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Analysis of crude oil price fluctuations and oil shocks in the global market For the period (2004-2021)

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Abstract : Crude oil price fluctuations and oil shocks leave real effects in the global market and thus reflected their impact in all countries of the world regardless of whether they are producing or consuming crude oil, and the study found that oil shocks occur as a result of external influences on the oil market, such as changes in factors affecting oil prices, which in turn lead to a sharp and sudden rise or fall in oil prices, It also recommends taking advantage of opportunities in which a state of relative stability is achieved in terms of prices and financial surpluses, by redirecting these surpluses towards supporting other economic activities, and increasing investment opportunities and more efficient productivity, in order to get rid of structural imbalances resulting from oil shocks.

Keywords: (crude oil prices, global oil demand, oil shock)
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INTRODUCTION: Crude oil prices are exposed to many fluctuations in the global oil market, as a result of the pivotal stages that the market has gone through its transformation from the control of monopolistic companies to national and independent companies in addition to the entry of new producers to it on the one hand, and on the other hand the developments that have occurred to the oil industry, which had a role in changing the size of costs, This is in addition to the impact of external factors on the partial nature of supply and demand, and that the volatility of prices and sharp oil shocks (up or down) remain a concern for all countries of the world, whether they are producers or consumers, due to their impact on the activity of the global economy.

The importance of research:

The importance of research lies in the analysis of oil price fluctuations and the development of global demand for crude oil and the occurrence of oil shocks in the global market, in an attempt to absorb them and mitigate their effects, within the balances of oil-producing and consuming countries.

Research problem:

The global oil market has been exposed to many fluctuations and oil shocks beyond its control, which resulted in the departure of crude oil prices from the path set by the oil-producing and consuming countries, so what are the most important reasons that led to the volatility of crude oil prices and the occurrence of oil shocks?

An Objectives:

The research aims to show the most important reasons that motivated the volatility of crude oil prices and the emergence of oil shocks in the global market. Research Objectives: The research aims to show the most important reasons that motivated the volatility of crude oil prices and the emergence of oil shocks in the global market.

Research hypothesis:

The research proceeds from the premise that crude oil price fluctuations and oil shocks leave effects (positive or negative) in the global oil market, and thus show their impact on the economies of oil-producing and consuming countries.

Research Methodology:

The study relied on the descriptive analytical approach in analyzing the fluctuations of crude oil prices and oil shocks in the global market, in order to achieve the research hypothesis and reach more logical results.

Research Structure:

To meet the requirements of the research and achieve its objectives in light of its hypothesis, it has been divided into four main demands, and they were as follows:

The first requirement: the concept of oil price and its types
Second Requirement: Oil Shocks
The third requirement: oil price fluctuations and the development of global demand for oil in the global market
Fourth requirement: The evolution of the volume and value of oil exports in Iraq for the period (2004-2021)

First Requirement
The concept of oil price and its types

First: The concept of oil price:

Before addressing the concept of oil price, it is necessary to highlight the general concept of the price and how to determine it, according to economic theory, that the price of any commodity is determined by the interaction between the forces of supply and the forces of demand, and this interaction leads to a situation called economically the state (equilibrium), which occurs when the quantity offered is equal to the required quantity of the commodity, so the equilibrium price (market price) is determined, That price changes when sudden changes in the conditions of both supply and demand and other influencing factors are induced(1). Harper defined it as "the amount of money that a buyer pays to the seller for a good or service, the price here is the monetary value of the good or service." The economist James Lister defined it as "the quantity of money required for the purpose of obtaining a unit of a good or service" (2), and according to Karl Marx "price is a monetary designation of labor embodied in a commodity" (3).

The oil price is defined as "the monetary value of a barrel of crude oil on the American scale of a barrel of 42 gallons expressed in the US monetary unit (dollar)"(4). Or "the value of oil expressed in monetary units", as described the relationship between the value of crude oil and its price variable or unequal relationship, and those prices remained for long periods of time much less than the actual value of it,

This is due to the influence of political and economic factors that have been associated with it(5).

In the early second half of the nineteenth century, oil prices took a competitive character in the markets of complete competition, but the character did not last long, as the reason behind this is due to the change of the producing parties from their policy and their orientation towards the policy of reduction represented by the control of a few or limited large companies as well as taking a price character described as semi-monopoly determined by these companies and on a large scale in the global market. Therefore, we find that the price of oil sometimes moves away from the influence of economic factors represented by the cost of production and other factors (6).

There are many types of crude oil prices, each of these types expresses a certain time period, and these prices differ among themselves, including what resulted from the transactions that arose between producers and consumers, and some of them were determined by monopolistic companies, and some of them were determined by the producing countries after the establishment of national companies in 1972, through which they were able to increase oil revenues, After long periods of time they received little returns in relation to the large returns received by large monopolies(7).

Second: Types of oil prices:

Since the discovery of crude oil, many price terms have emerged, some of which have been used and others that are still used (such as accounting prices, usually selling prices, prices, halfway ...) The researcher only referred to the most important of these types that were directly linked to the crude oil market, and these types can be distributed into two groups:

The first group: This group appeared in the period of privileges and contracts of participation and ownership

The second group: This group appeared in a later period, and its emergence coincided with the emergence of new markets (stock exchanges) in which new contract formulas such as long-term contracts appeared.

Group A:

1_ Advertised price:

The price per barrel declared by the monopolistic companies

(1)Muhammad Azhar Al-Sammak, "Oil Economy and Oil Policies: Foundations and Applications", Ministry of Higher Education and Scientific Research, University of Mosul, (no edition) 1987, p 177

(2)Asma Khudair, "Factors Affecting Crude Oil Prices in OPEC", Master Thesis submitted to the College of Administration and Economics, University of Baghdad, 1987, p. 10

(3)Karl Marx, "Al-Kapit", translated by Fahd Kam Naqsh, Al-Taqadam Printing House, Moscow, 1985, p 149

(4)Nabil Jaafar Al-Marsoumi, "Oil Economy", Arab Heritage for Printing, Publishing and Distribution, First Edition, 2011, p. 86

(5)Ahmed Hussein Al-Hiti, "Oil Economics", Dar Al-Kutub for Publishing, Mosul, (no edition) 2000, p 117

(6)Muhammad Ahmed Al-Douri, "Principles of Petroleum Economics", Directorate of Dar Al-Kutub for Publishing, Al-Mustansiriya University, Baghdad, 1987, p 263

(7)Muhammad Azhar Al-Sammak, "Oil Economics", Dar Al-Kutub for Printing and Publishing, Mosul, 1981, p 179

(Seven Sisters) is calculated in US dollars. This type of price began to work in the year 1880 when one of the monopolistic companies (Standard Oil New Jersey) announced the price of a barrel produced by it at the wellhead, and this type continued to work inside and outside the United States [8] the announced prices maintained their levels for a long time, and then the monopolistic companies gradually reduced prices from time to time, specifically in the fifties, in which the system of sharing or sharing profits prevailed, As well as imposing its control over setting prices and profits, until its role declined in 1973 when OPEC set prices in favor of the producing countries.

The declared prices may be subject to change (increase or decrease) as a result of technical factors such as density, sulfur content and geographical location. [9]

2_ Realized price:

A type of crude oil prices arose due to discounts or discounts provided by countries and oil-producing companies to consuming countries, and in other words it is an advertised price minus discounts or discounts in order to entice the buyer and avoid the problems resulting from the nature of those discounts represented in the following:

A_ Discounts and discounts of geographical location: They are allowances or discounts given on oil whose countries enjoy a distinctive geographical location, allowing them to export their crude oil products directly to the global market.

B_ Discounts and discounts of sulfur content: These discounts are given on oils that contain a high percentage of sulfur and impurities

C_ Discounts or discounts of the degree of density: These discounts are given at variable rates, a lower percentage for light oils, and a higher percentage than on heavy oils.

D_ Discounts or discounts of the Suez Canal: given on oil that has not passed through the Suez Canal as more expensive in terms of transport [10].

The realized prices were of importance to exporting countries in that period, as a result of the increase in their crude oil exports, and they also found a way in which they can get rid of their oil surpluses. For example, when Iraq nationalized the oil company, where it became one of the major exporters of crude oil in the world, in addition to increasing its financial returns achieved as a result of the export of crude oil thanks to those discounts[11].

3_ Signal price:

The signal price is defined as the price between the declared price and the realized price, in other words: it is the price that is less than the declared price and exceeds the realized price, this system was adopted to calculate the value of oil exchanged between producing countries and independent oil companies, through the conclusion of a participation agreement on the basis of which oil revenues are calculated, between the contracting parties under this price. It was first applied between Algeria and France in 1965, after an agreement between them to set the signal prices and not to authorize the calculation of crude oil sales below these prices[12].

Signal oil is one of the indicators of price movement in the spot market, and we also recall some of these oils.

- **West Texas Oil (USA)**
- **Brent oil (North Sea)**
- **Arab Light Oil (OPEC)**

4_ Tax rate:

This price is defined as the cost of a barrel of oil produced plus the cost of the tax prevailing in that period, and the tax price is determined under the agreements between the companies included in the international cartel, in other words: it is the cost of production plus the government's revenue represented by (tax + rent), and that selling below this price achieves a loss.

5_ Transfer price:

This type of price is dealt with between the departments of the same company, and it is defined: as the price of moving or transferring crude oil from one department to another, and from one activity to another, within the departments of the same company. An example of this is the sale of oil from production to transportation, from transportation to refining and so on. Where it is known in the market as the fictitious price, companies use it with the aim of reducing taxes on their profits and making them at the lowest level of taxes, thus refusing to recognize and deal

([8])Nabil Jaafar Al-Marsoumi, Oil Economy, previous source, p 86
([9])Asma Khudair, "Factors Affecting Crude Oil Prices in OPEC", op. cit., p. 84
([10])Ahmed Hussein Al-Hiti, "Oil Economics", previous source, p 119
([11])Fawzi Al-Quraishi, "The Historical Development of Oil Prices until 1973", Journal of Oil and Development, Third Issue, Baghdad, 1978, p., p. 35
([12])Nawaf Nayef Ismail, "Determining Arab Crude Oil Prices in the World Market", Dar Al-Rasheed Publishing, (no edition) 1981, p 21

with this price by oil-producing and exporting countries, as it limits their cash returns derived from their oil exports [13].

Group B:

1_ Spot Price:

It is the price of a barrel of oil expressed in monetary units in the free and open markets for oil, this type of price began to be dealt with after the spot market has taken great importance in the global crude oil trade, and the spot markets are one of the important indicators for the movement of prices in the world, the most important of which are the markets of Rotterdam and Singapore.

2_ Nominal price:

It is defined as the monetary value of a barrel of crude oil expressed in the US monetary unit. For example, the OPEC price is equal to 80 US dollars per barrel.

3_ Real Price:

It is defined as the quantity of goods and services that can be purchased from abroad at the nominal price of a barrel of crude oil, in other words the nominal price minus the inflation rate.

4_ Prices of long-term characteristic:

It is defined as oil prices now contracted, provided that a barrel of crude oil is delivered in a later period of time and fixed on a certain date[14]. For example, the date of the contract is on 1/1/2010 and the delivery will be on 1/6/2010.

5_ Paper barrel price:

A name given to the price of a barrel of crude oil in the market of current qualities, and it is somewhat close to the concept of the price of crude oil in the global oil exchanges, and these prices are a form of futures contracts, which are traded among speculators with the aim of profits based on their expectations before the delivery period.

6_ Return Price:

It means the price of a barrel of crude oil determined on the basis of the prices of refined petroleum products in it (OPEC compound barrel) [15]

Third: Factors determining crude oil prices:

There is a set of factors determining crude oil prices, including economic and non-economic factors that affect crude oil prices in the oil market, some of which have a direct impact and others are indirect, the most important of which are:

1_ Oil supply:

The global supply of crude oil depends in general on the reserves and the extent of their development in the producing and exporting countries of crude oil, as well as on the production capacities and new discoveries of oil reserves, the increase in oil discoveries and disruption will affect the quantities offered of crude oil, and thus generate a direct impact that leads to high or low prices. For example, OPEC reduced production at the beginning of the eighties in order to support prices[16].

2_Oil Demand:

It means the required amount of crude oil for the purpose of consumption or for the purpose of speculation, as it is one of the most important factors affecting global oil prices, and the demand for oil is witnessing a continuous increase as a result of the increase in consumption and expansion witnessed by the global market for crude oil through its dealings in several types of oil contracts [17].

3_ Price elasticity of crude oil:

Price elasticity varies according to the type of good or service, where goods with low flexibility and no alternatives, have high prices, and on the other hand the prices of commodities that have high flexibility decrease as a

([13])Muhammad Azhar Al-Sammak, "Oil Economics", previous source, p. 181

([14])Nabil Jaafar Al-Marsoumi, "Oil Economy", op. cit., pp. 87-88

([15])Ahmed Hussein Al-Hiti, "Oil Economics", op. cit., p. 127

([16])Abdul Razzaq Hamad Hussein, Hamoud Saad Muhaimid, "Analysis of the impact of crude oil price fluctuations on the foreign trade of the OAPEC countries for the period (2000-2016) Iraq as a model, Tikrit Journal of Administrative and Economic Sciences, Volume III, Issue 43,2018, p 284

([17])Imad Al-Din Muhammad Al-Muzaini, "Factors that Affected Global Oil Price Fluctuations", Al-Azhar University Journal, Gaza, Volume Fifteen, Issue 1, 2013, p 334 result of the alternatives available to them, and differ in the long term from what in the short term [18]For example, the commodity of crude oil in the short term is of low elasticity due to the difficulty of obtaining alternatives at the same time, In the long term, they may be highly flexible for several reasons, such as sufficient time to provide available alternatives or technical alternatives related to exploration and extraction[19].

4_ Industrial oil:

It means a group of oils resulting from the distillation processes of shale stone, coal sand and bitumen, this source is one of the very important sources, in obtaining alternative energy resources, and is considered one of the influences in the prices of traditional oil [20]

5_ Exchange rates (US dollar):

It is known that crude oil prices in the global market are in line with the foreign exchange rate (US dollar), and as studies indicate that there is an inverse relationship, between the exchange rate and oil prices in the global market, when the exchange rate rises by a certain percentage, oil prices will fall automatically, and at a rate that may be higher than the rate of rise in the exchange rate, as the opposite happens when the exchange rate falls, These results have been shown in some countries that have shown symptoms of US sanctions[21].

6_Speculation :

A phenomenon that emerged in the global oil markets, specifically in the oil industry, through the formation of speculative funds, based on future expectations of prices expected by speculators based on macroeconomic, political and climatic variables, and when expectations indicate the possibility of crude oil prices, speculators begin to buy oil, so its prices rise significantly, and when the state of expectations is reversed, crude oil sales begin, and its prices fall further, This increases the range of price fluctuations for crude oil thanks to speculative trends [22].

7_ Discount price:

It is that price imposed by producing and exporting countries to discount the expected returns, and the discount rate is not less than the real interest rate in the market, and increases it depending on the future expectations, which are issued by producers, whether political or geological such as the expectation (drying up of wells or in the case of rapid depletion of the resource, or the difficulty of obtaining new oil resources) pessimistic expectations such as uncertainty conditions or uncertainty, Discount prices are also associated with crude oil prices in an inverse relationship sometimes, by explaining the high discount price, which in turn leads to an increase in production, i.e. an increase in total supply and thus leads to a decrease in prices, and the opposite occurs when the discount price decreases[23].

8_ The size of the oil reserves:

Oil reserves are the amount of wealth in the ground, which has been scientifically discovered and quantified in the light of research and exploration, which can be extracted by using the available means of production, as it is one of the factors affecting oil prices, when geologists increase their estimates of the size of the reserve, the scarcity of the resource will decrease, which pushes producers towards lower prices, If their expectations are lower than estimated, prices will rise [24].

9_ Change in climate:

It is one of the factors affecting the level of global demand for oil, and its impact appears in different seasons of the year, and we note the low level of demand for oil as a result of high temperatures in consuming countries, and the opposite occurs when temperatures drop in winter [25].

([18])Karim Mahdi Al-Hasnawi, "Principles of Economics", Ministry of Higher Education, University of Baghdad, First Edition, 1990, p 61

([19])Muhammad Hazem Abbas, "Iraqi crude oil pricing mechanisms and their implications for export", PhD thesis submitted to the College of Administration and Economics, University of Basra, 2010, p 17

([20])Ahmed Hussein Al-Hiti, "Oil Economics", previous source, p 124

([21])Jabbar Abed Jubail, Zaid Ali Hussein, "Geopolitical and Economic Variables of Low Crude Oil Prices and their Repercussions on the Iraqi Economy", Al-Adab Magazine, Issue 122, 2017, p 451

([22])Hussein Abdullah Hussein Abdullah, "The Future of Arab Oil", Center for Arab Unity Studies, First Edition, Beirut, 2000, p 29

([23])Abdul Sattar Musa, "An analytical study of crude oil price changes in the international market for the period "1998-1970", thesis submitted to the College of Administration and Economics, Al-Mustansiriya University, 2001, p 36

([24])Abdul Sattar Musa, "Analysis of the reality of international oil reserves during the thirty years (2000-1970)", Iraqi Journal of Economic Sciences, Al-Mustansiriya University. Issue 3, 2003, p. 133

([25])Ala Mourad, A study of oil price fluctuations and their impact on development, published research, University of Ziane Achour in Djelfa, Algeria, 2017, p 102

Second Requirement

Oil shocks

The subject of oil shocks is one of the topics that have received the attention of researchers, since the seventies of the last century, after the occurrence of sudden and unprecedented fluctuations in crude oil prices, as this attention came as a result of the negative effects left by shocks on the economies of developed and developing countries in general, especially rentier countries, including Iraq, due to their total dependence on the commodity of oil, which makes their economies more vulnerable to shocks.

First: The concept of oil shock:

It is defined as a sudden rise or fall in crude oil prices, often accompanied by a change in oil supply, since oil is the source of energy in advanced economies, any oil shock can endanger political and economic stability, and that the rise in oil prices is more important than its decline, it does not indicate the scarcity of resources and the decrease in proven reserves, and studies indicate that oil shocks help to disrupt a large part of spending towards the consumer sectors, This helps to rein in inflation in both producing and exporting countries[(26)].

Second: Chronology of Oil Shocks:

1_ The first oil shock (1973):

This shock began on October 15, 1973, when the Organization of Arab Petroleum Exporting Countries (OAPEC) announced an oil embargo on a group of pro-Israel countries in their conflicts against the Arab countries represented (Iraq, Syria, Egypt), with the motive of forcing Israel to withdraw from Arab lands, in addition to the agreement of OPEC members to use their influence in order to support prices, after the failure of negotiations with major international oil companies (the seven sisters). On October 16 of the same year, the Arab countries decided to reduce their production of crude oil, which resulted in a sharp rise in prices from (1.67) to (17.25) dollars / barrel, in addition to increasing the rate of global demand for oil by members of (OECD), and achieving financial surpluses in oil-producing countries and Iraq, as a result of high prices on the one hand, and the decision to nationalize oil on the other hand.

The Second Oil Shock (1979):

This shock occurred in the aftermath of the Iranian revolution of the year (1979) led to the interruption of Iranian oil exports to the United States of America, as a result of internal political conditions, which allowed OPEC to double oil prices, and thus caused a significant rise in prices, here the consuming countries felt that they were facing a real shock, as for the American reactions, they were relatively weak and did not apply a harmonized system to deal with the shock as a large consumer. Despite the issuance of several laws that confirmed the response to this shock. Because of its effects on the situation of the balance of the global oil market, and the most important effects [(27)] :-

A_ The rapid rise in crude oil prices has not been witnessed by the oil markets since the beginning of its establishment, as the average price of OPEC crude materials reached (29.2) dollars / barrel.

B- The slowdown in oil supplies by producing countries, which negatively affected the strategic stocks of consuming countries.

D- A clear decrease in production by OPEC countries, specifically the production of Iraq and Iran, following the Iranian revolution in 1979 and the Iran-Iraq war in the early 1980s.

3_ The Third Oil Shock (1986):

This shock occurred in the first half of 1986, and then oil prices witnessed a significant decline until the average price of the OPEC crude basket reached (13) dollars / barrel [(28)], where its effects were reflected on the oil revenues of the oil-producing and exporting countries, through the loss of OPEC countries more than (55) billion / dollar, as a result of the price differences before and after the shock, and the most important causes: It is the failure of OPEC countries to comply with the production ceilings set for them by the organization, which led to an increase in oil supply at the expense of demand due to the intensity of competition between producing countries, and the political conditions that prevailed in the Middle East, such as the Iran-Iraq war, in addition to the shift of many oil-consuming industrialized countries to the use of other alternative energy sources that were resorted to after the past shocks. It was translated

([26])James D . Hamilton**,"** Historical oil Shocks", National Bureau of Economic Research, Massachusetts, Cambridge, 2011, p 364

([27])Hatem Al-Quraishi, "Oil Economics", Baghdad Office for Printing and Publishing, First Edition, 2020, p 146, p 150

([28])Gately, Dermont, others, "LESSONS FROM THE OIL PRICE COLLAPSE", Brookings papers on Economic Activity,1986, p237 through the increase in coal consumption to (13%) from (8%) in 1979, at the expense of the decrease in the percentage of crude oil consumption from (41%) to (30%) during this crisis [29]

4_ The fourth oil shock (1990)):

Crude oil prices have witnessed a significant rise during the second quarter to the last quarter of 1990, as oil prices then reached (30) dollars / barrel, after recording (16) dollars / barrel during the first quarter of the same year, where the main reason behind the rise in prices is the political events prevailing in that period represented by the decision to enter Iraq militarily into Kuwaiti territory on the second of August 1990, These events were reflected in the production of crude oil by the two countries, which fell at the time (4) million barrels / day, and that era ended with the second Gulf War, after the success of the international coalition forces led by the United States of America against Iraq, which contributed to dispelling fears about the decline in oil supplies from the Gulf and achieving relative stability in prices after it[30].

5_ The Fifth Oil Shock (1998):

The oil market has witnessed a great shock as a result of the entry of a group of Asian countries into a state of economic recession and bankruptcy of their financial institutions as a result of the Asian tiger crisis, which led to the creation of a large gap between the supply of crude oil and demand for it through the increase in oil supply at the expense of demand, in addition to the policy pursued by Venezuela, which was represented by increasing production and not adhering to the production ceiling set by the organization. This is in addition to the decline in energy consumption rates, all these factors pushed towards the decline in oil prices at the time to below (18) dollars / barrel [31], then OPEC concluded three agreements by oil ministers with the aim of reducing the phenomenon of low prices, as it reached the decision to reduce production by (1,245) thousand barrels / day, starting from April 1998 until the end of the year, after which oil prices gradually rose as a result of the OPEC agreement, However, this did not last long, and prices fell again[32].

6_The Sixth Oil Shock (2004-2003):

The oil market has witnessed many events in early 2003, which led to the creation of a state of imbalance between supply and demand for crude oil, the most important of which are the political events witnessed in the Iraqi arena after the US war on Iraq during the year 2003, in addition to the Nigerian ethnic unrest, and these events also resulted in concerns about the lack of oil supplies from the Middle East and Africa. In addition to the increase in global demand for oil, especially in India, China, and the United States, to meet the needs of growth achieved in their economies, all these reasons pushed towards the rise in crude oil prices in 2004 to (36.1) dollars / barrel, after it was (32.2) dollars in 2003, which is the highest average recorded by the OPEC basket since the discovery of crude oil. Prices continued to rise gradually until they reached (50.6) dollars / barrel in 2005 [33].

7_The Seventh Oil Shock (2008):

The year 2008 witnessed a double shock, not crude oil prices, the first of which is the shock of rise, which reached the price of crude oil barrier (150) dollars / barrel in the first half of 2008, and one of the most important reasons that pushed prices to rise is the increase in global demand for oil as a result of increasing energy consumption rates in emerging countries in East Asia, As well as the high rate of global economic growth against the lack of oil supplies. In the second half of the same year, the oil market witnessed another shock that led to a drop in prices below (40) dollars / barrel and continued until the end of the year, and one of the most important reasons that pushed towards low prices is the occurrence of the global financial crisis with the collapse of real estate companies and American banks, which reflected negatively on oil prices in producing and exporting countries [34], In addition, the double shocks have a negative and positive impact on countries depending on the nature of the country, as these effects differ on oil-producing and exporting countries than on importing and consuming countries.

8_ The eighth oil shock (2015):

([29])Marbo, Robert, "The 1986 price crisis Economic effects and policy responses" , proceedings of the eight Oxford Energy seminar, Oxford University press ,1988, p.3

([30])Thomas Whalen, "Gulf Oil after the War on Iraq", Strategies and Policies, Emirates Center for Research and Strategic Studies, Abu Dhabi, First Edition, 2006, p 151

([31])Marbo, Robert, "The 1986 price crisis Economic effects and policy responses", op. cit., p.5

([32])Ibrahim Abdel Hamid Ismail, "Oil Price Expectations for the Year 2000 and Beyond and the Role of OPEC", Emirates Center for Studies and Research, Lecture Series, 2000, pp. 20-19

([33])Hatim Al-Quraishi, "Oil Economics", previous source, p 158

([34])Jassim Mohammed Dahi Al-Badri, "Oil Price Shocks and their Impact on Some Macroeconomic Variables in Iraq for the Period (1990-2018)", Master Thesis, University of Kufa, College of Administration and Economics, 2020, p 49

After the recovery witnessed by oil prices at their level after the global financial crisis and until the second half of 2014, then there were signs of another shock that translated through the downward trend of oil prices during the second half of 2014 and extended to 2015, as a result of the exceptional circumstances that led to sudden changes in demand and supply rates in the oil market, which in turn pushed prices down. Until the average basket of OPEC crude at that time reached (49.49) dollars / barrel, in addition to other reasons that pushed oil prices towards collapse [35] including: -

A- The abundance of global supplies, after the successful exploitation of unconventional energy sources in the United States of America. Which resulted in a net increase in oil supplies of (2.6) million barrels / day to a group of non-OPEC countries.

B- Adopting a policy of maintaining the volume of production by major oil-producing and exporting countries, in order to ensure market share

C- The political conditions related to the Middle East, especially those witnessed in the Iraqi arena, which was represented by terrorist operations.

9_ The Ninth Oil Shock (2020):

At the end of 2019, signs of a new oil shock began that coincided with the emergence of the COVID-19 pandemic in the second largest oil consumer in the world, which is China, and on that impact, countries took many measures to control the spread of the virus, represented by closing borders and stopping transport and production wheel, which resulted in a clear decrease in global demand rates for oil, This has led to the confusion of the global economy, specifically the oil-producing and exporting countries. This was the first reason behind the decline in prices in 2020.

The second reason lies in the emergence of the price war, as a result of the failure to reach an agreement on reducing production between the Russian side and the Saudi side, which caused an increase in oil supply, which pressured towards lower prices, and this decline continued to critical price limits equal to or less than the cost of producing one barrel of oil in a group of producing countries such as (Iraq, Saudi Arabia, Russia) until crude oil prices reached (12.22) dollars / barrel, on April 22, 2020, which is the lowest oil price recorded by the OPEC basket after 2004 [36].

We conclude from the above that shocks may be induced as a result of external influences on the oil market, such as changes in the factors affecting oil prices, which in turn lead to a sharp and sudden rise or fall in oil prices, as their impact is reflected in two directions, one of which is negative that leads to a decrease in the value of the affected variable such as (oil) and the other is positive that leads to a rise in the value of the affected economic variable, This varies depending on the nature of the producing and consuming countries.

Third Requirement

Oil price fluctuations and the evolution of global demand

Crude oil prices are characterized by fluctuations or fluctuations, which occur due to many factors and influences that contribute in one way or another to the volatility of crude oil prices, and these factors and influences fall within them, factors related to demand and supply in addition to political and climatic factors... Returning to the economies of the Arab countries, especially developing countries, including Iraq, which produces crude oil and singularly exports one commodity such as oil, we find that these fluctuations are reflected on their economies (negatively or positively) according to the type and intensity of these fluctuations and in the medium and long term of these countries, due to their total dependence on the financial revenues derived from the export of oil[37].

Table (1)Oil price fluctuations and evolution of world oil demand (2004-2021)

Years	Average price of crude oil within OPEC crude basket$ (1)	Annual growth rate of crude oil price within OPEC crude basket % (2)	Global oil demand.1000 Barrels/day (3)	Annual crude oil demand growth rate % (4)

([35])Organization of Arab Petroleum Exporting Countries (OAPEC), Forty-second Annual Report of the Secretary-General, 2015, p 45

([36])Qais Hussein Ali Al-Tarbouli, The repercussions of the Corona crisis on oil revenues in Iraq in 2020", Journal of Financial and Accounting Sciences, Volume 1, Issue 1, 2021, p 192

([37])Emad El-Din Muhammad Al-Muzaini, "Factors Affecting Global Oil Price Fluctuations", Humanities Series, Al-Azhar University Journal, Gaza, Volume Fifteen, Issue 1, p 327

2004	36.1	——	82,699	——
2005	50.6	40.1	84,118	1.7
2006	61.1	20.7	85,432	1.5
2007	69.1	13.0	86,763	1.5
2008	94.5	36.7	86,163	(0.6)
2009	61.1	(35.3)	84,993	(1.3)
2010	77.45	26.7	87,659	3.1
2011	107.46	38.7	88,785	1.2
2012	109.45	1.8	89,754	1.0
2013	105.87	(3.2)	91,268	1.6
2014	96.29	(9.0)	92,405	1.2
2015	49.49	(48.6)	94,415	2.1
2016	40.76	(17.6)	96,104	1.7
2017	52.43	28.6	97,867	1.8
2018	69.78	33.0	99,204	1.3
2019	64.04	(8.2)	100,200	1.0
2020	41.47	(35.2)	91,185	(8.9)
2021	69.89	68.5	96,922	6.2

- The source prepared by the researcher based on the data contained in...
-OPEC, Home, Data/Graphs, OPEC Basket price. Available at the link:
https://www.opec.org/opec_web/en/data_graphs/40.htm
- OPEC, Home, Publications , Bulletins, Annual Statistical Bulletin. Available at the link:
https://asb.opec.org/data/ASB_Data.php
- Percentages of the researcher preparation, according to the following mathematical formula: (P2-P1)/P1*100 = %
-Note: The numbers contained in parentheses are negative numbers (-)

We note through Table (1) that crude oil prices reached high levels in 2004 not seen in previous years of this year, where the average price of the OPEC basket reached 36.1 dollars / barrel, and this was the first time that the price of the OPEC basket maintained a level above the upper end of the price range specified by OPEC, whether at the monthly or annual level. Where this rise is due to the increase in global demand for oil, which at that time amounted to 82.699 thousand barrels / day, in addition to the combination of a set of factors that pushed prices upward, such as unexpected growth by the United States and China, as well as the emergence of the role of speculation in the future markets for oil, and it is not possible in this context to neglect the political factors witnessed by the oil-producing and exporting countries, specifically the Third Gulf War and the instability it generated in security conditions. The activity of terrorist operations expanded to the extent that they sabotaged some oil facilities in Iraq(38).

The pace of price rise continued in 2005 to achieve record and unprecedented numbers, as the price of the OPEC basket reached (50.6) dollars / barrel, which created a state of turmoil in the oil market, due to fears of the negative effects of high prices on global growth rates. This rise was explained by the combination of a set of basic factors, the most important of which are the continued growth of global demand for crude oil in China, India and the United States of America, and the climatic factors that contributed to the disruption of a large part of production capacities, including hurricanes that swept the Gulf of Mexico, in addition to the geopolitical factors that prevailed at the time in the Middle East, and the repercussions related to the Iranian nuclear file and Nigerian ethnic unrest(39).

In 2006, crude oil prices continued to rise as well, as the price of OPEC crude basket reached (61.1) dollars / barrel, and with a growth rate of (20.7%) compared to 2005, where this rise was accompanied by an increase in demand growth rates, which amounted to (85,432) thousand barrels / day, as well as a growth rate of (1.5%), as the rise is due to the sudden stops in production announced by the British Petroleum Company. And the closure of the production capacity (400) thousand / barrel per day, produced by the field (Pro Du B) in Alaska in order to conduct maintenance operations for oil pipelines in addition to the violence and leftist attacks that occurred in Mexico, which targeted six pipelines, which waved the risks surrounding the supply side, in addition to the political tensions witnessed in the

(38)Arab Monetary Fund, Unified Arab Economic Report, "Developments in the Field of Oil and Energy", Chapter V, 2005, pp. 1, p. 6

(39)Arab Monetary Fund, Unified Arab Economic Report 2006 "Developments in the field of oil and energy", Chapter V, p. 83, p. 89

Middle East, regarding the repercussions of the Iranian nuclear file. The continued deterioration of the security situation in Iraq, as well as the aggression against Lebanon and Nigerian ethnic unrest[(40)].

In 2007, crude oil prices witnessed a significant rise, as the average price of the OPEC basket reached (69.1) dollars / barrel, and an annual growth rate of (13.0%) compared to the previous year, and this rise is due to the increase in the volume of global demand for oil, as it reached (86,763) thousand barrels / day

At the beginning of the year (2008), crude oil prices witnessed a rise in their levels, as the average prices of the OPEC crude basket reached (94.5) dollars / barrel, with a positive growth rate of 36.7%), and oil prices continued to rise until they touched (147) dollars / barrel, in the same year, and this rise is due to the success of the policies pursued by OPEC with regard to price support, in addition to the high level of speculation in the oil market. It was in the first half of the year.

In the second half of the same year, specifically on 11/7, oil prices began to decline rapidly until prices reached below (40) dollars / barrel, as a result of the occurrence of the global financial crisis, which worked on the decline in global economic activity, and the effects extended to the first months of the year (2009) until it reached below (34) dollars / barrel in the middle of February. After that, spot prices began to rise gradually, reaching (57) dollars / barrel in March, and this rise came as a result of the efforts made by OPEC at the micro level, by facing demand through low production, which in turn led to reducing oil supply, then signs of recovery began to appear on economic activity through the high rates of global demand for oil, This led to a rise in spot prices until they reached more than (70) dollars / barrel, at the end of the year (2009)[(41)].

In the year (2010), crude oil prices witnessed relative stability compared to the previous two years, at the limits of (77.45) dollars / barrel, as stability returns as a result of the policies pursued by the Organization of Petroleum Exporting Countries (OPEC +) when it faced low demand, by reducing production quantities, which in turn led to reducing the surplus of oil supply, in addition to the recovery of the global economy from the effects of the financial crisis.

In the three years (2013, 2012, 2011), crude oil prices rose significantly at the beginning of the year (2013) compared to previous years, as the spot prices of crude oil exceeded the barrier of (100) dollars / barrel, and oil prices remained relatively stable during these years, as the annual average price of the OPEC crude basket for the three years reached (107.64), (109.45) and (105.87) dollars / barrel, respectively. The rise is attributed to the efforts made by the Organization of Petroleum Exporting Countries (OPEC +) in terms of maintaining the level of production, the decision that had a role in balancing the oil market, and the global economic recovery despite the slowdown in oil demand rates, which positively affected prices, in addition to the relative weakness of the dollar exchange rate against major currencies, which had a positive impact towards raising prices, as well as seasonal factors related to relatively cold weather in most countries of the hemisphere, which in turn led to an increase in demand. On oil and its high prices, prices remained relatively stable until the first half of the year (2014).

In the second half of the year (2014), the oil market witnessed a sudden change, due to a decline in oil prices, as the average price of the OPEC crude basket fell to (96.29) dollars / barrel, with a negative growth rate of (9.0%). The decline in prices is due to the combination of a set of disparate and overlapping factors among them [(42)] we recall the most important of them: -

1- Abundant oil supplies to a group of countries outside OPEC, especially after the success of the United States of America in increasing the exploitation of shale oil.

2- The low rates of demand for oil in energy-consuming markets, including European and Chinese markets, as they are industrialized energy-consuming countries, in addition to the continued suffering of some European countries economically and financially.

3- The policy of maintaining market share pursued by the major oil-exporting countries, which led them to create a large gap between demand and supply.

4_ The gradual rise in the exchange rate of the dollar in relation to other currencies, during the year 2014, which led to a decrease in the price of crude oil, in addition to the lack of impact of political developments on the volume of production in Libya and Iraq.

([40])Ahmed Buraihi Ali, "Oil Market Transformations and Iraqi Oil Pricing in the Light of Price References", Iraqi Journal of Economic Sciences, Seventh Year, Issue 23, 2009, p. 17

([41])Ahmed Buraihi Ali, "Oil Market Transformations and Iraqi Oil Pricing in the Light of Price References", previous source, p. 17

([42])Mark. Stokers, "The Impact Of The 2014-2016 Oil Price Collapse" Global Economic prospect journal,2018, p.52-53

In the year (2015), the oil market went through exceptional circumstances, driven by sudden changes in demand and supply rates that led to a sharp decline in oil prices, as oil prices fell significantly compared to 2014, as the annual average price of the OPEC basket reached (49.49) dollars / barrel, and a negative growth rate of (48.6%), which is the lowest level reached by prices after 2004, despite the slight increase in the demand growth rate, which amounted to (2.1%) affected by the relative improvement of economic growth in industrialized countries. The decline in prices is attributed to the abundance of oil supplies from unconventional sources in the United States and the increase in production, which pushed prices down, and the rise in the dollar exchange rate index gradually relative to other currencies, which reflected negatively on crude oil prices, in addition to the policy of maintaining the volume of production to ensure market share by countries exporting crude oil.

In 2016, crude oil prices have remained accompanied by a sharp decline since the previous two years, as the average price of the OPEC basket reached (40.76) dollars / barrel, with a negative growth rate of (17.6%) despite the sharp decline in prices, but the demand for oil continued to rise slightly, as the volume of demand at that time reached (96,104) thousand barrels / day, at a rate of (1.7%), compared to the year (2015).

The decline in oil prices is due to a set of factors that pushed towards lower prices, the most important of which are[(43)]:

1- The increase in the level of global stocks of crude oil of various kinds, about (3.4%) compared to its level in the previous year, especially the United States, which had the largest share of this increase.

2- The rise in the exchange rate of the dollar in relation to other major currencies, specifically in the period of the Federal Reserve, working to raise the interest rate on the dollar (a quarter of a point) in the year (2015) and again in the year (2016), which reflected negatively on crude oil prices, due to the inverse relationship between crude oil prices and the exchange rate of the US dollar.

3- The continuation of global supplies, despite the decline in oil supplies to a group of non-OPEC countries, specifically during the period when OPEC adopted a policy of maintaining market share, instead of adopting a policy that works to support prices, such as reducing production, for example, which it resorted to recently at the end of the year.

4- The slowdown in oil demand rates by the United States of America and China, whose results were noticeable, and led to a decline in the performance of the US economy, as well as the new direction taken by the Chinese government through China's transition to an economy supported by domestic consumption, instead of the export sector.

In the year (2017), oil prices began to take a new path towards restoring balance in the oil market, ending a long and unprecedented period of sharp decline in prices in previous years, translated through the rise in the annual average price of the OPEC basket, which amounted to (52.43) dollars / barrel, and a growth rate of (28.6%), and the volume of global demand for oil reached (97,867) thousand barrels / day. With a growth rate of (1.8%) compared to 2016, it is noteworthy that the price movement for this year improved as a result of the agreement to reduce production by OPEC and non-OPEC countries, which entered into force in January (2017), in addition to the high demand for oil, especially Chinese and American demand, in addition to the loss suffered by the exchange rate of the US dollar against a basket of other currencies[(44)]

As for the year (2018), crude oil prices witnessed several fluctuations until the prices of OPEC crude basket remained ranging from (64.7) to (74.2) dollars / barrel, with these fluctuations, but it is the highest average since the year (2015), as the average price of the OPEC crude basket reached (69.70) dollars / barrel, with an annual growth rate of (33.0%), and the volume of global demand for oil rose to reach (99,204) thousand barrels / day, With an annual growth rate of (1.3%) compared to the year (2017), affected by the recovery of global economic growth, while fluctuations are due to a set of factors, the most important of which are[(45)]:

1_ Continuity of work regarding the decision to extend the agreement to reduce production between the countries of (OPEC +) until the end of 2018, and expectations regarding the high rates of demand for oil and

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([43])Arab Monetary Fund, Unified Arab Economic Report 2017, "Developments in the Field of Oil and Energy", Chapter V, p 94

([44])Arab Monetary Fund, Unified Arab Economic Report 2018, "Developments in the Field of Oil and Energy", Chapter V, p. 99

([45])Qais Hussein Ali Al-Tarbouli "The repercussions of the Corona crisis on oil revenues in Iraq in 2020", Journal of Financial and Accounting Sciences, Volume 1, Issue 1, 2021, p 189 the decline in the exchange rate of the dollar in relation to the basket of other currencies, in addition to the decline in the US treasury, which led to a rise in oil prices during January 2018.

2_ The proximity of US oil production and the expectation of a decline in demand coinciding with the maintenance of refineries, in addition to the improvement of the US labor market against the backdrop of the rise in the dollar, which reflected negatively on oil prices, which led to their decline during February 2018.

3- Commitment to the decision to reduce production by the countries of (OPEC +), and the large withdrawal from the US treasury, in addition to political tensions, which led to a rise in prices during March 2018.

4- Trade tensions between the United States and China and concerns about the decline in oil demand with ample supplies, which reflected negatively on prices during August 2018.

5- Political tensions with the approaching application of US sanctions on Iran's energy sectors, growing concerns about supply shortages, in addition to the continuous decline in Venezuela's production, which led to a rise in prices during September and October 2018.

In the year (2019), crude oil prices fluctuated up and down again, to record (64.04) dollars / barrel, with a negative growth rate of (8.2%) compared to the year (2018), with the slowdown in the performance of the global economy, as the price variation is due to the following reasons(46):

1- The entry into force of the amendments to the agreement to reduce production in the countries of (OPEC +), which contributed to raising prices during the first three months of the year, in addition to the shortage of supplies in general, specifically the interruption of Russian crude supplies to Eastern Europe, due to Russian oil pollution, and the increase in seasonal demand for oil by China and Germany.

2- Increasing concerns about oil demand, and trade tensions between the United States of America and China, which reflected negatively on crude oil prices and pushed them down.

3_ The easing of tensions between China and the United States, following the announcement that the two parties reached an interim agreement, in addition to the high rates of refineries, to meet the demand for oil products in the winter, which led to a rise in crude oil prices at the end of the year (2019).

In the year (2020), global oil prices fell, as this was their strongest decline, to reach (41.47) dollars / barrel, which is the lowest price witnessed by the OPEC basket, and the volume of global demand for crude oil decreased to (91,185) million / barrel, with a negative growth rate of (8.9%) compared to the year (2019).

At the quarterly level, the price of the OPEC basket decreased during the first quarter of the year (2020), as it recorded (51.5) dollars / barrel, and continued to decline until the second quarter, where it recorded (26.6), which is its lowest oil price since (2003), then it rose in the third and fourth quarters, recording (44) dollars per barrel, and this volatility is due to a number of common factors that led to the divergence in crude oil prices between rise and fall, During the year (2020), the most important of which are(47): -

1_ The unexpected shock in global demand for oil, which came due to the impact of the COVID-19 pandemic, which placed its restrictions on the world by taking prevention and isolation measures, in exchange for a large surplus of oil supplies in light of the failure of the (OPEC +) countries to reach an agreement on reducing production, which led to a decline in crude oil prices during the first quarter of the year.

2_ The decline witnessed by refineries, due to the decline in demand for oil products, in addition to the continuation of the increasing oil supply surplus in the oil market, as well as the increase in oil stocks against the background of the pandemic.

3_ The slowdown in the recovery in the oil market against the backdrop of increasing concerns about the outlook for global oil demand amid a severe second wave of infections with the emerging Corona virus in several regions around the world, in addition to the decline in the productivity of refineries in Europe on the back of seasonal maintenance.

4_ The positive news had a major role in the rise in oil prices regarding the announcement of the emerging Corona virus vaccines, which revived optimism about accelerating demand for oil, in addition to the decline in floating oil inventories and the increase in demand for crude oil by China and India.

In the year (2021), global crude oil prices rose during the year at their highest pace, as the annual average price of the OPEC crude basket reached (69.9) dollars / barrel, which is the highest average after the year (2014), and an annual growth rate of (68.5%) compared to the levels of the previous year, as this rise was accompanied by a rise in

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([46])Arab Monetary Fund, Unified Arab Economic Report 2020, "Developments in the Field of Oil and Energy", Chapter V, pp. 106-105

([47])Bourghelle , Others," OIL Price volatility in the context of COVID-19" ,IAE Lille, University School Of management , FRANCE ,2021, P.39,P 41 the volume of global demand for oil, reaching (96.922) thousand barrels / day, With an annual demand growth rate of (6.2%) compared to the level of the previous year.

As the reason for the divergence in crude oil prices in 2021 is due to a set of factors, the most important of which are[(48)]:

1_ Developments in the spot market and futures markets, and the rise in global demand against the backdrop of a very cold winter in the northern hemisphere, in addition to reducing voluntary production by the Kingdom of Saudi Arabia by (1) million / barrel, against the background of the agreements of the countries (OPEC +), which reflected positively on crude oil prices.

2- The high number of COVID-19 infections in India, America and Japan, in addition to the decrease in demand due to the closures witnessed in Europe, which reflected negatively on oil prices.

3_ Crude oil prices rise again, as a result of the recovery of oil demand in Europe and the Pacific by the transport sectors coinciding with the acceleration of vaccination campaigns against the virus.

4_ The slowdown in purchases by Chinese refineries, in addition to the re-closure measures against the background of the emergence of the Omicron variant from COVID_19, which led to a drop in oil prices again at the end of 2021.

We conclude from this, that the fluctuations in crude oil prices have other dimensions, as they leave real effects on the economy and economic policy of the exporting country, in the event of stability in relation to oil prices in the global oil market, requires the producing and exporting country to exert more efforts in order to exploit these returns in the best way by redirecting these funds towards investment opportunities that achieve great returns. In addition to supporting more efficient production activities, working on a policy of rationalizing spending with regard to consumption, and seeking to diversify sources of income, in order to get rid of structural imbalances resulting from the volatility of crude oil prices.

Fourth requirement

The evolution of the volume and value of oil exports in Iraq for the period (2004-2021)

First: The volume of oil exports:

Oil exports are defined as the process of transporting crude oil from one country to another in order to finance the economy and obtain financial returns [(49)]as it is one of the most important sources of income for countries that enjoy the productivity of oil resources, including Iraq, in addition to its contribution to supporting the investment side by providing investment opportunities for foreign countries, as well as providing hard foreign currency and achieving financial balance for producing countries and supporting other sectors by financing vital projects such as infrastructure.

([48])Arab Monetary Fund, Unified Arab Economic Report 2022, "Developments in the Field of Oil and Energy", Chapter V, pp. 131-130

([49])Jamal Sanad Al-Suwaidi, "Oil and Gas in the Arabian Gulf Towards Ensuring Economic Security", First Edition, Emirates Center for Studies and Research, 2007, p 13.

Table: Prepared by the researcher based on the data contained in ...
Sources :
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2007, p. 88
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2012, p. 49
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2017, p. 60
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2022, p. 48
- Percentages of the researcher's preparation depending on the data contained in the first, second and third

Table(2) Development of oil exports in Iraq (2004-2021) 1000 barrels \day

Years	Oil Exports (Iraq) (1)	Oil Exports (OPEC) (2)	Oil exports (world) (3)	Ratio (2) / (1) % (4)	Ratio (3) / (1) % (5)	Oil export growth rate (Iraq) % (6)
2004	1,450.0	22,530.2	42,325.0	6.4	3.4	—
2005	1,472.2	23,310.3	42,830.7	6.3	3.4	1.5
2006	1,467.8	23,490.5	43,661.2	6.2	3.3	(0.3)
2007	1,643	24,205.1	40,273	6.7	4	11.9
2008	1,855	24,031.7	39,602	7.7	4.6	12.9
2009	1,906	23,312.7	38,093	8.5	5	2.7
2010	1,890	23,112.1	38,158	8.1	5	(0.8)
2011	2,166	23,457.4	38,854	9.2	5.5	14.6
2012	2,423.4	25,293.8	41,718.1	9.5	5.8	11.8
2013	2,390.4	23,854.2	40,638.8	10	5.8	(1.3)
2014	2,515.5	23,129.8	40,311.1	11	6.2	5.2
2015	3,004.9	23,488.1	41,688.3	12.7	7.2	19.4
2016	3,803.5	25,013.9	44,175.0	15.2	8.6	26.5
2017	3,802	24,267	44,699	15.6	8.5	(0.03)
2018	3,862	24,274	45,925	16	8.4	1.5
2019	3,968	22,478	45,250	17.6	8.7	2.7
2020	3,428	19,701	42,027	17.4	8.1	(13.6)
2021	3,440	19,656	41,228	17.5	8.3	0.3

columns.
- Note: The numbers contained in the parentheses are negative numbers (-)

Through Table (2), we note the development in oil exports during the period (2004-2021), in 2004, the volume of oil exports in Iraq reached (1,450.0) thousand barrels / day, which constitutes (6.4%) of the volume of oil exports in OPEC countries, and (3.4%) of the volume of global exports, as these percentages are considered an increase compared to previous years, due to the increase in oil prices in the global market, which encouraged an increase in production. In addition to the decisions of the US forces, which stipulated not to prejudice the export capacity, fearing repercussions on the global economy, because Iraq is one of the most important oil producers and the cessation of its exports will negatively affect the global economy. In the two years (2006-2005), the volume of oil exports witnessed many fluctuations in order to reach (1,467.8) (1,472.2) thousand barrels / day, and recorded a negative growth rate (0.3%) in 2006, due to terrorist attacks on oil pipelines that led to a decrease in oil exports during this period. In the

three years ((2009, 2008, 2007), the volume of oil exports in Iraq gradually and in order increased to reach (1,906) (1,855) (1,643) thousand barrels / day, and an annual growth rate of (2.7%) (12.9%) (11.9%), despite the decrease in the volume of oil exports at the level of OPEC and the world, which came due to the repercussions of the global financial crisis in addition to the decisions of (OPEC +) on reducing production to support prices. But the increase in the volume of oil exports in Iraq came as a result of the jumps achieved by production rates in the same years due to the re-maintenance of oil pipelines that were sabotaged, and the preparation of the Iraqi Ministry of Oil programs seeking to develop oil fields. In 2010, despite the increase in production, the volume of oil exports in Iraq witnessed a slight decline at a rate of (0.8%) compared to 2009, to decrease to (1,890) thousand barrels / day, due to bad weather and technical problems, according to the statement of the head of the Iraqi Oil Marketing Company (50)(Sumo). In the two years (2012, 2011), the volume of oil exports witnessed an increase respectively by (11.8%) (14.6%), which is the highest increase achieved by exports after 2004 to reach (2,423.4) (2166) thousand barrels / day, which constitutes (9.5%) (9.2%) of the total exports of OPEC, and (5.8%) (5.5%) of the total world exports, and this increase is attributed to the high levels of production as a result of the development of oil fields (51)In addition to the stability achieved in the global oil market.

In 2013, the volume of oil exports declined globally, as well as Iraq, as its exports declined by (1.3%) compared to the previous year to reach (2,390.4) thousand barrels / day, due to periodic maintenance work and projects to add new buoys(52)

In 2014, the volume of oil exports in Iraq increased by (5.2%) compared to 2013, despite the difficult security conditions that Iraq went through this year, but oil exports continued to rise to reach (2,515.5) thousand barrels / day, which constitutes (11%) of the exports of OPEC countries and (5.2%) of the total global exports, and oil exports continued to rise until 2019 to reach (3,968) thousand barrels / day. This constitutes (17.6%) of the total OPEC exports and (8.7%) of the total global exports, which is the highest percentage achieved by oil exports in Iraq after 2004. The reason for the rise is due to the stability of the security situation in Iraq, in addition to the government's endeavor to attract foreign oil companies by supporting foreign investments and benefiting from their expertise and technology, with the aim of increasing production and thus increasing exports and financial returns achieved as a result. (53)

Oil exports in 2020 were significantly affected around the world due to the outbreak of the COVID-19 pandemic, which led to a decline in international transport and trade and thus to reduce the demand for crude oil and its derivatives, as well as for Iraq, as its exports decreased to (3,428) thousand barrels / day, with a negative growth rate of (13.6%) compared to 2019, and the decline continued to accompany global oil exports until 2021, As for Iraq, its exports witnessed an increase of (0.3%) to reach (3,440) thousand barrels / day, due to the increase in prices, which encouraged an increase in production and thus achieved a relative increase in exports.

Second: The value of oil exports:

We note from Table (3) that the period (2004-2021) was characterized by an increase in the value of oil exports, except for the year 2009, as it decreased due to the global financial crisis, and the year 2015 due to the oil shock, which led to a sharp decline in crude oil prices, and the year 2020 due to the repercussions of the COVID-19 pandemic.

The contribution of oil exports reached (96%) of the total exports as an average for the period (2004-2021), while for non-oil exports, their contribution reached (4%) of the total exports as an average for the same period.

Thus, the oil sector remained the largest contributor among other sectors, in light of the failure to properly exploit oil revenues with regard to the development of other non-oil sectors, which made the Iraqi economy more vulnerable to external shocks, as well as the waste of these revenues, as a result of the outbreak of

Financial and administrative corruption within the joints of the state

(50)Al Jazeera News Channel, "Iraq's oil exports rise", is available at: https://www.aljazeera.net/ebusiness/2010/6/1

(51)Abdul Hussein Al-Anbaki, "Iraq's oil economy is a development chaos... Starting Options", Saqi Press, First Edition, Beirut, 2012, p. 49.

(52)Al-Jazeera News Channel, "Iraqi oil exports decline during September 2013", available at: https://elaph.com/Web/Economics/2013/10/844938.html

(53)Rasha Salem Al-Zubaidi, Zeina Shaker Abdul Kadhim, "Oil Production and Exports in Iraq", Al-Kout Journal for Economic and Administrative Sciences, Issue 34, 2019, p 24

Years	value Oil exports (million USD) (1)	value Non-oil exports (Million USD) (2)	value Total Exports (Million USD) (3)	Ratio (1) /(3) % (4)	Ratio (2) /(3) % (5)
2004	17,751	739	18,490	96	4.0
2005	19,050	723	19,773	96.3	3.7
2006	27,500	912	28,412	96.7	3.3
2007	39,433	1,015	40,448	97.5	2.5
2008	61,111	2,615	63,726	95.8	4.2
2009	41,668	737	42,405	98.2	1.8
2010	52,290	2,309	54,599	95.8	4.2
2011	83,006	220	83,226	99.7	0.3
2012	94,090	302	94,392	99.7	0.3
2013	89,359	383	89,742	99.5	0.5
2014	84,303	203	84,506	99.7	0.3
2015	49,249	154	49,403	99.7	0.3
2016	43,753	137	43,890	99.7	0.3
2017	59,730	3,874	63,604	94	6.0
2018	84,218	8,619	92,831	90.7	9.3
2019	80,027	8,876	88,903	90	10.0
2020	44,128	6,485	50,613	87.2	12.8
2021	79,788	6,510	86,298	92.5	7.5
Average	———	———	———	96%	% 4

The table prepared by the researcher depending on the data contained in...

Sources :

- OPEC, Annual statistical Bulletin , Vienna , Austria, 2007, p. 12 , P.13
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2012, p. 16 , P.17
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2016, p. 13 , P.14
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2017, p. 19 , P.20
- OPEC, Annual statistical Bulletin , Vienna , Austria, 2022, p. 17 , P.18
- Percentages of the researcher's preparation depending on the data contained in the first, second and third columns.

Conclusion

The countries of the world are still suffering from partial phenomena related to the volatility of crude oil prices and the occurrence of oil shocks in the global market, whether they are producing or consuming oil, especially countries whose economies depend on oil rents, as a result of the effects they leave on their economies, and after addressing the analysis of price fluctuation and the occurrence of oil shocks, it turns out that there are a set of reasons behind them, the most important of which are financial crises, And the nature of the policy pursued by the Organization of Petroleum Producing and Exporting Countries against the policy of the International Energy Agency, which had a clear impact on the balance of supply and demand through the control of production and consumption quantities, and the intensity of geopolitical tensions that emerged in the major industrialized countries, in addition to the turn taken by the oil market through the control of independent national companies on crude oil production instead of global monopoly companies, And the technical problems resulting from terrorist operations and wars in some production areas, and in this context the role of the Covid-19 health pandemic in the volatility of oil prices cannot be neglected.

All these reasons would lead to a sharp and sudden rise or fall in oil prices. Here, organizations working in the field of energy should work to adopt a policy that would lead to the creation of a state of stability in the oil market, and oil-producing countries, specifically rentier ones, including Iraq, should adopt a policy of economic diversification and take advantage of the opportunity in which a state of relative stability is achieved with regard to prices and financial surpluses, by redirecting these surpluses towards supporting other productive sectors. Increasing investment opportunities and more efficient production, and working on a policy of rationalizing spending, with the aim of getting rid of structural imbalances resulting from oil shocks and reducing the large dependence on oil.

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