

# Measuring the impact of fiscal policy variables on Iraq's GDP beyond 2003

By

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## Abstract

The variables of fiscal policy represented by the government agreement and taxes are among the variables affecting the overall economy, and they are used as tools to address economic problems. In the Iraqi economy, the Iraqi economy relies on fiscal policy to achieve economic stability, and this is evident through statistical and economic tests, as the tests showed a significant influence relationship between government spending and taxes on the gross domestic product in Iraq, as well as the existence of a long-term equilibrium relationship between the dependent variable and the independent variables.

Keywords: fiscal policy variables; economic; long-term equilibrium

## Introduction

Government expenditure occupies a special and exceptional place in fiscal studies, because it serves as the organ on which the Government relies. The study of the expansion of fiscal theory means calling for the development of an advanced and capable fiscal policy for the achievement of the purposes laid down and the need for the State to intervene in economic activities. This illustrates the role of the State in social economic life, spending may lead to economic growth, stimulate macroeconomic demand and increase interest in it as a result of the important role that macroeconomic spending plays. International experience had to be taken into account, taking into account the guidance of global finance organizations, the change in the economic and political system after 2003, and because of the ill-considered approach with the high number of employees in the public sector, the three presidential councils and the governorates' offices and the establishment of independent bodies. Paying the benefits of the groups affected by the previous political systems and increasing their salaries, i.e., fiscal policy constraints are considered long-term restrictions, and the unexpected surprise that the unusual conditions experienced by the Iraqi economy from terrorism, occupation, wars and economic and financial crises, imposed a new reality and many economic problems emerged, most notably the problem of the government budget deficit. Iraq's revenue depends on oil yield (93%) and may directly reflect in the general budget. The researcher used the benchmark analysis and shows a long-term balance between GDP and oil revenues. This means that there is a common complementarity between the variables of the model and the ability of the variables, especially oil revenues, to correct the structural imbalance to be the locomotive of economic growth if properly exploited. It shows a causal link between the variables to provide a logical explanation for Iraq's behavior and future vision of development objectives.

## The importance of research



The importance of research comes from the importance of the topic of government spending as an important and major component of Iraq's economy. Spending is an economic variable with a significant role in economic stability and a variable that affects economic growth. Fiscal policy plays an effective role through its instruments in reducing the budget deficit and economic growth, and the evolution of the budget deficit may threaten the Government's fiscal economy and economic activity, destabilize it and increase economic and social problems.

#### Search Problem

The magnitude of the economic problem of increasing the fiscal deficit in the public budget is exacerbated by the primary reliance on oil export revenues, the decline in non-oil revenues and the rise in expenditure. Iraq's economy may suffer from a significant imbalance in the public budget. The problem has been despite the large volume of oil revenues, but the budget suffers from a chronic deficit, owing to public sector inflation and reliance solely on oil revenues that depend on crude oil prices on the world market.

#### **Research** Objective

The research aims to demonstrate the risks of rising government spending and its impact on economic growth, as an effective instrument of fiscal policy, with its multiple objectives for stabilization and economic growth, as well as the nature of fiscal policy in Iraq's economy. The research aims to analyses the relationship between government expenditure and Iraq's general budget deficit beyond 2003, and to analyses Iraq's general revenue and expenditure and its impact on GDP.

#### **Research hypothesis**

The research is based on the premise that there is a long-term balance between the dependent variable and the autonomous variables, as well as a causal link between the model variables, which means that fiscal policy influences economic activity over the long term.

#### First Research: Characterizing and Testing the Model's Stability

Standard economics is based on the structure of economic theory and theoretical rooting, as it predates standard economics, which is a tool for analysis of economic theory, as well as the theory makes hypotheses that explain the productive or consuming behavior of the economy and individuals. that are tested using standard economics, to ascertain the validity of the assumptions on which they are based, because the need to confront economic theory often arises by measuring economic relationships and making decisions to formulate appropriate economic policies to address economic problems (Ibrahim et al,2002) The formulation of the mathematical model and thus the standard model will be identical to what is customary in economic and financial studies and theories if the model is based on fiscal policy instruments, the analysis of which relied on the standard economy and the use of its tools. The description will therefore be as follows:

#### Firstly: MODEL DESCRIPTION

The type of mathematical formula depends on what economic theory suggests or what the spread of points suggests or by relying on the type of reference depends on the logic of economic theory (al-Issawi 1996) One of the most important and difficult stages in the model's construction is the characterization of the model, because it requires determining the nature of its relationships and the theoretical linkages between the variables that influence it. It is only after describing the most important variables that the model must include to know the underlying variables. The researcher diagnosed her variables according to what her study was to and as it comes to as following (Ibrahim et al,2002)

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- 1. Dependent variable: a symbol to the variable of the symbol referring to the economic activity of the State under consideration (GDP), estimated in Iraqi local currency. Annual data were obtained from the Ministry of Finance and the Ministry of Planning during the study period.
- 2. Autonomous variables: An independent variable is symbolized by the symbol recognized in mathematical models studied in the economy and usually abbreviated by the English term,
- 3. Random variable (U)

### Second: Mathematical Formulation

Mathematical methods are concerned with the formulation of economic theory in the form of mathematical symbols and equations, since there is no fundamental difference between sports economics and economic theory, since both present the same relationships as economic theory in a descriptive way. Sports economics is expressed in the form of forced relationships and equations, and both sports economics and economic theory consider these relationships to be fully shaped (Exact Relationships), where there is no random variable. For the purpose of reaching the best estimates and simple relationships and adding the random variable to transform these models from mathematical to standard as follows: (al-Issawi 1996)

In order to identify the most significant financial economic variables affecting Iraq's gross domestic product (GDP) during the period 2003-2020 as the dependent variable, as current government expenditure has been selected as an independent variable, investment government expenditure and the other variable is oil revenues, While the fourth independent variable represents tax revenues, the study model used takes the following form: (Al-Qadeer2006)

The data obtained by the researcher from the annual statistical compilations issued by the Ministry of Finance, and by adding the random variable is the standard model as in the following formula (8)

$$GDP_t = B_0 + B_1 CS_1 + B_2 IS_2 + B_3 OR_3 + B_4 TR_4 + \varepsilon_t \dots \dots \dots \dots (2)$$

For the purpose of obtaining the standard model of economic activity in Iraq, the researcher used a time series of its size (18) views as in table (1) below:

Table 1. Hay S GDT and Infancial variables after 2003					
YEAR	GDP	IS	CS	TR	OR
2003	32317682	1999525	26352492	327462	26078636
2004	53499238	3014733	29102758	159643	32677203
2005	83911088	4572018	21803157	495282	39480069
2006	96067160	6027680	32778999	591229	46534310
2007	111961230	7723043	31308188	1228335	51701300
2008	158443584	11880675	47522700	985836	75358291
2009	130805610	10513405	42053620	3334818	48871708
2010	167838233	16130866	54003334	1532439	66819670
2011	218617834	17832113	60925554	1783592	98090214
2012	255727068	29350952	75788623	2633354	116597076
2013	274745875	34647000	78746806	2876857	110677542
2014	267350517	24930767	77986199	1885129	97072410
2015	196203013	18564676	51832839	2015012	51312621
2016	198774439	15894009	51173428	3861891	44267060
2017	224636323	16464461	59025709	6298278	65071929
2018	258035199	13820333	67052700	5647200	95593141
2019	262917150	24422590	87300933	5972739	80332535
2020	266190571	19121539	77176817	4280042	67315457

Table 1. Iraq's GDP and financial variables after 2003



1. Ministry of Planning, Central Statistical and Information Technology Agency, Annual Statistical Collection, National Accounts, various years.

2. Ministry of Finance, Annual Bulletin, General Budget Service, various years.

### Third: Stability test (unit root)

The unit root test is the dormancy or non-dormancy test, which is frequently used to detect the random passage of variable values over time, as the starting point is the unit root process (random), and the distinction between static and non-static random process (time chain), If the overall direction of a time series is fully predictable, not a variable, we will call it a specific general trend, and otherwise if it is unpredictable, we will call it a random general trend. The variables to be estimated are stable and do not suffer from false regression if they are free on average from trend up or down over time. We will use the test: Test (ADF), so as to test the following two hypotheses and equations in the below (Fathalla. 2006)(Najem1991)

- 1. Zero hypothesis: that there is a unit root (time chain instability).
- 2. Alternative hypothesis: that there is no unit root (time chain stability)

When the alternative hypothesis is accepted, the unit root is not present in the variable's time chain and is stable. The ADF test can be applied to determine the variable (degree of integration) individually rather than on a group basis, and in this area two situations can be distinguished.

Table (2) shows the results of the unit root test for model variables using the ADF test, as the following can be observed (Callum2005)

The values of the variable (GDP) of Iraq's gross domestic product (GDP) during the period (2003-2020): unstable at the level in the case of a constant or constant presence, direction or not, and after taking the first difference is found to be stable in the case of a constant presence, And without constant and direction and at a level (5%, 10%) as shown in the table with a mark (\* \*) so it can be counted stable in the first difference, integrated class (I (1).

- 1. The variable (CS) current expenditure in Iraq during the period (2003-2020): When conducting the test, the variable was found to be unstable in the case of a constant, constant, direction or no constant and general direction in the level. When taking its first difference, the variable was stable in the constant, and without constant and direction at (5%, 10%) as shown in the table with a mark (\* \*), i.e. it is integrated from the class (I (1).
- 2. The variable (IS) investment expenditure in Iraq during the period (2003-2020): When the test was conducted, the variable was found to be unstable in the case of a constant, constant, direction or no constant and general direction in the level, and when the first difference was taken, the variable was stable in the constant And without constant and trend at (1%, 5%, 10%) as shown in the table with mark (\* \* \*), that is, it is integrated from the rank (I (1).
- 3. The variable (OR) oil revenues in Iraq during the period (2003-2020): When conducting an ADF test on the time series, the variable is shown to be unstable in the case of a constant, constant, direction or no constant and general direction in the level. When taking the first difference, the variable was stable in the constant, constant and direction, and was stable without constant and direction, at morale (1%, 5%, 10%), as shown in the table with a mark (\* \* \*), that is, it is integrated from the rank (I (1).
- 4. *Variable (TR) representing Iraq's tax revenues during the period (2003-2020):* After an ADF test on tax revenues, the variable was found to be unstable in the case of a constant, constant, direction or no constant and general trend in the level. After taking

the first difference, the variable was found to be stable with the constant at morale (1%, 5%, 10%). As shown in the table with a mark (\* \* \*), constant and direction at morale (5%, 10%) as shown in the table with a mark (\* \*) and stable without steady and direction, at morale (1%, 5%, 10%) as shown in the table with a mark (\* \*), i.e. integrated from the class (I (1).

The conclusion is that all variables were stable and integrated from a single degree, that is, the time chains are integrated from an I (1) grade, as shown in the chart (10) to enhance the result, and this result requires the researcher to use Co-integration because it fits with the model's degree of stability, and when the model is characterized by joint integration, we use the ECM methodology to estimate the model because there is one internal variable, GDP.(Fathalla. 2006)

UNIT ROOT TEST RESULTS TABLE (ADF) Null Hypothesis: the variable has a unit root						
At Level						
TR	OR	IS	CS	GDP		
1.353089	-2.5786	- 1.70911 0.4089	-1.27772	-1.66074	t- Statistic Prob	With Constant
0.3770	0.1177	0.4007	0.0147	0.4270	1700.	Probabilities and
no	no	no	no	no		critical values
2.861820	-2.4649	- 1.54243	-2.05664	-1.66733	t- Statistic	With Constant & Trend
0.1971	0.3381	0.7725	0.5316	0.7198	Prob.	
no	no	no	no	no		Probabilities and critical values
0.183359	-0.2619	0.18348	0.562795	1.040137	t- Statistic	Without Constant & Trend
0.6054	0.5760	0.6053	0.8276	0.9141	Prob.	
no	no	no	no	no		Probabilities and critical values
			At First Di	fference		
d(TR)	d(OR)	d(IS)	d(CS)	d(GDP)		
-4.300428	-3.057	-3.5171	- 3.966699	-3.1538	t- Statistic	With Constant
0.0048	0.0534	0.0216	0.0092	0.0428	Prob.	D 1 1 11 1 1
***	no	**	**	**		critical values
-4.073792	3 0545	-3.5215	3 277177	-3.1826	t- Statistic	With Constant & Trend
0.0280	0.1499	0.0711	0.1136	0.1212	Prob.	
**	no	no	no	no		Probabilities and critical values
-4.177406	3.1236	-3.5404	- 3.814784	-2.8476	t- Statistic	Without Constant & Trend
0.0004	0.0040	0.0015	0.0008	0.0076	Prob.	
***	***	***	***	**		Probabilities and critical values
a: (*) Significant at the 10%; (**) Significant at the 5%;(***) Significant at the 1% b: Lag Length based on SIC						
c: Probability based on MacKinnon (1996) one-sided p-values.						
Source: Eviews 12 programming package results						

 Table (2) Time chain stability test results in level and first difference

 UNIT POOT TEST PESULTS TABLE (AD

#### Second Research: Co integration Test

Common integration is defined as the stable time path of two or more time series in the long term, where they are accompanied by the same grade, so that fluctuations in one variable eliminate fluctuations in the other variables, Where integrated variables can jointly eliminate



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their imbalances over the long term and strike a balance, make the ratio between the two values constant over time, and such a long-term relationship between the set of variables is useful in predicting the values of the dependent variable as a set of independent variables, The researcher used the JOHANSON test, because it fits into the model's data, and the combined integration is achieved in the case of the decline of the GDP variant (al-Abdali(2007) on the independent variables represented by government current expenditure (CS), investment spending (IS), oil revenue (OR) and tax revenue (TR), This is important in the theory of common integration. To determine whether there is a common integration of the variables, I propose (JOHANSON) Impact Test (Trace Test ( $\lambda$  Trace)) according to the following formula:

$$\lambda Trace = -n \sum_{i=r+1}^{k} ln (1 - \lambda i) \dots \dots \dots \dots \dots \dots \dots \dots (3)$$

With the same methodology, I propose (JOHANSON) to test the latent value (Maximum Eigenvalue Test ( $\lambda$  Max)) according to the following formula:

Table (3), figure (1) and after the model was tested and the relationship between the dependent variable and the autonomous variables was demonstrated, the value of the impact test ( $\lambda$  Trace), the value of the underlying value test was compared with the critical value of Mackinnon and the calculated value was greater than the critical value, Where the calculated value ( $\lambda$  Trace) of 157.9 for the first variable and (69.9) for the second variable and (30.4) for the third variable is greater than the tabular values for variables equal to (69.8) for the first variable, (47.8) for the second variable and (29.7) for the third variable, The results of table (3) for the  $\lambda$  Max-Eigen test, which shows that the calculated value is greater than the tabular value of the first three variables, and its values (88.0), (39.4) and (30.4) for the variables respectively are greater than the critical values of Mackinnon in the table below. It was (33.8), (27.5) and (21.1) respectively, confirming the findings that there was a common complementarity between GDP and independent variables.



**Figure (1)** *Joint integration of GDP with independent variables.* Source: Results of a programming package (Eviews 12)



able 5. Joint GDF/other variables variation test							
Date: 07/01/22 Time: 22:43							
	Sample (adjusted): 2005 2020						
	Included observations: 16 after adjustments						
	Trend assumption: Line	ear determinis	tic trend				
	Series: GDP (	CS IS OR TR					
	Lags interval (in first differences): 1 to 1						
	Unrestricted Cointegration Rank Test (Trace)						
Hypothesized	0.05	Trace					
No. of CE(s)	Critical Value	Statistic	Eigenvalue	Prob.**			
None *	69.81889	157.9382	0.995920	0.0000			
At most 1 *	47.85613	69.91041	0.914993	0.0001			
At most 2 *	29.79707	30.47000	0.807235	0.0418			
At most 3	15.49471	4.129453	0.225845	0.8928			
At most 4	3.841466	0.033725	0.002106	0.8542			
Trace	Trace test indicates 3 cointegrating eqn(s) at the 0.05 level						
* D	* Denotes rejection of the hypothesis at the 0.05 level						
**MacKinnon-Haug-Michelis (1999) p-values							
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)							
Hypothesized	0.05	Max-Eigen					
No. of CE(s)	Critical Value	Statistic	Eigenvalue	Prob.**			
None *	33.87687	88.02780	0.995920	0.0000			
At most 1 *	27.58434	39.44041	0.914993	0.0010			
At most 2 *	21.13162	26.34055	0.807235	0.0084			
At most 3	14.26460	4.095729	0.225845	0.8491			
At most 4	3.841466	0.033725	0.002106	0.8542			
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level							
* Denotes rejection of the hypothesis at the 0.05 level							
**MacKinnon-Haug-Michelis (1999) p-values							

 Table 3. Joint GDP/other variables variation test

Source: Results of a programming package (Eviews 12)

## Third Research: Causal Link Test

The Granger test indicates that if there is a common integration between the model variables and they are stable in the first difference, the causation test is complementary and necessary to detect the nature of the relationship between the variables, and the test helps to find out whether the relationship is one or two-way. The researcher helps analyze the nature of the relationship between variables and the answer to the philosophical question, to know the reason and reason, that the existence of a common complementarity between two variables may mean a causal relationship in at least one direction, but in the absence of a common complementarity the researcher concludes that there is no causal link between the model variables, According to the Granger test, if we have four or more variables, they can reflect the evolution of economic manifestations over time and help to detect the time path (t) of the variables under study, in the subject matter of the study the variables included in the model are GDP and current expenditure (CS), Investment expenditure (IS), oil revenues (OR) and tax revenues (TR). If the local product time series contains information through which expectations for the current spending time series can be improved, then we say that the variable (GDP) causes the variable (CS), Or the opposite is where current expenditure causes a certain percentage of GDP, as does other variables. (Hassan2014)

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Granger test steps are as follows: the causal relationship between variables (GDP) and (CS) can be expressed as follows:

$$lnGDPft = \alpha o + \sum_{i=1}^{p} \rho. lnGDPt - i + \sum_{i=1}^{p} \psi i. lnCSet - i + \varepsilon \dots \dots \dots (5)$$
$$lnCSet = \beta o + \sum_{i=1}^{p} \lambda. lnCSet - i + \sum_{i=1}^{p} \tau i. lnGDPt - i + \forall t \dots \dots \dots (6)$$

Et, Vt represent the rest of the two models and apply to the rest of the variables in the model, estimate the restricted formula and mean the following formula:

The unrestricted formula is estimated and then the total of the baqqa'a squares (SSR $\epsilon$ ) is obtained for the equation (7)

- The hypothesis of nowhere has been tested in the sense that the variable (CS) does not affect the variable (GDP), so Fisher Statistic must be calculated according to the following formula:

Where: (n) represents the sample size. It represents (kg number of estimated milestones in the unrestricted formula, (n-k) freedom scores for the unrestricted formula, then we test a statistic (F \*) and compare it with the tabular at a moral level (5%), p (p) for simplicity, n-k) for the denominator in the equation (11), and the Fisher test is used to indicate whether there is a causal link. That is, to indicate that there is a causal link between variables, and the judgement is by whether (F) calculated is greater (F \*) tabular we reject the zero hypothesis that there is causal cause between the two variables, that is, the variable (CS) causes the variable (GDP), or in other words, there is a moral effect of the variable (CS) on the variable (GDS).

We use the same steps and repeat the estimate of the previous equation to test other interpretative variables and indicate their causal relationship with the dependent variable, and the researcher used the statistical pouch (Eviews 12) instead of the traditional method based on the calculation of the above equations, To test the imposition of nowhere in the sense that the variable (GDP) does not affect the variable (CS), thus we have four possible results for the causation test for Granger as follows:

- Variable (GDP) causes variable (CS), variable (CS) does not cause variable (GDP)

- Variable (GDP) does not cause variable (CS), variable (CS) causes variable (GDP)

- Variable (GDP) causes variable (CS), variable (CS) causes variable (GDP)

- Variable (GDP) does not cause variable (CS), variable (CS) does not cause variable (GDP)

Program (EVIEWS-12) gives us directly the result of the Granger causation test after determining the degree of delay (P), and identifying the four interpretative variables and the fifth dependent variable,



We would like to test the causation between them, and the result of the causation test with delays for variants (GDP), (CS), (IS), (OR) and (TR) was as shown in table (4) and figure (2) below:

### Second: Analysis of causation test results

The values of the same dependent variable are included to determine its effect as an interpretative variable in the causal relationship to be measured. Count the test procedure and show as in table (4) the following: (Dehailan2009)

- 1. A causal link to two trends from current expenditure (CS) to GDP (GDP), where the calculated value (F) was (8.1), It is greater than the probable value (Prob) indicating morale below (5%) and was (0.001), and a causal relationship from GDP to current expenditure (CS) in high morale, and amounted to (F) calculated (9.4) and probable (0.0004), It is a very logical result and corresponds to the characteristics of the Iraqi economy, where the relationship between GDP and current expenditure is a strict one, and this shows the importance of current expenditure in the Iraqi economy.
- 2. Test results showed a causal correlation with only one trend between investment spending (IS) and GDP, and GDP was the reason for investment spending in Iraq's economy, which is contrary to economic theory. Investment expenditure is assumed to increase the production of goods and services and thereby increase the contribution of the commodity and service sectors, while the test of causation is between the output causing the investment; This is consistent with the characteristics of the Iraqi economy, which depends on the oil sector, which is the main component of the budget revenues. Revenue is then apportioned to expenditure, including investment expenditure. Thus, the moral test showed that the calculated value (F) was 7.5 and probable (0.006).
- 3. The nature of the causal relationship between oil revenues (OR) and GDP is also related to only one direction, from oil revenues to GDP, a feature of rent economies, in which the extractive oil sector constitutes at least (60%) of the size of GDP. The calculated value (F) was greater than the tabular, with a value (5.6) and a value (P) of approximately (3%) showing the variable's morale and ability to influence GDP.
- 4. Between the test and the logical relationship between current expenditure (CS) and oil revenue (OR), the relationship was only one direction from oil revenues to current expenditure, the probability (P) of morale (0.007) was very high, and the calculated value (F) capacity (10.1), which shows the impact of oil revenues in various economic variables.
- 5. The test showed the causal link between tax revenues (TR) and current expenditure (CS), where it was found that tax revenues do not cause current expenditure, which occurs in effective economies with a flexible production apparatus. The policy of a court tax and does not suffer from legal and administrative corruption, In Iraq, current expenditure causes tax revenues, through income taxes, and indirect taxes, which are the most effective in Iraq's economy, the calculated value (F) was greater than the scale, amounting to (5.1) and (Prob) was estimated at (0.041).
- 6. The relationship between oil revenues (OR) and investment expenditure (IS) is characterized by a two-way causal relationship, since oil revenues cause investment expenditure and this is very expected, because of the large oil revenues that make up (98%) of the public budget supplier, which includes investment expenditure This is evident from the calculated value (F) of (8.3), at the same time that investment expenditure causes oil revenues. Effective investment expenditure affecting oil revenues may be the oil licensing rounds that caused oil production to disappear, oil revenues to increase, and the calculated value (F) was (4.7) possibly (0.02).

Pairwise Granger Causality Tests					
Date: 07/19/22 Time: 18:32					
Sample: 2003 2020					
Lags: 2					
Prob.	<b>F-Statistic</b>	Obs	Null Hypothesis:		
0.0010	8.11665	16	CS does Granger Cause GDP		
0.0004	9.41128		GDP does Granger Cause XC		
0.2787	1.43842	16	IS does not Granger Cause GDP		
0.0069	7.54182		GDP does Granger Cause XI		
0.0310	5.67095	16	OR does Granger Cause GDP		
0.7960	0.23299	(	GDP does not Granger Cause OR		
0.1999	1.87037	16	TR does not Granger Cause GDP		
0.8807	0.12855		GDP does not Granger Cause RT		
0.5691	0.59353	16	IS does not Granger Cause CS		
0.7006	0.36754		CS does not Granger Cause IS		
0.0073	10.19850	16	OR does Granger Cause CS		
0.7552	0.28805		CS does not Granger Cause OR		
0.1907	1.93351	16	TR does not Granger Cause CS		
0.0476	5.10905		CS does Granger Cause TR		
0.0034	8.34401	16	OR does Granger Cause IS		
0.0245	4.71642		IS does Granger Cause OR		
0.8895	0.11831	16	RT does not Granger Cause XI		
0.0526	3.53064		IS does Granger Cause TR		
0.2631	1.51138	16	TR does not Granger Cause OR		
0.6207	0.20120		OR does Granger Cause TR		

**Table (4)** Granger Causal Test for Model Variables in Two Directions

Source: Table of the researcher's preparation based on the Statistical Package Report (Eviews 12)

# **Conclusions and recommendations**

## First: Conclusions

- 1. The rentious nature of the Iraqi economy, particularly oil revenues, has automatically linked the money supply to the Government's fiscal position and public spending policy, creating a distortion in the body of the Iraqi economy, which has inflated the public sector and created a constraint on fiscal policy and an obstacle to the country's economic development plans.
- 2. The nature of Iraq's fiscal policy during the period 2003-2020 lacks a genuine fiscal policy, since the Ministry of Finance exercises its role and function closer to the cashier, who records oil and other revenues in his accounting records and re-expends them according to the allocations of ministries and institutions not associated with a ministry in the general budget; The largest share is given to the Ministry of Defence, Interior and Military Expenditure, National Reconciliation and Security Plans, allocations for the Prime Minister's Office and associated bodies and organs, and there is no plan or strategy to develop revenue and diversify sources of national income
- 3. During the period of the study, Iraq's UNCCD policy was characterized by the growth of government spending and its high rates, whether investment expenditure or current expenditure, but the ratio of current spending to public spending is much higher than investment expenditure
- 4. A long-term balance between the dependent GDP variable and the independent

interpretative variables, since the nature of the variables over the long term can correct time-track imbalances and can eliminate the structural problems that have been and remain part of the structure of Iraq's economy.

5. There is a causal link between the variables in the model, and oil revenues were a major variable causing most of the variables in the model, and there is a causal link in two directions between GDP and oil revenues.

#### Second: recommendations

- 1. There must be a harmonization between the growth of government spending and the growth of public revenues, as well as the need to rationalize public spending in proportion to public revenues, and to distribute public revenues on a functional basis and to achieve economic growth, or in a way that stimulates the commodity sectors
- 2. Attention to tax revenues to finance government expenditure to free it from the control of the price of oil and its volatility, which is governed by external factors characterized by ascertainment and subject to volatility in the global economy, Thus, the economy is a subordinate of crude oil-importing countries, and a strategy for hydrocarbon and petrochemical industries should be developed.
- 3. Rationalize and reduce government expenditure, regardless of the amount of oil revenues. The increase in oil revenues should be directed towards investment expenditure, in order to close the public budget deficit and achieve Iraq's economic development.
- 4. Remove fiscal policy from political attractions and form a government team specialized in developing a strategy to offset Iraq's reality by relying on fiscal policy and making the oil sector a locomotive for growth rather than a source of structural imbalances in the Iraqi economy.

## Reference

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