

## The Impact of Financial Variables on Bank Credit, Iraq, A Case Study for The Period (2004-2020)

By

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### Abstract

This study dealt with the impact of financial variables on bank credit in Iraq, whereas the data for the study were obtained through the annual statistical bulletin of the Central Bank of Iraq for the period (2004-2020), and the Autoregressive Distributed Deceleration (ARDL) method was used to measure the impact of financial variables and represented by (oil revenues, non-oil revenues, government spending) as independent variables in (bank credit) As a dependent variable, where the results of the Phillips-Perron test for the unit root show that all variables were stationary at the first difference, and the results of the Bound test indicate the existence of a long-term co-integration relationship between financial variables and bank credit, as the test shows ( LM test) that the relationship between the independent variables and the dependent variable is devoid of the autocorrelation problem, but the results of the Heteroskedasticity Test show that the homogeneity of the residuals is stable and not volatile, meaning that the relationship is devoid of the problem of homogeneity instability, and from the error correction coefficient Coint Eq(-1) we conclude that (7%) of errors the model in the short term is automatically corrected to reach equilibrium in the long term, We also conclude that the financial variables had a non-significant effect in the long term on the bank credit in Iraq, as well as the moral (oil revenues and government spending) in the short term and the insignificance of non-oil revenues.

**Keywords:** Bank Credit, Fiscal Policy, Oil Revenues, Non-Oil Revenues, Government Expenditure.

### Introduction

The credit is an important activity that banks do as a financial medium through accepting deposits, making loans, and following up on credit histories through a record-keeping system (2007:7, Berentsen). Bank credit is affected by financial variables, as fiscal policy, according to Keynesian belief, is at the forefront of methods for achieving economic stability, as represented by the use of government expenditures and taxes to influence the level of economic activity (Frakulli 2017:24). That is, the fiscal policy refers to the government's determination of its sources of income, ways of disbursing this income, and the channels through which income (revenues) are distributed in order to achieve the government's economic goals and to achieve the success of economic policy. Thus, the general distribution of national product between consumption and investment (Alin, 2010:564 Lambie &). That is, fiscal policy is a catalyst for domestic and foreign investments, as it is considered a powerful

tool that affects investment policy through the use of various financial policy tools (Zatonatska, 2013: 89) One of the most important tools of fiscal policy is government spending, as it is considered one of the tools of government intervention to monitor the flow of public resources and their allocation for the purpose of assisting state institutions and setting priorities correctly for the allocation of public resources and providing the appropriate environment for investment in the private sector through credit guidance (Yu & Fan ,2015:354). The state always seeks to finance government spending by obtaining public revenues from different sources, and those revenues may be either sovereign, economic or credit (Abdullah and Al-Ajarmah, 2000: 124). There are also rentier economies that depend very heavily on oil revenues, and in return the revenues from the non-oil resources are very few (Al-Sudani et al., 2019:480): Taxes are the main source of public revenue among other sources of revenue, as they reduce the level of private spending (consumption and investment) (Frakulli, 2017:23).

## **2- Methodology**

This study aims to measure the impact of financial variables on bank credit in Iraq for the period (2004-2020), and the study methodology relies on several hypotheses as follows: 1- There is a significant, statistically significant effect in the long term of the financial variables in bank credit. 2- There is a significant and statistically significant effect of some financial variables on bank credit in the short term.

**3- Analyzing the impact of financial variables on bank credit in Iraq for the period (2004-2020) Iraq** is one of the rentier countries that relies heavily on oil revenues, as it constitutes the largest part of the state's general revenues, and therefore every fluctuation in oil prices will directly affect oil revenues, which will be reflected in the volume of bank deposits that are the main source for generating bank credit . Also, the increase in oil revenues leads to an excess of liquidity similar to the flows in countries that receive large capital from abroad, and in the case of excluding risks, it is expected that interest rates will decrease with the presence of excess liquidity, which will allow the government to increase borrowing as a result of lower interest rates, but this The relationship is considered ambiguous in Iraq due to the immaturity of the money markets within the financial markets. (Braihi, 2015: 16)

Table (1) shows the impact of financial variables on bank credit in Iraq for the period (2004-2020), as oil revenues rose during the period (2004-2020), where they recorded an amount of (32.63) trillion dinars in the year (2004) and then rose to reach ( 79.13) trillion dinars in the year (2008), and the reason for this rise is due to the rise in oil prices in the world market, as well as the increase in exported quantities, which was reflected in the increase in revenues and thus the increase in bank credit as a result of the increase in the volume of bank deposits, but this rise in oil revenues It did not last long, as it decreased in the year (2009) to reach (51.73) trillion dinars due to the decline in international oil prices as a result of the global financial crisis in the year (2008), which was reflected on the Iraqi economy, and oil revenues returned to the rise in the year (2010), reaching (66.82 ) trillion dinars, and the rise continued until the year (2012), where it reached (116.60) trillion dinars, and the reason for this is due to the oil licensing rounds that Iraq signed with international oil companies, which led to an increase in oil exports and an increase in oil prices in global markets.

The oil revenues returned to decline during the period (2013-2016), reaching (44.27) trillion dinars in the year (2016) and the reason for this is due to the deterioration of oil markets and prices at the end of the year (2014) as well as the entry of terrorist gangs of ISIS, but it returned to improvement during the period (2017-2019) when oil revenues reached (99.22)

trillion dinars in the year (2019), but this rise in oil revenues did not contribute to the increase in total bank credit, due to the unstable political, economic and security conditions, which increased the fears of traders and businessmen, it declined after that in the year (2020) to reach (54.45 trillion dinars), and the reason for this is due to the decline in global demand for oil due to the (Covid-19) pandemic, as well as the drop in global oil prices and Iraq's commitment to reduce production according to the decisions of OPEC + .

On the other hand, non-oil revenues are secondary revenues and represent a very small percentage compared to oil revenues and are represented by (tax revenues) and (other revenues), as the tax system is characterized by stagnation and backwardness in Iraq as well as financial and administrative corruption in addition to the difficulty in determining the tax base Which increases tax evasion as a result of the unfairness in imposing taxes, as Table (1) shows the volume of non-oil revenues, which amounted to (0.35) trillion dinars in the year (2004), and the fluctuation in non-oil revenues continued between rise and fall until it reached (3.49) trillion dinars in the year (2009) and then decreased again during the years (2010) and (2011) due to the decline in customs revenues, then increased during the period (2012-2015) to reach (15.16) trillion dinars in the year (2015). The reason for this is due to the corrective measures taken by the state, as it imposed taxes on employees' salaries at a rate of 3.8%, in addition to increasing taxes on internet and mobile networks, travel ticket fees, restaurant and hotel services, service fees, and so on. The fluctuation between decline and rise continued It increased during the period (2016-2020) until it reached (8.75) trillion dinars in the year (2020) due to the increase in the tax on income and wealth.

However, bank credit was not affected by the fluctuation in non-oil revenues during the period (2004-2020), as bank credit continued to rise, as it rose from (5.76) trillion dinars in the year (2004) to reach (85.02) trillion dinars in the year (2014). .

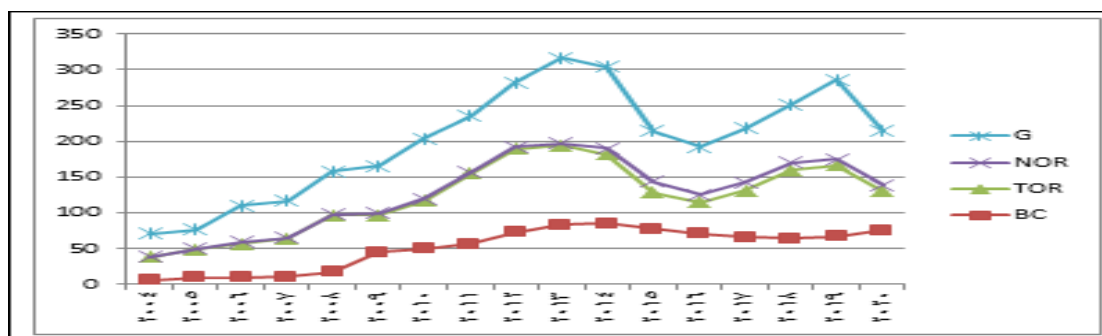
With regard to public expenditures (current and investment) and table (1) shows the rise in public expenditures during the period (2004-2013), as it rose from (32.1) trillion dinars to (119.1) trillion dinars in the year (2013), and The reason is due to the signing of contracts for licensing rounds, which increased oil revenues and thus reflected on the increase in expenditures, then expenditures declined during the period (2014-2016) to reach (67.1) trillion dinars in the year (2016), the reason for this decline is due to the government's adoption of an austerity policy due to the security and oil shocks in terms of the drop in oil prices in global markets, as well as the increasing expenditures to confront the terrorist organization ISIS and the ongoing disputes between the Kurdistan Regional Government and the central government regarding oil, as well as the suspension of the Baiji refinery. oil, After that, public expenditures rose again during the period (2017-2019) to reach (111.7) trillion dinars in the year (2019), and then decreased in the year (2020) to reach (76.1) trillion dinars due to the decline in global demand for oil due to the (Covid-) pandemic. 19) The decline in oil prices and Iraq's commitment to reduce production, in return for that increase in public expenditures, bank credit rose, and this justifies the government's borrowing from the banking system when oil revenues drop to finance the increased expenditures, and Figure (1) shows the impact of financial variables on bank credit In Iraq for the period (2004-2020).

- Republic of Iraq, Central Bank of Iraq, annual economic report, different years.
- Republic of Iraq, Central Bank of Iraq, Annual Statistical Bulletin, different years.
- Republic of Iraq, Ministry of Justice, Iraqi Gazette, Federal Budget Law for the years (2004-2020).

**Table. (1)** The impact of financial variables on bank credit in Iraq for the period (2004-2020) (a trillion dinars)

year	oil revenue (TOR) (1)	Public Expenditures	(2) (NOR) Non-Oil Revenues	Government Expediture (G)(3)	bank credit (BC)(4)
2004	32.63		0.35	32.1	5.76
2005	39.48		1.02	26.4	9.52
2006	46.91		2.15	51.0	10.01
2007	53.16		1.44	51.7	10.88
2008	79.13		1.12	59.9	17.6
2009	51.72		3.49	65.7	44.56
2010	66.82		2.70	84.7	49.8
2011	98.09		1.91	78.7	56.96
2012	116.60		2.87	90.4	72.6
2013	110.68		3.09	119.1	83.61
2014	97.07		8.31	113.5	85.02
2015	51.31		15.16	70.40	77.28
2016	44.27		10.14	67.1	70.46
2017	65.07		12.26	75.5	65.6
2018	95.62		10.95	80.9	63.81
2019	99.22		8.35	111.7	67.31
2020	54.45		8.75	76.1	75.26

Sources:



**Figure (1).** The impact of financial variables on bank credit in Iraq for the period (2004-2020) (a trillion dinars)

Sources: Prepared by the researcher based on

- Republic of Iraq, Central Bank of Iraq, annual economic report, different years.
- Republic of Iraq, Central Bank of Iraq, Annual Statistical Bulletin, different years.
- Republic of Iraq, Ministry of Justice, Iraqi Gazette, Federal Budget Law for the years (2004-2020).

#### **4-Fourth: Building and characterizing the model**

##### **4-1 Description of the standard model**

The process of describing the standard model is one of the most important steps in building the model, through which the relationship of the independent economic variables (Independent Variables and the Dependent Variables) included in the standard model is determined, according to the economic theory, and the model-specific variables were described as Come:

##### **4-2 Independent Variables**

They are the variables that explain the change in the dependent variable and they are represented by the financial variables, and they are as follows:

##### **4-3 Oil Revenues**

This variable is symbolized by the symbol (TOR), and according to economic theory, every increase in oil revenues leads to an increase in the volume of government deposits in the

banking sector, and then that increase in the volume of deposits appears in the form of an increase in the volume of bank credit, that is, oil revenues are directly related to bank credit.

**4-5 Non-Oil Revenues**

This variable, which is symbolized by the symbol (NOR), is relied on. Non-oil revenues consist of taxes on income and wealth, commodity taxes, production fees and fees, and the budget share of public sector profits, capital revenues, transfer revenues and other revenues. The decline in non-oil revenues leads to an increase in bank credit, that is, non-oil revenues are linked in an inverse relationship with bank credit.

**4-6 Government Expenditure**

It is denoted by the symbol (G), and according to economic theory, any increase in government spending requires funding from the cash issuance or taxes, or to resort to government borrowing, and this leads to the displacement of the private sector and then an increase in credit provided to the public sector, i.e. there is a relationship A proportional relationship between the government agreement and bank credit.

**4-7- Dependent Variable**

The dependent variable is affected by the independent variables, and the dependent variable is bank credit and is denoted by the symbol (bc).

**4-8- Random Variable (Ui)**

The random variable includes variables that were not included in the model because of the difficulty of measuring them, such as (the nature of human behavior, habits, traditions, as well as other variables whose data may be difficult to obtain or difficult to measure quantitatively, and the random variable is denoted by the symbol (Ui).

**5- Building the standard model:**

The standard model that was developed aims to know the effect of the independent variables represented by (financial variables) on bank credit in Iraq for the period (2004-2020), and the function of the standard model can be expressed according to the following general formula:

$$bc = f (Tor, Nor , G)..... (1)$$

And bank credit as a function of financial variables takes the following formula:

$$bc = \beta_0 + \beta_1Tor + \beta_2Nor + \beta_3G+ U_i ..... (2)$$

whereas:

bc: bank credit Tor: oil revenue nor: non-oil revenue

G: government spending, Ui: the random variable

This study deals with the standard analysis to find out the impact of (financial) variables on bank credit in Iraq, as follows:

**5-1: The silence test for variables**

To find out the effect of financial variables on bank credit, the time-series inactivity is tested by relying on the results of the unit root test of (Phillips-Perron), which is one of the important tests that are used for the purpose of knowing the inactivity of the time series. Table (2) shows that the original time series for all The indicators are not static at the level, so the first difference of the original series was taken, and thus all variables became static at the level of significance (5%), and accordingly, the variables are integrated of the first degree I~(1) with the presence of a fixed term.



**Table (2).** *Phillips-Perron test results for unit root*

1 <sup>st</sup> Difference				Level				Lag	Variables
B		A		B		A			
T tabular	T computed	T tabular	T computed	T tabular	T computed	T tabular	T computed		
		-2.906	-8.449*	-3.478	-1.014	-2.905	-1.372	5	Bc
		-2.906	-8.006*	-3.478	-1.816	-2.905	-2.115	1	Tor
		-2.900	-8.070*	-3.478	-2.092	-2.905	-1.387	1	Nor
		-2.900	-8.037*	-3.478	-2.004	-2.905	-2.037	1	G

Source: Prepared by the researcher based on the Eviews program.

a: means the regression has a fixed term. b: means the regression has a fixed term and a general trend.

\* Significance at the 5% level.

### 5-2: Test the Autoregressive Model of Distributed Deceleration (ARDL)

After conducting a static test for the time series of the independent and dependent variables, the Autoregressive Distributed Deceleration (ARDL) model was used to measure the effect of the financial variables (Tor, Nor, G) on bank credit (BC) by converting the data to a quarterly (Quarterly), Table (3) shows the following:

**Table (3).** *The results of the (ARDL) test for the impact of financial variables on bank credit in Iraq for the period (2004-2020)*

Dependent Variable: BC				
Method: ARDL				
Date: 09/18/22 Time: 14:09				
Sample (adjusted): 2005Q1 2020Q4				
Included observations: 64 after adjustments				
Maximum dependent lags: 4 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (4 lags, automatic): TOR NOR G				
Fixed regressors: C @TREND				
Number of models evaluated: 500				
Selected Model: ARDL (4, 4, 1, 1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
BC(-1)	0.649796	0.125725	5.168392	0.0000
BC(-2)	-0.005693	0.146680	-0.038811	0.9692
BC(-3)	-0.005693	0.146680	-0.038811	0.9692
BC(-4)	0.289456	0.125335	2.309466	0.0252
TOR	-0.064562	0.058798	-1.098029	0.2776
TOR(-1)	0.065313	0.070539	0.925911	0.3590
TOR(-2)	-0.000365	0.059161	-0.006176	0.9951
TOR(-3)	-0.000365	0.059161	-0.006176	0.9951
TOR(-4)	0.119139	0.050397	2.364038	0.0221
NOR	-0.118966	0.463971	-0.256409	0.7987
NOR(-1)	-0.577983	0.448839	-1.287729	0.2039
G	0.118658	0.074196	1.599257	0.1162
G(-1)	-0.172207	0.072025	-2.390924	0.0207
C	1.092151	2.194123	0.497762	0.6209
@TREND	0.117524	0.066028	1.779915	0.0813
R-squared	0.982857		Mean dependent var	53.76750
Adjusted R-squared	0.977959		S.D. dependent var	26.51183
S.E. of regression	3.935992		Akaike info criterion	5.779890
Sum squared resid	759.1095		Schwarz criterion	6.285878
Log likelihood	-169.9565		Hannan-Quinn criter.	5.979224
F-statistic	200.6661		Durbin-Watson stat	1.543670
Prob(F-statistic)	0.000000			

Source: The work of the researcher based on the results of Eviews.

From Table (3), we notice that the explanatory power of the estimated model was ( $R^2 = 0.982$ ), and that the value of ( $R^2 \text{ Adj} = 0.977$ ), that is, the predictive power of the explanatory variables included in the estimated model explains (98%) of the changes in the dependent variable and the remaining percentage (2%) is due to other variables not included in the model, and also that the model is significant, as it reached the calculated (F) value (200.66), which is greater than the tabular (F) value of (3.41) at the level of significance (5%), meaning that the

estimated model is significant and therefore we reject the null hypothesis ( $H_0: B=0$ ) and accept the alternative hypothesis ( $H_1: B \neq 0$ ), the constant term (C) has become non-significant, which means that the series has a center of zero, and time (@TREND) is significant, which means that the original series includes the specified general linear direction, and the cointegration test (Bound test), as it is noticed from Table (4) that the calculated value of (f) which amounted to (4.626) is greater than the highest value (I) I at the level of significance (5%, 10%), and therefore we reject the null hypothesis that states that there is no The existence of a co-integration relationship and we accept the alternative hypothesis, that is, the existence of a long-term co-integration relationship between the study variables.

**Table (4).** *Bound test results for the estimated model*

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.626383	10%	Asymptotic: n=1000	3.74
		5%	2.97	4.23
		2.5%	3.38	4.68
		1%	3.8	5.23
Actual Sample Size	64	10%	Finite Sample: n=65	3.942
		5%	3.122	4.538
		1%	3.626	5.842
		10%	Finite Sample: n=60	3.968
		5%	3.13	4.584
		1%	3.684	5.95
		10%	4.848	
		1%	4.928	

Source: From the researcher's work, based on Eviews

And for the purpose of making sure that the model is free from the problem of lack of autocorrelation in addition to the instability of the homogeneity of variance at the level of significance (0.05), Table (5) shows that the relationship between (financial variables) and (bank credit) is free from the problem of autocorrelation according to (LM test) because the probability value of (f = 0.27) and the probability value of (Chi-Squared = 0.07) is greater than (0.05), which is not significant. This means that the null hypothesis is accepted, that is, there is no self-correlation between model errors and we reject the alternative hypothesis.

As for the results of the Heteroskedasticity Test, it showed us that the rest of the model for the relationship between the independent variables (financial) and the dependent variable (bank credit) is the acceptance of the null hypothesis, meaning that the homogeneity of the residuals is fixed and not volatile, meaning that the relationship is free from the problem of instability of homogeneity, as the values of The probability of (f = 0.94) and the probability of (Chi-Squared = 0.94), respectively, and therefore represent non-significant values greater than (0.05).

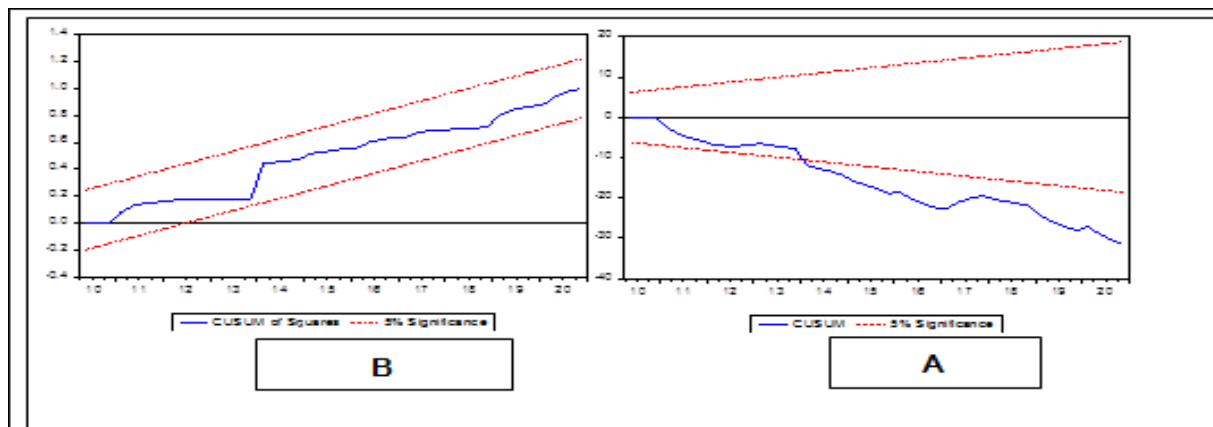
**Table (5).** *The results of the autocorrelation test and the instability of the heterogeneity of variance between (TOR, NOR G) and (BC) in Iraq*

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.259497	Prob. F (20,29)	0.2796
Obs*R-squared	29.75010	Prob. Chi-Square (20)	0.0740
Heteroskedasticity Test: ARCH			
F-statistic	0.004196	Prob. F (1,61)	0.9486
Obs*R-squared	0.004333	Prob. Chi-Square (1)	0.9475

Source: Prepared by the researcher based on the results of the program Eviews.

As for Figure (2), the Cusum test shows that the cumulative sum of the residuals is outside the critical values, at the level of significance (0.05), and this indicates the instability of the estimated parameters in the long term due to the drop in oil prices. Globally, and part (B) shows that the cumulative sum of the residual squares is within the critical values at the

level of significance (0.05), which indicates the stability of the variables included in the model in the long term.



**Figure (2),** The stability of the estimated model of the bank credit function

Source: Prepared by the researcher based on the results of the program Eviews.

And after ensuring the stability of the estimated model and the existence of a long-term relationship, we will estimate the short-term and long-term parameters according to the (ARDL) approach and Table (6) shows the error correction model (ECM) and the long-term relationship of the bank credit function as a dependent variable for financial variables.

**Table (6).** The results of the error correction model and the long-term relationship of the bank credit function

Variable	Coefficient	ECM Regression short term			
		Std. Error	t-Statistic	Prob.	
C	1.209675	0.524711	2.305412	0.0254	
D(BC(-1))	-0.278070	0.112474	-2.472313	0.0169	
D(BC(-2))	-0.283763	0.112938	-2.512547	0.0153	
D(BC(-3))	-0.289456	0.113413	-2.552236	0.0139	
D(TOR)	-0.064562	0.052768	-1.223490	0.2270	
D(TOR(-1))	-0.118409	0.046374	-2.553350	0.0138	
D(TOR(-2))	-0.118774	0.046410	-2.559226	0.0136	
D(TOR(-3))	-0.119139	0.046446	-2.565088	0.0134	
D(NOR)	-0.118966	0.416708	-0.285490	0.7765	
D(G)	0.118658	0.065436	1.813337	0.0759	
CointEq(-1)*	-0.072134	0.014421	-5.002023	0.0000	

long term

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOR	1.651924	1.320233	1.251237	0.2168
NOR	-9.661885	10.16309	-0.950684	0.3464
G	-0.742358	1.201590	-0.617814	0.5396
@TREND	1.629246	1.438587	1.132532	0.2629

EC = BC - (1.6519\*TOR -9.6619\*NOR -0.7424\*G + 1.6292\*@TREND)

Source: Prepared by the researcher based on the results of the program Eviews.

From Table (6) it is clear through the ECM model that the short-term parameters of the independent variables (TOR) and (G) were significant at the level of (5%) and (10%) according to the probability value (Prob), and that the effect of the independent variable (TOR) Oil revenues are negative in the dependent variable (BC) on bank credit, meaning that the decrease in oil revenues leads to an increase in bank credit, which is contrary to the content of economic theory. As for the effect of the independent variable (G) government spending, it is positive, i.e. there is a direct relationship between government spending and Bank credit in the short term. Every increase in government spending leads to an increase in bank credit, and thus the idea of displacement is realized in the short term, which is consistent with economic theory.



As for the short-term notification of the independent variable (NOR), it was not significant and agreed with the economic theory, as the relationship between non-oil revenues and bank credit is inverse. Every decrease in non-oil revenues such as taxes and fees .... etc. leads to an increase in income and therefore Deposits increase and bank credit increases.

As for the error correction factor  $CointEq(-1)$ , it is noted that the error correction parameter or the adjustment speed was  $(-0.072134)$  and the probabilistic value Prob amounted to  $(0.0000)$ , which is negative and significant, which confirms the existence of a correction in the short to long term, i.e. it can Automatically correcting approximately (7%) of the errors that occur in bank credit in the short term through the use of fiscal policy variables to restore balance in the long term, but this requires about  $(1 \div 0.07 = 14.28)$  a period of time, that is, more than (3) years, 6 months and 28 days, and this indicates that the rate of adaptation is very low in the model.

As for the long-term, we note that the oil revenues (TOR) were  $(1.65)$ , but it is not significant in the long term and is linked to a direct relationship with bank credit, that is, every increase in oil revenues by one unit leads to an increase in bank credit by  $(1.65)$  and this is consistent with With the economic theory, however, the non-oil revenues were also insignificant in the long term, and this indicates the weakness of the work mechanism (non-oil revenues) represented by taxes, fees and other revenues to influence the bank credit in Iraq, as well as the inverse relationship and consistent with the theory Economic, that is, every decrease in oil revenues by one unit leads to an increase in bank credit by  $(9.66)$ .

As for government spending, it was insignificant according to the value of the probability (Prob), and it has an inverse relationship with bank credit, as the increase in government spending in the long term will stimulate an increase in aggregate demand, which in turn affects the rise in inflation rates, which is reflected in the decrease in the volume of bank credit. Conversely, in the case of a decrease in government spending, it will be reflected in a decrease in inflation and thus increase in bank credit, as an increase in government spending by one unit leads to a decrease in bank credit by  $(0.74)$ , and therefore the idea of displacement is not realized in the long term, which is contrary to economic theory.

## Conclusions

1. The financial variables (TOR, G) had a significant effect in the short term, but the effect of oil revenues was negative while the effect of government spending was positive, while the effect of the variable (NOR) was negative and insignificant in the short term.
2. The financial variables (TOR, NOR, G) were all insignificant in the long run.
3. The impact of oil revenues on bank credit is limited to the short-term only during the period (2004-2020), and the reason for this is due to the decline in oil prices during the period of financial and security crises, which is reflected in the decrease in the volume of government bank deposits, and this in turn leads to a decrease The amount of bank credit.
4. The non-oil revenues do not affect the bank credit in the short and long term, and this indicates the weakness of the policy of taxes, fees and other revenues in Iraq, and therefore the low volume of those revenues and their weak impact on bank credit.
5. The idea of displacement of the private sector is realized by the government sector as a result of an increase in government spending in the short term, where the state resorts in the short term to finance its consumption expenditures through bank credit, while the idea of displacement is not realized in the long term because there is a sufficient period of time to create other sources of revenue that may It is the issuance of cash or the imposition of taxes.

6. The error correction model shows that the speed of adjustment (error correction) is estimated at (0.07), that is, there is an automatic correction in the short term to restore the automatic balance in the long term, estimated at (7%).
7. Based on the conclusions, we reject the null hypothesis and accept the alternative hypothesis which states that there is an equilibrium relationship between financial variables and bank credit.

### **Recommendations**

1. Spreading banking awareness in terms of encouraging savings and avoiding hoarding for the purpose of increasing the volume of bank deposits, to reduce dependence on oil revenues as an important source of deposits.
2. Rationalizing consumer spending and heading towards investment spending for the purpose of reducing the state's need to borrow from banks and not crowding out the private sector, as Iraq was exposed after the year (2014) to the gangs of the terrorist organization ISIS, as well as the drop in oil prices, which prompted the state to secure the salaries of employees through borrowing from banks.
3. Reducing dependence on oil revenues and diversifying the sources of government revenues for the purpose of increasing the volume of deposits for the public sector in the banking system by relying on other sources of revenue represented in taxes, fees, tourism, airspace for aircraft etc.
4. Opening the way for foreign banks to grant credit to strategic projects.
5. The shift in granting credit from financing the import of consumer goods to purchasing productive investment goods for the purpose of reducing government consumer spending.

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