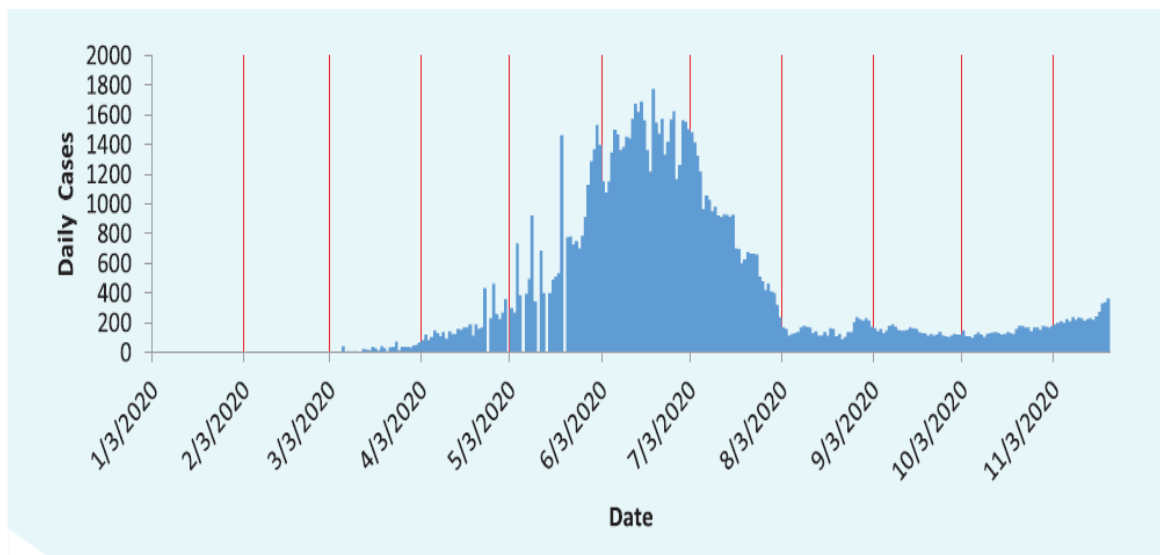
This paper constructs a straightforward macro-econometric prototype of Africa to predict and replicate the impact of COVID-19 on developing states such as Egypt for appropriate policy implication. Its primary goal is to simulate the effect of a drop in petrol costs and a worldwide downturn on Egypt's key economies. Gross domestic product, income, export markets and inflation are examples of financial indicators

3. Literature Review

3.1. Covid-19 on Africa Cases and deaths

The first Corona virus case was recorded in Egypt on 14th February 2020 according to (figure1). There were very few cases until mid-April. The number of recorded daily cases increased much faster in the spring (alongside increased capacity to test) and peaked in July. This first wave of the survey took place during the period of June to July 2020. The daily case count then began to fall dramatically and remained very low for most of the rest of the year.²

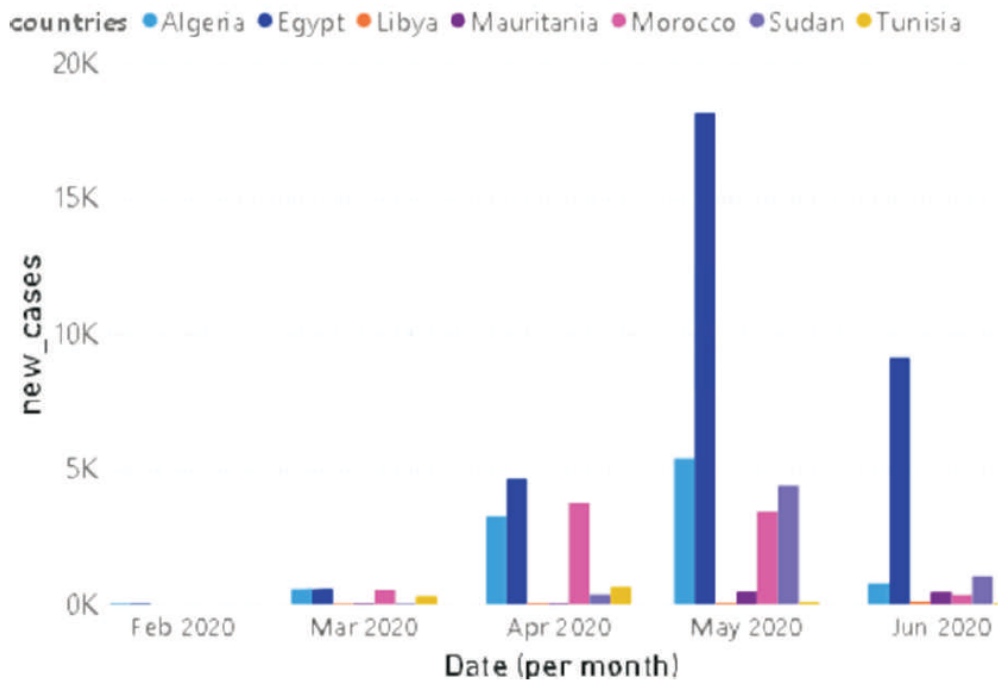
Figure 1, Working age population by labor force status and by sex, in February 2020 and June 2020 (%)



Source: Source: World Health Organization (WHO).

² <https://www.ilo.org>

Figure 2 cases by month per countries



Source: (Dermech 2020)

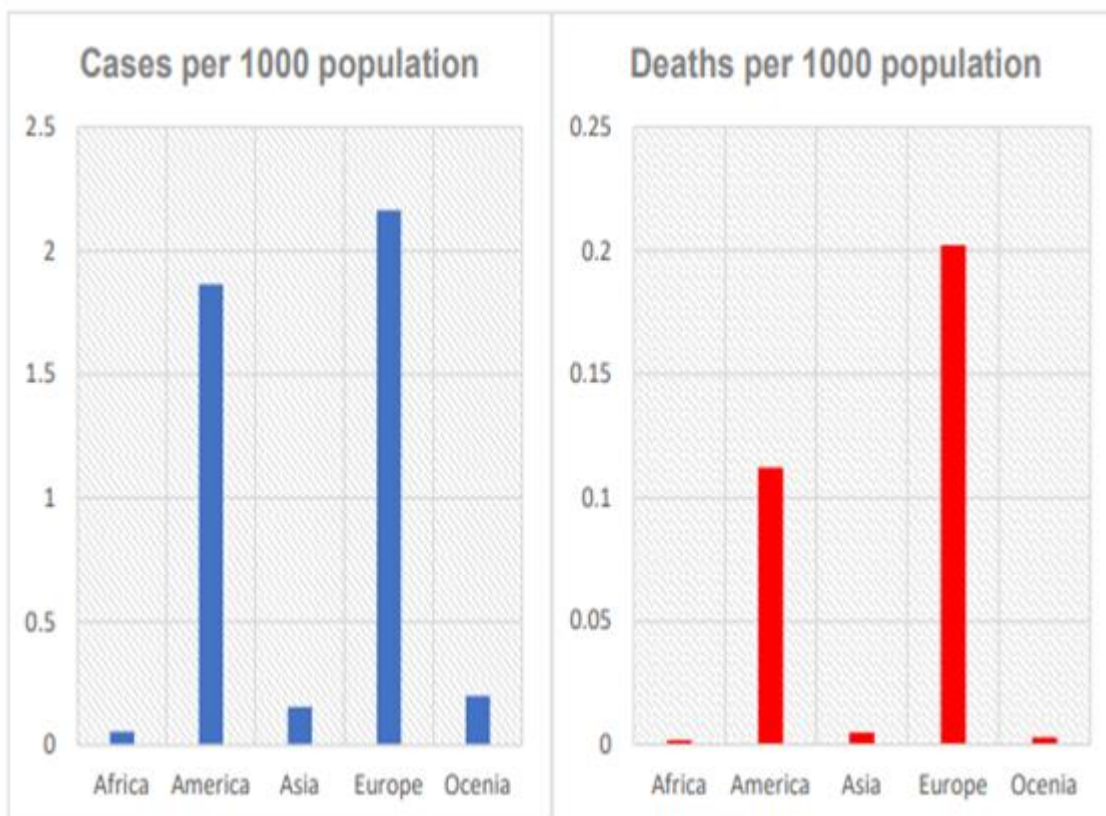
Figure 3 Covid-19 cases with population

Country Region	Confirmed	Population
Egypt	53,758	102,334,404
Morocco	9,839	36,910,560
Tunisia	1,156	11,818,619
Sudan	8,580	43,849,260
Algeria	11,631	43,851,044
Mauritania	2,813	4,649,658
Libya	544	6,871,292

Source: (Dermech 2020)

from 15 May 2020, a maximum of 4,308,809 scenarios had been identified globally, with 298,680 demises. Figure 4 illustrates that Europe region has the greatest colonisation and virus and lives lost, with 2 people infected per 1000 people. This is accompanied by the United States, which has one in every thousand persons infected with the disease.

Figure 4 Covid-19 cases and deaths as of 15th of May 2020



Source: www.statista.com

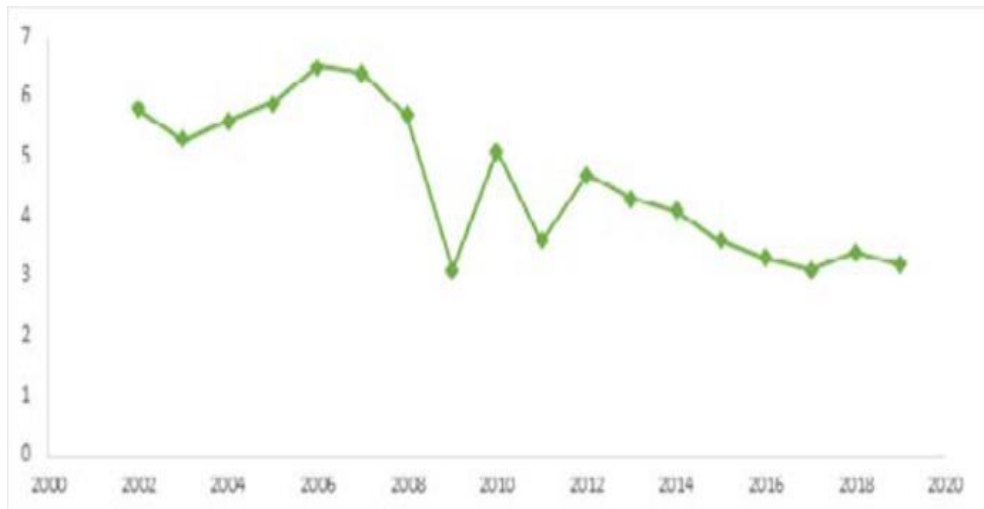
Ultimately, the total of deaths caused by the disease per 1000 people is fairly low throughout all regions. Regrettably, analysing Fig 4 in vast numbers reveals that Europe is continuing to lose 202 people to the disease out of 2,164 afflicted per hundred thousand. The image for America demonstrates it out of 1,864 diseased people per hundred thousand; the area is continuing to lose 112 people. Result also indicates that Africa seems to have the fewest diseases (55 per million inhabitants), only with 2 per million communities killed to the disease.

3.2. Impact on African economic growth

Since the decade 2000-2010, Africa's growth has increased significantly according to (figure 5). As a consequence of this decade of increased confidence, doubts have emerged about the continent's ability to sustainably increase its growth. Among the reasons behind this doubt in regard to Africa's economies are the persistent reliance of these economies on global commodity prices. The gradual reversal of the price of raw materials, since 2014,

has put a spell on the period of unprecedented high growth that the continent has experienced since the 1970s. Africa then saw its economic growth rate decrease, from + 5% on average between 2000 and 2014 to + 3.3% between 2015 and 2019. After experiencing a brief period of enthusiasm and euphoria, Africa is once again experiencing insufficient growth rates to catch up with the economic lag. Yet, the African Union estimates a growth rate of 7% for the continent in order to significantly reduce poverty.³

Figure 5 Africa's Economic Growth between 2000 and 2019



Source: (AUC 2020)

3.3. Present Economic context of Egypt and other African countries

Coronavirus outbreaks are creating a crisis that like what was experienced during the Second World War are causing devastation to the global financial system, and are causing economic weaknesses to become more apparent, further adding to the challenges facing an economy that is still struggling to recover from its pre-2008 state of emergency. As COVID-19 disrupts the world financial system by disrupting the interrelated world financial system, which is responsible for about 50% of the world's commerce, it is disrupting worldwide benefit links, which are responsible for sudden drops in resource rates, budgetary profits, international trade, foreign currency invoices, international

³ <https://au.int/fr/node/38326>

investments, border controls, declines in tourism and guesthouses, and refrigerated employment markets.

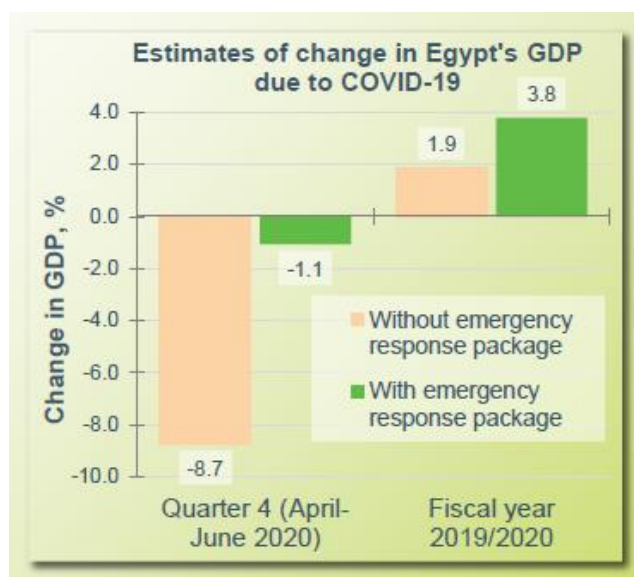
3.4. General overview of Covid-19 impacts on Egypt Economy

Due to the Covid-19 crisis that continues to unfold, the global economy witnessing the worst economic crisis since the great depression of the 1930's, The Egyptian government took action relatively early to contain the spread of this pandemic. In the middle of March, many measures were implemented by the government to contain the spread of the disease, including a travel ban on domestic and international commercial passenger flights, an 8 pm to 6 am curfew, a ban on public gatherings, and the closure of schools and religious institutions. Even though there are still many factories operating, the working hours and shifts are often reduced in many places. In terms of international standards, these domestic anti-COVID-19 measures are modest since a partial lockdown of the Egyptian economy tries to strike a balance between public health and economic considerations. Therefore, the country has been able to maintain a slower pace of economic activity but has avoided a complete lockdown. Egypt's economy is likely to be impacted in the coming year by both negative external factors as well as the partial lockdown that occurs from time to time. However, the government has been able to mitigate these negative effects through fiscal and monetary policies. (Affairs, 2020) In addition, the government allocated 100 billion Egyptian pounds (EGP) to alleviate some of the economic fallout from the COVID-19 crisis, lowered interest rates on loans and provided loans with a reduced rate of interest to assist the hardest-hit sectors and expanded social safety nets. (Breisinger, 2020)

In the fourth quarter of the 2019/20 Fiscal Year from April to June, the Egyptian Government leads to a decline in GDP of approximately 1.1 %. We can see this in the table below, however with comparison to the same quarter in 2018/19 without the government's Covid-19 emergency response, the GDP may have declined by 8.7 % in Q4. As a result of the emergency response package being taken into consideration, they expected an annual growth rate of 3.8 % for the fiscal year 2019/20, without the emergency response package the annual growth rate for the fiscal year 2019/20 may have been as low as 1.9 %.⁴

⁴ <https://www.ifpri.org/publication/impact-covid-19-egyptian-economy-economic-sectors-jobs-and-households>

Figure 6 Estimation of change in Egypt's GDP due to Covid-19



Source: (Breisinger, Clemens; Raouf, Mariam; Wiebelt, Manfred; Kamaly, Ahmed; and Karara, Mouchera. 2020.

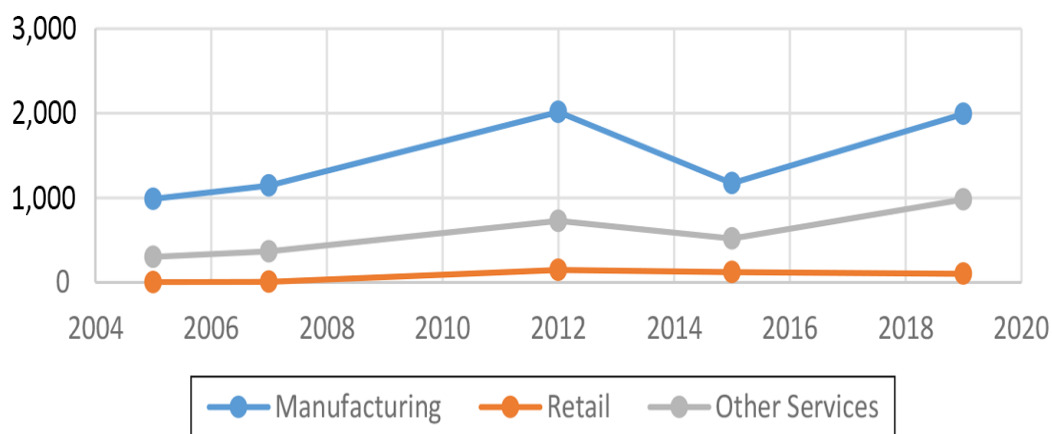
By contrast, the services sector experiences a decline of 10.9 %, while the industry suffers a decline of -8.3 %. The agriculture sector exhibits the most resilience. Even so, these losses are still somewhat lower than those experienced by comparable countries, especially those which had to resort to prolonged periods of complete lockdowns. Indeed, Egypt's agri-food system has fared less well than elsewhere in the economy. Due to the decline in consumer demand for foodstuffs, the agri-food system will suffer the greatest damage in nonfarm components, however, the highest-income households will experience the greatest loss of income, but lower-income households will also suffer a significant decline in incomes. It appears that the level of social protection needed to compensate poor households for the income losses they have experienced are likely to be prohibitive, especially given that the economy is even more shrinking.

3.5. Covid -19 Impacts on industrial sector in Egypt

Textiles and Clothing: As a result of the significant decline in domestic and foreign demand, many factories have ceased production; other factories are using only 50 % of their capacity. Despite a decline in global orders, apparel exports, which account for 44 % of the sub-sector's production, are expected to decrease. On the supply side, as the industry relies heavily on raw materials imported from China and India, the sector is also likely to be affected by disruptions in global supply chains, for example, China is the source of 50 % of Egypt's textile imports.

Manufacturing Sector: Despite steady growth during the last 2 years, Egypt's Gross domestic product will be hampered by the COVID-19 emergency. The anticipated influence could be driven primarily by a decrease in domestic usage, which was the primary key driver of development of the Gross domestic product in 2019, accounting for 82.9 % of total GDP. Domestic spending patterns will alter radically as a result of the Govt. choice to shut down shopping malls and food outlets at 5:00 p.m. and impose a night restriction. Simultaneously, corporate industry funding, which was the second biggest donator to GDP growth with 17.7 %, will decline markedly. Throughout this period of ambiguity, the corporate market will not make new investment opportunities.⁵

Figure 7 Impact of covid-19 on Manufacturing sector



Source: World Bank Data: 2010

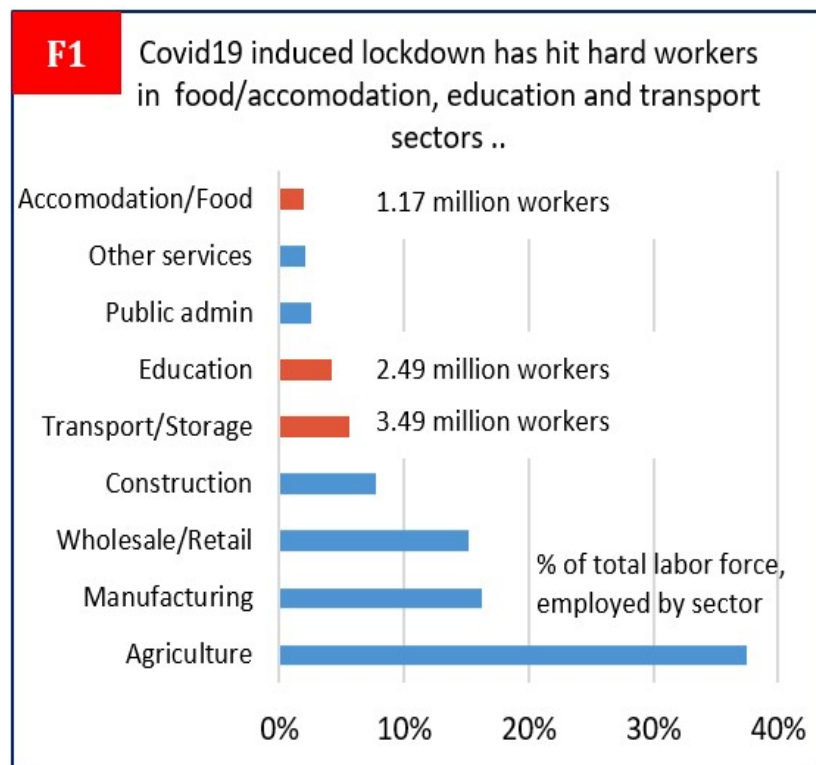
Construction: Since the construction sector is a large industry and important for providing employment, construction activity continues to occur in many places as the government attempts to balance the need to maintain projects while implementing precautionary measures, such as social distancing and limiting the number of workers on construction sites. The decline in construction activity is expected to be smaller than that of many manufacturing subsectors, with an estimated 5 % decline.

⁵<https://www.ifpri.org/publication/impact-covid-19-egyptian-economy-economic-sectors-jobs-and-households>

Figure 8 Construction in Egypt



Figure 9, Impact of covid on different sectors



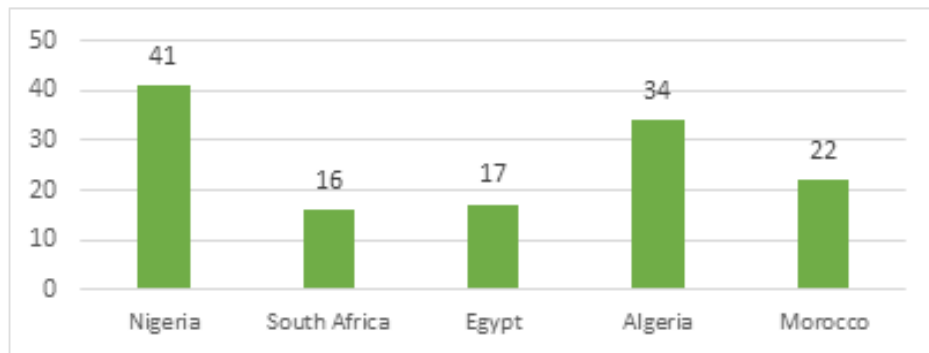
Source: (Breisinger, Clemens; Raouf, Mariam; Wiebelt, Manfred; Kamaly, Ahmed; and Karara, Mouchera. 2020).

Tourism Sector: Due to the pandemic, hotel reservations have been cancelled, and there is little to no tourism at tourist attractions; however, Tourism and Antiquities Minister "Khaled el-Anani" has indicated that monthly losses will reach \$1 billion as a result of the coronavirus and lockdown.

3.6. Overview of Oil and Gas in Africa

The top five African economies (Nigeria, South Africa, Egypt, Algeria, and Morocco) represent more than 60% of Africa's GDP. The effect of Covid19 on these countries will be representative of the whole of Africa. There is no doubt that tourism and petroleum represent a quarter (25%) or more of the economies of both of these countries.

Figure 10 Oil and Tourism Sector (in % GDP)



Source: AUC calculation based on the World Bank data, 2020

As a result of the Covid19 outbreak, which has affected these economies a lot, since many of them have the highest infection rates. The growth is expected to drop drastically in all of them. The falling oil prices will also take a toll on the prospects of Nigerian and Algerian economies as well.

3.6.1. Importance of Oil and Gas in Egypt

A major economic sector in Egypt, the oil and gas industry occupy one of the most dynamic positions in the economy. The production of hydrocarbons is by far the largest single industry in Egypt, representing around 24 % of Egypt's GNP in FY 2019-2020.⁶ The Suez Canal and the Suez-Mediterranean (SUMED) pipeline have both played a key role in Egypt's participation in the international energy market. A world-famous transit route for

⁶ https://www.masrawy.com/news/news_economy/details/2020/5/20/1791203/%D9%83%D9%8A%D9%81-%D8%A3%D8%AB%D8%B1%D8%AA-%D8%A3%D8%B2%D9%85%D8%A9-%D9%83%D9%88%D8%B1%D9%88%D9%86%D8%A7-%D8%B9%D9%84%D9%89-%D8%A7%D9%84%D9%82%D8%B7%D8%A7%D8%B9-%D8%A7%D9%84%D8%B2%D8%B1%D8%A7%D8%B9%D9%8A-%D9%88%D8%AF%D8%AE%D9%84-%D8%A7%D9%84%D9%81%D9%84%D8%A7%D8%AD%D9%8A%D9%86-%D9%81%D9%8A-%D9%85%D8%B5%D8%B1-

oil and liquefied natural gas (LNG) shipments travelling southbound from North Africa, Europe and North America to Asia, the Suez Canal was expanded in 2015. The fees collected by the government of Egypt from the operation of these two transit points constitute an important source of revenue.

3.6.2. Covid-19 Impact on Oil and Gas Industry in Egypt.

"Tarek el-Molla,⁷ (Al-Awsat, 2021)" the Minister of Petroleum in Egypt, announced that the impact of the Covid-19 pandemic on the Egyptian Oil and Gas Sector has been minimal due to the reforms implemented by the government since 2014. However, he also mentioned that the highest oil production rate in Egypt's history was achieved during the pandemic in covid-19 for the fiscal year 2019-2020, with a total production of 1.9 million barrels of oil equivalent per day. Natural gas is becoming an increasingly popular fuel because it is considered to be the most environmentally friendly, accounting for nearly 65 % of total hydrocarbon consumption in Egypt today.

3.7. Overview of Agriculture in Egypt

Egypt's agri-food scheme, which includes agricultural production, meal preparation, and linked input and export processes, adds 24.5 % of the nation's GDP and 23.2 % of workforce value created. Lower Egypt accounts for the vast majority of food production task (78.3 % of total food preparing global production); however, Upper Egypt is essential in main agricultural production, accounting for 30.2 % of agricultural global production. Farming is a significant source of salary and self-employment for ladies, particularly in rural regions. The food and drink sector are Egypt's second-largest production real worth sector, after construction. The second is determined by production jobs and the 3rd by export earnings. Egypt's medium trade surplus in foods and drinks is negative, indicating that the state is in shortfall.⁸

⁷ <https://english.aawsat.com/home/article/3216486/egypt-economic-reforms-protect-oil-gas-sector-covid-19-repercussions>

⁸[http://www.eces.org.eg/cms/NewsUploads/Pdf/2020_12_79_10_17Views%20On%20News%20\(VViews%20On%20The%20Crisis\)%20-%20Edition%2024%20Follow-up%20on%20the%20effects%20of%20COVID-19%20on%20the%20Egyptian%20economy%20-%20Agriculture%20Sector.pdf](http://www.eces.org.eg/cms/NewsUploads/Pdf/2020_12_79_10_17Views%20On%20News%20(VViews%20On%20The%20Crisis)%20-%20Edition%2024%20Follow-up%20on%20the%20effects%20of%20COVID-19%20on%20the%20Egyptian%20economy%20-%20Agriculture%20Sector.pdf)

Figure 11 Food System



Source: Source: Rodin, Carsten in The Urbanist (2013). Grow. Eat. Compost. Repeat. Issue 523
May 2013

Moreover, it imports more substituents than it sells. Substituent produced items account for 47.3 % of Egypt's foodservice imports in 2016, indicating a significant dependence on shipped intermediate products (achieving approximately 80 % in some sub-sectors like as textiles), whereas transitional consumer products account for only 20.8 % of Egypt's food and beverage exports in 2016 demonstrating Egypt's stipulation of inputs for foodservice manufacturing to foreign countries economy's resources are limited.

Agriculture and meals manufacturing are undeniably one of Egypt's most appealing yet underserved asset opportunities. Egypt's land and climatic circumstances, as well as numerous increasing seasonal changes, industry's demonstrated path capture of trade flows, its regional placement, which is close to both Egyptian and European markets States and Europe, as well as a high level of involvement in trade treaties, all relate to this possibility.

Although, the agri-food industry in Egypt is hindered by systemic problems. Unaffordable manufacturing processes are being used by additional pressure on already overstressed environmental assets (the industry uses up 86% of Egypt's water supplies), and, when combined with inadequate support programs, results in significant post-harvest failures.

The Egyptian food industry is extremely factionalized, with major weaknesses between manufactures and processing units, elevated casualness among agricultural manufacturers and distributors, and ruled by small and medium enterprises, tends to result in impoverished markets of magnitude and the production of sub-optimal reliability and labelling, which has a bad impact on the export stability and finished product costs. Despite being one of the globe's foremost manufacturers of fruits and veggies and the nation's biggest exporter of new fruit, Egypt does not rank among the top meal processing units in either of these categories. (Union, 2019)

Egypt procedures less than 10% of its new harvests, and in certain instances less than 5% significantly lower than the world average of 25-35 % for instance, while Egypt is the world 's fifth biggest tomato grower, only 3% of the world's supply is being used in the Egyptian handling sector. Moreover, less than 1% is exported, resulting in losses.

As during manufacturing and logistics stages, the percentage can reach 25-35 %. This illustrates that there are numerous possibilities. There are opportunities to enhance the industry's expansion and value added if dedicated service changes are applied.

Even though worldwide meal marketplaces would seem to be rigorous with ample equities, an implosion in supply and interruptions in stockpile, manufacturing, and exchange, restricted funding, untenable manufacturing and usage trends, connectivity weak points, and rising food accessibility concerns due to the damage of crucial earnings present dangers to governments across the world, particularly in emerging nations, capacity to guarantee a secure and constant food supply, which is vital.

The merged impacts of COVID-19 and the arising worldwide downturn could interrupt the operating of food production if not given intense focus and devoted reaction capabilities. Protracted usage and stockpile will increase, but business interactions, the essence of market forces, and the essence of contest will alter.

This review contends that, while mitigating the existing adverse effects of COVID-19 is critical in order to guarantee output in the brief period, it is also critical to begin preparing for business reconfiguration that may occur in a year's time and focusing on post-crisis expansion in attempt to maintain the healing and transition of Egypt's food industry in the mid to long period, making it more comprehensive, viable, and adaptable.

3.7.1. Impact of covid-19 on Food and Agriculture sector

Based on a study conducted by the Egyptian Centre for Economic Studies, it has been revealed that the crops most negatively affected by the Corona crisis have harvest dates that coincide with the escalation of the crisis internally and externally, as with potatoes, According to the report, the price of potatoes locally decreased to 1200 pounds per ton, while its cost reaches 4 thousand pounds per ton, and export prices decreased from 120 dollars to less than 10 dollars per ton. The fruit, which is considered a recreational commodity in times of crisis, was also affected, with the exception of oranges due to the high external demand for it as a fruit that enhances immunity against viruses, also it was mentioned in The report said that wheat has been affected in two opposite ways since the beginning of the crisis, as its prices clearly declined during the first quarter of 2020 (February-March) (Hefzy, 2020) in conjunction with the decline in the prices of corn, sugarcane and other strategic crops due to the drop in demand for them for biofuel production purposes. But wheat prices rose again last April, due to the tendency of many producing countries to impose a ban on their exports of wheat.

3.7.2 Impact on Logistics & transportation

Logistics and shipping issues are affecting Egypt's agri-food industry. In aspects of both asset and export markets, segmented logistics and transportation architecture and facilities are a major impediment to the growth of the agri-food sector. Lengthy and segmented distribution networks, insufficient cold stores and inventory, impoverished managing practises, segmented transit services, availability of basic logistics providers such as logistics gardens, incorporated cold chain alternatives, last mile interconnection, customised shipping, and technological capabilities (bar - coding, broadcast bandwidth recognition) are significant barriers to Egypt's food service's correct working. The COVID-19 pandemic provides a possibility to recognise and identify logistical and shipping slowdowns.⁹

Food transportation to marketplaces is hampered by restrictions imposed and curfews. Due to their wastage, transfer path obstructions are especially obstructionist for new food value

⁹ <http://www.odi.org/blogs/10801-low-income-country-debt-three-key-trends>.

chain, notably for elevated commodity markets (fruits and veggies, milk, meat), as they delay back agricultural facilities, availability to components, shipment of products, and advertising, and result to generate build up on farmlands. This may lead to reduced manufacturer earnings and lesser rewards to generate the impacted goods in the near term, resulting in lower crop yield and manufacturing. Obstacles in transportation paths may also lead to a rise in food damage and wastage. Food Waste and discard are already very significant along Egypt's supply chain operations, climbing up to 25-35 % in some instances (for example, tomatoes). Food loss results from the trash of assets used in manufacturing, such as property, water, and power generation.¹⁰

For these purposes, all interested parties surveyed commended the Egyptian state's policy, made as a consequence of the Compartment of Meal Companies' attempts, to explicitly excluded the agri-food industry and its employees, raw materials, and wrapping from constraints imposed and late evening curfews, which will be in impact from the end of March to the end of June 2020, in order to guarantee ongoing meals and connected packaged food manufacturing and unbroken stockpile.

Even so, the disqualification of air transport and the resulting restricted air cargo ability, scarcities of transport companies (e.g., truck drivers) and vacant cartons with correlating increases in cargo service charges, highly elevated audits, and other mass transit scowls have decelerated food supply franchises on which Egypt's food and agriculture manufacturing rely.

Figure 12 Logistics and Transportation Suez Canal



Source: www.apmterminals.com

¹⁰ <https://doi.org/10.4337/9781786431868.00015>

4. Practical Part

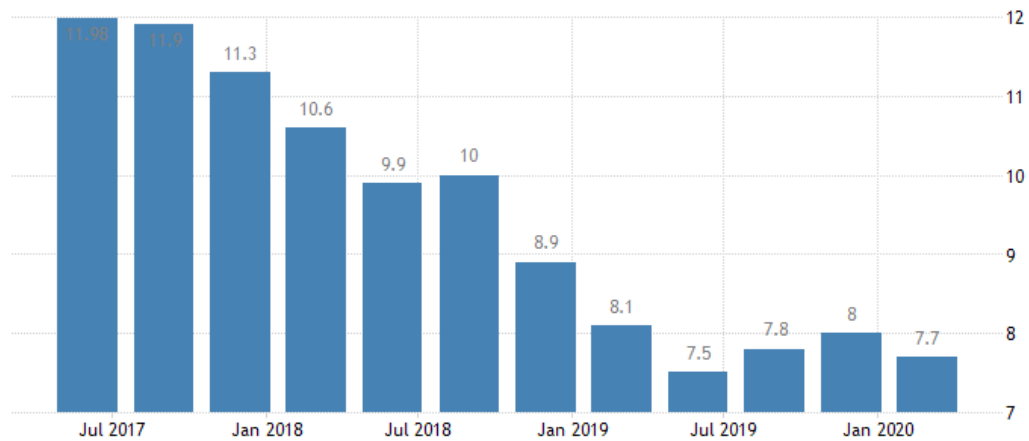
4.1 Unemployment and employment rate

Figure 13 Employment and Unemployment Rate in Egypt



Source: CAMPAS.

Figure 14 Evolution of the unemployment rate in Egypt (July 2017- Jan 2020)

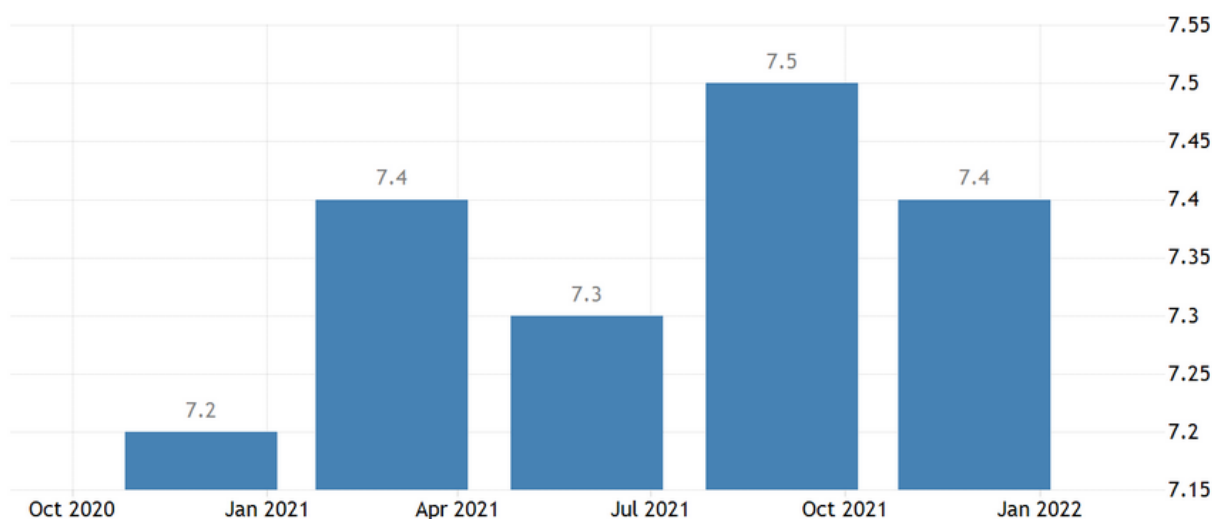


Source: TRADINGECONOMIES.COM 2020, CAPMAS, EGYPT.

The unemployment rate is the percentage of people in the labor force who do not currently have a job but are actively seeking employment. People who have not looked for employment in the last four weeks are not included in this measurement. In Figure 14 Egypt's unemployment rate decreased to 7.8 % in the third quarter of 2019 from 10 % in the same period a year earlier and 7.5 % in the previous quarter. A 708 thousand decrease in the number of unemployed dropped to 2.21

million, while 27.6 million people were employed. Manufacturing added 157,000 jobs during this period, followed by transportation & storage (+100,000) and health & social services (+72,000). It was also reported¹¹ that the unemployment rate declined in urban areas (10.1 % versus 12.5% in Q3 2018) and in rural areas (5.6 % versus 8.1 %). The unemployment rate among people with average and above-average qualifications was 43.8%, while the unemployment rate among graduates and those with higher qualifications was 44.8%.

Figure 15 unemployment rate in Egypt (2020-2021)



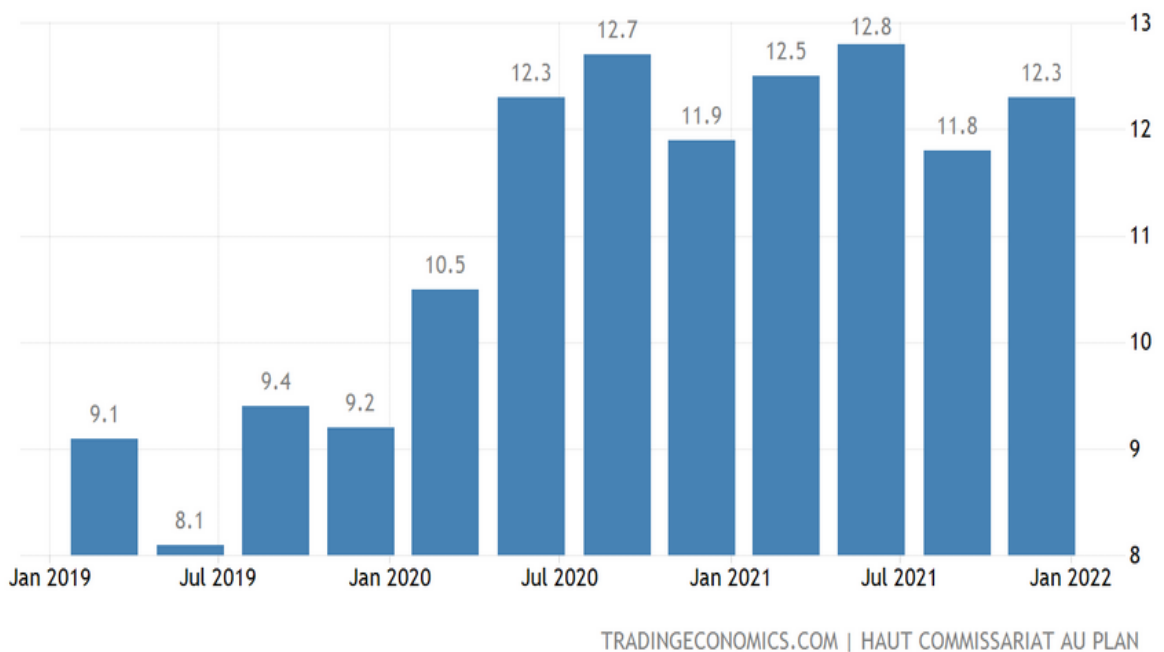
Source: TRADINGECONOMIES.COM 2020, CAPMAS, EGYPT.

Figure 15 shows that Egypt's unemployment rate increased to 7.5 % in the third quarter of 2021, up from 7.3 % in the same period a year ago and 7.3 % the previous quarter. During the third quarter, the unemployment rate reached its highest level since the second quarter of 2020, primarily due to the influx of new graduates into the labor market during August and September. As a result, there were 2.2 million unemployed people, an increase of 150 thousand from the second quarter. As of the fourth quarter of 2021, Egypt's unemployment rate has increased to 7.4% from 7.2 % a year ago but is still far below the previous quarter's figure of 7.5%. According to the latest statistics, the number of unemployed increased by 34 thousand in the fourth quarter compared with a year ago, although it declined by 11 thousand from Q3. However, employment increased by 1,901 thousand from a year ago, reaching 29.7 million, and by 2,530 thousand from Q3.

¹¹ <https://tradingeconomics.com/egypt/unemployment-rate>

As an example, if we take Morocco as another example of an increase in unemployment, we see on Fig 14 that the unemployment rate increased in the 1st quarter of 2019 by 9.1%, however, the number of people unemployed decreased by 61 thousand to 1.211 million, while the number of people employed increased by 15 thousand to 10.897 million. The unemployment rate increased by 9.5% in the fourth quarter of 2019 as well. During the pandemic of covid 19 and the lockdown in the third quarter of 2020, the number of unemployed increased to 368 thousand to 1.482 million, while employed decreased by 581 thousand to 10.17 million during the same period. Comparing fig 15 with fig 16, we will see that the unemployment rate in Egypt was less than in Morocco during the pandemic and the lockdown.

Figure 16 unemployment rate in Morocco (2019 – 2022)



Source: TRADINGECONOMIES.COM 2020, CAPMAS, Morocco

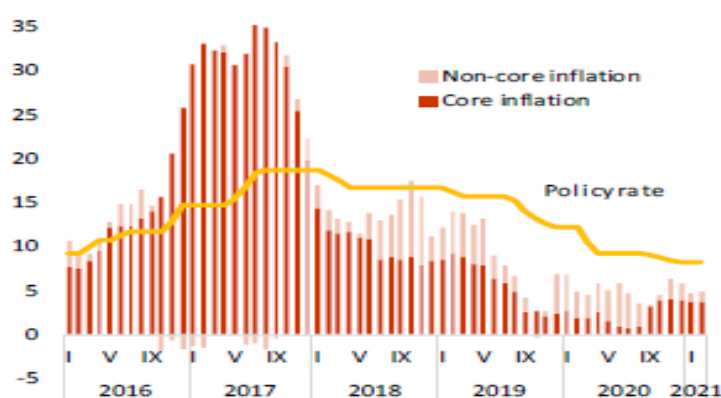
4.2 Inflation Rate

Inflation is described as an increase in the price of goods and services in the economy. A more precise description of inflation is a steady rise in an economy's overall price level.

Before the coronavirus (Covid-19), Egypt's inflation rate was expected to be 7.2 % and 6.1 %, respectively, in 2020 and 2021 as we can see in Fig18, However, based on the assumption that the Coronavirus will be eliminated by July 2020, it was expected that the global inflation rate for 2020 will be 7.4 %, and 8.6 % in 2021. When considering the pandemic to persist to December 2020, Egypt was expecting that the inflation rate for 2020 would be 8 %, while 2021 would be 8.5 %.¹²

In March 2020, it was the lowest inflation rate in Egypt since November 2019, as the food prices decreased by 1.7% and for vegetables it went down to 4.1%, in the meantime, transportation was slowly decreasing to 15.4% on monthly basis, however, regarding consumer prices it increased to 0.6% after being flat in the preceding month. During the pandemic in August 2020, food and beverage prices dropped to -4.1% especially fruits and vegetables went down to -5.6%. due to weak demand.

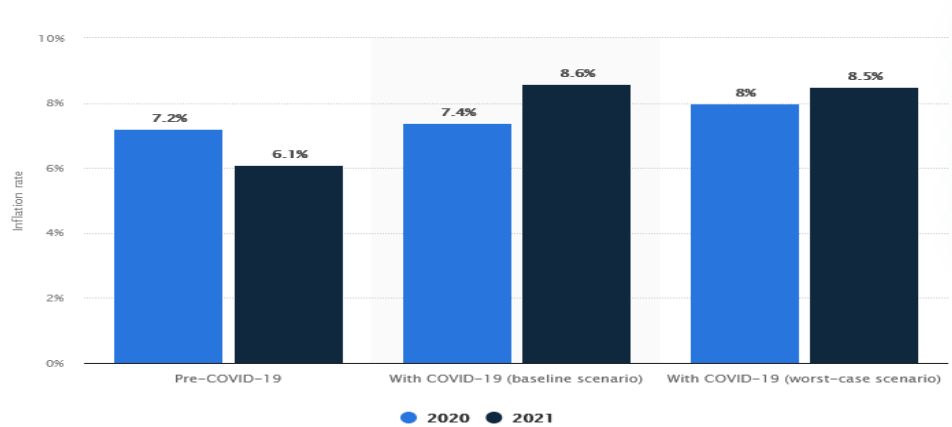
Figure 17 Inflation and Monetary Policy Rate (%)



Source: Central Bank of Egypt (CBE)

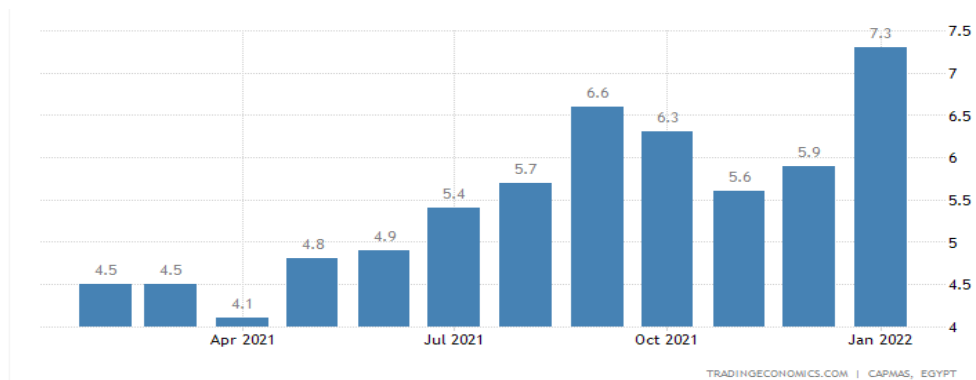
¹² <https://www.statista.com/statistics/1169790/impact-of-covid-19-on-projected-inflation-in-egypt/>

Figure 18 inflation rate in Egypt during Covid-19



Source: <https://www.statista.com/statistics/1169790/impact-of-covid-19-on-projected-inflation-in-egypt/>

Figure 19 Current inflation Rate in Egypt

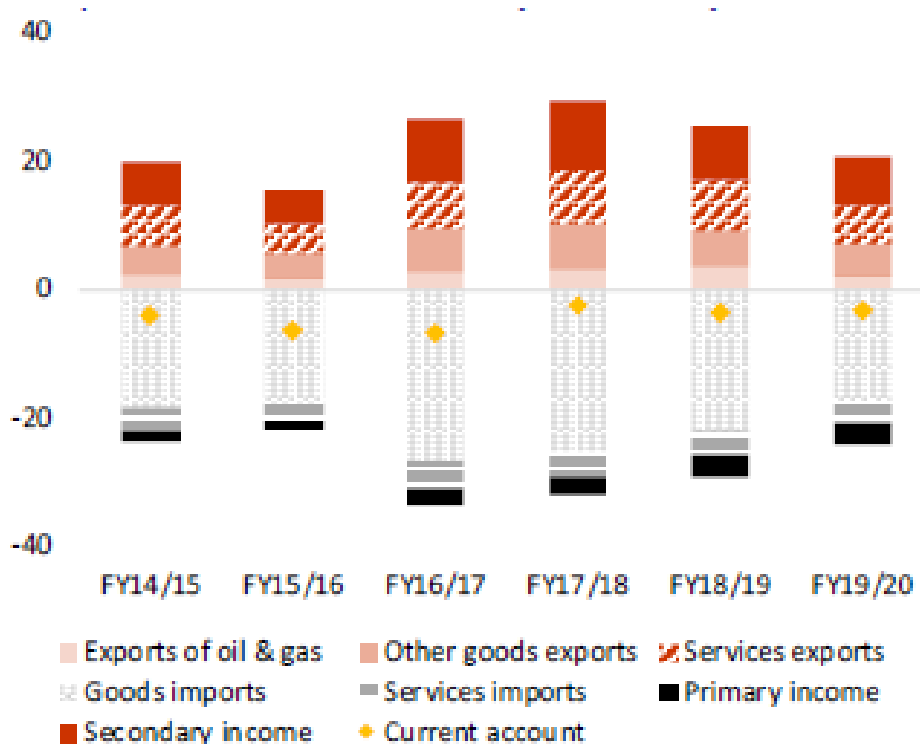


Source: TRADINGECONOMIES.COM 2020, CAPMAS, Egypt.

In January 2021, Egypt's inflation rate dropped from 5.4 % in December 2020 to 4.3% in 2021, however, it was the lowest inflation rate since September 2020, as the food prices declined to -0.5% on monthly basis, during May 2021, the inflation rate increased to 4.8% due to increase in food prices as this period was Ramadan and Eid-al-Fitr Celebration. As we can see in Figure 19, in September 2021 the inflation rate has increased to 6.6% and mainly it was due to faster rise in Food prices, at the meantime, the inflation rate remained well within Central Bank's target between 5% and 9%, by the end of 2021 specially in December 2021, the inflation rate has increased from 5.6% to 5.9% but it was below market expectations which is 6.1%. in January 2022, Egypt Faced the highest inflation rate since 2019.

4.3 GDP

Figure 20 Egypt Gross Domestic Product in %



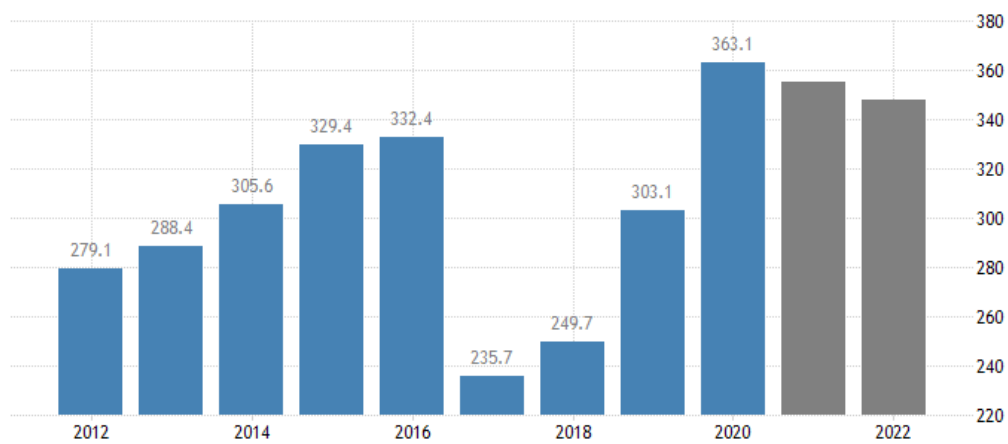
Source: CBE, CAMPAS

Egypt managed to significantly reduce the overall deficits in recent years, as we can see in Figure 20 in the year of 15/16, the overall deficit was high as 12.5% of GDP,¹³ however, by the beginning of fiscal year 18/19 the GDP has fallen to 8.2% and Egypt recorded a primary surplus of 1.9% of GDP. According to the IMF the most measures affected was expenditure. In the fiscal year 19/20, the overall balance even improved slightly to 7.9% while the primary surplus remained stable as extra stimulus spending and reduced revenues were compensated by lower expenditures for interest payments. During 19/20 fiscal year, the revenues have increased to 16.4%, expenditure have increased 12.4% due to increases in investments and social benefits that partly reflect the government's Covid-19 stimulus Package.

¹³ https://ec.europa.eu/info/publications/making-egypts-post-covid-growth-path-more-sustainable_en

According to The Central Bank of Egypt maintained its overnight deposit rate at 8.25 % on December 16th, 2021, as expected. It is the policymaker's view that the rate remains consistent with achieving the inflation target of 7 % on average in 2022 Quarter 4 and price stability over the medium term. In addition, it has been mentioned that the inflation rate eased to 5.6 % and 6.6 % in October and November, respectively, due to a transitory supply shock in tomato prices during November 2020. Furthermore, GDP grew by 9.8 % in the third quarter, up from 7.7 % in the second quarter due to the sustained improvement in domestic activity, as well as the partial impact of a positive base effect. Meantime, the overnight lending rate was left at 9.25%, and the discount rate was at 8.75%.

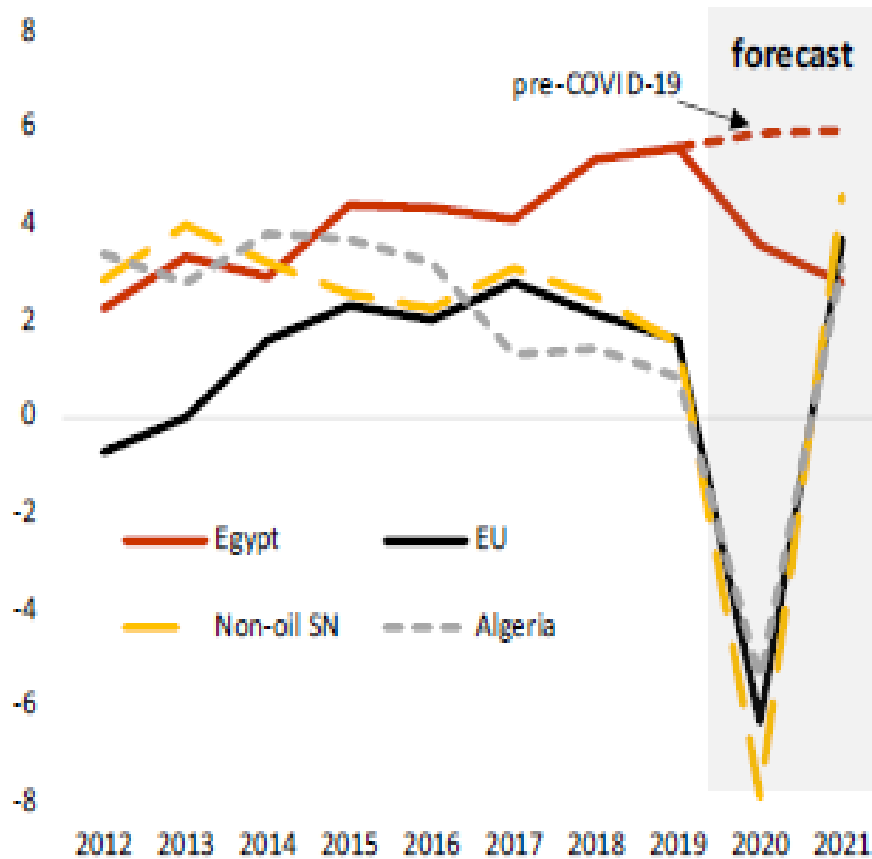
Figure 21 Current GDP in Egypt in %



Source: TRADINGECONOMIES.COM 2020, CAPMAS, Egypt.

According to fig 21, Egypt real GDP growth has shown good performance, thanks in part to the country's more solid starting position. After expanding by 5.6% during the 2018/19 fiscal year, growth slowed to 3.6% in FY19/20, partly due to a 1.7% year-on-year contraction during the April-June quarter. A virtual standstill in tourism dealt a blow to services exports, in addition to decline in manufacturing, also lower imports limited the fallout. The investments decreased sharply while consumption continued to support growth during the pandemic of the coronavirus, during July till September quarter, the growth recovered to 0.7% as the decline in investments and exports decelerated and tourism began to gradually recover. Between October and December quarter, the growth was expected to increase to 2.8%.

Figure 22 Egypt GDP growth in %



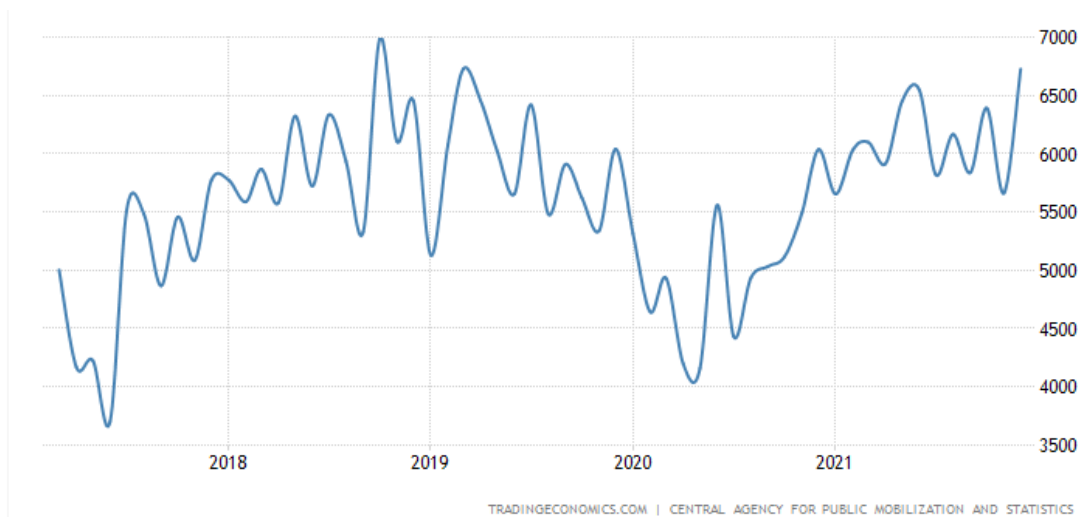
Sources: European Commission, IMF, World Bank.

4.4 Imports and Exports

Exporting is the selling of goods and services that are sourced or manufactured in the home country to foreign countries. In the process of importing, goods and services are purchased from other countries and brought back to the country of origin. The export sector accounts for about a quarter of the Egyptian economy. The major exports are oil and mineral products (32 % of exports), chemicals (12 %), agricultural products, livestock fats, and textiles (10.5 %, mainly cotton). Other exports include base metals (5.5 %), machinery and electrical appliances (4.5 %), and foodstuff, beverages, and tobacco (4 %). Major trading partners include Italy, Spain, France, Saudi Arabia, India, and Turkey. Others include United States, Brazil, and Argentina, while Egypt imports a wide range of goods,

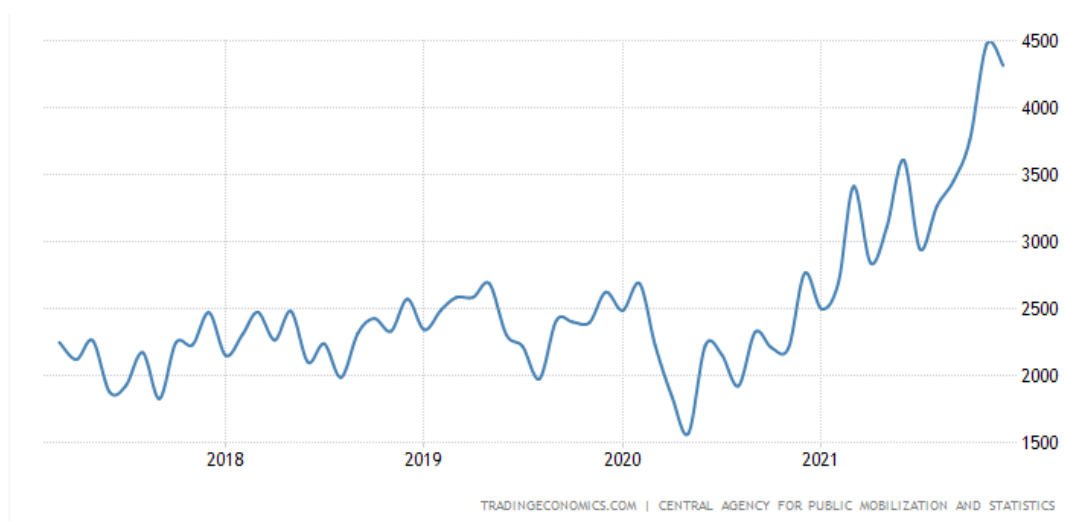
including mineral and chemical products (25 % of total imports), livestock and agricultural products (24 %, including wheat, maize, and meat), machinery and electrical equipment (15 %), and base metals (13 %). Other imports include raw hides, wood, paper-making products, textiles, and footwear (9.5%), artificial resins and rubber (6%) and vehicles and aircraft (5.5%). Main import partners include Germany, Italy, China, Turkey, Saudi Arabia, Kuwait, and Lebanon, as well as the United States and India.

Figure 23 Egypt Imports



Source: TRADINGECONOMIES.COM 2020, CAPMAS, Egypt.

Figure 24 Egypt Exports

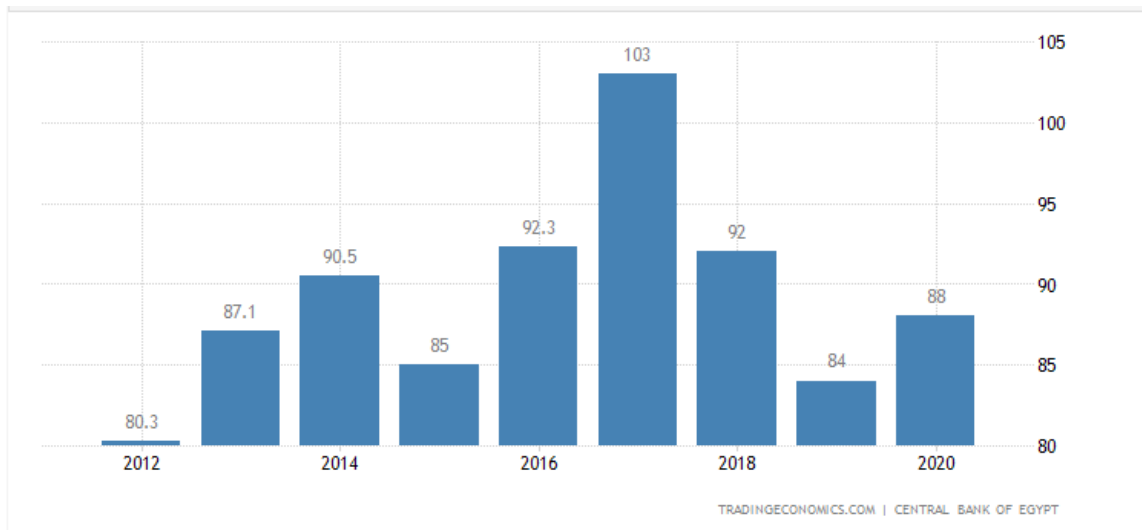


Source: TRADINGECONOMIES.COM 2020, CAPMAS, Egypt.

4.5 Government Debt

The government debt to GDP of Egypt, as we can see in the table, however, the first quarter of 2019 is less affected period by covid-19 comparing to the following quarters because the outbreak began to spread in Egypt by the end of February, it is important to have information about the pre-pandemic period. As we can see in Figure 24 the highest rate of government debt is 103%, comparing to 2019 it has the lowest rate of government debt by 84%.

Figure 26 Government Debt to GDP in %



Source: TRADINGECONOMIES.COM 2020, CAPMAS, Egypt.

As we can see in Figure 26, in 2019 the government rate was positive as it was low comparing to 2020, however, in 2020 the rate has increased to 88% which is negative results. Based on the analysis we can state that the reason surge of governmental debt is due to the lockdowns, the closure of educational institutions, all kind of non-essential services. As a conclusion for figure 26, we can understand that the government debt in GDP rate in Egypt is not stable due the pandemic.

4.6 Top challenges and priorities for Egypt

Over the last year, the officials' dedication to careful reforms, as well as their powerful achievement under the IMF program, have managed to help reduce the pandemic's medical and wellbeing influence while ensuring financial prosperity, borrowing resilience, and shareholder sentiment. Growth is anticipated to recover firmly to 5.2 % in FY2021/22; however, the viewpoint is just obscured by pandemic-related ambiguity, such as the filled recovering of tourist industry.

Furthermore, Egypt's increased general populace loans and huge gross financing necessitates (the sum of money the state wants to issue each year, both to reacquire progressing debts and to finance additional loans) make it susceptible to outer surprises, such as increased global debt levels as advanced nations progressively pull back stimulus spending.

Heading forward, it will be critical to maintain financial prosperity and decrease the national liabilities. With the instant effects of the catastrophe receding, it will be crucial to concentrate on structural changes to motivate private expansion, such as initiatives to raise profits for funding crucial essential utilities such as wellbeing, schooling, and social welfare programs, improve efficiency and clarity, as well as further create stock system.

Lowering the government's responsibility in the economic system, making sure a fair playing sectors for all industries, enhancing business climate, and ramping up Egypt's assimilation into world commerce by lowering trade restrictions and guaranteeing consistency of customs regulations will also be crucial in unlocking Egypt's tremendous growth possibilities, lowering impoverishment, and enhancing diversity and inclusion. The World Bank will proceed to provide assistance to Egypt's proposed reforms.

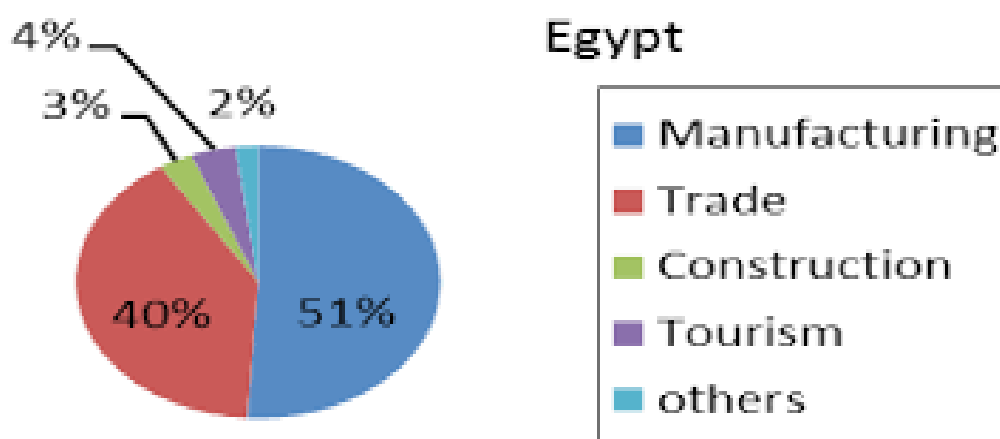
4.7 Govt. Policies to deal with the impact of Covid-19 on industrial sector

The Egyptian government is implementing strong manufacturing strategy metrics to mitigate the effects of COVID-19 on the industrial segment. Continuing to evaluate the financial influence of COVID-19, the comment addresses a range of additional interventions to assist the Egyptian government. These include the sustainable development of financial expansion, financial stresses, export, and financial, and currency value barriers.

Spending stimulus metrics that target the private sector such as the Export Burdens Reimbursement Initiative, wage subsidization, and tax breaks may be effective.

Embrace sympathetic financial policies aimed at easing the hardship on deferred industrial enterprises, as well as credit sections with preferable interest rates aimed toward productive development.¹⁵

Figure 27 Analysis statistics



Source: Elseoud et al. (2019)

¹⁵http://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r7_dispatchno349_pap14_water_and_sanitation_in_africa.pdf.

4.8 Egypt's recovery process

The IMF represented nearly \$8 billion in financial assistance through a two-pronged strategy to assist Egypt in meeting the investment necessities caused by the disease outbreak. In May 2020, the Quick Funding Instrument supplied \$2.8 billion in urgent additional funding to guarantee the Govt. had just enough international monetary system to finance vital inflows and other requires. The Stand-by Agreement (SBA), which was accepted in June 2020, gives the state access to approximately US\$5.4 billion over the next 12 months.

To place Egypt for a powerful and encompassing relief, the SBA assisted the officials in maintaining financial prosperity, rebuilding foreign reserves to reinstate storage depleted in reaction to the catastrophe, and making advancement on crucial systemic initiatives, including metrics to reinforce public finances, even more financial openness, and democratic accountability, and advancing legislation to enhance the industry environment. The project's financial laws hit a balance among assisting the market to assist protect it from the COVID-19 stress and making sure debt sustainability to preserve investor sentiment. The financial system has shown adaptability as a result of the states prompt and sensible proposed solution, combined with International monetary assistance, with projected growth to be 2.8 % in fiscal 2020/21. (IMF, 2020).¹⁶

Figure 28 Egypt selected economic indicators

Egypt: selected economic indicators

Indicator	FY 2019/20	FY 2020/21 (projected)
Annual growth rate	3.6%	2.8%
CPI inflation (period average)	5.7%	4.6%
Overall fiscal balance (budget sector)	-7.9%	-8.2%
Public debt (general government)	90.0%	92.0%

Note: FY 2019/20 corresponds to July 2019–June 2020 and FY 2020/21 corresponds to July 2020–June 2021.

IMF

Source:

http://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/OEMDC/ADVEC/WEOWORLD

¹⁶ IMF (2020), Data Mapper: General government gross debt, http://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/OEMDC/ADVEC/WEOWORLD (accessed on 11 April 2020).

5. Conclusion

Coronavirus illness has evolved into an extreme disease outbreak, posing numerous significant obstacles at the nationwide, geographic, and international scales. The repercussions, while tricky to determine, are anticipated to be huge in light of the Covid-19's quick dispersal and the severe actions taken by nations of all sizes around the world.

Although if African states are currently less impacted than other areas, the ripple effects of international trends or cracked distribution networks may cause financial action to lose momentum. Matter of fact, Africa's high reliance on overseas markets anticipates a pessimistic monetary remake for the region, estimated at a 1.5-point loss in productivity expansion by 2020.

Furthermore, due to the region's incapability to convert its raw resources to fulfil the potential elevated requirement for products and facilities in household and worldwide industries, it is basically unfeasible for the region to profit economically from the wide occurrence distribution of Covid-19 in other regions of the globe. They may behave as a further impediment to Africa's effective transition by creating real worth commerce more complicated.

Irrespective of whether the situation is positive or negative, Covid-19 would have a negative socio - economic impact on Africa.

Reference

- 1) http://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/OEMDC/ADVEC/WEOWORLD (accessed on 11 April 2020).
- 2) http://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r7_dispatchno349_pap14_water_and_sanitation_in_africa.pdf.
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- 7) <https://tradingeconomics.com/egypt/unemployment-rate>
- 8) [http://www.eces.org.eg/cms/NewsUploads/Pdf/2020_12_7-9_10_17Views%20On%20News%20\(Views%20On%20The%20Crisis\)%20-%20Edition%2024%20Follow-up%20on%20the%20effects%20of%20COVID-19%20on%20the%20Egyptian%20economy%20-%20Agriculture%20Sector.pdf](http://www.eces.org.eg/cms/NewsUploads/Pdf/2020_12_7-9_10_17Views%20On%20News%20(Views%20On%20The%20Crisis)%20-%20Edition%2024%20Follow-up%20on%20the%20effects%20of%20COVID-19%20on%20the%20Egyptian%20economy%20-%20Agriculture%20Sector.pdf)
- 9) https://ec.europa.eu/info/sites/default/files/economy-finance/eb066_en.pdf
- 10) <https://english.alarabiya.net/News/world/2021/09/07/Egypt-to-put-sustainability-multilateralism-at-the-heart-of-post-COVID-recovery>
- 11) <https://www.worldbank.org/en/news/press-release/2021/10/27/new-project-to-support-egypt-s-inclusive-and-sustainable-economic-growth>
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