Economic Growth and Oil Price Volatility in Iraq During the Period 2004-2023

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Abstract

This study aimed to identify the impact of oil prices on economic growth in Iraq during the period between 2004 and 2023. The researcher reviewed some previous studies and used simple regression analysis, Granger Causality Test. the results of the study it was found that oil prices have an adverse impact on Iraqi economic growth, and he recommended that Iraq must need to diversify sources of income and not depend on oil revenues to achieve economic development.

Keywords: Economic growth, oil price, Iraq.

Introduction

Oil is considered a global strategic commodity and a vital raw material for energy, manufacturing and movement. Its derivatives are used in a large number of different basic industries and crafts in the world. It also constitutes an important and effective proportion in international trade and affects all aspects of economic activity. Oil is a highly flammable hydrocarbon substance that possesses high thermal energy. It has many uses and has a wide range of productive outputs. Among its wide uses as a source of thermal energy, it is used in the work of the industrial and agricultural sectors, the transportation sector, and electric power generation, and it is used in the petrochemical industries.

These properties pushed it to be the main driver of the global economy with low elasticity of demand. The limited and scarcity of its sources made it deviate from the laws of the market that take place as a result of the judgments and decisions taken by both producers and consumers. Its production, transportation, and marketing on a global scale has a tremendous impact, both on the countries that depend on it as a source of currency. Difficulties and income, or those on which their industrial activity depends, a single oil crisis may be enough to hinder existing economies or create an effective movement in the economy due to fluctuations in its prices. Therefore, the features of the global economic map were drawn from the ongoing struggle between countries and major oil companies to control the market.

In light of a rentier economy, the state is usually rich in the amount of cash it possesses, but this wealth or wealth is not reflected in a balanced manner among all the different groups and segments of society, and this is due to the unfair distribution of national income, as is the case in the economy of any rentier and unilateral country. This aspect is closely linked to global economic crises as a result of the dependence of its financial resources on oil rentier revenues, which are directly reflected in the effects of fluctuations and changes in oil prices. Therefore, the rentier economy is a fragile economy that is always exposed to financial and structural crises and disturbances. These disturbances affect all levels of the structural structures of society. And in all development plans and recovery programmers, the contemporary rentier economy also takes the form of the service economy, or what has become known as the virtual economy, in contrast to the productive economy, which is considered the material basis that drives all rentier phenomena.

Iraq relies on a unilateral rentier economy based on oil as a primary source in enhancing its development efforts and pushing the wheel of economic growth forward. This is mainly due to its high profitability and rapid returns, especially during the seventies and the beginning of the eighties of the twentieth century. However, what the global oil market was exposed to... Successive crises starting from the year 1986 until the year 2010, which were the result of several factors that were ultimately reflected in fluctuations and sharp changes in oil prices, both falling and rising, which led to a state of instability, and resulted in economic effects that differed according to the behavior of those prices in the global oil market.

The importance of study

This study is considered one of great importance because it deals with one of the important factors determining economic growth in one of the oil-producing countries, Iraq. There is no doubt that economic growth in Iraq has shaped and continues to constitute one of the challenges facing the political decision-maker in Baghdad. The rise in oil prices and achieving financial returns has a major impact on All Iraqi economic sectors.

Hence the importance of this study in trying to identify the role of oil prices in achieving economic growth in Iraq during the period between 2004-2023.

Study aim

This study aimed to identify the impact of oil price fluctuations on economic growth in Iraq during the period between 2004-2023, as Iraq witnessed many changes and economic development faced many challenges.

Literature review

There are many studies that dealt with the role of oil revenues in achieving economic growth in the Middle East region. The researcher worked on the most important things that the researchers addressed in this matter as follows:

Aimer (2019) The aim of this paper is to study the impact of price shocks on economic growth in Libya using a sample of annual observations from 1990 to 2016. We apply autoregressive distributed lag (ARDL) models for the analysis of long-run relations between variables. Our estimates suggest that oil price increases have a statistically significant and positive effect on the economic growth of Libya. However, that the positive change 1% in the shock of crude oil prices has a positive impact on Libya's GDP by 0.29%. In addition, the error correction (ECM) results showed that 68% of the imbalance from the previous year's shock converges to the long-term equilibrium in the current year. Overall, the results indicate that crude oil prices have had a positive impact on economic growth in the long-term, while trade openness and imports have had a negative impact on economic growth. Finally, to overcome the impact of fluctuations in oil prices, long-term plans should be initiated to diversify the Libyan economy and gradually reduce dependence on the oil.

Muhsen (2022) this study aimed to analyze the changes in oil prices in the indicators of economic growth in Iraq for the period (2005-2017). According to statistical analysis, the relationship between the average price of Iraqi oil and the national income is a positive one, and the average price of Iraqi crude oil and the average per capita national income per capita is a direct correlation between the average price of Iraqi oil and GDP.

The study recommended activating the fiscal policy in the Iraqi economy by stimulating the mechanisms of customs tax policy because it is important in enriching the budget with multiple sources of taxation so that the mechanisms of fiscal policy work to achieve economic goals, namely raising private savings rates and stimulating investment decisions.

Nassif (2016) investigated the impact of oil revenues on GDP in Iraq: An Empirical Study of 2004-2013m, with the aim to identify the size of the oil revenues in Iraq (2004-2013), and the impact of oil revenues on GDP in Iraq, presumably there is a relationship statistically significant differences between oil revenues and GDP, and to achieve the goal and research hypothesis research department has been to two topics, the first section included the importance of oil revenues in the Iraqi economy, while the second section was titled measure the impact of oil revenues on the gross domestic product (GDP) in Iraq, and finally the search is over to a number of findings and recommendations .

Abdulateef and Khams (2023) The research aims to know the impact of global oil price fluctuations on the Iraqi economy , as the Iraqi economy is a reinter economy that depends mainly on oil , and it is a one -sided economy and as a result of the economic and political conditions that the Iraqi economic reality has experienced, it’s suffers from weakness in its infrastructure, imbalance in its structures , and suffers from problems Many such as depression , inflation and other problems that affect its development and prosperity , and oil revenues are the main , if not the only , source for financing development programs and government investment spending , which made it vulnerable to external shocks resulting from fluctuations in oil prices at the global level , and that oil price developments have clear reflections on revenues The rise in oil prices leads to a rise in cash flows , which is reflected in an increase in the ability of the financial authorities to expansion of spending , it is clear to us that the Iraqi economy has been affected and is still greatly affected by the political circumstances that it has gone through rather all its variables have become dependent on them and that the fluctuations of global oil prices have a great impact on the Iraqi economy, as a result of the political , economic and security instability of the country and the reduction of the role of the Iraqi economy Other economic sectors such as agriculture, industry and trade, and that the rise in oil prices is positively reflected on the conditions of the general budget and on the Iraqi economy, and oil is the lifeblood of the Iraqi economy and the main source of national income generation and financing import operations, Global oil prices have a significant impact on the Iraqi economy.

Al Khazraji (2023) aimed to shed light on the nature of external economic shocks and their various sources, as well as analyzing the effects left by these shocks on the growth of gross domestic product in Iraq for the period (2004-2021). The results of the analysis showed that global oil price shocks and external indebtedness shocks are among the most impactful shocks on GDP growth. That this variable is negatively affected by external shocks due to the unilateralism of the Iraqi economy and its heavy dependence on the oil sector and oil revenues. These variables cause a change in the gross domestic product, which means a defect in the structure of the Iraqi economy, and this fulfills the hypothesis of the research. It is declining due to oil prices, and the need to pay attention to other revenues, especially tax revenues being an indispensable financing tool. This is done through reforming the tax system in order to be more efficient and effective in financing the deficit in the general budget. As well as setting laws and legislation for taxpayers and punishing tax evaders and working to enhance tax awareness among individuals, to benefit from it in financing public spending. Which works to reduce the deficit ratio and thus reduce the amount of indebtedness.

Idris (2019) examined the Impact of oil Price Fluctuation on Fiscal Policy in the Algerian Economy for the period between 1980 to 2014, using a Vector Auto Regression (VAR) approach, concluded that the oil prices shocks were the major reason for shocks in fiscal policy variables as expenditure and public revenue.

Al-Tamimi and Abadi (2019) checked the effect of volatility oil prices on public revenues, and they are taking a sample from 2003 until 2015. The research adopts the descriptive, theoretical method researchers recommend diversifying the sources of revenue in the Iraqi economy to avoid the imbalances that occur due to fluctuations in oil prices in the global market.

Luaaiby et al. (2019) Consider the fluctuating oil earnings in Iraq from 2005 to 2015 while analyzing the sustainability of the public debt. The fluctuation of oil income and its impact on the public debt were taken into account in this analysis. Financial and economic indicators that indicate the risk of debt, as well as measures of debt sustainability, can be used to study this. Clarifying public debt's trajectory and local and international management were the study's main objectives. The connection between Iraq's rental economy and the danger of public debt was emphasized in this study. It is crucial to study ways to create a fund to maintain the budget deficit while working on high oil prices. As a result, there will be less danger in the future from utilizing public debt to close the budget deficit. As a result, the level of sustainable debt will remain the same.

Qasabi et al. (2020) analyze the relation between volatility oil prices and public expenditure in Algeria, using ARDL Approach from 2000-2018. The study complete that there is a long-term equilibrium relationship between oil prices and public expenditure; this relationship is progressive and significant in the long term.

AlFatlawy and Al Shukri (2021) studied volatility oil prices and their impact on the sustainability of public debt in Iraq, and they used data from 2000 to 2019 and Autoregressive Distributed Lag Estimates (ARDL). They found that oil price volatility has a positive and significant relationship with the public debt index, meaning that the increase in volatility leads to decisions regarding an increase in public debt to fill the shortage in resources.

Study methodology

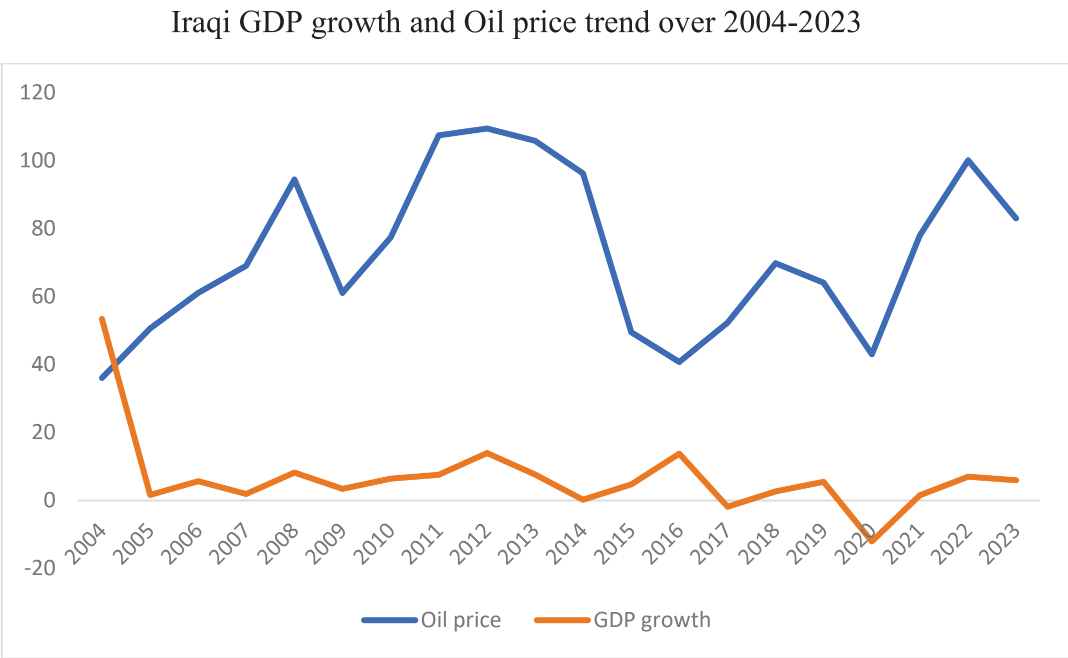
Study observation covers period from 2004 to 2023, to examine the impact of oil price on economic growth in Iraq, researcher used simple technique ordinary least square (OLS).

The development economic growth and oil prices in Iraq over the period 2004-2023

Year	*GDP growth %*	*Oil price (USD)*
2004	53.38	36.05
2005	1.67	50.64
2006	5.65	61.08
2007	1.89	69.08
2008	8.23	94.45
2009	3.38	61.06
2010	6.4	77.45
2011	7.55	107.46
2012	13.94	109.45
2013	7.63	105.87
2014	0.2	96.29
2015	4.72	49.49
2016	13.79	40.76
2017	-1.82	52.31
2018	2.63	69.78
2019	5.51	64.04
2020	-12.04	42.98
2021	1.58	77.97
2022	7.01	100.08
2023	6	82.95

Source: Worldbank.data. com

Iraq has gone through many major changes since 1990, which had a significant impact on economic growth. Although the Iraqi economy depends heavily on oil revenues, the economy suffered greatly from the wars that extended from 1990 to 2003, during which the economic blockade on Iraq from... Before Western countries, in the period between 2003-2015, Iraq witnessed civil wars that were a major obstacle to and a huge drain on the economy. There is no doubt that Iraqi economic growth depends on oil revenues, but the economic environment did not help in exploiting these revenues and directing them to the economic sectors. It has a significant impact on growth.



It is clear from the above figure that economic growth in Iraq during the study period is not directly linked to international oil prices. This clear trend shows that there are other factors affecting the growth mechanism. Iraq is still going through a state of political and security instability that has greatly reflected on the lack of economic stability.

Study Model:

A simple regression test between oil prices and Iraqi economic growth during the .period between 2004-2023.

$$Q = f(p)$$

By taking logarithms for both sides

$$\log(Q) = \alpha + \log(p) + \varepsilon$$

Dependent Variable: LOG(G)
Method: Least Squares
Date: 05/24/24 Time: 06:01
Sample: 2004 2023
Included observations: 20

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.1305	1.584670	3.210067	5.086898	C

0.2853	-1.101321	0.756677	-0.833345	LOG(P)

1.562615	Mean dependent var	0.063130	R-squared
1.139574	S.D. dependent var	0.011082	Adjusted R-squared
3.182681	Akaike info criterion	1.133242	S.E. of regression
3.282255	Schwarz criterion	23.11627	Sum squared resid
3.202119	Hannan-Quinn criter.	-29.82681	Log likelihood
2.179119	Durbin-Watson stat	1.212909	F-statistic
		0.285266	Prob(F-statistic)

The results of simple regression analysis showed that every increase in oil prices by 1% leads to a decrease in economic growth by the equivalent of 0.83%. This is due to the fact that the rise in global oil prices will be accompanied by an increase in many consumer goods and production inputs, and this is what works to reduce this economic growth on the one hand and on the other. On the other hand, the rise in oil prices is the largest share of spending on infrastructure projects and public spending, and this contributes to leakage outside the economic cycle, which reduces economic growth.

Pairwise Granger Causality Tests
Date: 05/24/24 Time: 05:52
Sample: 2004 2023
Lags: 2

Prob.	F-Statistic	Obs	Null Hypothesis:
0.7986	0.22877	18	LOG(P) does not Granger Cause LOG(G)
0.0651	3.39511		LOG(G) does not Granger Cause LOG(P)

Results

The results of simple regression analysis showed that there is a negative impact of the rise in oil prices on economic growth in Iraq. This is due to the fact that the rise in global oil prices does not reflect positively on the economy. This is due to the monetary returns resulting from the rise in oil prices do not cover the rise in the prices of many commodities. Which Iraq imports.

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