Measuring the impact of oil revenues on the index of trading volume in the Iraqi Stock Exchange for the period (2004-2021)

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Abstract

The study aimed to measure and analyze the relationship between the oil market and the Iraqi stock market, by shedding light on the analysis of the impact of oil revenues on the trading volume index. Financing its public expenditures as a major source of national income, so any fluctuation in crude oil prices and revenues will lead to fluctuations in the state's public revenues, which affect the ratio of deficit or debt to GDP and a decrease in public spending, which makes the Iraqi economy more vulnerable to shocks and its reflection on Reducing the state's public revenues and thus increasing the public budget deficit, which leads to instability The study also recommended that oil revenues should be used to achieve economic development goals in order not to dispense with the oil sector in the short term. First, it must work to diversify the Iraqi economy by diversifying sources of revenue with all the ingredients for its success by finding alternatives to crude oil by pumping investments In other sectors such as mining, metals, manufacturing, petrochemicals, tourism and health care.

Keywords: rentier economy, oil revenues, financial markets, Iraq stock market

Introduction:

Crude oil constitutes the most important economic resource to improve the efficiency of economic activities, and its importance is reflected in various economic, political and military fields. From this perspective, it appears that the main problem of the Iraqi economy being a rentier economy is that it is subject to the fluctuations of the global oil market because of its direct dependence on crude oil and its revenues as an essential commodity to finance its public budgets. and its development plans, and because the Iraqi macroeconomic performance is affected by these fluctuations, high oil prices enhance oil revenues, which leads to the private sector being highly affected by government financial performance, and then the impact is transmitted to the Iraqi stock market, which is an emerging financial market and based on the foregoing, the economy The Iraqi will face imbalances due to the decline in oil prices , which is reflected on the economic and social situation, and therefore this deterioration will affect the Iraqi joint stock companies and result in fluctuations in profitability rates, liquidity and some other financial indicators. Therefore, this study is only a serious and modest attempt to study one of the roles that oil plays in our financial and economic life, which is Knowing the impact of fluctuations in oil revenues on the indicators of the financial markets, specifically the Iraqi Stock Exchange.

The first topic
(Research Methodology)

First: the research problem

In which oil revenues form the backbone of the economic development process, and in light of the instability of crude oil prices and the fluctuation of its revenues from one period to another, and its impact on the financial market, and therefore a direct or indirect impact may occur on the indicators of the Iraqi stock market, which leads to investors' fear It is risky and investing in the Iraqi stock market, so the study problem will focus on answering the following question: Is there a relationship between oil revenues and the trading volume index for the period (2004-2021).

Second: the importance of research

Addressing the impact of fluctuations in oil revenues in the trading volume index gives an accurate and clear perception of the relationship between the two variables, which gives the ability to confront these fluctuations and reduce their impact as much as possible.

Third: the purpose of the research

The research aims to know the role of fluctuations in oil revenues in economic life by showing their impact on the trading volume index**.**

Fourth: Research hypotheses

In light of what was stated in the research problem and in order to test the questions raised in it and to achieve the general objectives of the research, the following hypotheses were formulated:

1.**The first hypothesi**s: there is no correlation between oil revenues and the trading volume index for the period (2002-200)4

2.The second hypothesis: there is no effect of oil revenues in the trading volume index for the period (2002-2004)

Sixth: The study population and sample

The study population and sample consist of the oil revenues available through the data of the Central Bank of Iraq and the trading volume index for the time period (2002-2004) due to the availability and completeness of the financial data and based on the annual financial reports of the Iraq Stock Exchange.

Seventh: The limits of the study

Time limits: the duration of the study (2004-2021)

Spatial boundaries: the Iraqi economy, the Iraqi Stock Exchange

Eighth: Study method

The study relies on a descriptive analytical method, based on a descriptive theoretical study of the phenomenon of oil revenues and their fluctuations and their impact on the Iraqi stock market, and the link between oil revenues and the trading volume index through testing hypotheses using the statistical program (Eviews 9)

the theoretical side (**The second topic)**

This topic aims to clarify the most important concepts related to the study variables, as follows:

First: oil revenues

1.The concept of oil revenues: There are those who believe that oil revenues are the revenues or financial returns obtained by the producing and exporting countries of crude oil in the world in exchange for the production and export of a natural resource, which is oil, and in return they get cash as part of the real value of this resource and that the volume of oil revenues It is directly proportional to the rise in oil prices and the degree of national control and the level of production (Ismail, 2004: 121), and it is also known as "the taxes paid to the state that owns the land in order to obtain a license to exploit the subsoil in the stages of the production process (research and production). One country to another according to the quantity of its production (Mafatih, 2003: 14**)**

The researcher believes that oil revenues: are the amount of revenues or monetary returns obtained by the oil-producing countries in return for their export of natural resources, especially oil. The rentier economy of a country depends on extracting a natural resource from the ground such as oil, so the economy of this country will be mostly loose and weak, due to its dependence on commercial exchanges and produces a consumer society in which the import sector is the dominant party، Where this sector does not attach any importance to agriculture and manufacturing industries. You may find a model for this type of economy in the economies of Arab countries in general, in which the state enjoys large financial revenues, whether through collection or sale, and these huge financial revenues usually go directly to building and construction, distributing the wages of employees and workers, and everything that the importing country needs instead of investing it. In productive sectors that revive the economy and provide job opportunities،

In addition, countries usually reap additional profits that contribute to diversifying their economies and getting rid of dependence on the oil sector, and this reality creates a situation in which economic growth remains contingent on the development of rents, not on the dynamism of the economy internally and externally through encouraging public productive sectors (Al-Saadi, 2009: 43). A country that depends on revenues from abroad, whether it obtained these revenues through the sale of crude oil, is also called a rentier state, or in exchange for providing strategic services, or by imposing taxes on remittances of expatriates abroad (a semi-rentier state). It should be noted that these revenues are not obtained through the employment of large labor to produce these revenues in the local economy

What distinguishes these countries is that they impede the democratic transformation and prevent the development of civil society (that is, the society that reproduces itself as a society outside the framework of the state, and in a relationship of relative independence with it and finances it from taxes). The largest share in the general budget in the rentier state comes from external revenues, as is the case in the Iraqi budget, where oil revenues constitute approximately 95% of the total public revenues, and in this sense they are external revenues and not productivity. It follows that the rentier state produces a large government with huge expenditures and budgets, and the government has financial capabilities to collect taxes (Abdul-Fadil 1978: 98)

2.The economic importance of oil revenues:

Oil revenues play an important and significant role in activating economic activity, as the oil sector is considered a forward push for many other economic sectors. The economic importance of oil revenues is reflected in the following

A.The importance of oil revenues in foreign trade:

The economic importance of crude oil at the commercial level lies in the fact that it is a commercial material at the global level, as it gained this international status after World War II and until today due to the increasing demand for oil and its products in most advanced industrial countries, especially Western Europe, Japan and the United States of America. Where the transformation of the economy of these countries from an economy based on coal as a primary source of fuel to an economy that is mainly dependent on crude oil and natural gas, It is known that the industrialized countries are the world's largest consumers and least producers of crude oil, unlike developing countries, which resulted in this disparity between oil production rates and demand for it, creating a global trade movement that "made oil the only commodity in international trade of great importance from In terms of size and monetary value (Burgas, 2000: 77).

B. The importance of oil revenues in economic growth:

The crude oil producing and exporting countries are distinguished from the rest of the world by the correlation of their economic growth rates with the performance levels of their oil sector, as it is determined by the volume of quantitative production and oil price fluctuations in global markets. The oil sector is the leading and influential sector in the growth rates of the GDP of these countries and significantly, which leads to an increase in demand for oil and consequently higher prices, and vice versa. Therefore, the increase in economic growth rates positively affects the demand side for oil in the global oil markets . (Burgas, 2000:51)

3. Characteristics of oil revenues:

Oil revenues have certain characteristics, the most important of which are: (Iraqi Ministry of Finance, 2009: 5-6), (Al-Qadi et al., 2010: 302-303)

A.The possibility of large rentier revenues: These rentier revenues represent the main feature of the crude oil-exporting country, as it is a particularly attractive container, as the possibility of obtaining very large levels of rent makes the oil industry particularly attractive as a source of public revenues, especially that oil revenue is considered An external revenue that is not generated from the productive processes of the national economy, which means that it is external revenue and not production.

B. Their high costs: Oil industry projects can require very high costs that are borne by investors in advance, and are not recovered at the completion of the project, so once those costs are incurred, the balance of bargaining power is transferred to the host government in a large way, and since the governments that have good intentions will have An incentive to provide financing on attractive terms before the start of the project, but after the tax base becomes large and the investor realizes that, which enables him to limit his investment, This is what harms both sides, as it does not generate the expected oil revenues from oil operations, since the investment costs of international oil companies have begun to increase dramatically, and may sometimes exceed oil revenues from production and operating operations, which may require an analytical study to identify the most important reasons that It led to a decline in the profit margins of the oil companies themselves, which are independent of political factors, and this means that more capital is needed to produce more oil, which leads to higher production and exploration costs, and consequently lower revenues.

Second: The Iraqi Stock Exchange

1. The concept of the Iraq Stock Exchange: a market or an economic entity that is financially and administratively independent and not linked to a specific entity. It is managed by a board consisting of nine members representing the various economic segments of the investment sector, called the Board of Governors, where investors meet and securities are dealt with buying and selling, It also constitutes one of the channels through which money flows between individuals, institutions and various sectors, which helps in mobilizing, developing and preparing savings for various investment fields (Al-Rubaie, 2009: 7).

2. Objectives of the Iraq Stock Exchange: (Iraq Stock Exchange, Eighth Annual Report, 2011: 5) The Iraqi Stock Exchange aims to provide protection to investors, organize and train companies listed in it and its members, enhance investor confidence in them, and simplify and organize transactions in securities on a regular and fair basis. Including clearing and settlement processes for these transactions, as well as educating all Iraqi and non-Iraqi investors about the various investment opportunities in the market.

3. Functions of the Iraq Stock Exchange: (Musa et al., 2014: 82)

The Iraq Stock Exchange works to enhance the interests of investors in an effective, secure and competitive market characterized by transparency and honesty, regulating and simplifying regular transactions in the market from effective and real clearing and settlement operations, as well as regulating members' transactions with regard to buying and selling of securities and determining the rights and obligations of all parties and protecting their legitimate interests .

4. Trading Volume Indicator:

It is one of the indicators by which the market liquidity is measured and it represents the value of shares and bonds that are traded in the market hall at different prices during a certain period of time (Al-Fadl, 2019: 118).

This indicator gives a good and important hint about the strength of the market and shows the possibility that the market will rise or fall in the future. To increase the demand for shares, buying and selling of shares must increase during a certain period, which generates a large volume of trading and thus increases the demand for shares at the same time. Investors are optimistic about the possibility of a price increase, which encourages them to enter the market, which causes prices to rise, but if the shares do not trade significantly, this invites investors to pessimism and anxiety about the future, which leads them to liquidate their financial positions, which puts pressure on prices and they fall (Mohammed, 2004: 65) .

The third topic(practical side)

To achieve the hypotheses of the study, it is necessary to employ a set of statistical tools that are compatible with finding the capabilities of the indicators used and testing those hypotheses to prove their validity or not. The significance of the hypotheses related to the correlation coefficients through the (-t-) test of the study sample, while the second part focused on studying the effect of the relationship between the variables of the studied phenomenon, that is, the relationship of the independent variable with each of the dependent variables is a regression model in itself, which summarizes The effect relationship, and to analyze the data under the current study, the Eviews 9 program was employed.

First: To test the hypotheses of the correlations of the study variables

In this part, the correlation relationship between the independent variable represented by oil revenues and the dependent variable represented by the trading volume index variable will be studied, and for the purpose of analyzing these variables the simple correlation coefficient (Pearson) will be used, then testing the significance of the correlation coefficient by employing the (t-test)) for the sample variables and we will focus on testing the first hypothesis (the null hypothesis), which states: "There is no statistically significant correlation between oil revenues and the trading volume index for the period 2004-2021" and the second main hypothesis which states "there is a statistically significant correlation between revenues Oil and Trading Volume Index for the period 2004-2021.

The strength of the correlation between the study variables can be found through the following correlation coefficients:

Correlation coefficient between oil revenues and trading volume:

Table (16) shows the results of the correlation between oil revenues and the trading volume index as follows:

Table (1)
Testing the correlation between oil revenues and the trading volume index

Volume Indicator				dependent variable
the decision	**morale level**	**Calculated T value**	**Correlation R**	**independent variable**
Hypothesis accepted H_1	0.044	2.182	0.478	**oil revenueS**

Source: Prepared by the researcher

Through the results presented in Table No. (16), we find that there is a direct, medium and statistically significant correlation between oil revenues and the trading volume index, and that relationship was estimated (0.478986). And the value of the t-test in language (2.182610), and its corresponding probabilistic value in language (0.0443) which is less than 0.05, so this relationship is significant, which means rejecting the null hypothesis that states (there is no statistically significant correlation between oil revenues and the trading volume variable for the period 2004-2021). And accepting the alternative hypothesis that states (there is a statistically significant correlation between oil revenues and trading volume for the period 2004-2021)

Second: Studying the impact relationship and its hypotheses between the variables of the study:

This part focuses on studying the relationships of the impact of the independent variable represented by oil revenues on the dependent variable represented by the trading volume index, which focuses on testing the first hypothesis (the null hypothesis) which states “there is no significant effect with a statistical significance for the fluctuations of Oil revenues in the trading volume index for the period (2004-2021) and the second hypothesis which states that “there is a statistically significant effect of fluctuations in oil revenues in the trading volume index for the period (2004-2021). For the purpose of testing this effect, we will employ the simple linear regression equation defined by the mathematical function. next:

$$y_i = \beta_0 + \beta_1 x_i + e_i$$

So y_i is the dependent variable, β_0 is the constant term, β_1 is the marginal slope, x_i is the independent variable, e_i is the random error term

Which is distributed according to the normal distribution with a mean of zero and standard deviation σ_i, as the above equation will be employed by studying the impact of the oil revenue relationship on the market value index, and employing the (T) test to clarify the significance (statistical significance) of the independent variable on the dependent variable, and employing the (F) test to indicate The suitability of the general model with the data under study, and the coefficient of determination or interpretation (R2) to find out the percentage of the interpretation of the independent variable from the dependent variable.

Studying the effect of the relationship between oil revenues and trading volume: The effect relationship between the independent variable represented by oil revenues and the dependent variable (trading volume) can be described through a simple regression model and as shown in the table below**:**

Table (2) The results of the regression coefficient between oil revenues and trading volume

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.22E+10	2.44E+11	-0.049856	0.9609
OIL_REVENUES	6959.660	3188.686	2.182610	0.0443
R-squared	0.229428	Mean dependent var		4.89E+11
Adjusted R-squared	0.181267	S.D. dependent var		3.90E+11
S.E. of regression	3.53E+11	Akaike info criterion		56.12286
Sum squared resid	2.00E+24	Schwarz criterion		56.22179
Log likelihood	-503.1057	Hannan-Quinn criter.		56.13650
F-statistic	4.763788	Durbin-Watson stat		0.539560
Prob(F-statistic)	0.044314			

Source: Prepared by the researcher based on (Eviews9) program.

Through the calculated (F) value (4.763788), and the corresponding probabilistic value equal to (0.044314), which is a significant value below the significance level of 0.05, we conclude that the estimated model between (oil revenues) and trading volume is a significant model, meaning that this model is compatible with the phenomenon under review. In addition to that, it is noted from the above table that the coefficient of determination (R^2) reached (22.9%) and the corrected determination coefficient of ability (18.1%). This shows that the interpretation of the regression equation is somewhat acceptable, which indicates that (18.1%) Of the changes that occur in the trading volume is due to the variable oil revenues and the remaining amount (9.81%) is due to uncontrolled external factors.

It should be noted that the oil revenues have a direct effect, that is, when the oil revenues increase by one unit, the trading volume will increase by (6959.660) through the (t) test for the parameter (B1), which amounted to (2.182610) and its probabilistic value of (0.0443) which is evidence of a significant parameter (B1) is below the significance level of 0.05, and through these results, we will reject the null hypothesis which states "there is no significant statistically significant effect of the fluctuations of oil revenues in the trading volume for the period (2004-2021)". And the acceptance of the alternative hypothesis, which states that "there is a statistically significant effect of fluctuations in oil revenues in the financial trading volume for the period (2004-2021)", which means in short that the oil revenues variable has a positive and statistically significant role in the trading volume for the period (2004-2021).

The fourth topic(conclusions recommendations)

First: the conclusions

1.The research reached the sensitivity of the Iraqi economy to the continuous fluctuations in the prices of crude oil and its revenues, a clear impact on the indicators of the Iraqi market for securities, as the rise in crude oil prices and revenues had a positive impact on the macroeconomic variables and indicators of the performance of the Iraqi market for securities, while the decline in crude oil prices It leaves negative effects on the macroeconomic variables and the performance indicators of the Iraqi Stock Exchange.

2.On the statistical side, the study concluded that there is a significant (direct) and statistically significant effect of the fluctuations of oil revenues in the trading volume index, that is, when oil revenues increase by one unit, the trading volume will rise by (6959.660), which means that oil revenues have a positive and significant role. Stats in the Trading Volume Index

Second: Recommendations

1.The necessity of diversifying the production base of the Iraqi economy to reduce dependence on the oil sector and the dependence of the financial market on fluctuations in crude oil prices, as these fluctuations are linked to fluctuations in global markets.

2.When investing in the Iraqi stock market, companies should carefully study economic variables due to their instability as a result of Iraq's dependence on crude oil as a main source of financing for its various development activities.

3.Increasing the activity of the Iraq Stock Exchange and diversifying its investment tools through joint cooperation with foreign financial markets and expanding the role of joint stock companies as a modern model for the private sector that increases the number of companies registered in the market, as well as adopting advanced electronic trading systems to raise the efficiency of the Iraqi Stock Exchange and make it more capable Contrary to market fundamentals .

(Sources)

1.Hafez Berjas, “The International Struggle for Arab Oil,” Bisan Publishing and Distribution, Beirut, 2000.

2.Al-Rubaie, Falah Khalaf, “Means of Upgrading the Iraqi Stock Exchange”, Al-Sabah Newspaper, issue of June 26, 2009.

3.Al-Daami, Abbas Kazem, “Monetary and Financial Policies”, Dar Safaa for Publishing and Distribution, first edition, Amman, Jordan.

4.Al-Saadi, Sabri Zayer, “The Economic Experience in Modern Iraq”, Dar Al-Mada for Culture and Publishing, first edition, 2009.

5. (Iraq Stock Exchange, Eighth Annual Report, 2011: 5)

6.Al-Ani, Imad Muhammad Ali, “The Integration of Financial and International Markets to Show Its Repercussions on the Global Economy”, House of Wisdom, Baghdad, first edition, 2002.

7.Al-Naimi, Adnan Tayeh Diab, “The nature of the activity and the market value of the facility, a comparative study in the Iraqi market and the Amman stock exchange”, Al-Mamoun College Journal, No. 31, 2018.

8.Iraqi Ministry of Finance, Economic Department, "Means of Developing Public Revenue Sources in Iraq", Baghdad, 2009.

9.Muhammad, Amira Hassaballah, "Determinants of Foreign Direct and Indirect Investment in the Arab Economic Environment", University House, Alexandria, 2004

19.Musa, Qassem Hadi, and Hattab, Muhammad Abdul Latif, “Evaluation of the Reality of Trading Shares in the Iraqi Stock Exchange for the Period (2004-2010)”, Ahl al-Bayt University, No. 16, 2014.

11.Mahmoud Abdel-Fadil, “The Behavior and Economic Performance of the Rentier Oil Countries in the Arab Region”, The Arab Future, No. 103, 1987.

12.Al-Fadl, Muhammad Yusuf Muhammad, “The contagion of financial crises and the channels of their transmission to the financial markets”, an analytical study of selected Arab countries with special reference to Iraq for the period (2004-2019), unpublished doctoral thesis, University of Anbar - Administration and Economics Department, 2019.

13.Al-Qadi, Hussein, Al-Rishani, Samir, "Petroleum Accounting", Dar Al-Atek for Publishing and Distribution, Amman, first edition, 2010.