# Implications of The COV ID\_19 Outbreak on The Energy Market and Iraqi Economy

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#### **Abstract**

The international energy market is of great importance at the international level in general and in international economic relations in particular because of its sources of conventional energy (oil, gas, coal, and nuclear power) and non-conventional (heavy oil, shale oil, and unconventional gas... Etc.) and renewable energy (solar, wind, oceans, geothermal, bio-energy), these sources are a significant source for many industries, in addition to using them in the operation of factories and electricity generation, so we note that many industrialized countries have increased their demand for these sources in light of international crises. Industrial, agricultural, health, and note that the rent characteristics of the Iraqi economy have been a significant factor in the disruption of the government budget and GDP and the increase in unemployment and poverty.

#### 1. Introduction.

The energy market is vital because it is an engine for many industries. Energy sources have a key role in the operation of factories and machinery through their use as fuel or as a raw material or through their contribution to electricity generation as the twentieth century witnessed a marked rise in energy consumption rates, and this was a great incentive for the development of international energy markets. Oil is the most significant contributor to it. However, the uncertainty of the perseverance of this depleted resource and climate change as a result of emissions released by fossil fuels due to its consumption in addition to the global health crises that have played a significant and influential role in the variation in the prices of energy sources in the international energy market. Iraq is one of the countries most affected by the repercussions of this pandemic for its near-total dependence on oil as a supplier of its annual budget. The decline in these revenues has led to a decline in the growth rates of the Iraqi economy, the worsening of external indebtedness, and the deterioration of financial institutions and other economic sectors. The importance of research is reflected in the fact that the international energy market is of great importance to many

of the world's producing and consuming countries if international energy sources are essential strategic commodities that enter many industries and their contribution to electricity generation. So, the repercussions of the Corona pandemic had significant implications for the reality and nature of this market, as well as had severe consequences for the Iraqi economy if it caused the collapse of the economic sectors as a result of the decline in international oil prices and the decline in Iraqi oil exports, which led to a reduction in Iraqi oil exports. Public revenues and an actual budget deficit. The research aims to achieve several objectives, most notably:

- 1. Introducing the Corona Pandemic (COVID-19) and its repercussions to the world's countries.
- 2. Learn about the repercussions of the CORONA pandemic on the international energy market.
- 3. Clarifying the position of the oil sector in the Iraqi economy because of its critical importance.
- 4. To know the Corona pandemic's economic implications in the Iraqi economy's reality.

Despite the recent CORONA pandemic, it had significant implications for the reality of the international energy market, so the problem of research begins to wonder whether the repercussions of the pandemic have had a substantial impact on the global economy in general and the Iraqi economy in particular, and this question raises sub-questions related to the research problem.

- 1. What are the implications of the CORONA pandemic on the international energy market?
- 2. How were the world's countries responding to the CORONA pandemic in the face of economic repercussions?
- 3. What are the most prominent economic implications of the Corona pandemic on the reality of the Iraqi economy?

The research is based on the hypothesis that pandemic has significant Corona repercussions on the reality of the international energy market, which has resulted in increased demand for consuming countries as a result of the fall in the prices of energy sources in oilproducing countries, resulting in the fastest taking many measures to contain the pandemic and reduce its prevalence, as well as the fact that this pandemic has had clear repercussions on the Iraqi economy as a result of its association with world oil prices, which have recorded a significant decline that has led to a deterioration in all economic sectors. To prove the research hypothesis and achieve the objectives, the inductive approach was based on its descriptive analysis tools by starting from realistic parameters and collecting the data shown by the CORONA pandemic on the international energy market in general and the Iraqi economy in particular.

### 2. Iraqi energy and economy balance 2.1. the characteristics and challenges of the Iraqi economy after (2003).

#### First: the elements of the Iraqi economy.

The fundamental characteristic of the Iraqi economy is a rentier economy that adopts a distribution policy, taking advantage of its oil wealth and revenues to support its federal budget. The weak production base of other economic sectors (industry, agriculture, trade, services) has made its contribution almost nonexistent as a source of public revenues to the state. If the industrial sector's contribution to GDP for 2002 is estimated at 25%, and the agriculture sector by about 27%. After 2003, the industrial sector contributed about 1 percent to GDP and agriculture (1.5 percent) due to the U.S. invasion of Iraq 2003, the damage it caused to the infrastructure of these sectors. and the growth of oil financial resources Iraq received a year later (2003). However, it has not achieved positive results due to the lack of strategic planning and its failure to invest optimally. It has reduced the most significant contribution to the general budget of the oil sector And table 21 oil revenues and average oil prices by year.

Table (21) Oil revenues and average oil prices for the period (2020-2007)

| Years | Oil revenues / trillion dinars | Average oil price/USD |
|-------|--------------------------------|-----------------------|
| 2007  | 50,74                          | 62,67                 |
| 2008  | 70,12                          | 88,8                  |
| 2009  | 43,30                          | 58,96                 |
| 2010  | 57,12                          | 75,61                 |
| 2011  | 98,10                          | 103                   |
|       |                                |                       |
| 2012  | 84,91                          | 107                   |
| 2013  | 81,44                          | 103                   |
| 2014  | 97,07                          | 96,8                  |
| 2015  | 51,31                          | 44,7                  |
| 2016  | 44,26                          | 36                    |
| 2017  | 65,07                          | 49,3                  |
| 2018  | 95,60                          | 65,6                  |
| 2019  | 99,21                          | 60,38                 |
| 2020  | 54,44                          | 40,69                 |

**Source**: From the researcher's work, by relying on

(1) Republic of Iraq, Ministry of Oil, Oil Exports, 2021. Available at:

### https://oil.gov.iq/?page=123.

(2) Central Bank of Iraq, Department of Statistics and Research, Annual Economic Report, Miscellaneous Years, (2020-2008)

Table 21 notes the growth in oil revenues in 2008, about 12.70 trillion dinars, a positive difference from 2007 revenues if the increase was approximately 19.19. This increase in revenues was in line with the rise in average oil prices, which amounted to \$88.8 million, which indicates, in a clear way, the positive relationship between oil exports and expenses, and then oil revenues declined in 2009. (Due to the mortgage crisis that hit the developed and developing world economies, whose impact on the global energy market was reflected, which led to a decline in world oil prices, the average price of a barrel of oil in the same year was about \$58.96, while oil revenues from the same year were about 26.81 trillion dinars lower than in 2008, and as the global economy continued to recover and global oil demand grew, and prices rose. The oil sector's contribution to the total revenue increased to 99.21 trillion dinars in 2019. The Iraqi economy experienced a significant decline in its oil revenues in 2020, as the fall in world oil prices and the repercussions of the Corona pandemic and OPEC+ (Which committed Iraq to reduce its oil production negatively on the Iraqi economy, where the decline in oil revenues amounted to 44.76 trillion dinars from the previous year. In addition, the Iraqi economy was heavily burdened by external indebtedness, noting in the early 1980s that the Iraqi economy was not classified as one of the economies of the debtor countries. Still, the picture became utterly different in the early 1990s due to the Second Gulf War, which carried an additional burden represented by the economic sanctions imposed on Al-Araq and stopping Iraqi oil exports. In 2020, due to the repercussions of the pandemic and the fall in world oil prices, and OPEC decisions, the total domestic public debt increased to 64,246.6 billion dinars.

## Second: the challenges facing the Iraqi economy.

There are many challenges facing the Iraqi economy, therefore being outlined.

**Financial** and administrative **corruption**: Political change in Iraq after 2003 weakened social, economic, and political institutions, as the U.S. invasion of Iraq created environment suitable for corruption, provided opportunities for spoilers and more than before (2003), and the disruption of laws, lack of occupancy of positions and unique degrees of competence, widespread patronage and nepotism, and weak oversight by institutions concerned with integrity in the face of widespread corruption, led to its popularity. In a UN report, an estimated \$17 billion was stolen by smuggling oil into contracts of nonexecuting oil companies in Iraq, according to another Transparency International report for 2020. In addition, Iraq was ranked among the global corruption perceptions index and in the sequence (160) out of 180 participating countries after Iraq's 2019 ranking reached the center (162<sup>-</sup>

Table 22. Corruption Perceptions Index and Iraq's Ranking at the Level of Participating Countries for Duration (2020-2007)

| The year | Value | Order | Participating countries |
|----------|-------|-------|-------------------------|
| 2007     | 1.5   | 178   | 180                     |
| 2008     | 1.3   | 178   | 180                     |
| 2009     | 1.5   | 176   | 180                     |
| 2010     | 1.5   | 175   | 178                     |
| 2011     | 1.8   | 175   | 183                     |
| 2012     | 1.8   | 169   | 174                     |
| 2013     | 1.6   | 171   | 174                     |

| 2014 | 1.6 | 170 | 174 |
|------|-----|-----|-----|
| 2015 | 1.6 | 161 | 167 |
| 2016 | 1.7 | 166 | 176 |
| 2017 | 1.8 | 169 | 180 |
| 2018 | 1.7 | 168 | 180 |
| 2019 | 1.6 | 162 | 180 |
| 2020 | 1.9 | 160 | 180 |

Al-Mu'asser: Who did the researcher's work by relying on

International transparency, corruption perceptions index 2003-2020. (1)

. https://www.transparency.com (2)

. https://tradingeconomics.com/iraq/corruption-rank(3)

2. Inflation and unemployment: Inflation and unemployment rates in Iraq varied for the years beyond (2003), with data indicating that inflation in 2008 fell by about 18.2% from the previous year, which was about (% 30.9), as the data indicates that the price index increased by about (12.7 points) and the unemployment rate as well as by about (3.6%) and for the same period mentioned above. In 2019, the inflation rate fell significantly by 0.2 percent, a decline in oil revenues, and the Iraqi economy recovered gradually this year despite the turmoil in the last month, with the same

year's price index reaching 104.5 points and a decline of about 0.2 points from the previous year. In addition, the unemployment rate fell by 0.11 in the prior year. At the same time, in 2020, when the Iraqi economy experienced a decline in its performance due to the repercussions of the Corona pandemic, inflation was about 0.6 percent, and the price index reached about 105.1 points, while the unemployment rate for the same year was about 0.6 percent.

(13.8%), higher than the previous year and about (0.98%).

For more, wait for schedule 23.

Table (23 inflation, unemployment, and price index in Iraq for the duration (2020-2007)

| Years | Inflation | Price index | Unemployment rates |
|-------|-----------|-------------|--------------------|
| 2007  | 30.9      | 100         | 11.7               |
| 2008  | 12.70     | 112.7       | 15.30              |
| 2009  | 8.30      | 122.1       | 14.0               |
| 2010  | 2.50      | 125.1       | 12.0               |
| 2011  | 5.60      | 132.1       | 11.0               |
| 2012  | 6.10      | 140.1       | 11.90              |
| 2013  | 1.90      | 142.7       | 12.10              |
| 2014  | 2.20      | 145.9       | 10.60              |
| 2015  | 1.40      | 148         | 13.18              |
| 2016  | 0.10      | 104.1       | 10.80              |
| 2017  | 0.20      | 104.3       | 10.90              |
| 2018  | 0.4       | 104.7       | 12.87              |
| 2019  | 0.2-      | 104.5       | 12.76              |
| 2020  | 0.6       | 105.1       | 13.74              |

**Source**: From the researcher's work, by relying on

- (1) Central Bank of Iraq, Department of Statistics and Research, Annual Report on the Role of Monetary Policy of the Central Bank of Iraq in Managing Inflation for 2018, p. 1.
- (2) Central Bank of Iraq, Department of Statistics and Research, Annual Economic Report for Various Years, (2020-2018)
- (3) Ministry of Planning, Central Statistics Agency, Poverty Monitoring and Assessment Survey in Iraq,2017-2018

https://ar.tradingeconomics.com/iraq/unemployment-rate (4)

3. **Food security:** Iraq continues to suffer from the decline in food security, especially after 2003, because of its large use of food and agricultural products, with estimates of food dependency on the outside world of 81.8%, indicating that the food gap has widened significantly in the years following the Us occupation of Iraq, according to statistical figures for 2019 (to reach the food supply rate of about 200). (1 million tons, up from about 13.8 million tons in 2000).

4.

5. The imbalances in the structure of foreign and domestic investments: the deterioration of the security and political is one of the most important influences in the volume of assets, at the same time the nature of foreign investments is attracted to economies with security and political stability as well as the same applies to local investments, so the owners of capital at home refrain for the same reasons In the same context, legal legislation also affects the volume of assets and profits from them, as legal legislation raises the concerns of investors at home and abroad, although Iraqi investment laws No. 13 of 2006, amended by Law No. 2 for the year (2010 as well as Law No. 50) For the year 2015 (which aims to encourage investors, but the weak application and lack of guarantees to protect investments and profits, future uncertain and this has made the uncertain, which has led to the emergence of the element of calculated and uncalculated

risks and this pushes investors to refrain from investments and therefore will lead to severe reflections on the nature of the Iraqi economy, which increases the reliance on the oil supplier.

## 2.2. The strategic importance of energy sources.

The energy sector, the largest and the head of the Iraqi economy's sources of finance, can be considered one of the most essential sources of energy within its front and rear links with other sectors, as oil is one of the most crucial sources of power in the world and is a global strategic commodity and a vital raw material for energy, manufacturing and mobility, which In a large number of different industries and crafts in the world, it also constitutes an essential and effective proportion in international trade and affects all aspects of economic activities, as well as as as a source of thermal energy used in the industrial, agricultural, transport and electricity generation sectors, as well as in petrochemical industries, that these properties pushed him to be the engine The basic of the Iraqi economy, and since the Iraqi economy by its very nature is a rent economy, it has relied heavily on oil as a significant source in strengthening development efforts and driving economic growth, because of its financial returns, which contribute to the construction of a sophisticated industrial base The strategic importance of energy sources in the Iraqi economy is reflected in the liquidity generated through oil exports, and the greater the oil revenues, the more significant the contribution to economic diversification, through the development and development of other sectors investments to develop infrastructure and import raw materials to boost non-oil revenues.

The second topic is the repercussions of the development of the pandemic on oil exports.

#### 2.3. Corona pandemic.

#### The definition of the Corona pandemic:

On February 11, 2020, the World Health Organization (WHO) named COVID-19 the coronavirus epidemic, chosen for its epidemic associated with the virus responsible for the SARS outbreak in 2003. This figure indicates the year the first case of the epidemic was detected in Wuhan, China, and this epidemic has severe symptoms affecting the respiratory

system. It has claimed many lives and can be defined as a new virus strain that has never been identified as infected by humans. It is also known as a global health and economic emergency crisis that has caused material and human damage in all countries, whether developed or developing Others define it as a rapidly spreading epidemic that has destroyed and disrupted social and economic life for the world's governments and has negative impacts

pandemic, the world's countries have faced rapid developments associated with the attack 76322698 2263868 1044341 of the pandemic, working and cooperating to take precautionary and preventive measures to reduce the spread of the pandemic.

In table 8, the historical sequence of the spread of the CORONA pandemic can be demonstrated.

on the future of humanity it was more influential and influential in those developed countries, including Italy, Spain, Britain, and Iran.

### The emergence of the Corona pandemic

The first appearance of the Corona pandemic was on (December 12, 2019) in Wuhan, China, Hubei Province, one of its largest cities, specifically in the public fish market. If sources indicate that a woman ate a dish of bat soup and was diagnosed with a deadly disease by the Chinese doctor Wenliang, it spread rapidly around the world. On December 31 of the same year, was threatened with a fatal disease, many epidemiologists published warnings of a virus similar to severe acute respiratory syndrome (SARS-CoV-2), which spread in 2003-2002. On March 11, 2020, they announced the outbreak of the Corna virus. Described as a

Table (8) Historical sequence of the spread of the CORONA pandemic for the duration (2021-2019)

| Date       | Events  |  |
|------------|---|--|
| 12/12/2019 | Diagnosis of the first case of virus  |  |
| 31/12/2019 | Many medical workers have warned of a deadly SARS-like disease and who has been at        |  |
|            | risk.   |  |
| 1/4/2020   | WHO has issued a report on cases of pneumonia in Wuhan                                    |  |
| 2020/1/7   | The World Health Organization (WHO) has identified and called the virus COVID-19          |  |
| 2020/1/11  | China's Wuhan announced the first death   |  |
| 2020/1/13  | First virus case confirmed outside China  |  |
| 2020/1/17  | Confirmation of injuries in countries Nepal, France, Australia, Malaysia, Singapore,      |  |
|            | Vietnam, Taiwan, South Korea  |  |
| 2020/1/22  | WHO confirmed evidence of human virus transmission  |  |
| 2020/1/23  | China has imposed a ban on cities in Hubei Province, Wuhan, Shanata, and Shibi            |  |
| 2020/1/30  | The World Health Organization (WHO) has announced that Covid-19 requires                  |  |
|            | international attention to its seriousness.   |  |
| 2020/1/31  | The U.S. Declares Public Health Emergency   |  |
| 2020/2/2   | First death recorded in the Philippines   |  |
| 2020/2/4   | Egypt has declared its first case of Covid-19, the first case on the continent of Africa. |  |
| /2/9/2020  | The number of deaths in China exceeded the number of deaths caused by SARS in             |  |
|            | 2002))  |  |
|            |   |  |
| 2020/2/23  | The number of infections in Italy has increased to become the most widespread             |  |
|            | epidemic country in Europe  |  |
| 2020/2/29  | First death confirmed in the USA  |  |
| 2020/3/8   | More than 100 countries declared the epidemic, and Italy declared a health ban in         |  |
|            | Lombardy.   |  |
| 2020/3/11  | THE WORLD HEALTH ORGANIZATION (WHO) HAS DECLARED COVID-19 TO                              |  |
|            | BE A GLOBAL EPIDEMIC.   |  |
| 2020/13/3  | The President of the United States declared a state of emergency in his country           |  |
| 2020/4/15  | The number of cases worldwide (2,000,000,000 million people)                              |  |
| 2020/4/27  | The number of cases worldwide (3,000,000)million people                                   |  |

| 2020/4    | Clinical trials have begun to produce a vaccine (Pfizer)                              |
|-----------|---|
| 2020/5/21 | The number of cases worldwide (5,000,000) million people                              |
| 2021/11/1 | The total number of casualties worldwide (247483942) was 1 million, and the number of |
|           | deaths was (5,015,400) million.   |

**Source**: From the researcher's work by relying on the following sources:

- (1) Mays Noman Jaber, Political and Economic Implications of the Covid-19 Pandemic on EU Conditions, Unpublished Master's Letter, Kufa University, Faculty of Political Science, 2021, p. 6-7-8
- (2) Qamar Thamer Sabri, International Economic Relations And The Corona Pandemic Selected Models, Unpublished Master's Letter, University of The Two Rivers, Faculty of Political Science, 2021, p. 41

https://www.worldometers.info/coronavirus/#countries ( (3

## 2.4. Implications of the development of the pandemic in oil exports.

There are severe repercussions of the Corona pandemic on oil exports in the Iraqi economy, which is suffering from an apparent fragility due to its computerization of oil as a significant resource, which has negatively affected the rest of the economic sectors and exacerbated external indebtedness, which has slowed economic growth. The change in total exports can be seen through the development of oil exports between 2020-2019 and 2018. About 3,524.6 million barrels, This figure exports is higher than Iraq's total exports in 2018, 3,444.2 percent. Due to the repercussions of the pandemic in 2020, the volume of oil exports

decreased by 46.5% from the previous year. 5206,000 barrels and this decline in export rates coincided with the decline in world oil prices, with the average annual price per barrel in 2020 reaching \$40, and Iraq's commitment to OPEC+, which was issued at the 9th and 10th meeting in 2020, which led to the continued reduction of the group's impact impacts by about 9.7 million barrels as a preliminary stage. The Iraqi economy contracted by 10.4 percent in the same year, and production adjustments were made from July to the end of 2020 to reduce phasing out production if this reduction continues until Signs of a gradual recovery in the growth of the global economy, if the arrival of the vaccine for the countries of the world contributed to the easing of the closures, and this led to an increase in global demand for oil, which in turn reflected positively on oil revenues in Iraq, as well as the easing of OPEC actions towards Iraq contributed to increasing its share of oil exports. In the ministerial meeting (OPEC+) no. 25 (2021), in which it was decided to increase its production by (4000) Iraq's total share of oil production is 4,370 million barrels, which has contributed to the strengthening of its oil exports, which

amounted to about 2,960.0 million barrels.

Table (25) Development of oil exports and their value for duration (2021-2018) (1 million barrels/day)

| Years        | 2018    | 2019    | 2020    | 2021    |
|--------------|---------|---------|---------|---------|
| Total shocks | 3,444,2 | 3,524,6 | 3,004,0 | 2,960.0 |

Source: From the researcher's work, by relying on

- (1) Ministry of Planning, Central Statistics Authority, Annual Economic Report for Exports 2020,p4.
- (2) Iraqi Oil Marketing Company (Somo), Crude Oil Exports, 2021, available at:

In the same vein, in a report of the Iraqi oil marketing company Somo, it announced that oil exports in Iraq amounted to about (1.1028)

billion barrels in 2021) as well as the value of annual revenues of approximately (70)billion dollars, and that most Iraqi oil exports go towards the countries of Asia and India and China are among the largest importers of crude oil to Iraqutfkhi/sgraduillimpio/tempents in Iraq's exports has had positive repercussions on the Iraqi economy, through fiscal surpluses achieved as a result of the rise in world oil

prices, which contributed to debt reduction, in addition to supporting and revitalizing non-oil sectors, which grew by more than 21 percent until the first half of the year (2021), despite this positive development in the Iraqi economy, However, the prospects for Iraqi harvesting remain precarious due to uncertainty about the continued bullish trend in oil prices as well as surges in the pandemic, which could bring the global economy back to closure, and this requires the implementation of the white paper axes.\*)

Comprehensive economic reforms have been carried out in the structure of the Iraqi economy, the development of its economic sectors, and the control of inflation rates, which have caused a deterioration in the domestic market if statistics indicate a rise in inflation in 2021 and a rate of (5.3%).

This is due to insufficient supply of goods to meet domestic demand, as well as the situation of the 1,500 displaced persons in the camps by the end of 2020, which requires substantial funding and government as well asymptonary status, which remains tragic and poses a threat to food security in Iraq and contributes to further rising unemployment rates. On the other hand, the preliminary statistics of the Iraqi oil marketing company Somo indicated that Iraq's oil exports increased in January 2022 to an estimated 3,203.0 million barrels per day, achieving revenues of over 11 trillion Iraqi dinars and an average price per barrel of 83.3 dollars, which will have a positive impact on the Iraqi economy for the current year.

# 2.5. The implications of the development of the pandemic on investment in the energy market.

When considering the reality of investments in the loss of the energy sector in Iraq, this reality is found to be reduced due to the need for foreign investments, mismanagement and revitalization of the private sector with the public sector, and the culmination of their partnership, to reduce the reliance on depleted conventional energy, which contributes more than (90%) of the total energy production, and on the other hand, we note the Iraqi Investment Act No. (13) for the year (2006 amended by Law No. (50 for the year) (2015). (53) In 2017, the Ministry of Electricity Act (53) contributed to supporting and encouraging investment in this area. Still, investments in the energy sector declined significantly due to the repercussions of the pandemic and the collapse of world oil prices. Demand has declined as a result of health closures in most countries of the world and declining fuel consumption, especially in the transport and electricity sector, which are one of the largest fuel-consuming sectors, to the decline in investments in the Iraqi oil sector in particular and energy in general, if companies contracting with Iraq reduced their investment plans prepared for investment in 2020, In the same context, although the decline in oil prices is again for the refining sector, investments have also declined due to the repercussions of the pandemic that caused demand for derivatives to reduce. It should also be noted that the most critical investment project in the refinery and refining sector is the Samawah refinery project, which has a production capacity (of 70,000 barrels per day). Still, suppose the overall economic situation improves, and oil prices rise. In that case, this will be an encouraging environment to attract investments in the oil sector gas in Iraq because of its large fields and reserves of these sources, which require significant investments. The Iraqi government already contracted with Total of France and Lukoil in 2018 to collect and refine the burning gas associated with oil. As a result of the security conditions experienced by Iraq and the repercussions of the Corona, the pandemic led to the disruption of its work, which had negative implications for the reality of investments in the energy sector in Iraq. According to estimates by the Ministry of Oil, which indicated that its investment contract with Total of France and in partnership with national companies, namely Southern Gas Company and Basra Oil Company, to enhance profits and direct investment, the initial procedures will be initiated during the year which includes four investment (2022,contracts:

**First**: Gas investment contracts with (600) million standard cubic feet capacity.

**Second**: Adama contracts and increases productivity within seawater treatment by (5)million barrels per day.

**Third**: The contract for the development of the Artawi field project will contribute to increasing production capacity by about 210,000 barrels per day.

**Fourth:** Solar power generation contract at (1000) Mika Watt.

The IEA also indicated that Iraq's energy consumption, which could reach 150 twh in 2030, doubled from 75 terawatts per hour in 2018. Iraq is expected to achieve a renewable energy generation capacity of 2.24 gigawatts (gigawatts) by 2025. On the other hand, in the electricity sector, the data of the investment map of Iraq indicated the existence of investment opportunities in the field of solar energy, which was concentrated in some provinces that have the components of its

construction, including Muthanna governorate by three stations (Sawa station 1, sawa station 2, al-Khadhar station) and the expected added capacity of about 130 (Mika Watt) and badra solar plant in Wasit province, which has an added capacity of about 500 Mika Watt and the Alexandria station in Babylon province are expected to have an added degree of 175, Mika watt. For more on this, he looks at table 26. Table (26) Solar Investment Projects according

Table (26) Solar Investment Projects according to Iraq's Investment Map of the Year (2021) (Mika Watt)

| to | Project                    | Added capacity | Province     |
|----|----------------------------|----------------|--------------|
| 1  | Sawa Station No. (1 Solar) | 30             | Al, Muthanna |
| 2  | Sawa Station #2 Solar      | 50             | Al, Muthanna |
| 3  | Solar Vegetable Station    | 50             | Al, Muthanna |
| 4  | Badra Solar Station        | 50             | Interface    |
| 5  | Alexandria Solar Station   | 175            | Babylon      |

**Source:** Prime Minister, National Investment Authority, Investment Map of Iraq (2021), p. 112.

# 2.6. The repercussions of the development of the pandemic in the Iraqi economy.

## First: GROSS DOMESTIC PRODUCT (GDP).

By tracking the total GDP statistics for the years after 2003 and looking at World Bank data and annual reports of the Central Bank of Iraq, we find that the contribution of oil exceeds (56%) of GDP in general and that the dominance of oil in This aspect means linking other activities to oil, and this is the real danger faced by the Iraqi economy unilaterally, because everything that oil is exposed to will have repercussions on all activities, due to the commitment of supporting productive Since activities. the most significant contribution to the GDP of the oil sector, this means that it will be negatively and positively affected by the factors in which oil is involved, as the quantities of production, the volume of exports, world prices and the repercussions of global health crises are one of the most critical factors affecting GDP, and by tracking the duration of (2020-2015), as it is clear that the year (2015) It has seen the lowest contribution

of oil to GDP, due to the repercussions of the war on ISIS gangs that occupied part of Iraq in 2014 and their control of some oil fields and transport lines, and this occupation coincided with the decline in oil prices in the world oil market, but in 2019 As a result of the recovery of the world economy and the improvement of oil prices in the world markets, this has led to a marked improvement in the Iraqi economy, which contributed to the increase in the added value of the non-oil sectors, while the percentage of oil contribution to GDP declined by 59.1) and in 2020 the Iraqi economy suffered a double shock The repercussions of the Corona pandemic and the decline in oil prices in the international energy market, if the consequences of the Corona pandemic and the decline in world oil prices and opec decisions led to repercussions that affected the Iraqi economy, as the gross domestic product (GDP) fell by about 35-trillion dinars, and the relative importance of oil decreased by (15.7- from the previous year, which was approximately 223.1 trillion dinars.).

Table (27) Gross domestic product (GDP) at current prices and oil contribution ratio for the duration (2020-2015)

| Years | Gross domestic product (GDP) at constant      | Percentage of oil       |
|-------|---|-------------------------|
|       | prices (trillion dinars) (the base year 2007) | contribution to GDP (%) |
| 2015  | 182,3   | 55,1                    |
| 2016  | 199,5   | 63,7                    |
| 2017  | 201,5   | 64,0                    |
| 2018  | 202,8 62,5                                    |                         |
| 2019  | 223,1   | 59,1                    |

| 2020 | 188,1 | 61,4 |
|------|-------|------|
|      |       |      |

**Source:** From the work of the researcher by relying on:

https://data.albankaldawli.org/indicator/NY.GD P.MKTP.CN?locations=IQ. ((1

(2) Central Bank of Iraq, Department of Statistics and Research, Annual Economic Report (2020-2015).

#### **Second: General revenues:**

Oil revenues dominate all Iraqi public revenues, making them the most significant contributor to Iraq's general budget. However, non-oil revenues make up a low percentage of them due to the renty nature of Iraq's economic structure, making it vulnerable to fluctuations in the world energy market prices, which the araqi economy suffered after 2003, such as the mortgage crisis in 2008 and the eurozone crisis in 2011-2010. This is the double crisis in 2014, when ISIS occupied parts of Iraq, coinciding with lower oil prices on the international market, falling to low levels as the United

States and Canada shifted from oil consumers to shale oil producers, and the subsequent OPEC policy change negatively affected the volume of Iraqi oil revenues, with the contribution of oil revenues from public revenues in 2015. In 2016, oil revenues increased to 81.4%, despite a decline in general revenues of 12.07 trillion. Dinars, but the year (2020) witnessed a global health and economic crisis (Corona pandemic) whose repercussions led to the fall in oil prices below (40) dollars, which led to a decrease in oil revenues by (%-45.1) This negatively affected the general revenues of the Iraqi economy to reach a decline in public revenues of 44.4 trillion dinars compared to the year (2019) in which public revenues amounted to about 107.6 trillion dinars. However, despite this decline in general revenues, the share of oil revenues in total revenues by a large percentage, amounting to about 86.2%.

Table (28) General revenues and the contribution ratio of the oil sector for the period (2020-2015) (trillion dinars)

| Years | General revenue | Percentage of oil revenue contribution |
|-------|-----------------|--|
| 2015  | 66.47           | 77.2                                   |
| 2016  | 54.40           | 81.4                                   |
| 2017  | 77.3            | 84.1                                   |
| 2018  | 106.6           | 89.7                                   |
| 2019  | 107.6           | 92.2                                   |
| 2020  | 63.2            | 86,2                                   |

**Table**: The researcher's work is based on the data contained in:

Central Bank of Iraq, Department of Statistics and Research, Annual Economic Report for years (2020-2015).

#### Third: Budget

By tracking data and statistics on Iraq's annual budget, the bulk of its annual budget depends on oil revenues, making it vulnerable to the reversals and crises that affect oil prices on the world market. (where expenditures were high due to the double shock suffered by Iraq's low world oil prices and attacks by ISIS terrorist gangs, but the value of the budget deficit remained high and about 1 trillion dinars, from the previous year, and in 2018 the Iraqi economy began to recover significantly as a result of the increase in oil prices, which reflected positively on the budget, as the record of tunnels in general increased considerably and by (7.1) This is due to the rise in current

expenditures, which have grown by 13.6% over the year (2017). All of this has led to a significant decline in the growth of the Iraqi economy and transactions Trade and the cessation of investment movement. The decline in GDP, which led to an increase in poverty and unemployment rates, and the repercussions of the pandemic on world oil prices, in addition to Iraq's commitment to opec+, which changed its policy towards prices and went towards reducing the production of its members, has pushed Iraq to reduce its oil production and consequently reduce its exports, and this led to the deterioration of its budget in 2020 ) and significant deficits in them. The repercussions of the pandemic in the oil sector and the uncertainty that prevailed in the global economies over the end of the pandemic have led to a further increase in expenditures than in 2019 to ensure the requirements to cope with the pandemic, and this deterioration in the budget has increased operational tunnels and

reduced investment tunnels. The pandemic social divergence by lowering part of the budget burden in reducing fuel consumption, which costs the budget approximately 3 trillion dinars, and for more on this table 29 is considered.

Table (29) General Budget (Public Revenues, Public Expenditures, Surplus, and Deficit) for the duration (2020-2015) (1 trillion dinars)

| Years | General (actual) revenues | Public expenditures (actual)* | Deficit/surplus |
|-------|---------------------------|-------------------------------|-----------------|
| 2015  | 66.47                     | 70,4                          | 3,93-           |
| 2016  | 54.40                     | 67,1                          | 12,7-           |
| 2017  | 77.3                      | 75,5                          | 1,8             |
| 2018  | 106.6                     | 80,9                          | 25,7            |
| 2019  | 107.6                     | 111,7                         | 4,1-            |
| 2020  | 63.2                      | 76,1                          | 12,9-           |
|       |                           |                               |                 |

**Source**: From the researcher's work by relying on the data received:

Central Bank of Iraq, Department of Statistics and Research, Annual Economic Report for years (2020-2015).

\*Does not include payments of government obligations.

Demand 5: Ways to address the repercussions of the pandemic on the Iraqi economy.

The means of remedies required to correct and disrupt the Iraqi economy is suffering from the repercussions of the Corona pandemic, which the world has not witnessed in general and Iraq in particular, such as its repercussions.

First, by dismantling the roots of the ranty state and moving to the production state, It is by embarking on an immediate salt program to address the budget deficit (2020), which requires the implementation of medium-term economic reform plans.

**Second:** Work on implementing investment plans that are useful for diversifying the revenue sources of the Iraqi economy to take a sustainable path.

**Third:** Achieving sustainable financial stability by boosting public expenditures, boosting revenues, comprehensive reform of the financial system, and stopping the financing of the pension fund from the general budget.

**Fourth:** Carry out strategic economic reforms within the agriculture and industry sector, improve the reality of the oil and gas sector, support medium and small enterprises and facilitate the participation of the private sector

in the activities of the Iraqi economy and support it through legislation encouraging it.

**Fifth**: Developing the basic infrastructure in the Iraqi economy through the development and construction of industrial cities and the development and increase in the efficiency of the electrical power system, the development of digital technology, and the introduction of the fourth and fifth generations of them.

**Sixth**: Establishing a unified retirement system for the private and public sectors, reorganizing and drawing up the social protection system, and reviewing other types of support to unite and rationalize them to reach their objectives.

Seventh: Issuing sovereign bonds to citizens enabling them to obtain barrels of oil at current prices and resell them to the government later, to withdraw cash from citizens to cover the budget deficit (2020).

#### 3. Conclusions

The Corona epidemic had a negative impact on oil-producing countries due to the drop in global oil prices and the OPEC + decision imposed on its members to reduce the quantities produced and exported of oil. On the contrary, the epidemic showed. Positive impact on oil-consuming countries due to increased demand as a result of the drop in international oil prices. Despite the repercussions of the Corona pandemic on renewable energy sources, it has had a positive impact on global supply. The Iraqi economy is characterized by

its almost complete dependence on the oil sector, contributing about 95 percent of public revenues and negatively affecting all other economic sectors. The Corona pandemic showed the weakness of the Iraqi economy in and emergencies, responding to crises especially the recent health crisis. The repercussions of the Corona pandemic on the Iraqi economy led to a significant increase in expenditures to keep pace with it, which led to a decline in investment spending and an increase in operational spending. Demanding the Iraqi authorities to establish a sovereign wealth fund to deal with the crises (economic, health, political) that the country is facing and benefiting from the current financial abundance that has been achieved due to the rise in international oil prices. He urged the Iraqi government to pay attention to the health sector and provide the necessary financial support to enhance the health reality to be more effective and capable of facing such crises. Activating the role of the private sector in the Iraqi economy by supporting it by enacting laws that guarantee the right to retirement and social security and reduce dependence on the oil resource.

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