
THE IMPACT OF SOME REVENUE INDICATORS ON THE GROSS DOMESTIC PRODUCT IN IRAQ FOR THE PERIOD (2005-2021) USING THE LOGARITHMIC FUNCTION

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Abstract

Economic literature indicates the existence of a reciprocal, meaningful relationship between revenues and Gross Domestic Product (GDP) in Iraq. Therefore, the study aims to analyze the evolution of revenues and the actual situation of GDP and measure the impact of revenues on GDP in Iraq for the period (2005-2021). The research was based on the hypothesis that there is a reciprocal and meaningful relationship between revenues and GDP in Iraq using the logarithmic function. The research concludes that an increase in oil revenues by one unit, while holding other factors constant, will contribute to an increase in GDP by (0.211) million dinars. An increase in tax revenues by one unit, while holding other factors constant, will contribute to an increase in GDP by (0.152) million dinars. An increase in other revenues by one unit, while holding other factors constant, will contribute to an increase in GDP by (0.073) million dinars. The research recommends increasing sources of financing for the general budget such as tax revenues, commodity revenues, and other revenues to finance and cover production or investment expenses.

Keyword: revenue indicators, Gross Domestic Product, logarithmic function.

Introduction

Public revenues constitute one aspect of the financial and economic activity of the state, playing a vital role in directly influencing most of the government's economic variables. Their impact extends directly or indirectly to most economic and social variables, with Gross Domestic Product (GDP) being one of the most important economic variables affected by the direction and volume of revenues. The research problem lies in assessing the extent to which GDP is affected by these variables during the study period (2005-2021). These variables were studied statistically to determine the extent of their impact on GDP in Iraq. The budget deficit in Iraq depends on crude oil prices, as Iraq's budget relies directly on oil revenues, with other sources of revenue, especially tax revenues and others, being weak. Thus, this budget is exposed to external fluctuations because it relies (90-97%) on oil revenues, which are affected by fluctuations in international prices.

Research Problem:

The Iraqi economy relies on oil revenues to finance the budget and cover expenditure, making it a mono-sector economy relying on a single financial resource. This renders the budget vulnerable to fluctuations in oil prices in international markets.

Importance of the Research:

The importance of the research lies in studying revenues and their role in supporting economic activity, and the impact on the economic variables constituting the Iraqi economy, including Gross Domestic Product (GDP).

Research Hypothesis:

The research is based on the hypothesis that there is a reciprocal and meaningful relationship between revenues and GDP in Iraq for the period (2005-2021) using the logarithmic function.

Research Objective:

The research aims to study the evolution of revenues, the actual situation of GDP, and measure the impact of these revenues on GDP in Iraq for the period.(2021-2005)

Research Methodology:

The research adopted a descriptive methodology in the theoretical aspect, then used a standard approach in the applied aspect, relying on some statistical and measurement tests to reach the results.

Scope of the Research:

- Spatial Boundaries: Studying the relationship between revenues and GDP in Iraq.
- Temporal Boundaries: The study spanned from 2005 to 2021, covering a time series of sixteen years.

Chapter One

Theoretical and Conceptual Framework of Revenues and Gross Domestic Product (GDP)

1. General Revenues:

General revenues are among the most important tools of public financial policy, both in terms of expenditure and revenue, which the government should undertake through its parliamentary councils. They are defined as significant sources from which the government derives funds to cover its various and unlimited needs, as well as to satisfy the public needs of society. They are also defined as the funds obtained by the government from specific sources. (Hussein: 486, 2022).General revenues may come from several sources, including oil revenue from oil royalties, which is also influenced by external factors and conditions. Another source is tax revenue collected by the government from individuals through tax imposition. Due to the increase in public expenditures, the theory of government revenues and their purposes has evolved, leading to the development of principles and determinants of

government revenues. Consequently, the theory of government revenues is no longer limited to the process of financing government expenditures, as advocated by the traditional school of thought, but has become a key tool among the instruments of social and economic guidance. Moreover, government revenue channels have evolved and diversified their methods, and their nature has varied depending on the type of service provided by the government. This multiplicity has opened the door for financial thought to classify government revenues into different types and categories, including: (Abdulqader: 105, 2020).

1.1 .Oil Revenues:

It is defined as the cash value of one barrel of crude oil measured in US dollars, consisting of (42) gallons expressed in the US currency (the dollar). Despite numerous attempts to find an alternative currency or monetary unit through the terms of the oil dollar, dinar, a basket of major currencies, and special drawing rights, the barrel of oil has been estimated to be linked to the US dollar (Fehan: 2022, 40).

It is also known as the cash representation or value expressed in US dollars, and this cash value is subject to continuous fluctuations due to the nature of the international oil market, which is characterized by dynamism and instability (Al-Rahim: 2022, 23).

Ziyara defined it as the commodity value of oil expressed in US dollars, equivalent to 159 liters and consisting of (42) gallons at a specific time and place. Therefore, price elasticity of demand is low in the short term due to the absence of alternatives, while it is high in the long term due to the possibility of alternative energy sources for this commodity (Ziyara: 2019, 335).

1.2. Tax Revenues:

Tax revenues are defined as a collection of funds obtained by the state to spend on government sectors, projects, and the implementation of its financial policies. They are a financial tool intended to encompass a group of incomes received by the government from its various sources in order to cover its public expenditures and achieve economic and social balance and stability (Al-Shukri: 2022, 700).

Tax revenues have also become a major source essential for the government to cover its extensive expenditures, depending on the sovereign authority of the government in managing finances, and its collection for the purpose of spending on sectors, facilities, and public services to achieve societal welfare and satisfy public needs. The government estimates the public expenditures for the upcoming year and based on that, estimates the necessary revenues to confront those public expenditures. Therefore, taxes are one of the most important significant financing sources for the government's general treasury, collected from individuals as their contribution to managing the necessary funds to cover various state expenditures (Amin: 2000, 224). Through this, tax revenues can be defined as a process carried out by the sovereign entity authorized by law to collect revenues for use in covering state expenditures, enhancing the welfare of its citizens, protecting them, and serving as a tool for implementing state policy and fair wealth distribution to achieve social and economic development goals (Hanaa: 2023, 487).

2. Gross Domestic Product (GDP):

It is the total aggregate value added earned in all economic sectors within the geographic boundaries of a country, with the assistance and contribution of both non-domestic and domestic production factors. Therefore, it represents the total production values of goods and services after deducting the value of production requirements or intermediate consumption. This means that it is an important indicator for measuring economic growth (Shani, 2011, 188).

Gross Domestic Product (GDP) = Total or Aggregate Production - Production Requirements.

Gross Domestic Product (GDP) is considered one of the most prominent indicators illustrating the economic and social reality in a country, expressed in statistical figures. GDP reflects the final value of goods and services produced within a country during a certain period, usually one year (Mahdi & Aziz, 2022, 348).

Chapter Two

Analysis of the Relationship between General Revenues and Gross Domestic Product in Iraq

First: The Situation of Revenues in Iraq:

Oil revenues constitute the primary source of financing for the general budget in Iraq. The aspect of general revenues is independent of the economic activity of other sectors such as trade, agriculture, industry, and others. We will review the most important sources of financing general revenues in Iraq, including:

1. Oil Revenues:

Iraq's reliance on oil revenues accounts for approximately (90% - 97%) of general revenues, leading to a decrease in the contribution percentage of other sources in budget financing, resulting in a deficit in the government's general revenues.

It is evident from Table (1) that oil revenues significantly increased after 2005 due to several reasons, including the rise in oil prices, especially after the lifting of the embargo on Iraq, economic and trade openness to the world, and increased Iraqi oil exports. Oil revenues were (246,122,588) million dinars in 2005. The value of oil revenues developed to (97%) of general revenues, reaching (550,327,727) million dinars in 2008, accounting for (98%) of general revenues.

The increase in oil revenues continued gradually after 2008 due to increased oil exports on one hand and continuous rise in oil prices on the other. Oil revenues reached (640,029,797) million dinars, with a contribution percentage of (98%) of general revenues.

Since 2014, oil revenues began to decline due to unstable security conditions and the cessation of fields due to the war with ISIS, resulting in near-total halt of oil in northern regions, in addition to the decrease in global oil prices. Oil revenues became (639,086,166) million dinars in 2014, accounting for (92%) of general revenues. The decline continued until it reached (250,644,864) million dinars in 2016, with a contribution percentage of (83%) of general revenues.

Since 2017, oil revenues have started to rise relatively, with the liberation of oil fields from ISIS control to operate in northern regions of Iraq after security stabilization. Oil revenues were (578,343,183) million dinars in 2018, with a relative contribution of (89%) of general revenues. The increase in oil revenues continued, reaching (527,788,590) million dinars in 2021, with an increase percentage of (89%) of general revenues.

Tax Revenues:

Tax revenues formed a very small percentage of general revenues in Iraq during the period (2005-2021) due to the weakness of legal procedures followed in tax collection, leading to a deficit in the size of general revenues in Iraq. Additionally, the weak legal measures contributed to tax evasion.

It is evident from Table (1) that tax revenues declined in Iraq after 2005 due to the use of traditional methods in estimating the tax volume, which created a significant gap between tax revenues and oil revenues in Iraq after 2005. For example, tax revenues increased from (2,814,780) million dinars in 2005, accounting for (1%) of general revenues, to (18,910,399) million dinars in 2009, accounting for (6%) of general revenues, which were very low.

After the oil crisis in 2014 and the relative decrease in oil exports and oil revenues, the percentage of tax revenues from general revenues increased, reaching (33,347,393) million dinars in 2017, accounting for (7%) of general revenues in Iraq.

In 2020, tax revenues decreased to (18,754,036) million dinars, accounting for (5%) of general revenues. The decrease continued in 2021, with tax revenues amounting to (20,182,324) million dinars, contributing (3%) of general revenues.

Table (1) illustrates the contribution percentage of oil and tax revenues to the Gross Domestic Product in Iraq for the period (2005-2021).

The years	Public revenues(1)	Annual growth rate (2)	Oil revenues (3)	Percentage of oil revenues from public revenues (4)	Tax revenues (5)	Percentage of tax revenues from public revenues(6)
2005	251869219		246122588	0.97	2814780	0.01
2006	299386043	18.8	286427371	0.95	3632566	0.01
2007	294484382	-1.6	287630627	0.97	6037480	0.02
2008	557129649	89.1	550327727	0.98	6198281	0.01
2009	308497061	-44.6	288500204	0.93	18910399	0.06
2010	440550146	42.8	427364158	0.97	8162992	0.01
2011	652897632	48.2	640029797	0.98	12168734	0.01
2012	710991772	8.8	696252676	0.97	13605460	0.01
2013	729377480	2.5	713858369	0.97	14021587	0.01
2014	694601330	-4.7	639086166	0.92	9994714	0.01
2015	403770589	-41.8	344679624	0.85	9681272	0.02
2016	301161836	-25.4	250644864	0.83	20599090	0.06
2017	459493722	52.5	392561459	0.85	33347393	0.07
2018	645013992	40.3	578343183	0.89	30649290	0.04
2019	619385632	-3.9	570938344	0.92	24902212	0.04
2020	372377108	-39.8	334372288	0.89	18754036	0.05
2021	588926034	58.1	527788590	0.89	20182324	0.03

Reference: From the researcher's work, relying on the Iraqi Bank: Statistical Website: Miscellaneous Research.

Ministry of Planning - Central Statistical Organization.

Thirdly: Analysis of the Relationship between Revenues and Gross Domestic Product (GDP):

The Gross Domestic Product (GDP) reflects the economic performance of a country during a specific period, often a year. Regarding the Iraqi economy, there are several characteristics associated with the economic trajectory that have reflected their effects on the GDP and its sectoral distributions. Among the most important of these sectors are:

1. Analysis of the Relationship between Oil Revenues and GDP:

The productive base of the Iraqi economy, represented by the contribution of the oil sector and the decrease in the contribution percentage of other sectors, including tax revenues, in forming the GDP, indicates the instability of the GDP. This instability is attributed to its connection to global oil prices, which are volatile and influenced by global political and economic conditions, making this indicator a cause of economic structural imbalance in the country. As shown in Table(2) :

Oil revenues increased, reaching (246,122,588) million dinars in 2005, contributing (2.3) to the GDP, due to an increase in oil exports and a corresponding increase in oil prices, leading to an increase in the GDP in Iraq.

The continuation of the increase in oil revenues, reaching (696,252,676) million dinars in 2012, contributing (4.2) to the GDP in Iraq.

Oil revenues decreased, reaching (639,086,166) million dinars in 2014, contributing (3.5) to the GDP, due to the unstable security situation in the northern regions and the negative impact of most of these oil fields going out of operation on the GDP.

There was an improvement in oil revenues and GDP, reaching (578,343,183) million dinars in 2018, contributing (2.7) to the GDP, due to an almost improvement in the security situation in the country.

Oil revenues amounted to (527,788,590) million dinars in 2021, contributing (2.6) to the GDP in Iraq.

Relationship of Tax Revenues to Gross Domestic Product (GDP):

As shown in Table (2) and as follows:

Tax revenues increased from (2,814,780) million dinars, contributing (0.02) to the GDP in 2005 due to an increase in tax deductions.

Tax revenues decreased, reaching (9,994,714) million dinars in 2014, contributing (0.05) to the GDP, and the reason was the weakness in tax collection policies and tax evasion in Iraq.

Tax revenues increased, reaching (24,902,212) million dinars in 2019, contributing (0.10) to the GDP due to the introduction of an electronic system in tax collection.

The increase in tax revenues continued, reaching (20,182,324) million dinars in 2021, contributing also (0.10%) to the GDP, attributed to improvements in tax collection methods and the elimination of tax evasion.

Table (2) shows the contribution percentage of oil and tax revenues to the gross domestic product in Iraq for the period (2005-2021) in million dinars.

The years	Public revenues(1)	Annual growth rate (2)	Oil revenues (3)	Percentage of oil revenues from public revenues(4)	Tax revenues(5)	Percentage of tax revenues from public revenues(6)
2005	103551403.4		246122588	2.3	2814780	0.02
2006	109389941.3	5.6	286427371	2.6	3632566	0.03
2007	111455813.4	1.8	287630627	2.5	6037480	0.05
2008	120626517.1	8.2	550327727	4.5	6198281	0.05
2009	124702075	3.3	288500204	2.3	18910399	0.15
2010	132687028.6	6.4	427364158	3.2	8162992	0.06
2011	142700217	7.5	640029797	4.4	12168734	0.08
2012	162587533.1	13.9	696252676	4.2	13605460	0.08
2013	174990175	7.6	713858369	4.0	14021587	0.08
2014	178951406.9	2.2	639086166	3.5	9994714	0.05
2015	183616252.1	2.6	344679624	1.8	9681272	0.05
2016	208932109.7	13.7	250644864	1.1	20599090	0.09
2017	205130066.9	-1.8	392561459	1.9	33347393	0.16
2018	210532887.2	2.6	578343183	2.7	30649290	0.14
2019	222141229.7	5.5	570938344	2.5	24902212	0.11
2020	195402549.5	-12.0	334372288	1.7	18754036	0.09
2021	198496540.5	1.5	527788590	2.6	20182324	0.10

Reference: Based on the researcher's work relying on the World Bank, Ministry of Finance, and the Iraqi Bank, Statistical Website.

Chapter Three

Assessing the Impact of Public Revenues on the Gross Domestic Product (GDP) in Iraq for the Period(2021-2005)

First: Description of Study Variables:

The study comprises four variables as follows:

Dependent variable (Y): Gross Domestic Product (GDP)

Independent variable (X1): Oil Revenues (ROIL)

Independent variable (X2): Tax Revenues (R)

Independent variable (X3): Other Revenues (ROther)

$$LY = C(1) + C(1)*LX1 + C(2)*LX2 + C(3)*LX3$$

Second: Descriptive Statistics for the Data:

1. Gross Domestic Product:

Figure (1) illustrates that the average value of the Gross Domestic Product was (32.69), with a median value of (32.79), and a standard deviation of (0.26). The skewness coefficient was (0.32). To verify the extent to which the data conforms to a normal distribution, the Jarque-Bera test was employed using the statistical software E-Views. The basis for accepting the hypothesis of non-normal distribution is when the probability value of the test is greater than (0.05). Figure (1) demonstrates that this study's variable follows a normal distribution, as the probability value (0.43) is greater than (0.05). Hence, there is no issue regarding normal distribution.

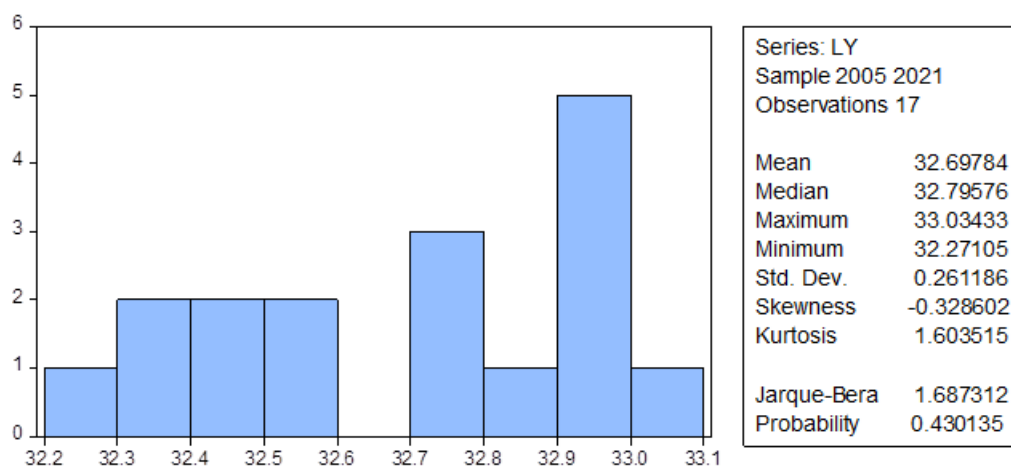


Figure (1) presents the descriptive statistics for the Gross Domestic Product variable.
Reference: Compiled by the researcher using the E-views software.

2. Oil revenues: The average oil revenue amounted to (19.87) with a median of (19.873), and a standard deviation of (0.37). The skewness coefficient was (0.10 -). Figure (2) indicates that this variable follows a normal distribution, as the probability value (0.434) is greater than (0.05). Thus, there is no issue with the normal distribution.

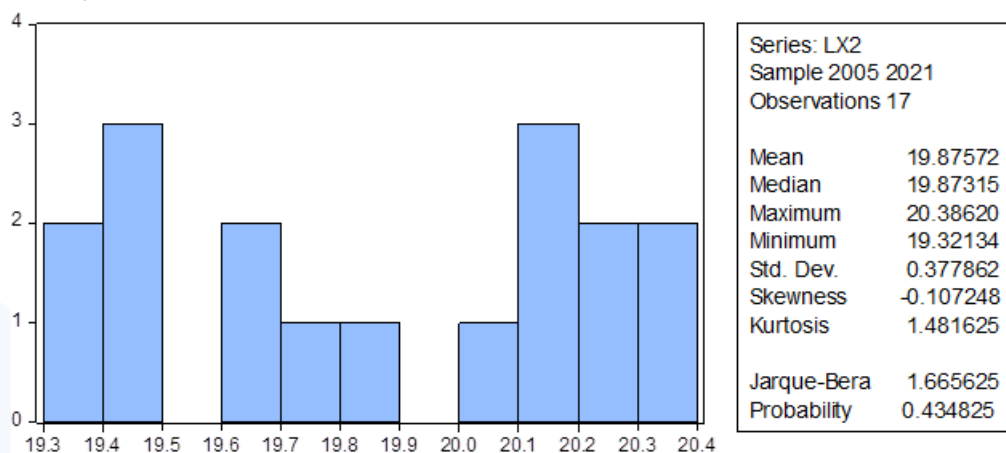


Figure (2) depicts the descriptive statistics for tax revenues.
Reference: Compiled by the researcher using the E-views software.

3. Tax revenues: The average tax revenue amounted to (16.31) with a median of (16.42), and a standard deviation of (0.71). The skewness coefficient was (0.51 -). Figure (2) indicates that this variable follows a normal distribution, as the probability value (0.60) is greater than (0.05). Thus, there is no issue with the normal distribution.

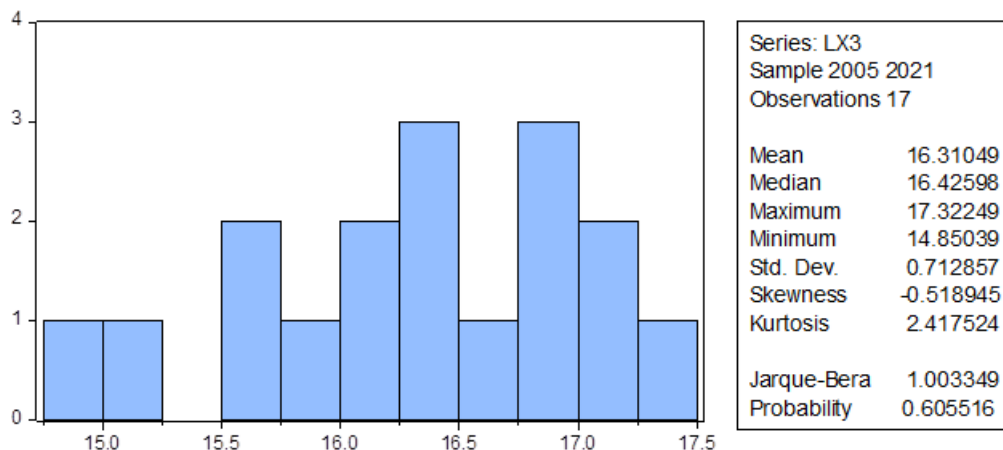


Figure (3): illustrates the descriptive statistics for other revenues.

Reference: Compiled by the researcher using the E-views software.

4 - Other revenues: The average revenue amounted to (15.72) with a median of (16.04), and a standard deviation of (1.69). The skewness coefficient was (0.20 -). Figure (3) indicates that this variable follows a normal distribution, as the probability value (0.36) is greater than (0.05). Thus, there is no issue with the normal distribution.

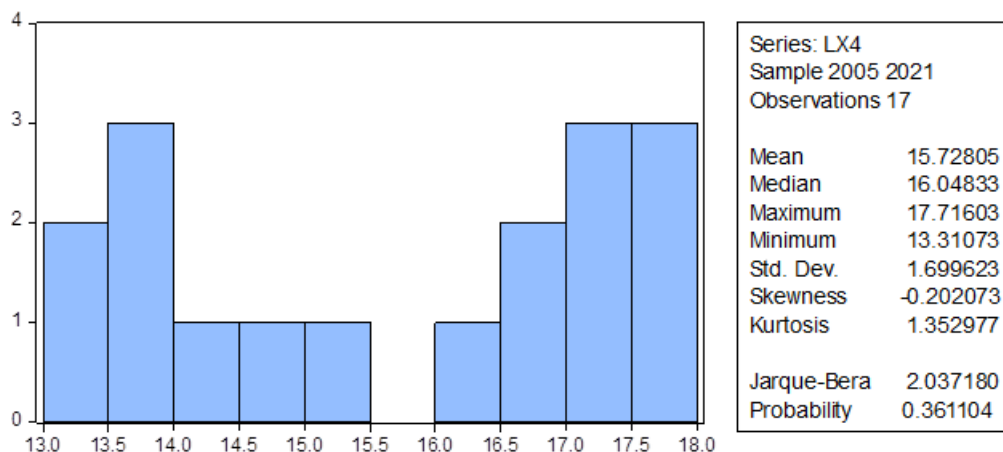


Figure (4) shows the descriptive statistics for other revenues.

Reference: Compiled by the researcher using the E-views software.

Second: Unit Root Test - Dickey Fuller (Time Series Stability)

Table (3) illustrates the Dickey-Fuller expanded test for the research variables under study. It indicates that both (Y, X1, X2, X3) variables' time series were not stationary and stable at their original level (At Level), but they became stable at the first difference. This is evidenced by the probability value (Prob*) at the first difference being less than (5%) for all variables, indicating stability and stationarity. However, the probability value (Prob*) at their original level is greater than (5%), indicating instability and non-stationarity.

Table (3): Test for Stability of Model Variables

Parameter	level			1 st difference			Decision
	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept	None	
	Prob*	Prob*	Prob*	Prob*	Prob*	Prob*	
Y	0.4251	0.9793	0.9960	0.0235	0.0291	0.3214	Fixed at I(1)
X1	0.0936	0.2820	0.7934	0.0063	0.0302	0.0003	Fixed at I(1)
X2	0.1923	0.2305	0.9026	0.0021	0.0059	0.0002	Fixed at I(1)
X3	0.5484	0.3230	0.7734	0.0051	0.0218	0.0002	Fixed at I(1)

Reference: Compiled by the researcher using the E-views software.

Third: Results of Estimating the Standard Model to Measure the Impact of Public Revenues on Gross Domestic Product (GDP): Results of some revenue indicators on GDP in Iraq for the period (2005-20021).

From Table (4), it is evident that all equations have positive signs, indicating that the relationship between revenues and GDP is positive. This means that an increase in revenue indicators leads to an increase in GDP. It is also observed that all equations are statistically and significantly significant, having passed the statistical and standard tests. Therefore, the logarithmic equation was selected as the best in explaining the relationship between the variables.

Table (4): Estimation of the Standard Model.

Models	Parameter	B	t sig	F sig	R ²	D.W	White Test	VIF
Linear model	Constant	8.48E+13	0.0000	0.000014	0.84	1.96	Successful	
	X1	49946.63	0.0875	0.000014	0.84	1.96	Successful	
	X2	.2537511	0.0005	0.000014	0.84	1.96	Successful	
	X3	.1024278	0.0025	0.000014	0.84	1.96	Successful	
Complete logarithmic model	Constant	25.06	0.0000	0.000000	0.91	1.86	Successful	
	ln x1	0.152	0.0297	0.000000	0.91	1.86	Successful	
	ln x2	0.211	0.0001	0.000000	0.91	1.86	Successful	
	ln x3	0.073	0.0002	0.000000	0.91	1.86	Successful	
Logarithmic model for the right side	Constant	32.16381	0.0000	0.000015	0.84	1.89	Successful	
	X1	4.00E-10	0.0400	0.000015	0.84	1.89	Successful	
	X2	1.56E-08	0.0008	0.000015	0.84	1.89	Successful	
	X3	6.66E-09	0.0025	0.000015	0.84	1.89	Successful	
Logarithmic model for the left side	Constant	9.36-E+1	0.0002	0.000001	0.90	1.95	Successful	
	ln x1	1.91E+13	0.0777	0.000001	0.90	1.95	Successful	
	ln x2	3.27E+13	0.0001	0.000001	0.90	1.95	Successful	
	ln x3	1.19E+13	0.0002	0.000001	0.90	1.95	Successful	

Reference: Compiled by the researcher using the E-views software.

1 - Measuring the Impact of Oil Revenues on Gross Domestic Product (GDP):

From the table above, the relationship between oil revenues and GDP is explained through the R² test. The changes in oil revenues explain (91%) of the changes in GDP, with (9%) attributed to other factors outside the scope of the model.

The results of the standard model show that the value of F is significant, with a value of (0.000), which is less than (0.05). This means that the model used in analyzing the relationship between oil revenues and GDP has a high level of significance and can be used for planning and forecasting purposes. It indicates that spending on oil revenues significantly affects GDP in Iraq. As for the Durbin-Watson test, its value was (1.86), indicating no autocorrelation issue. The model also passed the Park test, indicating no heteroscedasticity problem.

In terms of economic analysis of the study model, the regression coefficient reached (0.211), clearly indicating that an increase in oil revenues by one unit, with other factors held constant, will contribute to an increase in GDP by (0.211) million dinars. The following graph illustrates the relationship between oil revenues and GDP.

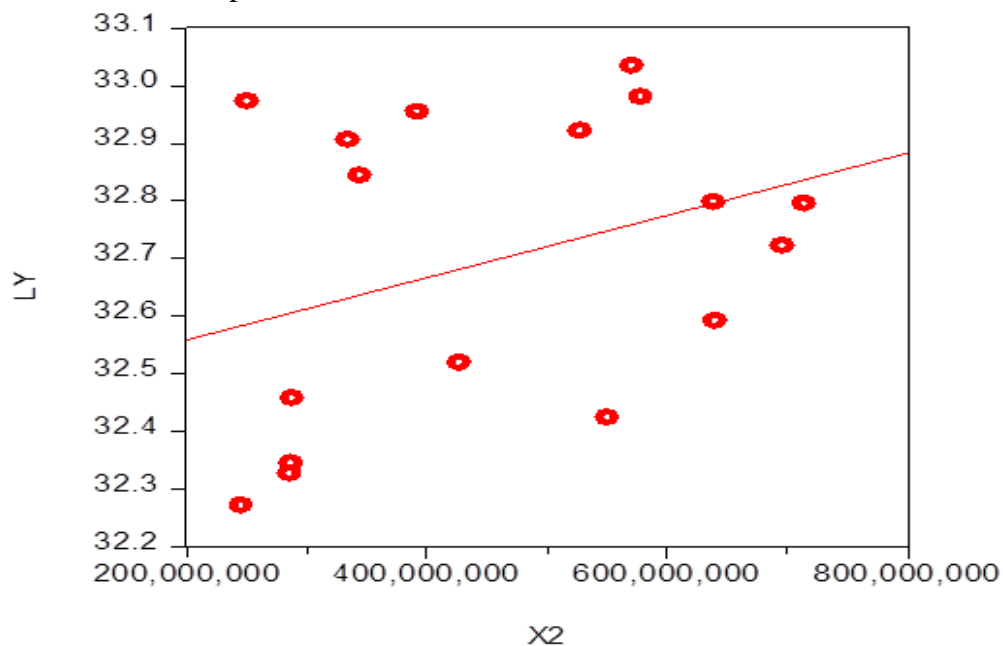


Figure (4) illustrates the relationship between oil revenues and Gross Domestic Product (GDP).

2 - Measuring the Impact of Tax Revenues on Gross Domestic Product (GDP):

From the table above, the relationship between tax revenues and GDP is explained through the R² test. The changes in tax revenues explain (91%) of the changes in GDP, with (9%) attributed to other factors outside the scope of the model.

The results of the standard model show that the value of F is significant, with a value of (0.000), which is less than (0.05). This means that the model used in analyzing the relationship between tax revenues and GDP has a high level of significance and can be used for planning and forecasting purposes. It indicates that spending on tax revenues significantly affects GDP in Iraq. As for the Durbin-Watson test, its value was (1.86), indicating no

autocorrelation issue. The model also passed the Park test, indicating no heteroscedasticity problem.

In terms of economic analysis of the study model, the regression coefficient reached (0.152), clearly indicating that an increase in tax revenues by one unit, with other factors held constant, will contribute to an increase in GDP by (0.152) million dinars. The following graph illustrates the relationship between tax revenues and GDP.

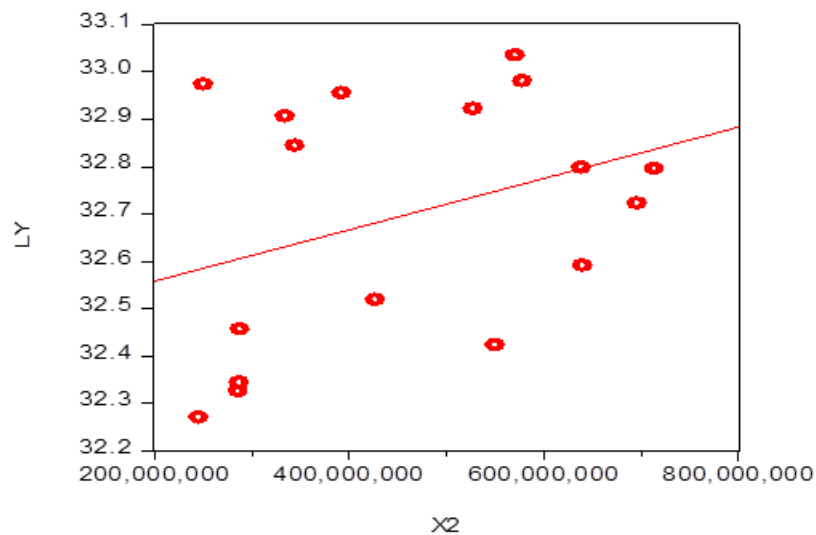


Figure (4) illustrates the relationship between tax revenues and Gross Domestic Product (GDP).

3 - Measuring the Impact of Other Revenues on Gross Domestic Product (GDP):

From the table above, the relationship between other revenues and GDP is explained through the R^2 test. The changes in other revenues explain (91%) of the changes in GDP, with (9%) attributed to other factors outside the scope of the model.

The results of the standard model show that the value of F is significant, with a value of (0.000), which is less than (0.05). This means that the model used in analyzing the relationship between other revenues and GDP has a high level of significance and can be used for planning and forecasting purposes. It indicates that spending on other revenues significantly affects GDP. As for the Durbin-Watson test, its value was (1.86), indicating no autocorrelation issue. The model also passed the Park test, indicating no heteroscedasticity problem.

In terms of economic analysis of the study model, the regression coefficient reached (0.073), clearly indicating that an increase in other revenues by one unit, with other factors held constant, will contribute to an increase in GDP by (0.073) million dinars. The following graph illustrates the relationship between other revenues and GDP.

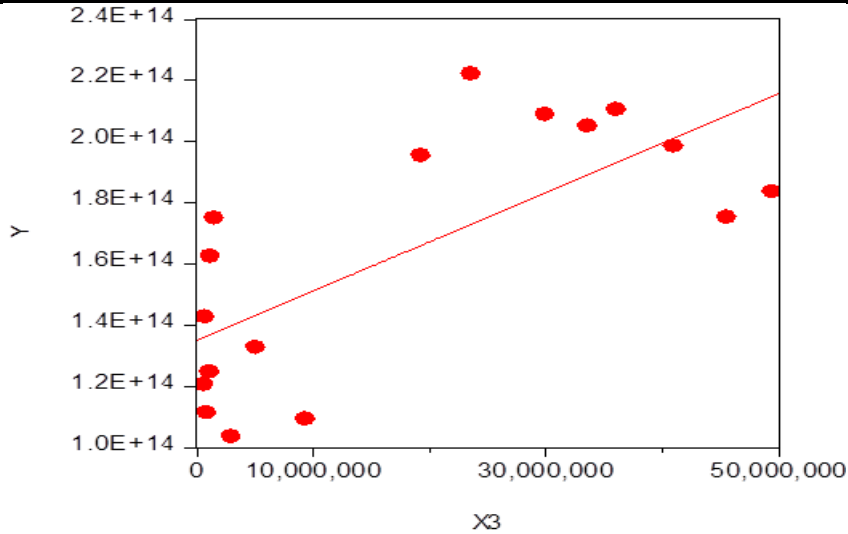


Figure (5) illustrates the relationship between other revenues and Gross Domestic Product (GDP).

Fourth: Model Quality Tests:

The model quality tests include three main tests to determine the absence of statistical problems in the model:

1 - Normal Distribution of Residuals: This test illustrates the normal distribution of residuals in the model used in the study. This test relies on the probability value (Jarque-Bera). If the probability is greater than (5%), we accept the null hypothesis stating that the residuals of the model are normally distributed. We reject the alternative hypothesis that states the residuals of the model do not follow a normal distribution if the probability value is less than (5%). In this model, as shown in Figure (6), the probability value was (0.69), which is greater than (5%). Therefore, the model follows a normal distribution. Here, we accept the null hypothesis and reject the alternative hypothesis.

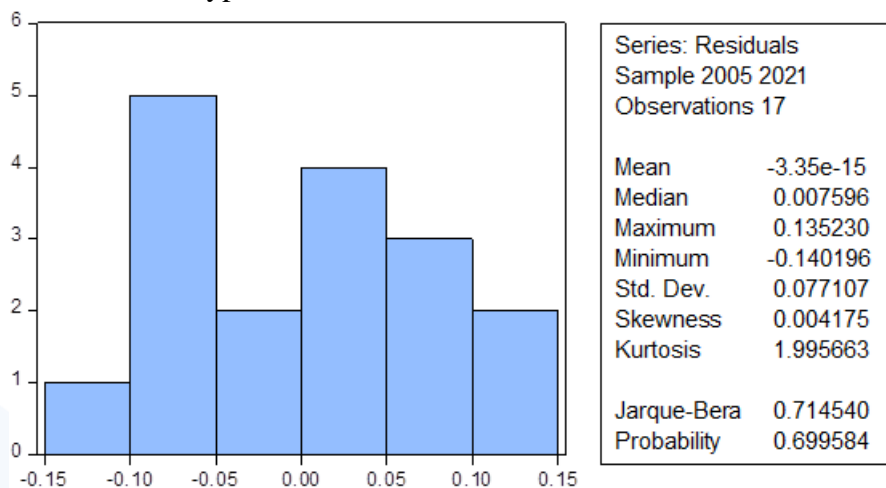


Figure (6) illustrates the normal distribution of residuals in the model.

2- Heteroscedasticity Test: There are several tests that illustrate the homoscedasticity or heteroscedasticity of errors, including the ARCH test, which relies on the probability value (Prob. Chi-Square).

It is evident from Table (5) that the probability of the Chi-Square (Prob. Chi-Square(1)) is (0.5078). Through this result, which is greater than (5%), we accept the null hypothesis (H0), stating that there is no problem with the stability of heteroscedasticity. We reject the alternative hypothesis (H1), which suggests the presence of a problem with the stability of heteroscedasticity.

Table (5): Heteroscedasticity Stability Test.

Heteroskedasticity Test: ARCH			
F-statistic	0.394628) Prob. F(1,14	0.5400
Obs*R-squared	0.438639	Prob. Chi-Square(1)	0.5078

Reference: Compiled by the researcher using the E-views software.

3. Autocorrelation Test: This test indicates whether there is autocorrelation or not, based on the probability value of the Chi-Square (Prob. Chi-Square(1)). Table (6) presents the results of the autocorrelation test for the model as follows:

Table (6) Autocorrelation Test Results.

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.772090) Prob. F(2,11	0.2152
Obs*R-squared	4.142624	Prob. Chi-Square(2)	0.1260

Reference: Compiled by the researcher using the E-views software.

From Table (6), the probability value of the Chi-Square (Prob. Chi-Square) is (0.1260), which is greater than (5%). Here, we accept the null hypothesis (H0), which states that there is no autocorrelation problem, and reject the alternative hypothesis (H1), which suggests the presence of autocorrelation.

Conclusions and Recommendations:

Conclusions:

1. According to the descriptive statistical tests, all study variables follow a normal distribution based on the Jarque-Bera test.
2. All-time series were found to be non-stationary and unstable at the original level (At Level) but became stable and stationary at the first difference (1st difference) according to the Dickey-Fuller test.
3. The heteroscedasticity test indicates no problem with heteroscedasticity, as the probability value (0.5078) is greater than.(%5)
4. The autocorrelation test shows no autocorrelation problem in the model, as the probability value (0.1260) is greater than.(%5)

5. An increase in oil revenues by one unit, with other factors held constant, contributes to an increase in GDP by (0.211) million dinars, with a probability value of (0.000), which is less than.(%5)
6. An increase in tax revenues by one unit, with other factors held constant, contributes to an increase in GDP by (0.152) million dinars, with a probability value of (0.000), which is less than.(%5)
7. An increase in other revenues by one unit, with other factors held constant, contributes to an increase in GDP by (0.073) million dinars, with a probability value of (0.000), which is less than (5%).

Recommendations:

1. The state should strive to diversify its revenue sources, as the state budget relies between (90 - 97%) on oil revenues in Iraq.
2. Improving tax collection methods by introducing tools or electronic methods in tax collection to prevent tax evasion.
3. The government should allocate its revenues to productive sectors that contribute to economic growth, represented by the Gross Domestic Product (GDP) in Iraq.
4. It is essential to follow good management of oil revenues in the long term, allowing it to control fluctuations in oil prices influenced by external factors.
5. Work on diversifying the sources of funding for the general budget, such as tax revenues, commodity revenues, and other revenues, to finance and cover production or investment expenses.

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