

Trends in the development of crude oil prices in the world markets And the factors affecting it

Karim Salem Hussein

Jinan Muslim Abd Aoun

Al-Qadisiyah University - College of Administration and Economics

Corresponding Author: Jinan Muslim Abd Aoun

Abstract : Oil represents one of the main sources of energy, is an economic commodity with an unstable price, subject to many economic and non-economic factors that control this market, such as political, environmental and climatic factors, conflict of interests between consumers, producers, oil companies, expectations, speculation, and others. This research is concerned with studying the factors affecting the prices of crude oil in global markets, with a presentation of the trends of development of crude oil prices during the period (1980-2019) in the global market, as this market moves according to the law of supply and demand for crude oil.

The research aims to know the most important factors affecting oil prices and the fluctuations that it went through and the trends of its development during the period 1980-2019. Among the most important conclusions that have been reached, is that crude oil prices have been characterized by fluctuations due to their impact on economic and non-economic factors and as a result of the methods followed by oil companies and OPEC, expectations and speculation, which was reflected in the state of balance between supply and demand for this strategic commodity.

INTRODUCTION: Oil, which is one of the main sources of energy, is an economic commodity with an unstable price, subject to many economic and non-economic factors that control this market, such as political, environmental and climatic factors, conflict of interests between consumers, producers, oil companies, expectations, speculation, and others. The global crude oil market is a market like other markets subject to a rule Demand and supply, its goal is to balance supply and demand, but it is characterized by instability in its prices, thus distinguishing this market in a state of instability and fluctuation

The importance of the research comes from the importance of oil as an economic commodity that is mainly dependent on rentier economies to finance development activities, and that any fluctuations in oil revenues will negatively affect the financing of economic development in the oil-producing countries.

Research problem

Despite the great importance that oil plays for exporting and importing countries, its prices fluctuate from time to time, which reflects negatively on the global economy. Therefore, the problem lies in knowing the degree of impact that oil price fluctuations in the international market have on the volume of public revenues.

Research Hypothesis

The determinants of oil prices affecting the global market are numerous and increasingly intertwined, complex and unpredictable.

Research Methodology

The inductive method and the descriptive analysis method were adopted. Through the use of tables, data and graphs. This research aims to study the factors affecting the prices of crude oil in the global markets, with a presentation of the trends of development of crude oil prices during the period (1980-2019) in the global market, as this market moves according to the law of supply and demand for crude oil.

In order to reach the goal of the research, it was divided into the following axes:

The first axis: the factors affecting the price of crude oil

The second axis: the role of OPEC in controlling oil prices for the period (1980-2003)

The third axis: the evolution of crude oil prices in the international markets for the period (2004-2019).

Fourth Axis: Conclusions and Recommendations

The first axis: the factors affecting the price of crude oil

Oil prices are one of the most important prices for commercial goods in the world, as these prices are monitored by all countries of the world and its economic institutions, whether in oil-producing or oil-consuming countries because these prices have great implications for the future of costs, prices and growth all over the world. Oil prices have become one of the most volatile commercial commodities in the world, due to many reasons and variables that affect its price, which include economic, political, or climatic variables or speculative factors based on expectations. The most important factors affecting oil prices can be summarized as follows ⁽¹⁾.

1- The volume of oil reserves.

The size of the oil reserve is generally meant as (the amount of wealth for crude oil hidden underground and scientifically discovered, and its quantities are estimated in the light of the information available from the research process in the known area subject of exploitation or research, with the possibility of extracting the wealth hidden in the ground by available and available production means and equipment)). The volume of the reserves is the most important factor affecting the oil market, given that the amount of extracted oil (the supply of crude oil) is a function of the reserve volume and price, so the policy of oil extraction by each country is affected by the volume of oil reserves during a known period of time ⁽ⁱⁱ⁾.

2- Synthetic crude oil.

Synthetic crude oil includes oils that result from the distillation of shale stone, bituminous sand and coal, which are important in providing alternative materials for energy and where they affect the price of traditional crude oil directly.

3- The relative stagnation in the demand for oil.

Demand from an economic point of view is (the quantity of goods that a person desires to obtain and is able to buy at a certain time and at different prices)⁽ⁱⁱⁱ⁾, where crude oil is characterized by its low elasticity in relation to the price, and the increase in the price of oil does not result in a rise in the quantity demanded, unlike many Other commodities, but rather other factors, whose price change results in a large response to the quantity demanded of them. The development of the price and global consumption of crude oil indicates a limited consumer reaction to the change in the price of crude oil and a long period of time so that the consumer can adapt to this high price level. Waiting in time increases the uncertainty in the price elasticity of demand in the long run, because producers believe that demand in the long run is more elastic than what was previously expected. Consumers do not demand previously required quantities, so demand decreases, which leads to a sudden drop in price ^(iv).

4- The relative rigidity of the supply.

The relative elasticity of supply (the response of production to a price change) is characterized by low, especially when it comes to increasing supply with rising prices. An important increase in the supply of oil, so pressure increases on prices and leads them to rise even more, and in order to reduce oil prices, an increase in the volume of oil supply must occur, which is a very difficult issue, especially when production reaches the maximum limit, which leads to an increase in oil production. And then increasing supply, developing existing wells and enhancing the rate of exploration for new wells, which requires a long time ^(v) and this shows the difficulty of increasing supply, but it is possible to change the direction of supply by increasing or decreasing according to official decisions determined by the parties controlling production in the global crude oil market (producers). And for the production of crude oil in the global market, there are two sources: First: (OPEC), i.e. the producing countries and producers exporting from outside OPEC, and both exporters are working to increase the rates of their contribution to the total global production of crude oil, in order to impose its control over the oil pricing process and the extent of the contribution of OPEC, and secondly: producers and exporters from outside OPEC in the global production of crude oil ^(vi).

5- The rate of economic growth.

Changes in the economic growth rate are closely related to the demand for crude oil in the global market, and are considered one of the most important factors affecting the volume of demand ^(vii). The growth rate is one of the main determinants of the volume of global consumption of crude oil. If the expectations of producers indicate a rise in oil consumption rates as a result of the high rate of economic growth, the user cost will be high. The expectation of a high rate of economic growth leads to an increase in demand for crude oil. Height . The opposite occurs in the event that the rate of economic growth is expected to decrease, which drives demand rates and then oil consumption to decline, which pushes the path of crude oil prices downward, and China is one of the largest consumers of oil because of the large size of its industrial sector that produces various types of goods, and the growth rate of the Chinese economy is About 14% annually, this contributes to an increase in the demand for oil and consequently a rise in oil prices.

For the first time, reports in 2014 indicate a decrease in the Chinese growth rate to 2% due to this decrease ^(viii) in the rate of demand for oil, and this led to a decline in the price of oil Discount price.

6- Discount price.

Instability in inflation rates leads to instability in crude oil prices, so it is necessary to evaluate crude oil prices in constant dollars, i.e. determining the real price of oil, not the nominal ^(ix).

Based on this, the depleted resource that exists inside the land, which represents a wealth for the community or its owner, like any other capital asset, must grow at least at the rate of the real interest rate of the market as an alternative investment opportunity available ^(x) as if we assume the investment in oil extraction in the long term that has no risks In which producers are prompted to take advantage of the real interest rate that expresses long-term returns for risk-free investment years, but if producers expect political and geological risks (insurance, dry wells, rapid depletion, difficulty in obtaining new oil resources .. etc.), this pushes them To impose a high discount rate ^(xi), so (the discount price is the resource that the investor expects to obtain from investing in any project, as the profit of the investor in the

oil industry is considered the discount price), bearing in mind that the discount rate used in the oil industry is 12% according to real estimates. ^(xii).

7- The US dollar exchange rate.

Given the relative importance of the US dollar, crude oil is priced in dollars in global markets. Therefore, any change in the dollar exchange rate directly or indirectly affects the price of crude oil, and consequently, the decrease in the dollar exchange rate leads to an increase in crude oil prices through direct and indirect effects. The direct or short-term effect of the dollar's decline in the oil markets is the increase in speculation in oil contracts, which contributes to the rise in oil prices.

Oil, like other primary resources, priced in dollars, becomes cheap compared to other investments, denominated in foreign currencies, and therefore investors accept them.

The indirect or long-term effect of the decline in the dollar exchange rate in the global oil markets is to change the fundamentals of the market through its impact on the supply and demand factors for oil. One of the long-term results of the dollar's decline is the decrease in production capacity or its lack of growth in proportion to the increase in prices due to the decrease in the purchasing power of the exporting countries, which will not enable them to provide the necessary funds to increase production capacity, this means a decrease in supply compared to demand and thus an increase in oil prices. The same applies to international oil companies that receive their benefits in dollars but pay their costs in different currencies. Oil companies in the North Sea, for example, pay wages to their workers denominated in euros while receiving their revenues in dollars. This means higher costs compared to revenue, which prevents it from increasing investment in additional energy despite the rise in oil prices, which reduces supply and raises oil prices ^(xiii).

8- Speculation in the oil markets.

The increase in the spot markets has paved the way for the severe fluctuations in the prices of crude oil in the global market, and then created and provided an opportunity for the emergence and growth of speculation on those prices.

And speculation appeared in the mid-eighties in what is known as the future market, and the futures contract is defined as (the obligation to buy or sell a specified amount of the underlying asset at a specified time in the future for a specified price), while the commodity futures contract is a legally binding contract that demands the delivery or receipt of a specified quantity of a specific quality of the base commodity at a specific time in the future.

Speculation operations in oil are based on future price expectations, which are based on a set of macroeconomic as well as political and climatic changes. When these expectations about the variables affecting oil indicate the possibility of a price increase, speculators begin to buy oil, prices rise more and when those expectations are reversed, sales operations begin. Oil prices drop further, and this leads to the occurrence of price fluctuations in oil due to speculative trends ^(xiv), where all evidence points to the existence of a hand for speculators in the deterioration of the current oil prices, due to speculators expecting that oil prices will decrease, so they sold their floating stocks in the seas, and this led to an increase in the supply of crude oil and thus caused a drop in oil prices to reach 50 dollars per barrel at the beginning of 2015 after it was 115 dollars per barrel in mid-2014.

9- Oil storage:

In November 1974, the International Energy Agency (IEA) was established after the oil crisis in 1973 by providing oil reserves, and this reservoir played an effective role in influencing the supply and total demand for oil by referring to it when there was a rise in oil prices, as the oil market was supplied with quantities. On the other hand, this storage leads to the absorption of the purchasing power of oil revenues as a result of the increasing import of food commodities imported by oil-producing countries from the advanced industrialized countries ^(xv), where the purpose of creating stocks of crude oil was to avoid interruption of oil supply, which has become a tool that affects the prices of crude oil by influencing the overall supply and demand of crude oil, and this effect began to be clear in the international market after 1979, where the storage policies are considered a reason behind creating a surplus in the market that pushes prices downward as it turned. The countries that own the storage affect the volume of supply of crude oil in a similar way to the countries producing crude oil, thanks to that storage, and the stock became for oil speculations ^(xvi).

10- Political factors.

The influence of political factors is sometimes greater than other factors, so that the source of oil was considered, because of its international and strategic importance, as one of the most important sources of economic growth. It was called (the oil price risk), and the many risks and problems that it entailed for the governments of the oil-exporting countries, whose economy depends heavily on oil revenues ^(xvii). This was during the past periods when the great monopolistic control and dominance of the major foreign companies over the oil industry and its international market, or during the current periods when the power and position of the oil-producing and exporting countries, represented by the Organization of Petroleum Exporting Countries in particular, have increased, whose positions and petroleum policies have greatly affected how oil pricing and on the scale of the international market ^(xviii), also, the price of oil has

been affected by a series of oil shocks. The following figure shows the impact of geopolitical events on oil prices during the period 1972-2008.

The second axis: the role of OPEC in controlling oil prices for the period (1970-2003).

First: Duration (1970-1979):

The price of crude oil from the year (1970-1973) ranged between (2.1-3.1) dollars per barrel, but after the year (1974) during this period, the Organization of the Petroleum Exporting Countries turned into a major player in the global petroleum arena, as the affiliated countries were able to control matters including Concerning the volume of oil production^(xix), OPEC has in fact possessed all the ingredients of oil production in the global market, and the reason is the cost. The average cost of production within OPEC countries per barrel is less than (2) dollars, while the average cost of production in non-OPEC countries per barrel reaches (24) dollars.

But there are decisions taken for the first time in the Doha-UAE Conference on (15/12/1977) a dual, dual and triple oil price system, but Doha's decisions included two price increases, i.e. an increase in the price by 5% for Saudi and Emirati crude oil starting from (1/1/1977), followed by another increase of 5% starting from (1/7/1977) for the rest of the OPEC members^(xx), but after this conference, there were many negative effects, foremost of which is the existence of the double price system and the increase in the supply of Saudi and Emirati crude oil within limits. This led to an increase in the oil supply of the member countries of the Organization of Petroleum Exporting Countries, as well as a decrease in the real prices of oil. Therefore, the Organization of the Petroleum Exporting Countries hastened to hold a ministerial meeting for it in July (1977) in the Swedish city of Stockholm, devoted to addressing the dual price system. The conference was crowned with partial success. It was agreed to increase the price for everyone by 10% previously established, and to cancel the second increases by 5%, which were scheduled to start in July (1977), in addition to freezing prices at this limit for a period of six months, and thus the double price system ended, but according to the countries that wish and agree to price increase (In 1979, the price reached (29.2) dollars per barrel.

The following table indicates the evolution of oil prices for OPEC countries for the period (1970-1979)

Table (1) The evolution of oil prices for OPEC countries for the period (1970-1979)

The average price	Years
2.1	1970
2.6	1971
2.8	1972
3.1	1973
10.4	1974
10.4	1975
11.6	1976
12.6	1977
12.9	1978
29.2	1979

OPEC Monthly Oil Market Indicators , IEA ,2016

Second: The period (1980-2003)

Oil is a strategic commodity and an important vital material for international trade that greatly affects various economic activities. However, this commodity in the global oil market is subject to many continuous changes, fluctuations and fluctuations due to a group of political, social, economic, environmental and other influencing factors. The fluctuations of crude oil prices will have real effects on the economy and spending policies of the countries exporting crude oil. And striving towards diversifying sources of income and developing other economic sectors, due to ending the state of imbalance in the economic structure and achieving economic development^(xxi).

Oil prices in global markets are determined by the supply and demand for crude oil, future forecasts, and the fluctuations facing these prices.

At the beginning of the eighties of the last century, the global oil market witnessed a rise in crude oil prices due to the outbreak of the Iran-Iraq war, which had a great impact on the reality of the global market, especially the two countries, who are active producers in the oil market, and that their total production amounted to 6.6% of the total global production.

Where these prices began to rise, as they reached in 1981 to 34.2 dollars per barrel, due to the events and turmoil that occurred since the beginning of this year to the middle of this year. In the oil markets, as the supply of countries outside OPEC increased, and as a result of the downturn that affected most of the economies of capitalist countries, the demand for oil by these countries decreased, and this led to an increase in the supply of alternative energy sources that replace the bulk of oil commodities^(xxii).

The period (1982-1986) witnessed the stage of decline. This stage was critical in the history of OPEC because the system of setting prices and fixed differences between prices did not stand in light of the disintegration of the vertical

integration of the oil industry and competition between countries, which led to the organization's adoption of prices linked to crises. The International Energy Agency said that the diversification of energy sources and oil supplies, as it was able to separate between economic growth and the growth of demand for oil due to relatively high prices, which led to a decrease in consumption.

Oil in the industrialized countries, it was natural under these circumstances that OPEC production ^(xxiii) decreased from 1.3 barrels per (1000) dollars of GDP in 1974 to (0.77) barrels in (1986), which led to a decline in the demand of those countries for oil from Its highest level during the seventies of the last century at (44) million barrels per day in (1978) to its lowest level in the eighties of the last century at (36) million barrels per day in (1983).

The high prices also led to an increase in production outside the OPEC countries from (18.7) in 1974 to (29) million barrels per day in (1985), and it was natural that under these circumstances, OPEC production would decrease from (31.4) million barrels per day. In (1979) to (16.7) million barrels per day in (1985), and consequently, the OPEC countries lost their importance and lost their markets, which led to the sharpening of differences and the combination of these and other factors to the collapse of prices in (1986) ^(xxiv)

As a result, OPEC reduced its production rate for the purpose of keeping prices at a fair price. In addition, countries outside this organization increased the supply in the world market in 1982, and in the second half of the same year, OPEC reduced prices due to the turmoil in the oil market until the price reached (1983) to (30.1) dollars per barrel and these prices continued to decline until the price reached (27.5) dollars per barrel in 1985 ^(xxv).

In December of the same year, the price of oil fell as a result of supply outweighing demand to less than (15) dollars per barrel, and production in the countries belonging to the Organization of the Petroleum Exporting Countries fell to (17.3) million barrels, which led to a reduction of these countries by (32%) from Global production, and the situation did not remain the same It is attic, as production increased and reached, until the mid-nineties of the last century, approximately (27) million barrels per day ^(xxvi).

Then it reached its lowest level in 1986, when it amounted to less than (13) dollars per barrel due to the abstention of many consumers from receiving their oil supplies as a result of providing geological conditions that allowed for an increase in exploration activities.

The period (1987-2003) witnessed the adjustment stage. The reality of the price drop in (1986) was strong for the OPEC countries, so these countries adopted the strategy of setting the price not for one type of oil, but for the average prices of several oils, which is known as (OPEC oil basket) in (1987) I left setting the price to the market, and adopted a mechanism for setting ceilings and production quotas for the purpose of reaching the target price. As for the method of oil pricing, it was left to each country.

However, OPEC has control over the deterioration in prices by setting a production ceiling by reducing production to make it commensurate with the volume of demand for oil, and as a result of this procedure followed by the organization, prices improved in the oil market and the price of a barrel of oil reached (17.3) dollars per barrel in the year (1989) and then began to decline in the oil supply as a result of the first Gulf War (1990) and the imposition of economic sanctions on Iraq to prevent it from exporting its oil, which led to an increase in prices to reach (30) dollars per barrel ^(xxvii). During this period, oil prices rose dramatically due to the decline in production and fears as a result of the first Gulf War, and then prices began to decline until the year (1994), and OPEC was able to adjust the production quotas by it in the year (1996) and reach the appropriate prices, but this did not It will last for a long time if prices drop rapidly during the year (1998) due to the economic crisis in Asian countries, which prompted OPEC to reduce its production by (3) million barrels in 1999, bringing prices up to (17.7) dollars a barrel ^(xxviii), and in 2000 the price of crude oil reached (27.6) dollars a barrel, and OPEC achieved great success in (2003) due to developments in the oil market, and this was not Success is an easy matter, as it faced many crises and turmoil, including the Venezuela crisis, if its production reached (250,000) thousand barrels per day, which is its lowest level.) million barrels for the year 2002, which is (25.3) million barrels per day, this increase was compensated by Venezuelan oil.

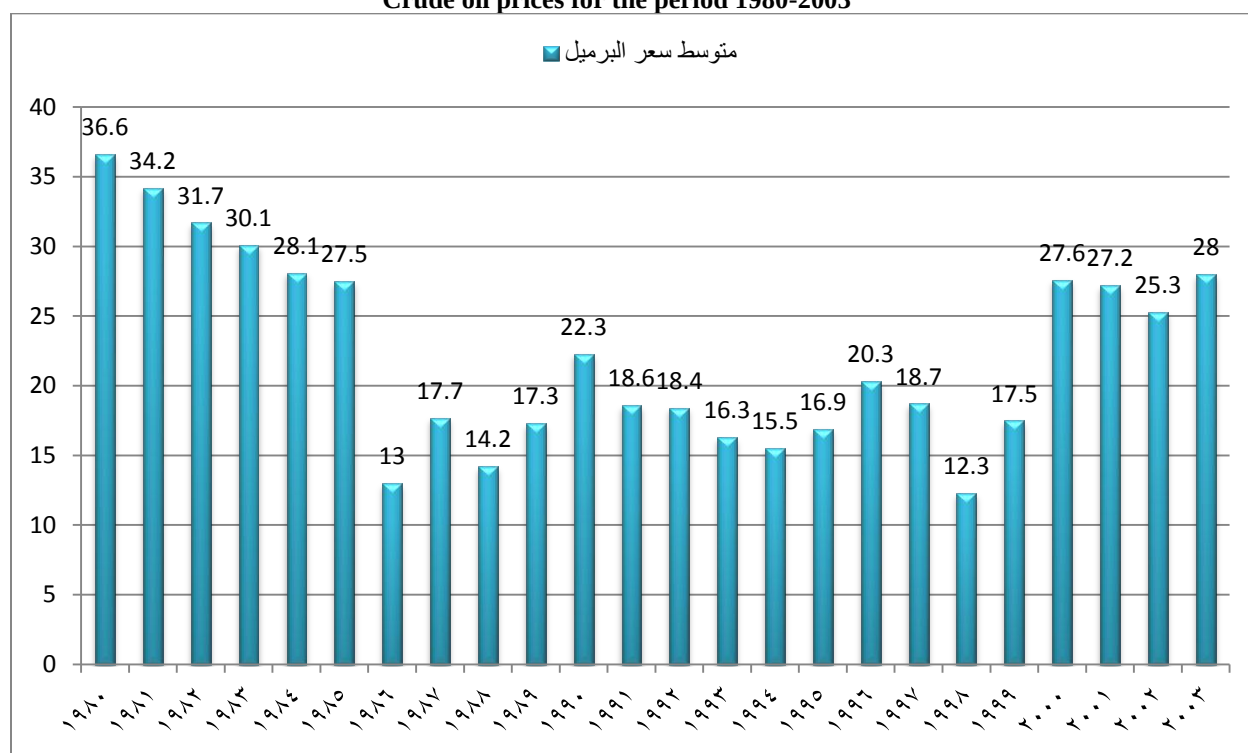
Table (2)The evolution of oil prices for OPEC countries for the period (1980-2003)

متوسط سعر البرميل الخام دولار / برميل	السنة
36.6	1980
34.2	1981
31.7	1982
30.1	1983
28.1	1984
27.5	1985
13.0	1986
17.7	1987
14.2	1988
17.3	1989

22.3	1990
18.6	1991
18.4	1992
16.3	1993
15.5	1994
16.9	1995
20.3	1996
18.7	1997
12.3	1989
17.5	1999
27.6	2000
27.2	2001
25.3	2002
28.0	2003

Source: OPEC Monthly Oil Market Indicators , IEA ,2016

Figure (1)
Crude oil prices for the period 1980-2003



The third axis - the evolution of crude oil prices in international markets (2004-2019)

Oil prices rose in (2004) sharp and record highs that the oil markets have not witnessed since the discovery of oil. The average price of the OPEC basket reached (36.1) dollars per barrel, with an annual growth rate of (22.44) percent. This rise is attributed to the increase in global demand for oil to (76.6) million barrels per day, especially by the United States of America, China and India, and international supplies decreased to (70.5) million barrels, after they were (78.9) million barrels in 2003, in addition to the political factors witnessed by some oil-producing and exporting countries, especially the second Gulf War, which generated instability security in Iraq due to the terrorist operations that some of the oil infantry were exposed to in Iraq, the political crisis in Venezuela and the crisis of the Russian oil company, as well as the increase in speculative operations in the oil futures markets ^(xxix).

Whereas, crude oil prices recorded a significant increase in (2005) if the average price of the OPEC basket reached (50.6) dollars per barrel, with an annual growth rate of (28.56) percent after it was ^(xxx) percent in (2004), which created a state of anxiety in the oil market, the reason for generating Negative effects on global economic growth rates and the reason was the increase in global demand for oil.

The year (2016) witnessed a continuation of the decline and reached (40.76) with a negative growth rate of (-24.96%) with a slight increase in the global demand for crude oil, which reached (94.2) million barrels per day, while the global

demand for oil in the year (2017) increased to (96.9) Modia raised the price to (52.43) million barrels per day, with a positive annual growth rate of (22.26%).

In the year (2018), the prices of the OPEC basket of crudes rose and reached (69.78) with a positive annual growth rate of (24.86) percent. The reason is a contraction in global demand, while the prices of the OPEC basket of crudes decreased and in (2019) it amounted to (64.1) million barrels per day. With a negative growth rate of (-8.86-)% , a rise in Global demand, which amounted to (99.8) million barrels per day, is due to the increase in the global supply of crude oil by countries outside the Organization of Petroleum Exporting Countries.

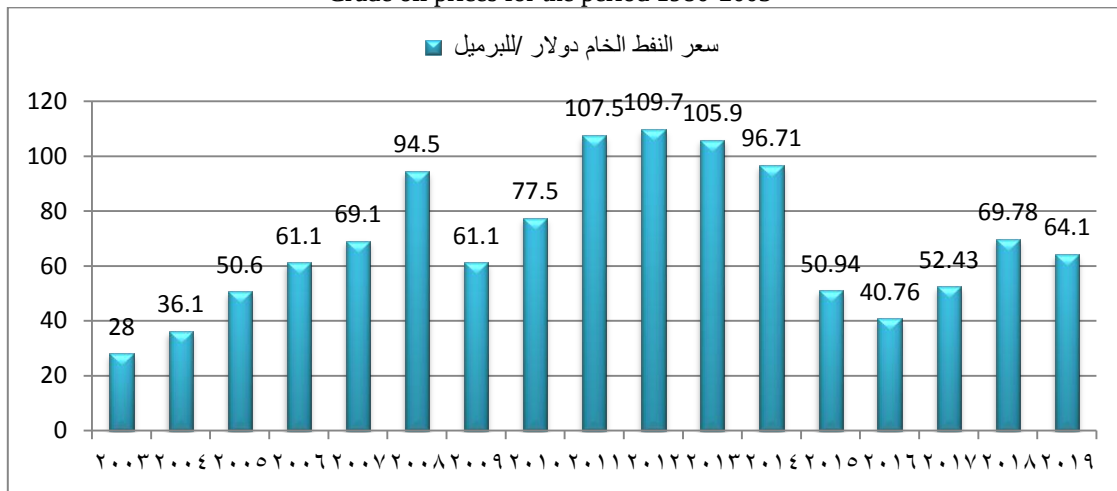
Table (3)Evolution of global demand for crude oil and oil prices for OPEC countries for the period (2004-2019)

%Growth Rate	Oil Price	Global Demand	Year
-	28.0	73.2	2003
28.93	36.1	76.6	2004
40.17	50.6	78.0	2005
20.75	61.1	79.5	2006
13.09	69.1	86.5	2007
36.76	94.5	86.1	2008
-60.1	61.1	84.4	2009
26.84	77.5	87.3	2010
38.71	107.5	88.2	2011
2.05	109.7	89.0	2012
-3.46	105.9	90.4	2013
-8.68	96.71	91.3	2014
-47.33	50.94	92.8	2015
- 19.98	40.76	94.2	2016
28.63	52.43	96.9	2017
33.09	69.78	98.2	2018
- 8.14	64.10	99.8	2019

OPEC Monthly Oil Market Indicators , IEA ,2016

Figure (2)

Crude oil prices for the period 1980-2003



Fourth Axis: Conclusions and Recommendations

First: the conclusions

- 1- Crude oil prices are characterized by fluctuations because it is a market like other markets that depends on demand and supply. When demand increases and supply decreases as a result of the methods followed by oil companies and OPEC, oil prices will rise and vice versa.
- 2- The crude oil market is affected by speculative operations by speculators working in the oil markets, as all evidence indicates that there is a hand for speculators in the deterioration of the current oil prices, due to the speculators expecting that oil prices will decrease, so they sold their floating stocks in the seas.
- 3- There is a great role for OPEC in controlling the state of equilibrium in the prices of crude oil. When the price of crude oil decreases, this organization reduces its production of crude oil and thus reduces the supply of oil, which helps to restore oil prices to a state of balance.

- 4- When the global demand for crude oil increases due to the urgent need to increase production, the oil producing companies undertake a series of new explorations to meet this demand
- 5- The emergence of shale oil in the United States of America greatly affected the levels of crude oil prices, as they fell to their lowest levels.

Second :Recommendations:-

- 1- In view of the fluctuations in crude oil prices, the oil-producing countries must form blocs to rebalance these prices.
- 2- The convergence of views of the countries that operate under the deception of the OPEC organization to work in the interest of the oil-producing countries and control the supply of crude oil to control prices.
- 3- Reducing the effectiveness of speculators in the oil markets by unifying the narratives in the production processes in the oil market.
- 4- Control over the work of oil companies that control crude oil prices.
- 5- Controlling the global supply of crude oil, which leads to the stability of price levels
- 6- Conducting a series of new discoveries, keeping pace with technological development, and extracting crude oil at the lowest costs.

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