

Analysis of the relationship between oil shocks and economic growth in Iraq for the period (2004-2022)

Miami Salal Sahib

maiami.alshukri@qu.edu.iq

Hassan Hayder AbdulHusein

hassanhaiderabd95@gmail.com

University of AL-Qadisiyah

Received: 21/7/2024

Accepted: 27/8/2024

Available online: 25 /12 /2024

Corresponding Author : Hassan Hayder AbdulHusein

Abstract : The research aimed to study the impact of these shocks on economic growth in Iraq during a period characterized by the abundance of these shocks, crises, and global, regional, and local disturbances as a result of the Iraqi economy's connection to crude oil to meet its basic needs. Any fluctuations that occur in oil prices are directly reflected in the Iraqi economy, as it embodies the importance of research. In reviewing and addressing an important economic topic in oil-producing and consuming countries, especially the quarterly countries that depend mainly on oil revenues and Iraq is one of the quarterly countries, and is a unilateral source in obtaining its national income and public revenues, in addition to the high percentage of oil revenues' contribution to the formation of the country's output. The gross domestic product, and used the inductive approach to reach the goal of the research, through descriptive and analytical methods. The research reached a set of results. The impact on economic growth was weak, and this is due to the quarterly nature of the Iraqi economy, in which oil is the ruling variable in the economy.

Introduction: The macroeconomic performance in crude oil exporting countries depends greatly on developments in global oil prices, as economic growth achieved from the oil and non-oil sectors tends to recover during periods of rising crude oil prices and tends to contract during periods of falling oil prices. Consequently, changes in global oil prices have serious consequences for economic growth in countries that export crude oil. Therefore, these countries were and still are concerned about the fluctuations that occur in oil prices, and their concerns increase when the decline in oil prices is the result of a slowdown in the global economy or technological progress that reduces Oil importers rely on oil imports to a greater extent, such that demand shocks have become what drives prices in recent years, leaving supply shocks as a temporary and unimportant driver of oil prices. In light of this, it is important to know the mechanism by which oil shocks affect the economies of oil-exporting countries and how they can use tools. Economic policy, whether fiscal or monetary, to protect their economies from shocks and create a diversified economy .Private sector-driven and independent of oil in the long term.

The importance of research:

The importance of the research is evident in studying a very important topic that occupies an important place among economic topics in all countries of the world, whether producing or consuming oil, especially the countries that produce crude oil and rely mainly on oil revenues, as the importance lies in shedding light on shocks in crude oil prices and what it results in positive or negative effects on economic growth in Iraq. And develop solutions and appropriate treatments.

Research problem:

The problem of the research is that economic growth in Iraq depends greatly on fluctuations in crude oil prices, and therefore the size of the shocks to which these prices are exposed result in effects of a size that is proportional to the strength These shocks.

Search goal:

The research is based on the hypothesis that oil shocks have direct effects on economic growth in Iraq.

Research Methodology:

The research relied on the deductive approach in analyzing the relationship between oil shocks and economic growth in Iraq.

Research structure:

In order to achieve its objectives and prove the validity of its hypothesis, the research was divided into two axes. The first axis was devoted to the theoretical and conceptual aspect of defining oil shocks and growth, while the second axis dealt with the study and analysis of the development of crude oil prices and economic growth in Iraq and the impact of

oil shocks on them for the period (2004-2022), The research concluded with a set of conclusions and recommendations.

The hypothesis of the Research .

The research is based on the hypothesis that there is a long-term positive relationship between oil shocks and economic growth in Iraq.

search limits:

1. Spatial boundaries: the Iraqi economy
- 2: Temporal limits (2004-2022)

The first requirement: oil shocks and oil prices, a theoretical and conceptual framework

First: The concept of shock and oil shock

1- The concept of shock: A shock means the occurrence of a sudden change in one or more economic variables and that this shock is either positive or negative. A positive shock leads to an increase in the value of the variable, while a negative shock leads to a decrease in the value of the variable⁽¹⁾, and is defined as changes that are not Expected aggregate supply and aggregate demand⁽²⁾, and may occur due to changes in technology that occur in an economy or occur due to a change in government policy such as changes in (general agreement, taxes, technical policy)⁽³⁾. It is also defined as events that affect the economy and whose source is external or internal⁽⁴⁾.

2- Oil shocks: The oil shock is one of the most dangerous types of external real shocks that economies have faced for more than fifty years, the main reference of which was the degree of response of the oil markets to fundamental changes in politics and the economy, in addition to the increase in the rate of trade exchange, the large number of international transactions and the difference in expectations contributed to Providing the appropriate climate for oil price fluctuations and the fluctuation of demand and supply functions, negatively or positively⁽⁵⁾. The unexpected element of the change in the price of oil is referred to as the oil price shock, which is defined as the difference between the expected price of crude oil and the actual price achieved in the oil market in the end⁽⁶⁾, and it can be defined as sudden imbalances in the oil market balance that lead to a rise or fall in oil prices, such as instability that continues for a certain period of time as a result of factors affecting supply or demand with the inability of the oil supply to meet the needs of the global market, and conflicts and crises oil⁽⁷⁾, so oil price shocks are a sudden and unexpected increase or decrease in the price of a barrel of crude oil, and that as a result of economic, political or other reasons.

A decrease in oil prices results from the discovery of new productive oil fields, from laxity and non-compliance with established production quotas, or from commercial investment in new technology. Conversely, in the event of an increase in prices resulting from restrictions on production quotas, political and security unrest in oil-exporting countries, or increased demand. On oil, sudden and large changes in crude oil prices have many economic problems. The fluctuation in prices will keep countries dependent on oil revenues subject to the intermittent periodic spending model. By increasing prices, their spending increases and decreases if they decrease, and leads to fluctuations in levels of investment, consumption, and living. It also causes the cessation of development plans. Long term, forcing developing countries indebted to postpone payment of their external debt⁽⁸⁾.

⁽¹⁾Pans vargugis, and others, 2004, Exogenous shock in low income countries, economic policy issues and their role of international community, World Bank, P:6

⁽²⁾ Michael Abdigman, Macroeconomics, 1999, translated by Muhammad Ibrahim Mansour, Mars Publishing House, Riyadh, p.340.

⁽³⁾ Claudia Francis Naoussi and Fabien Tripier, 2013, Trend shock and economic development, Detudes Prospects, p: 19.

⁽⁴⁾ Abdul Hussein Jalil Abdul Hassan Al-Ghalibi, 2011, The exchange rate and its management in light of economic shocks, theory and applications, first edition, Safaa Publishing House, Amman, p118.

⁽⁵⁾ Jafar Sadiq Safar, Abdul Hamid Suleiman Zaher, 2020, Analyzing and measuring the impact of economic shocks on growth Economic In Iraq for the period (2004-2018), Journal of Human Sciences of Zakho University, Volume (8), the number (4), pp: 633-632.

⁽⁶⁾ Andreas Economou and others, 2017, A Structural Model of the World Oil Market: The Role of Investment Dynamics and Capacity Constraints in Explaining the Evolution of the Real Price of Oil, Oxford Institute for Energy Studies, UK, December, p:2

⁽⁷⁾ Israa Saeed Saleh, and Israa Abdel Farhan, 2018, Measuring and analyzing the impact of oil shocks on financial policy in Iraq, Journal of Kut University College, Volume (2), Issue (1), Third Year, p: 49.

⁽⁸⁾ Svetlana Tsalik and a Nia Shiffrin, 2005, Oil control "Journalist's guide to energy and development" Open Society Institute, New York, p. 94.

3- Oil price: The concept of oil price refers to the monetary value of a barrel of crude oil according to the American measurement, consisting of (42gallons) and expressed in the American currency (the dollar). Despite the discussions, procedures and scientific studies to find an alternative monetary unit to the US dollar and the basket of major currencies, it has remained Linked to the US dollar⁽⁹⁾, the price of oil is also defined as the value of oil or the petroleum substance expressed in a monetary unit in a known place and time, and the relationship between its price and value is not fixed, and it is often unequal as the price of oil was much lower than its real value for long periods of time. This disparity between its price and value is the result of political factors or because of its nature, how it is produced and exploited, and the circumstances surrounding it⁽¹⁰⁾, The concept of the price of oil is often expressed in ways that do not express its true economic meaning. For example, we find that some price concepts are in fact concepts Financially, oil prices are interpreted differently from one person to another or according to institutions concerned with crude oil prices, in addition to the difference in the concept of oil pricing from oil-producing and oil-importing countries, and attention is often given to the import price for most of the oil-producing and importing countries⁽¹¹⁾.

Second: Types of oil shocks: Shocks are the unexpected occurrence of a surplus or deficit in the oil supply compared to the demand for it due to several factors occurring within the global oil markets that result in rebound movements and fluctuations in oil prices, such as the discovery of new oil fields with large production capacity or an increase in the productivity of the producing fields. Or the drying up of some oil wells or the interruption of some oil supplies due to wars and natural quarts. Historical evidence of oil price shocks, especially price rise shocks, indicates that they resulted in major disruptions in oil production due to external geopolitical conditions and events such as wars and crises witnessed by producing countries and regions. Oil is important and influential in the oil markets, which caused a shortage of oil supplies to the global market, such as the Arab ban on the sale of oil to countries that support Israel and are hostile to the Arab cause in (1973), the Iranian Revolution in (1979), the Iran-Iraq War in (2003) (1980), and the Gulf War in (1980), (1990), the Venezuelan crisis in (2002), the Iraq War in (2011), the sanctions on Iranian oil, and the Libyan civil wars during Al-Qudra (2011-2013), Secondary outages in Iraq and Nigeria, as well as security and political unrest in oil production areas The main crude oils in recent years⁽¹²⁾.

Third: The theoretical and conceptual framework for economic growth

1- The concept of economic growth.

There is great interest by economists to define the concept of economic growth and the factors that contribute to achieving it, as it is a complex economic and social phenomenon that includes quantitative and qualitative variables in the economic system over a successive period of time, which helps in the process of better and broader mobilization of the available economic resources and directing them towards creating the necessary accumulation for the process of continuous expansion. For total productive capacity, the term economic growth refers to economic development as a positive change of a qualitative nature linked to changes in the various economic and social sectors or structural changes in the economy⁽¹³⁾, and economic growth can be understood as the increase in the real gross national product between two time periods⁽¹⁴⁾, Economic growth also refers to increases in a country's production or per capita income. Production is usually measured by gross national product (GNP) or gross national income (GNI), which is used interchangeably with the total output of goods and services in the economy⁽¹⁵⁾, Economist Simon Kuznells's believes that economic growth is (the long-term increase in the state's (economy) capabilities to offer a diverse combination of economic goods and services to its population, and these growing capabilities in productive capacity are based on technological progress and development and the ideological and institutional adjustments required for it)⁽¹⁶⁾, while

⁽⁹⁾Hussein Abdullah,2006,The future of Arab oil ,Center for Arab Unity Studies, 2nd edition, Lebanon, Beirut ,p: 30.

⁽¹⁰⁾Muhammad Ahmad Al-Douri, 1988, Principles of Petroleum Economics, Al-Irshad Press, Baghdad, p: 263.

⁽¹¹⁾Robert Mabro,1984,On Oil Price Concepts,Oxford Institute for Energy Studies,p:2.

⁽¹²⁾Muhammad Jawad Jumah,2020Transformations in the international oil market and their repercussions on OPEC, with special reference totoIraq, unpublished doctoral thesis submitted to the College of Administration and Economics/University of Kufa, p:121

⁽¹³⁾Yasser Muhammad Jadallah Mahmoud, 2003, Intellectual Property and Economic Growth, Al-Israa Press, Cairo, p:129.

⁽¹⁴⁾Khaled Wassif Al-Wazani, Ahmed Hussein Al-Rifai, 1999, Principles of Macroeconomics,3rd edition, Wael Publishing House, Amman, p: 318.

⁽¹⁵⁾E. wayne nafziger,2006," Economic Development",fourth Edition, Cambridge university press, America,P:15

⁽¹⁶⁾Ali Hatem Al-Quraishi, 2017, Development Economics, Euphrates Basin Press - Najaf Al-Ashraf, first edition, Iraq, p:31.

economist Paul Samuelson believes that economic growth represents the expansion of the expected gross domestic product in light of the full employment of resources or national output in a country ⁽¹⁷⁾.

2. Types of economic growth.

A- Planned growth: This type of growth occurs as a result of state intervention through a comprehensive planning process for community resources. The strength and effectiveness of this type is closely linked to the skills and capabilities of planners and the extent of their realism Plans made.

B. Temporary growth: occurs as a result of temporary emergency factors and conditions that are often external factors, as they quickly disappear, and when these factors disappear, the growth they caused disappears with them ⁽¹⁸⁾.

C. Natural or spontaneous growth: This type of growth occurs spontaneously in the style of economic freedom and requires great flexibility in the economic structure, so the economic variables in the country in which it occurs will have They react automatically without relying on economic plans ¹⁹.

3- measures and indicators of economic growth:

A. Standards of economic growth ⁽²⁰⁾.

We divide measures of economic growth by:

- **Gross measure:** expresses the increase in the gross national product.

$$\text{growth rate} = \frac{\text{The national product of the current year} - \text{the national product of the previous year}}{\text{The national product of the previous year}} \times 100$$

Individual measure: This measure focuses on the real income of an individual in society and is calculated according to

$$1 - \text{Real per capita income (average per capita income)} = \frac{\text{Real national product}}{\text{population}}$$

2- Real economic growth rate, nominal economic growth rate - inflation rate

For the following formula:

Central growth rate: measures the annual economic growth rate in income as an average over a period A relatively long period of time.

B. Indicators of economic growth:

1. Real GDP indicator: Gross Domestic Product (GDP) refers to (the value of final, finished goods and services produced within the geographical area of the country during a period of time that is usually one year), after excluding the calculated service fee, or What is equal to the added value of all units working in the various branches of production in an economy, such as agriculture, industry...etc. Therefore, it is one of the most comprehensive standards for measuring a country's total production of goods and services, and one of the most important overall indicators expressing the growth of the national economy. Therefore, the development of gross domestic product is an important development indicator, in addition to being one of the indicators that is taken into consideration when making economic policy decisions and setting basic goals related to economic affairs in the country ⁽²¹⁾.

2. Index of average real per capita income: Economic growth must be measured by the extent to which it achieves a continuous real increase in average per capita income, The reason for this is that if only the increase in the national product is taken as a criterion for growth, only the national product will increase without the average per capita income increasing. In the event that the rate of increase in population exceeds the rate of increase in national product, which leads to a decrease in the rate of per capita income, and when the rate of increase in population equals the rate of increase in national product ,the per capita rate remains constant ⁽²²⁾, and despite the importance of increasing the average per capita income, it is It is better to focus on the national product in explaining the rate of economic growth, as it is a comprehensive manifestation of economic activity in any society. In addition, increasing national income is an inherent characteristic of increasing the average real income per capita.

The second requirement: Analyzing the reality of oil prices and economic growth in Iraq for the period (2004 - 2022)

⁽¹⁷⁾Paul A. Samuelson, et al., 2006, translated by Hisham Abdullah, Economics, National House for Publishing and Distribution,i15, Amman, p: 586.

⁽¹⁸⁾Ali Hatem Al-Quraishi, Development Economics, previous source, pp. 36-37

⁽¹⁹⁾Antonius Karam, 1993, The Economics of Underdevelopment and Development, Dar Al-Thaqafa Publishing House, 4th edition, Kuwait, pp: 24-25

⁽²⁰⁾Mohamed Ahmed Al-Afandi,2012,Principles of Macroeconomics, University Book House, 1st edition, Sana'a - Yemen, p: 313.

⁽²¹⁾Mayih Shabib Al-Shammari2018,The rentier state and economic diversification policies - an international experience, Dar Safaa for Publishing and Distribution,1st edition,Oman , p. 38.

⁽²²⁾Elham Wahid Dahham, 2013, The effectiveness of the performance of the financial market and the banking sector in economic growth, National Center for Legal Publications, 1st edition, p. 58.

Prepare GDP indicators the mission Which shows the level of economic activity of the country And follow up on the cyclical and non-cyclical economic fluctuations that many countries suffer from, such as (unemployment, inflation), and other.

As he crosses About economic growth being Represent What value The goods and services produced by the state in a certain period of time, and its increase is reflected positively in the Spending on other economic and service sectors, and On the contrary, if it decreases, it will lead to a reduction in the volume of spending on those sectors, meaning that the size of the gross domestic product and the rate Economic growth is closely linked to each other ⁽²³⁾, so the reality of economic growth in Iraq can be analyzed through the size of the GDP and Table (1), which shows the development of the GDP at current and constant prices and the growth rate during the period (2004-2022), as We note that there was an improvement in the GDP during the years (2004-2008) with positive growth rates, as the GDP at current prices in the year (2004) reached (53,235,358.7 million dinars), compared to the value of the GDP at constant prices amounting to 101,845,262.5 million dinars), In 2005, the gross domestic product at current prices rose to (73,533,598.6 million dinars) With a high growth rate of (38.1%), offset by an increase in the gross domestic product at constant prices to (103,551,403.5 million dinars) and a growth rate of (1.6%), also in (2007) the gross domestic product at current prices witnessed an increase, reaching (111,455,813.4 million dinars), at a rate of Growth (16.6%), as well as an increase in the gross domestic product at constant prices to (111,455,813.3 million dinars), with a growth rate of (1.8%). This increase is attributed to the relative stability in the security and economic situation in the country, as well as the increase in oil revenues as a result of the rise in crude oil prices⁽²⁴⁾, In the year (2009), the gross domestic product at current prices recorded a negative growth rate of (16.8%) to reach (130,643,200.4 million dinars) due to the decline in oil prices affected by the repercussions of the global financial crisis that ravaged the world's economies and had its effects on Iraq, which negatively affected the size of the output. The gross domestic product and the protection of other economic activities and sectors, while the gross domestic product at constant prices rose to (124,702,847.7 million dinars) with a positive growth rate (3.3%)⁽²⁵⁾, and the gross domestic product at current and constant prices continued to rise until the year (2013), when the gross domestic product reached Total at current prices (273,587,529.2 million dinars) with a growth rate of (7.6%), and the gross domestic product at constant prices reached (174,990,175.1million dinars) at the same rate⁽²⁶⁾, As for in(2010)I rise The resulting the local Total prices running to (167,093,204.4Million dinars), achieving a growth rate of (27.9%). Likewise, the GDP at constant prices recorded an increase of(162,587,533.2million dinars), with a growth rate of (6.4%). As a result of the increase in export capacity of crude oil, in the years (2014-2015) the gross domestic product at current prices witnessed a decline as a result of exposure Economy The Iraqi It led to a clear depression and stagnation in most activities of the economic sectors, represented by the negative real growth rate of the economy as a result of the sharp decline in global oil prices starting in the second half of the year (2014), which left Iraq facing difficult challenges and a real economic crisis resulting from the rentier nature of the economy, in addition to the costs of war On terrorism and the exacerbation of the crisis of displaced people from governorates under the control of terrorist gangs, which led to the sabotage and destruction of infrastructure⁽²⁷⁾, The size of the gross domestic product declined at current prices to (266,332,655.1 million dinars) with a negative growth rate of (2.6%) in (2014) and (194,680,971.8 million dinars), achieving the highest negative growth rate during During the research period, it reached (26.9%) in (2015), while the GDP at constant prices recorded an increase (2014) reaching (178,951,406.8 million dinars) with a positive growth rate of (2.2%) in (2014), and (183,616,252.2 million dinars, with a positive growth rate of (2.6%) in (2015). The decrease in the GDP at current prices is due to the increase in military expenditures in conjunction with the terrorist groups' control over three Iraqi governorates, which caused the destruction of infrastructure and the disruption of internal and external commercial activity, which generated a state of chaos and deterioration of the security situation in the country. In addition to the sudden decline in crude oil prices in global markets, in the year (2016) the GDP at current prices began to gradually rise, achieving a growth of (1.1%), and the growth rate of the GDP at constant prices reached (13.7%) as a result of the improvement in the economic situation. In the country in general, the effects of the global financial crisis declined, then GDP increased at current prices to (221,665,709.5 million dinars) with a growth rate of (12.5%) in (2017), while the GDP at constant prices recorded a decline to (205,130,066.8 million dinars) with a rate Negative growth (1.8%) as a result of the decline in prices points, which had a significant impact on the Iraqi economy. In the

⁽²³⁾Michele Todaro, 2006, Economic Development, Translated by Mahmoud Hassan Hosni and Mahmoud Hamid Mahmoud, Dar Al-Marikh for Printing and Publishing, 1st edition, Riyadh., pp. 51-50

⁽²⁴⁾Central Bank of Iraq, General Directorate of Statistics and research, the report Economic Annual, 2007, p:3.

⁽²⁵⁾Central Bank of Iraq, General Directorate of Statistics and research, the report Economic Annual, 2009, p:3.

⁽²⁶⁾Ahmed Omar Al-Rawi, 2006. The private sector and its role in the economic development process, "A Vision into the Future of the Iraqi Economy," Iraq Center for Studies, Baghdad, Issue (3), p: 5.

⁽²⁷⁾Central Bank of Iraq, General Directorate of Statistics and research, the report Economic Annual, 2015, p:16.

years 2019 (2018), the gross domestic product at current prices increased to (268,918,874.0 million dinars), with a growth rate of (21.3%) in (2018) and (276,157,867.6 million dinars). The growth rate of GDP at constant prices increased to (2.6%) in (2018) and (5.5%) in (2019), as a result of the economic recovery witnessed by commodity activities, but it The size of the GDP quickly declined at current prices in the year (2020), as it achieved (215,661,516.5 million dinars), with a negative growth rate of (21.9%), compared to a decrease in GDP at constant prices to (195,402,549.5 million dinars), with the highest negative growth rate of (12.0%). It causes the unrest that countries of the world witnessed as a result of the emergence of the Corona pandemic (COVID-19), which led to a decline in international trade movement and many countries taking preventive measures to limit its spread, which was reflected in Iraq through the significant decrease in the size of the gross domestic product, and in the years (2021-2022) The Iraqi economy recorded an improvement with the lifting of Corona pandemic restrictions, the increase in monthly prescribed quotas (OPEC), and the recovery of global crude oil prices as a result of the increase in global demand, which positively affected the gross domestic product.

At current prices, it rose to (301,152,818.8 million dinars, with a high growth rate of (39.6%) in (2021) and (383,064,152.3 million dinars, achieving a positive growth rate of (27.1%) per year), topping the list of Arab countries with the most growth in GDP. It came in second place according to International Monetary Fund classifications. As a result of the above, we note that the Iraqi economy and its annual growth rate are linked to the global changes and crises that the countries of the world are exposed to, which indicates the extent of economic growth and the failure to exploit weak points and turn them into strengths that enable the Iraqi economy to rise and continue to grow despite the presence of these crises, as is happening in Countries of the world that have achieved increasing growth rates in their economies despite global economic conditions Which accompanied growth in most countries of the world.

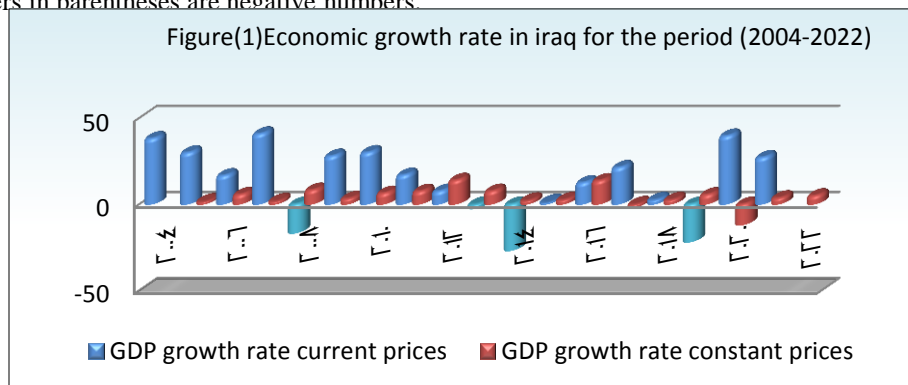
Table (1)
Development of GDP at current and constant prices in Iraq for the period (2004-2022) (million dinars)

the year	GDP at current prices	Annual growth rate%	GDP at constant prices 2007 = 100	Annual growth rate %
2004	53,235,358.7	-	101,845,262.5	-
2005	73,533,598.6	38.1	103,551,403.5	1.6
2006	95,587,954.8	29.9	109,389,941.3	5.6
2007	111,455,813.4	16.6	111,455,813.3	1.8
2008	157,026,061.6	40.8	120,626,517.2	8.2
2009	130,643,200.4	(16.8)	124,702,847.7	3.3
2010	167,093,204.4	27.9	132,687,028.7	6.4
2011	217,327,107.4	30.0	142,700,217.1	7.5
2012	254,225,490.7	16.9	162,587,533.2	13.9
2013	273,587,529.2	7.6	174,990,175.1	7.6
2014	266,332,655.1	(2.6)	178,951,406.8	2.2
2015	194,680,971.8	(26.9)	183,616,252.2	2.6
2016	196,924,141.7	1.1	208,932,109.6	13.7
2017	221,665,709.5	12.5	205,130,066.8	(1.8)
2018	268,918,874.0	21.3	210,532,887.3	2.6
2019	276,157,867.6	2.6	222,141,229.6	5.5
2020	215,661,516.5	(21.9)	195,402,549.5	(12.0)
2021	301,152,818.8	39.6	198,496,540.6	3.6
2022	383,064,152.3	27.1	212,408,657.3	4.9

Source: Table prepared by the researcher based on data from the Ministry of Planning, Central Statistical Organization, Directorate of Accounts

National actual estimates of GDP and national income for different years

The numbers in parentheses are negative numbers.



Source: The figure is the work of the researcher based on the data in Table (2).

Fourth: Analysis of trends in crude oil prices and oil revenues: Global oil markets are characterized by instability and frequent change in prices affected by a group of factors, including supply and demand for oil, political and climatic factors, and others. Oil revenues are the main, if not the only, source of financing economic development programs and agreements. Investment in many countries, especially in the economies of Arab countries, especially developing countries, including Iraq, is that the oil sector constitutes the lifeblood of economic life and the main source of generating national income on the one hand, and the provision of foreign currencies necessary to finance import operations on the other hand, as a result of the huge oil revenues and the ease of achieving them that cannot be achieved, It requires real economic activity, as oil revenues contribute to forming a large percentage of the general budget revenues necessary to finance the operations of the general agreement and economic development⁽²⁸⁾ and Table (2) shows the development of crude oil prices and oil revenues in Iraq for the period (2004-2022).

Table (2)

The development of crude oil prices and oil revenues at current prices in Iraq for the period (2004-2022)

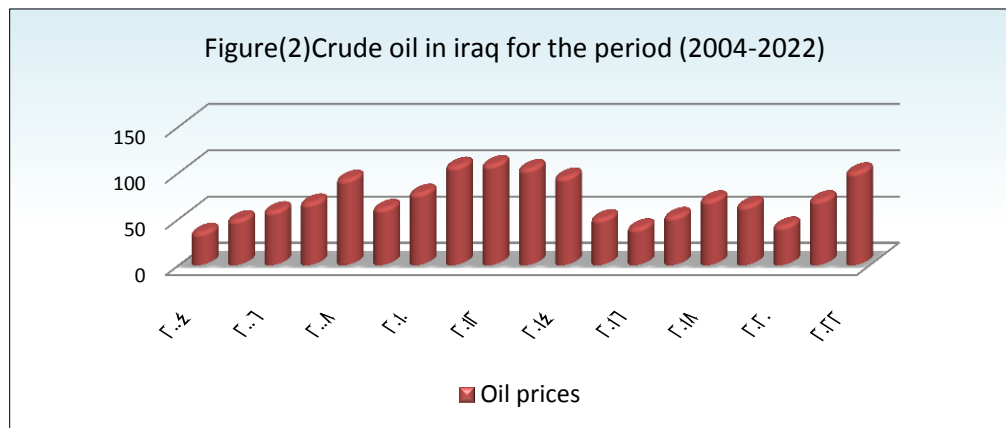
the year	Average price of a barrel of crude oil (1)	Annual growth rate of crude oil price (2)	Oil revenues (million dinars) (3)	Point revenue growth rate% (4)
2004	34.60	–	32,593,013	–
2005	48.34	39.7	39,448,519	20.9
2006	57.98	19.9	46,908,043	(98.8)
2007	66.41	14.5	53,162,592	13.3
2008	92.08	38.6	79,131,752	14875.2
2009	60.51	(34.2)	51,719,059	(34.6)
2010	76.98	27.2	66,819,670	29.1
2011	106.17	37.9	98,090,214	46.7
2012	107.96	1.6	116,597,076	18.8
2013	103.59	(4.0)	110,677,542	(5.0)
2014	94.45	(8.8)	97,072,410	(12.2)
2015	49.48	(47.6)	51,312,621	(47.1)
2016	39.52	(20.1)	44,267,063	(99.9)
2017	51.86	31.2	65,071,929	46.9
2018	69.75	34.4	95,619,820	46.9
2019	63.65	(8.7)	99,216,318	103662.1
2020	41.49	(34.8)	54,448,514	(99.9)
2021	69.90	68.4	95,270,298	74.9
2022	100.08	43.1	153,623,301	61.2

Source: Table prepared by the researcher based on the data contained in

-OPEC, Annual, Statistical, Bulletin, Vienna, Austria, (2007,2012,2016,2017,2023)

- Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report, different years.

-The numbers in parentheses are negative numbers.



⁽²⁸⁾Hamsa Qusay Abdel Latif,Omar Adnan Khamas, 2023, Fluctuations in global oil prices and their impact on the reality of the Iraqi economy, Al-Riyadah Magazine for Finance and Business, Volume (4), Issue (2), p:4.

Source:The figure is the work of the researcher based on the data in Table (2).

It is clear from Table (2) that the average price of crude oil reached \$36.1/barrel in 2004. With the return of relative security and economic stability and in conjunction with the rise in the average price of oil, the proceeds of oil revenues increased as a result of the increase in production and export capacity to reach (32,593,013 million dinars). It is the first time that crude oil prices have risen to a record high that the oil markets have not witnessed since the discovery of oil. The reason for this rise in oil prices is due to several factors, including the increase in global demand for oil and the unexpected growth witnessed by America and China, as well as the increase in speculation in the future markets for oil. In addition to the continuing political tensions and instability witnessed by oil-producing and exporting countries, especially Iraq, which witnessed many wars, especially the Second Gulf War and the security instability it generated, the effects of which extended for several years and the resulting expansion in the activity of terrorist operations that affected many facilities. Oil prices⁽²⁹⁾. As for the duration (2007-2005) Oil prices continued to rise to arrive to, to get to (92.08) (66.41) (57.98) (48.34) dollar barrel respectively, And the increase in oil revenues, reaching (79,131,752), (53,162,592), (46,908,043) (39,448,519) million dinars, respectively as a result of the continued increase in global demand for crude oil, which exceeded the increase in oil supplies, as well as the events in Lebanon, the tribal and ethnic problems in Nigeria, and the political crisis in Venezuela, and climate changes in Europe had a significant impact on the rise in oil prices and disrupted part of Russia's oil production, which led to an increase in global demand for oil. Crude oil, in addition to the sudden stop announced by (British Petroleum*) and the closure (400,000 barrels in day) of capacity at the (Brody) ceremony in Alaska to carry out maintenance operations on oil pipelines, in addition to the continuing political tensions and deteriorating security situation in the Middle East, especially Iraq⁽³⁰⁾, and in the first half of the year (2008), oil prices developed significantly, reaching \$92.08/barrel, with a growth rate of (38.6%), In the same year, oil prices continued to rise until they rose to (147\$/barrel) as a result of (OPEC) approach. A policy aimed at supporting prices. However, in the second half of the same year, the average price of oil fell to less than (40\$/ barrel), This decline in oil prices resulted from the world's economies going through a recession as a result of the financial crisis that struck the global economies, as they witnessed the worst state of recession known to the global economy. since the 1930s of the last century, which led to a decline in oil prices and its impact was transmitted to many major oil-consuming countries. Crude oil, which led to a shortage in global demand as well as an accumulation of oil reserves, and its effects extended to year (2009) until The average price of oil (60.51\$/barrel) with a negative growth rate of (34.2%), which led to a decrease in oil revenues to (51,719,059 million dinars), after which oil prices witnessed a gradual increase in the month of March, Of the year the same then It reached (\$57/barrel) as a result of OPEC's decision to reduce production quantities to maintain its production policy, which led to a decline in the surplus in oil supply, the emergence of signs of economic recovery from the financial crisis, and an increase in global demand for oil, which led to a rise in prices until they reached He increases on (70\$/barrel)⁽³¹⁾, as prices rose again in (2010) to (76.98 dollars). / barrel, with a growth rate of (27.2%), which led to an increase in oil revenues to (66,819,670 million dinars) as a result of the increase in global demand for oil and the recovery of the global economy from the financial crisis, Oil prices also witnessed a noticeable and unprecedented rise in the years (2011-2012), as The price of the OPEC basket of crudes reached (107.96) and (106.17 USD/barrel, respectively), This reflected positively on oil revenues, as they rose to (116,597,076) (98,090,214) million dinars, respectively. The reason for the rise is attributed to global political conflicts, the tension in Iran's nuclear program, the oil embargo imposed on it by the European Union, and the economic sanctions imposed by the United States of America on Iran. Which is one of the major countries exporting crude oil and the closure of sea lanes in the Arabian Gulf. However, in the year (2013) the average oil prices gradually decreased and reached (\$103.59/barrel) with a negative growth rate (4.0%), which led to a decrease in oil revenues to (110,677,542). million dinars, as a result of the United States of America increasing its production capacity of crude oil, surpassing Saudi Arabia and Russia, which top the list of countries largest producers of crude oil, in addition to Iraq increasing the amount of oil production, as well as the United States of America lifting the sanctions imposed on Iran and allowing it By exporting oil, the decline in oil prices continued, as the years (2014) and 2016 witnessed instability in global oil prices due to the recession that struck the global economy at the beginning of (2014), as the price of a barrel of oil fell from (94.45\$/barrel) to (40.6\$/

⁽²⁹⁾ Basim Abdul Hadi Hassan, 2005, The third oil shock, possible causes and consequences, Iraqi Journal of Economic Sciences, Vol.3 Number(7), Central Bank of Iraq, p:133.

***British Petroleum:** It is one of the largest energy companies in the world and is known for its aggressive exploration, frontier engineering and technological innovation. It also has a long history of exploration and production in Iraq.

⁽³⁰⁾ Arab Monetary Fund, 2007, the report Economic Unified Arab, developments in oil and energy, Chapter V ,s104.

⁽³¹⁾ Ali Abd Al-Kazem Daadoush, 2020, Oil prices and OPEC countries are a conflicting relationship, Al-Dhad Library for Publishing and Distribution, 1st edition, Baghdad-Iraq, p: 197.

barrel) and growth rate Negative (8.8%) in (2014), which led to oil revenues falling to (51,312,621) and (97,072,410) million dinars in the years (2015) and (2014) respectively, coinciding with the control of terrorist groups over three Iraqi governorates, which generated a state of chaos. The security situation in the country deteriorated, as a result of the rise in shale oil production in the United States of America, which is the main driver of the abundance of oil supplies, as well as the shift in OPEC's policy to maintain market share, the re-evaluation of geopolitical risks, the deterioration of global growth expectations, and other factors. Which caused an increase in oil supply and a sudden collapse in prices until it reached (39.52\$/barrel) in the year (2016)⁽³²⁾, and in (2017) the gradual improvement of oil prices began to take a different path that was translated through the rise in crude oil prices to (51.86\$/ barrel) with a growth rate of (31.2%). The financial conditions in Iraq began to improve partly as a result of the increase in oil revenues, which amounted to (65,071,929 million dinars during that year, due to the policy of reducing production between the countries of the Organization of Petroleum Exporting Countries (OPEC) and a number of oil producers from outside it with The high rate of commitment to this agreement and the decision to extend its implementation until the end of 2018, especially with the OPEC countries moving towards achieving balance in The global oil market, the rise in global demand for crude oil in general and Chinese and American demand in particular, as well as the decline in the level of global oil reserves, especially in member countries of the Organization for Economic Co-operation and Development (OECD*), in addition to the US dollar exchange rate recording a significant loss against a basket of Other major currencies rose to more than that in the years (2018-2019) and amounted to (99,216,318)(95,619,820) million dinars, respectively, as a result of the rise in crude oil prices supported by the recovery of foreign trade operations and strong investment initiatives, as well as improving working conditions in the major economies, as well as the role What is important for developing countries is to raise the growth rate of the global economy as a result of increased rates of domestic consumption and investments in infrastructure. As a result of this improvement in the global economy, the rate of global demand for crude oil has increased and OPEC has reduced production in Iraq and its impact on other economic sectors⁽³³⁾. In the year (2020), oil prices decreased to (41.49\$/barrel) due to the outbreak of the Corona virus (COVID-19) and the decline in oil prices in global markets, and an increase of 1Fears of spreading in a way that led to the deterioration of global demand for crude oil due to the increase in oil supply and the decrease in demand as a result of the recession, as Iraq agreed to the recommendation of the Ministerial Council for Energy to implement the agreement of the Organization of Petroleum Exporting Countries (OPEC) and the OPEC group to reduce production quantities and Iraq's commitment to reduce its share of production. Oil, including the production of the Kurdistan region, and then this increased the decrease in oil revenues to (54,448,514 million dinars)⁽³⁴⁾, and in the year (2021) oil prices returned to rise as the average price of oil reached (69.90\$/barrel) and the growth rate reached (68.4%), which was reflected in an increase in oil revenues to (95,270,298 million dinars), and revenues for the year (2022) exceeded (153,623,301 million dinars) according to preliminary numbers issued by the Ministry of Oil, which are the highest since the significant decline in oil prices during the period of the spread of (COVID-(19)) Iraq's achievement of these revenues comes in light of the rise in the price of a barrel of oil to (100.08\$/barrel) as a result of the Russian-Ukrainian war, with the (OPEC+) countries keeping production quotas as they are ⁽³⁵⁾.

Conclusions and recommendations.

First: conclusions.

1. Crude oil prices are characterized by volatility and instability as a result of the interaction and overlapping of a group of economic, political and commercial factors, as well as the crises that the country witnessed, such as the global financial crisis and the Corona pandemic crisis (COVID-19), which led to the exposure of countries producing crude oil that depend mainly on oil revenues. Especially Iraq, which faces many economic challenges and problems, including shocks in crude oil prices Global Market.
2. The Iraqi economy is largely dependent on crude oil exports, which has made it characterized as a quarterly economy. The effects that resulted from the quarterly problem and the dominance of the crude oil sector over national revenues have made the Iraqi economy a non-industrial economy that relies heavily on imports to meet its needs for

⁽³²⁾Mark. Stokers, 2018, The Impact Of The 2014-2016 Oil Price Collapse, Global Economic Prospect Journal, p:52-53.

*OECD: organized Economical Governmental International Includes 38 State, established in general 1961 To motivate Progress Economic And trade Globalism

⁽³³⁾Souad Abdel Qader Qasim, gsaN Ibrahim Ahmed, 2021, Measuring the impact of oil price changes on Imports Commodities for Iraq us ing methodology Regression Self To slow down Distributor ARDL For the period (1980-2019), a university magazine Anbar For economic sciences And administrative, Volume (13), Issue (2), pp:46-47.

⁽³⁴⁾Qais Hussein Ali Al-Tarbouli, 2021, The repercussions of the Corona crisis on Revenues Oil in Iraq in 2020 Journal of Financial and Accounting Sciences, Volume (1), Issue (1), p:189.

⁽³⁵⁾the bank Central The Iraqi, General Directorate of Statistics and research, the report Annual economic, 2022, p:9.

goods. And services, with a complete absence of other economic activities such as agriculture and industry, which leads to it being exposed to economic problems when oil prices decline.

3. The Iraqi economy was unable to benefit from the increase in point returns resulting from the rise in oil prices to advance The economic reality of the country and raising the level of economic growth, due to the use of these revenues to meet needs Of imported goods and services resulting from the deficit in the balance of payments.

4. fiscal policy trends during the period of the American occupation did not differ from their trends during the period of economic sanctions, as fiscal policy was characterized by sacrificing stability and growth and feeding inflationary trends by preferring consumption over production and investment, in addition to its reliance on the oil quarter and neglecting other resources. Which rests the general budget to compensate for quarterly financing during the period of the external supply shock, which is represented by a price shock Oil.

Second: Recommendations.

1. The necessity of working to diversify sources of income in the economy in a way that ensures absorption of the impact of shocks by reducing dependence on oil revenues, as they represent a permanent source of shocks, and activating other economic sectors such as agriculture and industry, as well as taxes and fees, as well as the possibility of developing The tourism sector can be a rich source to meet the government's needs.

2. Economic policy makers must study the internal and external economic situation and develop policies and plans The Iraqi economy avoided the impact of oil shocks.

3. Providing support for the agreement's move towards infrastructure development, as it is one of the motivating factors for creating an environment Investment that stimulates the establishment of projects and activities aimed at increasing the gross domestic product.

4. Developing economic policies that support the general budget by making structural changes in the Iraqi economy to transform the pattern of the economy from a rentier economy that relies on only one resource to a productive,sustainable economy by encouraging increased investments . And reduce consumption.

5. The necessity of setting up sovereign funds to limit oil shocks, to protect future generations and to be under the management of the monetary authority, taking into account the criterion of economic efficiency in which financial surpluses of foreign exchange are preserved to benefit from them in times of crisis to compensate for the shortfall in public revenues.

Sources and references

1. Abdul Latif Hamsa Qusay, Omar Adnan ,Khamas ,2023Fluctuations in global oil prices and their impact on the reality of the economy Al-Iraqi registered Al-Riyada for Finance and Business, Volume (4), Issue (2).

2. Abdullah Hussein, 2006, The Future of Arab Oil, Center for Arab Unity Studies, 2nd edition, Lebanon, Beirut.

3. Al-Afandi, Muhammad Ahmed, 2012, Principles of Macroeconomics, Dar Al-Kitab Al-Jami'i, Sana'a Ta, Yemen.

4. Al-Duri, Muhammad Ahmad, 1988 - Principles of Petroleum Economics, Al-Arshad Press, 1st edition, Baghdad.

5. Al-Farishi, Ali Hatem 2017, Development Economics, Euphrates Basin Press - Al-Najaf Al-Ashraf, 1st edition, Iraq.

6. Al-Ghalabi, Abdul-Hussein Jalil Abdul-Hassan 2011 The exchange rate and its management in light of economic shocks, theory Dar Safaa Tape Applications 1, Amman.

7. Al-Rawi, Ahmed Omar, 2006, the private sector and its role in the economic development process, a vision for the future of the economy Al-Iraqi Iraq Center for Studies, Baghdad, Issue (3).

8. Al-Shammari Mabih Shabib 2018, The Quarterly State and Economic Diversification Policies - An International Experience, Dar Safaa for Publishing and Distribution, 1st edition, Amman.

9. Al-Tarboli, Vice Hussein Ali 2021, The repercussions of the Corona crisis on point revenues in Iraq in 2020Journal of Financial and Accounting Sciences, Volume (1), Issue (1).

10. Al-Wazani, Khaled Wassef Al-Rifai, Ahmed Hussein, 1999, Principles of Macroeconomics, Wael Publishing House 3.1

11. Andreas Economou And others,2017,A Structural Model of the World Oil Market: The Role of Investment Dynamics and Capacity Constraints inExplaining the Evolution of the Real Price of Oil,Oxford Institute for Energy Studies,UK,December.

12. Arab Monetary Fund, 2007, Unified Arab Economic Report, Developments in the Field of Oil and Energy, Chapter Fifth.

13. Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report, 2007.

14. Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report, 2009.

15. Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report, 2015.

16. Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report 2022.

17. Clauda francis naoussi and Fabien tripier, 2013,Trend shock and economic development , Detudes prospectives .

18. Daadoush, Ali Abdel Kazem 2020, Oil prices and the OIC countries are a conflicting relationship, Al-Dhad Library for Publishing and Distribution, I, Baghdad - Iraq.
19. E. wayne nafziger, 2006, "Economic Development ", fourth Edition, Cambridge university press, America.
20. Hassan, Abdul Hadi, Bassem, 2005, The Third Oil Shock: Causes and Possible Consequences, Iraqi Journal of Science Economic, Volume (3) Issue (7) Central Bank of Iraq.
21. Juma, Muhammad Jawad 2020, Transformations in the international oil market and their repercussions on OPEC with special reference to Iraq, unpublished doctoral thesis submitted to the College of Administration and Economics / University of Kufa.
22. Mahmoud Yasser Muhammad Jadallah 2003 Intellectual Property and Economic Growth Al-Israa Press, Cairo.
23. Mark. Stokers, 2018, The Impact Of The 2014-2016 Oil Price Collapse, Global Economic prospect journal.
24. Pans vargugis, and others, 2004, Exogenous shock in low income countries , economic policy issues and their role of international community, World Bank.
25. Qasim, Souad Abdul Qadir, Ahmed Ghassan Ibrahim 2021 Measuring the impact of oil price changes on commodity imports to Iraq using the autoregressive distributed lag (ARDL) methodology for the period (1980-2019), Anbar University Journal of Economic and Administrative Sciences, Volume (13), Issue (2).
26. Robert Mabro, 1984, On Oil Price Concepts, Oxford Institute for Energy Studies.
27. Safar, Jaafar Sadiq Zahir Abdul Hamid Suleiman 2020 Analysis and measurement of the impact of economic shocks on economic growth in Iraq for the period (2004-2018) Zakho University Humanities Journal, Volume (8), Issue (4).
28. Saleh, Israa Saeed, Farhan, and Israa Abd 2018, Khayas and Analysis of the Impact of Oil Shocks on Financial Policy in Iraq, Journal of Kut University College, Volume (2), Issue (1), Third Year.
29. Samuelson, Paul Haus Nord 2006, Economics, translated by Hisham Abdullah, Dar Al-Ahlia for Publishing and Distribution, 2nd edition. Oman.
30. Todaro Michel, 2006, Economic Development, translated by Mahmoud Hassan Hosni and Mahmoud Hamed Mahmoud Dar Al-Marikh Printing and Publishing, 1st edition, Riyadh.
31. Tsaliq, Svetlana and Shifrin, Anya, 2005, Oil Control, Journalist's Guide in the Field of Energy and Development. Open Society Institute New York.
32. Updighman, Michael , 1999, Macroeconomics, translated by Muhammad Ibrahim Mansour, Mars Publishing House, Riyadh.