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Measuring the Relationship Between Oil Revenues and the Parallel Exchange Rate in Iraq for the Period (2003-2023): An Empirical Study

Saif Nihad Salim* (iD) @   **Safaa Ali Hussein al-Bakri** (iD) @

Department of Economic, College of Administration and Economics,
University of Baghdad, Iraq.
*Corresponding author

Abstract:
This study is an empirical investigation into the relationship between oil revenues and the parallel exchange rate in Iraq during the period from 2003 to 2023, highlighting the susceptibilities of a rentier economy dependent overwhelmingly on oil exports. The study adopted a deductive procedure coupled with econometric analysis using the Autoregressive Distributed Lag (ARDL) method to analyze the impacts of oil revenues and GDP without oil on the parallel exchange rate. Annual data were gathered from official Iraqi agencies and subjected to unit root tests, bounds cointegration tests, and error correction model (ECM) tests. The results indicate a statistically significant long-term negative relation between oil revenues and the parallel exchange rate, meaning that as oil revenues increase, the exchange rate appreciates. In the same vein, GDP without oil was also found to exert a negative influence on the parallel exchange rate, illustrating how the non-oil sector is crucial to the stabilization of the economy. Describing how fluctuations in oil revenues induced exchange rate dynamics, the results also accentuated the need for exchange rate stabilization through diversification and sound oil revenue management. These inferences are instructive for policymakers who endeavor to stabilize the exchange rate and promote sustainable economic development in resource-dependent economies like Iraq.
Keywords: Oil Revenues, GDP Without Oil, Parallel Exchange Rate, ARDL Model.

1. Introduction:

Oil revenues are one of the most important resources in the economies of oil-producing countries, especially Iraq. It has been the backbone of the Iraqi economy over the past years. It became the main driving force for most of its economic activity because of the large revenues from its oil exports. (Al-Jumaili & Al-Jumaili, 2023(This resource has become the basis of public revenues. Hence, the oil sector is one of the most important pillars of the Iraqi economy through its significant contribution to the formation of the gross domestic product. (Abdul Latif & Kamas, 2023). Also, through the foreign currencies provided by oil revenues, oil revenues represent the backbone of the Iraqi economy, as it is a single-product economy. (Kadeem, 2020). Oil prices and oil revenues play an important role in economic activity, given that the Iraqi economy is rentier and depends on oil revenues to finance public expenditures and achieve economic stability, including exchange rate stability. (Hussein & Muhamad, 2018). Oil is the source of foreign currency in oil-producing countries, and changes in the price of oil and its exports determine the trade balance because imports of goods and services, transfers, and other external payments are stable in their relationship with aggregate effective demand in the short and medium term. (Taab, 2023). Foreign reserves are considered one of the most important tools for developing the economy, as they represent a tool for the stability of the country's economic system. One of the most important of these goals is ensuring the stability of the exchange rate of the local currency against foreign currency as an intermediate variable to achieve the goal, which is economic stability. (Al-Masoudi & Al-Azzawi, 2023). From this, we propose the following hypothesis:

H,1: Oil revenues negatively affect the parallel exchange rate of Iraq.

H,2: Oil revenues have a positive effect on the parallel exchange rate of Iraq.

2. Literature Review and Hypothesis Development:

The study (Dervish & Abdulrazzaq, 2018) The research results confirmed the significant role played by oil revenue shocks on the exchange rate. The study (Hussein, 2018) The research results concluded that oil price changes significantly affected the monetary stability indicators in Iraq (2003-2016) through oil revenues. As a result (Belkacem, 2009), Algeria's foreign reserves were well above the level considered sufficient for economic stability. The study of (Carlos de Resend, 2007) aimed to explain the relationship between fiscal policy and monetary policy and the extent of the role that each can play in determining the general price level. The study (Joshua Aizenman & Yi Sun, 2009) Shows how emerging markets on the list have adapted FTSE and MSCI to the global liquidity crisis by reducing their international reserves. Study (Awujola & Abayomi and others, 2014).

The objective is to assess the fiscal deficit and its impact on Nigeria's foreign reserves from 1988-2012 using modern time series econometric techniques. The study's results (Maala & Ahmed, 2015) showed that the gross domestic product in Iraq largely depends, more than 50%, on crude oil production. This requires economic diversification and moving away from the heavy dependence of the gross domestic product on crude oil. (International Monetary Fund, 2016) The study focused on the importance of economic diversification for crude oil exporting countries to confront price fluctuations and achieve sustainable development.

The study (Haded & Hamad, 2024) The importance of the study lies in focusing on measuring the impact of oil price fluctuations and oil revenues on financial sustainability indicators. The study (Jaber, 2021) focused on clarifying the role of OPEC in reducing the fluctuations in crude oil prices in global markets and examining the reality of oil price fluctuations in the Iraqi economy. Result (Al-Kubaisi & Muthna, 2019) The change in the general level of prices is due to two reasons: the first is changes in the economic policies followed and the extent of the response of local production units to meet local demand, and the second is changes in external prices that occur in international markets for goods and services.

The study (Edan, 2023) focused on addressing the most important problem facing the Iraqi economy and developing mechanisms to get out of the rentier predicament, which is the cornerstone for activating the role of other economic sectors. The study (Saheeb & Ali, 2023) found that the problem was that the Iraqi economy was still suffering from backwardness, poverty, and high inflation rates. The instability of the dinar's value against the dollar raises the question: Do exchange rates impact the level of inflation in Iraq? The study (Abdul Khader & Al-Ghalbi & Rashid, 2008), choosing the appropriate exchange rate system in Iraq, represents the core of the work of monetary decision-makers and is the focus of researchers at present. The study (Dagher & Mohammed al, 2017) In rentier economic systems that suffer from backward financial systems, weak financial mediation (ineffectiveness of traditional channels for transmitting the impact of monetary policy to the real sector), imbalanced economic structure, and heavy reliance on imports to meet local demand, the exchange rate is the main tool in the hands of the monetary authority to target inflation and maintain price stability. The study (Gray et al., 2013) found that currency auctions were used as one of the effective methods to influence the exchange rate directly and were considered a temporary tool used only to cross a certain transitional period to ensure monetary stability during this period. According to the study (Qasim, 2023), All exporting and consuming countries face a common challenge represented by sharp and frequent fluctuations in crude oil prices at the international level. The study.) Abdullah &Al Shamry, 2001). This challenge results in many economic, social, and political crises and problems. The study (Ismael, 2015) As for oil exporting countries such as Iraq ،these problems appear when oil revenues decrease because of the decline in oil prices ،which negatively affects the exchange rate. The study. (Mohammed, 2012) Especially since these fluctuations have become a recurring and worrying phenomenon for countries where crude oil is the main source of their financial resources. The study (Hamza & Mohsen & Hassan, 2015) shows that the depth of the impact of this decline in oil revenues will depend on the precautionary measures that producing countries should take to confront such crises. The study (Gergosian & Elias,2022).

States that sovereign funds and foreign exchange reserves are at the top of these measures. The study (Al Maahe & Shendi, 2022) This reserve sets aside some of the money in times of recovery and increased oil revenues to use to mitigate the negative effects of the decline in oil revenues, protect the national economy from external shocks, and create a stable economic environment externally. The study (Kadeem & Hamdi, 2017) By fulfilling the external obligations borne by the government. The study (Taha & Abdullah, 2023) And a stable economic environment internally by influencing the exchange rate and maintaining the value of the local currency to control inflation rates and then achieve economic stability and ensure its sustainability even in times of crisis and decline in oil revenues, on the one hand. The study (Salmani & Fayhan, 2022) If these revenues were not managed optimally to build a production base capable of getting rid of rentiers, the economy would continue to suffer from the weakness of the flexibility of the production system. The study (Abdulrazzaq, 2023) states that the increase in aggregate demand is reflected in the general level of prices and imports due to its inability to absorb the largest part of that increase. The study (Abounoori, 2014) leads to leakages from the income cycle, negatively affecting overall economic activity. The study (Hamza & Jafar & Ali, 2023) Revenues are important for forming foreign currency reserves in oil-producing countries. The increase or decrease in foreign reserves depends on the oil revenues and how the government (Ministry of Finance) decides to use them. The study (Younes &Al-Moussawi & Shani, 2017) shows that in addition to the private sector's demand for local and foreign currency, foreign reserves have grown significantly in oil-producing countries. The study (Al-Rubaie, 2017), In addition to ensuring the flow of imports, provides liquidity to the state or meets its external debt obligations in hard currency. The study (Yasin, 2021) shows that the exchange rate change is linked to changes in the price of oil in a complex but well-known way because it is caused by government spending that dominates the oil resource.

The study (Sahib & Ali,2023) shows that the exchange rate, on the other hand, is an effective factor in economic, financial, and international relations. It is common to fix the nominal exchange rate or control its movement when floating within a certain range that does not exceed it. The study (Kazem & Saleh,2015) The increase in government spending leads to an increase in the money supply and thus an increase in the money supply. This increase in the money supply is not matched by an appropriate supply of goods in developing countries because the production system does not enjoy any flexibility, which prevents an increase in production to meet the total demand for consumer goods, which leads to an increase in prices and an increase in the volume of inflationary pressures. This leads to a deterioration in the value of the national currency. The study (Peppers,2023) states that any country's central bank controls the exchange rate to influence the value of the local currency in a specific foreign currency and another currency. Intervention is usually done by the country's central bank by purchasing large amounts of this currency, which leads to its value remaining stable or increasing or vice versa. The research studied and analyzed the relationship between oil revenues and the parallel exchange rate in Iraq, especially considering the fluctuations in oil revenues and their impact on the Iraqi economy.

The problem can be formulated as follows: In light of the fluctuations in oil revenues, the lack of economic diversity in the sources of public revenues and reliance on the oil resource to finance public expenditures, especially current expenditures, led to the deepening of structural imbalances in the Iraqi economy, with the danger of what these imbalances generate in terms of distortion and deviation in economic variables, including the exchange rate, away from the goals of growth and economic stability.

3. Methodology:

a) **The Sample:** The time dimension of the research was set for the period (2003-2023) for the Iraqi economy, and data was collected from the Iraqi Ministry of Finance, the Central Bank of Iraq, and the Iraqi Ministry of Planning.

b) **Measurement of variables:** To achieve the research objectives and prove the validity of its hypothesis, the research relied on deductive reasoning based on theoretical foundations and using all data and variables with the aim of measuring the impact of (Oil revenues and GDP without oil as an independent variable) and (Parallel exchange rate as a dependent variable) in Iraq. Financial indicators and statistical methods will be used to analyze the data and test the hypotheses. Oil revenues and GDP without oil in Iraq were chosen for 2003-2023 due to the importance of the impact of Oil revenues on the parallel exchange rate in Iraq.

Chart (1) shows the nature of the relationship between the two research variables:
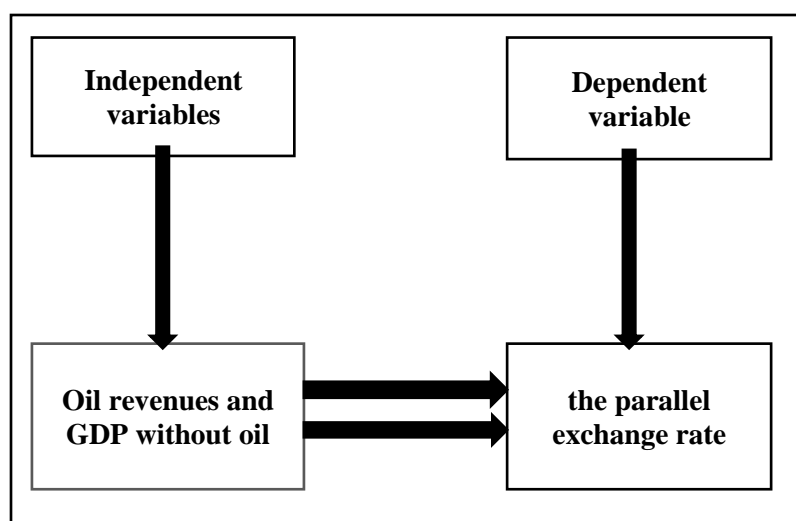
Figure 1: Hypothetical diagram of research.
Source: Prepared by the researchers

The stage of describing the econometric model is one of the important stages that can support the results of the analytical aspect. This is achieved by using the most accurate econometric methods and a set of tests that support the scientific research results. Additionally, econometric results can determine the nature of the economic relationships between the studied variables in a measured and mathematical manner according to the economic theory.

This helps to either prove or disprove the hypothesis. The statistical program (Eviews12) The autoregressive distributed lag (ARDL) model was used, and after conducting stability tests, we found that all data were stationary at the first difference, except for the parallel exchange rate, which was stationary at the level. The autoregressive distributed lag (ARDL) model was used, and the annual data for the period (2003-2023) were adopted. The data were divided into two independent variables (Oil revenues and GDP without oil) and a dependent variable (the parallel exchange rate), as shown in the following equations:

EX = f (RO, GDP without oil)
$$EX = B_0 + B_1 X_1 Y_1 - B_2 X_2 Y_2 + ut$$

Table 1: Variations of the classical model

Variable type	Variable name	Variable symbol
Independent	Oil revenues	OR
Independent	Gross Domestic Product without oil	GDP without oil
Dependent	the parallel exchange rate	EX

Source: Prepared by the researchers based on the model description

4. Results:

Testing the stationary of time series for the variables of the econometric model used In order to determine the degree of stationary of time series data in the estimated econometric model, the modified Dickey-Fuller (ADF) and Phillips-Perron (P.P) tests were conducted, and the results were as follows:

4-1- Augmented Dickey-Fuller test (ADF):
From Table (2) it is clear that all variables were not stationary at their original level (Level), but when taking the first difference we find that all data became stationary as the value of (Prob) was less than (0.05%), which means that there is no unit root between the variables. Accordingly, we reject the null hypothesis (H0) and accept the alternative hypothesis, which states that the time series is stationary between the variables, which indicates that the series are integrated of the first degree I(1).

Table 2 : Results of the Augmented Dickey-Fuller test statistic

Variables		At Level			At First Difference		
		With Constant	With Constant & Trend	Without Constant & Trend	With Constant	With Constant & Trend	Without Constant & Trend
Prob 5%	OR	0.2003	0.0918	0.8728	0.0004	0.0026	0.0000
	GDP without oil	0.4808	0.5644	0.9928	0.0398	0.1150	0.0223
	EX	0.6796	0.8696	0.7039	0.0000	0.0128	0.0089

Source: Prepared by the researchers based on the outputs of the econometric program (Eviews12).

Phillips-Perron (P.P) test: From Table (3) it is clear that the results of the two tests are similar except for the parallel exchange rate, which was stationary at the level, and thus there is no need to take the first difference. However, when taking the first difference, we find that the time series became stable in the Phillips-Perron test for all variables. Therefore, we reject the null hypothesis (H0), which indicates the instability of the time series, and we accept the alternative hypothesis, which indicates the stability of the time series between the variables, which indicates that the series are integrated to the first degree (I(1)), as confirmed by the value of (Prob), which was less than (0.05%).

Table 3: Results of the Phillips-Perron test statistic

Variables		At Level			At First Difference		
		With Constant	With Constant & Trend	Without Constant & Trend	With Constant	With Constant & Trend	Without Constant & Trend
Prob 5%	OR	0.3669	0.3116	0.8396	0.0000	0.0006	0.0002
	GDP without oil	0.5032	0.7794	0.9766	0.0410	0.1435	0.0222
	EX	0.0008	0.0046	0.1134	-	-	-

Source : Prepared by the researchers based on the outputs of the econometric program (Eviews12).

Estimating the relationship between the independent variables (Oil revenues and current expenditures) and the dependent variable (the parallel exchange rate) in Iraq

4-2- Using Lag (ARDL) Model:
After conducting the stability test for the time series of economic variables, including Oil revenues, GDP without oil (independent variable), and the parallel exchange rate in Iraq (dependent variable), it was found that all variables became stable at the first difference I(1). When this condition is met, the ARDL model test can be applied. The following table shows the test results for this model.:

Table 4: Results of testing the ARDL model for the crude oil rev in Iraq

Variable	Coefficient	Std. Error	t-Statistic	Prob
GDP without oil	-7.67E-06	2.58E-06	-2.976229	0.0409
OR	1.53E-06	9.57E-07	1.602304	0.1843
OR (-1)	-1.45E-06	1.11E-06	-1.313746	.02592
OR (-2)	1.16E-06	9.70E-07	1.197095	0.2974
OR (-3)	-3.89E-06	1.39E-06	-2.792405	0.0492
OR (-4)	-2.36E-06	8.83E-07	-2.670000	.00558
C	1468.194	405.9535	3.616656	0.0224
0.926444	Durbin-Watson stat	3.230953	Prob (F-statistic)	0.006678

Source : Prepared by the researchers based on the outputs of the statistical program (Eviews12).

Table (4) shows that the ARDL model automatically determines the lag order of the variables, and the results of the modified R-squared test showed that the independent variables explained (92%) of the changes in the dependent variable, while the remaining (8%) was due to other factors not included in the model.
In addition, its value was less than the Durbin-Watson statistic, which was (3.230953), indicating that the model is free from the problem of autocorrelation and has explanatory power. As for the value of the F statistic, it was (0.006678) at a level less than (0.05%), indicating that the model is statistically significant.

4-3- Results of the Bounds Test for Cointegration:
The bounds test is used to determine the existence of a long-term equilibrium relationship between (Oil revenues and GDP without oil) as an independent variable and the parallel exchange rate as a dependent variable. This is done by comparing the F statistic with the lower and upper critical values, as follows:

Table 5: Results of the bounds test between the independent variables and the parallel exchange rate as a dependent variable in Iraq

Test Statistic	Value	K
F-statistic	6.647039	2
		(Critical Value Bounds)
Significance	I0 Bound	I1 Bound
%10	2.63	3.35
%5	3.1	3.87
%2.5	3.55	4.38
%1	4.13	5

Source : Prepared by the researchers based on the outputs of the econometric program (Eviews12).

It is clear from Table (5) that the statistical F value was (6.647039) which is greater than the upper critical value (3.87) at a significance level of (0.05%). Accordingly, we reject the null hypothesis (H0) and accept the alternative hypothesis (H1). This indicates the existence of an integrative relationship between the independent variables (Oil revenues and GDP without oil) and the dependent variable (the parallel exchange rate), i.e. there is a long-term equilibrium relationship between them.

4-4-Test estimated (short-run) parameters and unconstrained error correction factor:

This test estimates short-term parameters to reveal the degree of impact of the independent variable on the dependent variable, as well as to determine the nature of the short-term relationship. Additionally, the error correction term indicates the speed at which the model returns to equilibrium in the long term, as shown in the following table :

Table 6: Results of estimating the error correction model and the short-term relationship of Oil revenues model and its relationship with the parallel exchange rate in Iraq

Variable	Coefficient	Std. Error	t-Statistic	Prob
D(OR)	1.53E-06	5.18E-07	2.956190	0.0417
D (OR (-1))	5.09E-06	9.32E-07	5.465148	0.0055
D (OR (-2))	6.25E-06	7.99E-07	7.820876	0.0014
D (OR (-3))	2.36E-06	5.75E-07	4.100835	0.0148
CointEq (-1) *	-0.671956	0.098509	-6.821237	0.0024

Source: Prepared by the researchers based on the outputs of the econometric program (Eviews12).

From the above table, it is clear that there is a short-term negative relationship between Oil revenues as an independent variable and the parallel exchange rate as a dependent variable, as increasing Oil revenues by one unit leads to an increase in the parallel exchange (1.53E-06) at a significance level (Prob= 0.0417) with other factors constant. The results also showed that the unconstrained error correction coefficient (UECM) reached a value of (-0.671956), which is a negative and significant value with a probability of (Prob= 0.0024). This reflects the existence of a short-term equilibrium relationship between the independent and dependent variables in the direction of a long-term equilibrium relationship. The value of the error correction limit means that (67%) of the imbalance (short-term imbalance) in the previous period (t-1) can be corrected in the current period (t) towards the long-term equilibrium relationship due to any shock or change in the independent variable.

4-5- Testing of long-term estimated parameters:

This test shows the estimation of long-term parameters with the aim of revealing the degree of influence of the independent variable on the dependent variable, as well as determining the type of long-term relationship between the two variables, as follows :

Table 7: Results of estimation of the error correction model and the long-run relationship of the oil revenue model and its relationship with the parallel exchange rate in Iraq

Variable	Coefficient	Std. Error	t-Statistic	Prob
OR	-7.46E-06	2.42E-06	-3.081445	0.0369
GDP without oil	-1.76E-06	9.61E-07	-1.826583	0.0418

Source: Prepared by the researchers based on the outputs of the econometric program (Eviews12).

From the above table, it is clear that The coefficient of oil revenues indicates a negative and significant impact on the parallel exchange rate in the long run between the parallel exchange rate as a dependent variable and oil revenues as an independent variable, as an increase in oil revenues by one unit leads to a decrease in EX by (-7.46), which is consistent with the economic theory, as an increase in oil revenues leads to a decrease in the parallel exchange rate by the central bank selling foreign currency to withdraw the monetary mass and maintain price stability. As for the coefficient of GDP without oil, it indicates the existence of a negative and statistically significant relationship between the parallel exchange rate as a dependent variable and GDP without oil as an independent variable, as an increase in GDP without oil by one unit leads to a decrease in the parallel exchange rate by (-1.76), which is consistent with the logic of economic theory, as it is assumed that increasing GDP without oil leads to an increase in the parallel exchange rate in the long run, and through the above we accept the study hypothesis that states that oil revenues negatively affect the parallel exchange rate.

5- Conduct diagnostic tests for estimated residuals:
For the purpose of verifying the validity and accuracy of the results obtained, in the previous tests we will conduct some important diagnostic tests to prove this, as follows :
5-1 Autocorrelation Problem Test (LM Test):
This test is used to verify the extent to which the estimated model is free from the problem of autocorrelation of the residuals, as follows :

Table 8 : Results of the Autocorrelation Problem (LM) Test for the External Debt Model and its Relationship to Economic Growth in Iraq

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.036413	Prob. F	0.9643
OBS-R-squared	0.096632	Prob. Chi-Square	0.9528

Source: Prepared by the researchers based on the outputs of the statistical program (Eviews12).
From the table above it is clear that the value of (Prob. Chi - square) is at a probability level of (0.9528), which is greater than (0.05%), and this means that there is no autocorrelation problem, so we accept the null hypothesis (H0) which states that there is no autocorrelation problem , between the random residuals, and we reject the alternative hypothesis (H1) which states that there is an autocorrelation problem between the random residuals, and that this test enhances the accuracy of the results of the model (ARDL).
5-2- Testing the heterogeneity of variance problem (ARCH Test):
This test is used to verify the extent to which the estimated model is free from the problem of variation in variance of the residuals, as in the following table :

Table 9 : Results of the consistency of variance test. Error limits (homogeneity of variance) for the market value model for shares in the Bank of Baghdad (STB)

Heteroskedasticity Test: ARCH			
F-statistic	1.173989	Prob. F	0.3678
OBS*R-squared	3.646477	Prob. Chi-Square	0.3023

Source: Prepared by the researchers based on the outputs of the statistical program (Eviews12).

The table above shows the results of the test for the difference in variance (ARCH) problem. The value of the Prob. Chi - square reached a probability level of (0.3023), which is greater than 0.05. This means that the model is free of the problem of difference in variance. Therefore, we accept the null hypothesis which states that there is no There is a problem of variance difference between random residuals. We reject the alternative hypothesis that states that there is a problem of variance difference between random residuals, and that this test enhances the accuracy of the model results (ARDL).

5-3- Testing the problem of normal distribution of the model:
This test is used to ensure that the estimated model is free from the problem of normal distribution of residuals, as follows :
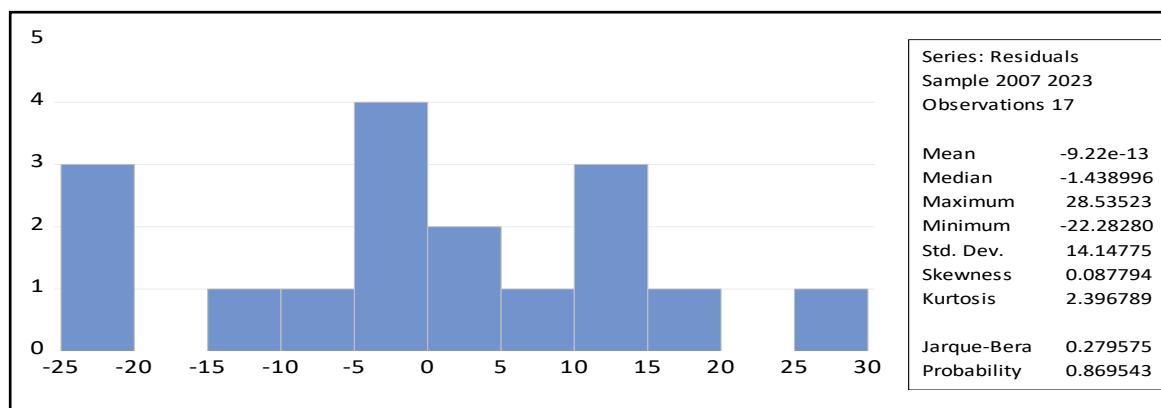
Figure 2: Results of testing the problem of the normal distribution model of oil revenues and its relationship to the parallel exchange rate in Iraq

Source : Prepared by the researchers based on the outputs of the economerticprogram (Eviews12).

From Figure (2), it is clear that the value of (jarque-bera) is at a probability level of (0.279575), which is greater than ((0.05). This means that the model is free of the problem of normal distribution. Therefore, we accept the null hypothesis which states that there is no problem of normal distribution of the residuals. We reject the alternative hypothesis, which states that there is a problem with the normal distribution of residuals, and that this test enhances the accuracy of the results of the ARDL model.

5-4- Model Stability Tests:

Figure (3) shows the cumulative sum test for the rest of the research model, and Figure (4) shows the cumulative sum test for the squares of the rest of the research model. It is clear from Figure (3) and (4) that the study model is stable throughout the research period, because the continuous winding series do not go beyond the discontinuous critical limits.
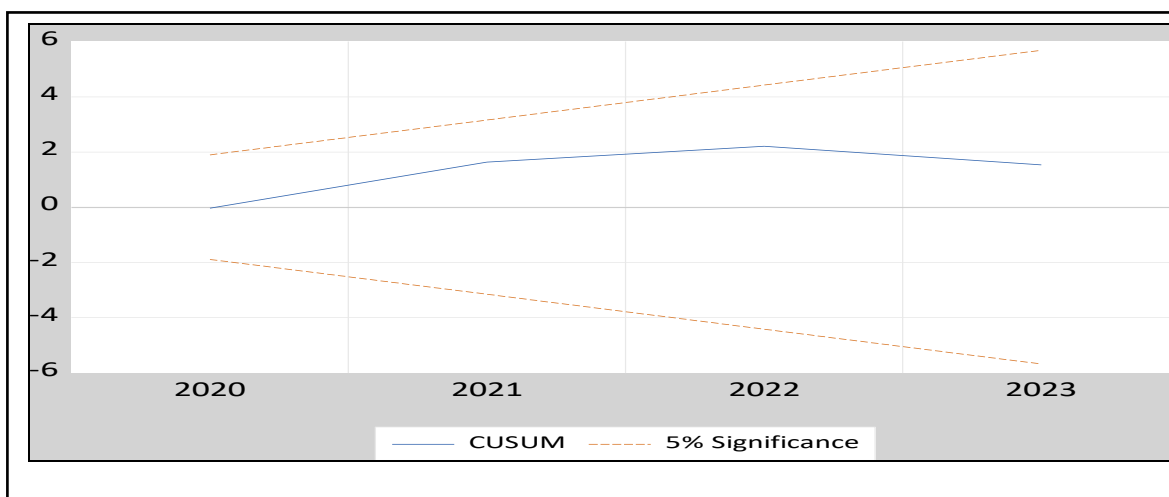
Figure 3: Cumulative sum of residuals test

Source : Prepared by the researchers based on the outputs of the statistical program (Eviews12).
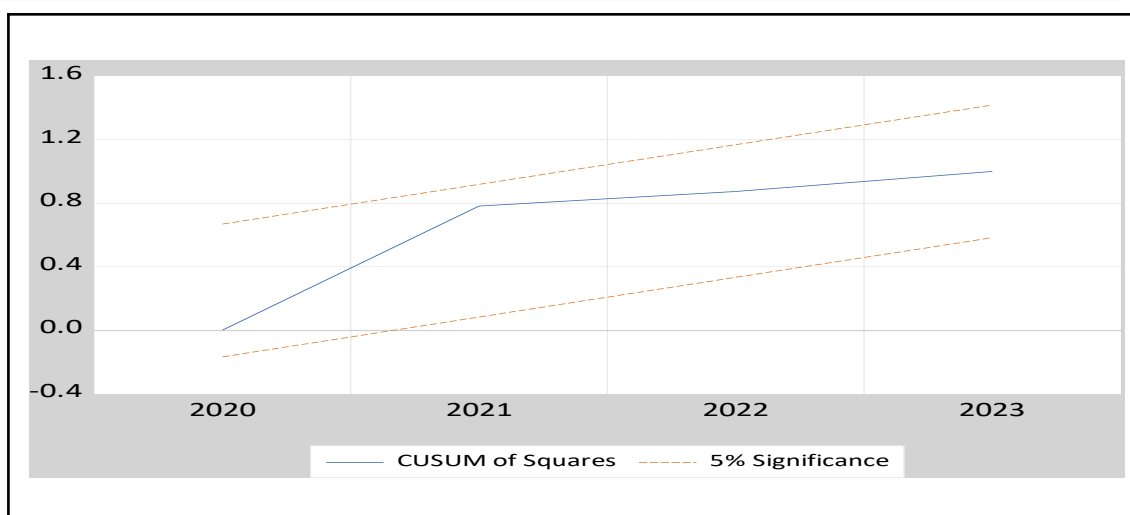
Figure 4 : Cumulative sum of squares test
Source : Prepared by the researchers based on the outputs of the statistical program (Eviews12).

6. Discussion of Results:

The results indicate an inverse relationship between Oil revenues and the parallel exchange rate because The Central Bank of Iraq sells hard currency to withdraw the money supply and maintain price stability. This proves the validity of the hypothesis that Oil revenues negatively affect the parallel exchange rate of Iraq; there is also a negative relationship between the GDP without oil and the parallel exchange rate, as the increase in the GDP without oil, represented by the growth of the industrial and agricultural sectors and the rest of the sectors that make up the output, leads to a decrease in the demand for imports and the demand for hard currency, and thus a decrease in the exchange rate in the parallel market.

7. Conclusion:

The results of the econometric analysis confirmed the validity of the research hypothesis, as it was shown through the econometric results that there is a statistically significant relationship between the independent variables (Oil revenues and GDP without oil) and the dependent variable (the parallel exchange rate) in Iraq. The results of the econometric analysis also showed that the independent variables (Oil revenues and GDP without oil) explained (92%) of the changes in the dependent variable (the parallel exchange rate) in Iraq.

The results of the econometric analysis showed that there is a long-term negative relationship between Oil revenues as an independent variable and the parallel exchange rate as a dependent variable, as an increase in Oil revenues by one unit leads to a decrease in the parallel exchange rate by (-7.46E-06) at a significance level (Prob = 0.0369), with other factors constant. Accordingly, the study hypothesis was accepted, which states a Long-term negative relationship exists between oil revenues and the parallel exchange rate in Iraq.

Authors Declaration:

Conflicts of Interest: None
-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.
- Ethical Clearance: The Research Was Approved by The Local Ethical Committee in The University.

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Shaved(1)

Year	RO	GDP without oil	EX
2003	15728387	9213494	1936
2004	32593011	22379365	1453
2005	39448514	31153813	1472
2006	46873201	42736143	1475
2007	51949251	52437718	1267
2008	76297027	69859660	1203
2009	50190202	74645152	1182
2010	63594168	89159565	1186
2011	98241562	102070683	1196
2012	111326166	127789933	1233
2013	105695824	148013639	1232
2014	95174441	149480319	1214
2015	65086896	129486931	1247
2016	46249617	129523925	1275
2017	65155570	133000896	1258
2018	95619839	148744551	1208.924
2019	99216318	161771501	1196.135
2020	54448514	152325796	1315.349
2021	95270298	163734626	1474.055
2022	153623277	175858935	1482.45
2023	124428748	180964858	1482