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The effect of Bank Credit on Economic Growth in Iraq for the Period 2003-2019

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Abstract

Banks are considered an important part of the economic system due to their prejudice to economic life in all respects, and one of the most important functions of banks is to provide bank credit, whether at the individual or national level. Thus, the matter requires from the public authorities greater interest in this sector, whether with direct care or by the competent banking services by following certain monetary policy. Thus, the research was divided into three topics in order to reach its goals. Where the first topic dealt with the conceptual framework of bank credit and economic growth, while the second topic dealt with analyzing the relationship between bank credit and economic growth. The last topic measured the effect of the independent variable represented by bank credit in the dependent variable represented in the gross domestic product using the Eviews9 program in the Iraqi economy for the period from 2003-2019 The research concluded that there is a direct relationship between the two variables during the research period, but it is necessary to provide bank credit with a measure of development in the financial system to better show its positive impact on economic growth.

Keywords: Bank Credit; Economic growth; GDP at current prices; GDP growth rate.

1. Introduction

Bank credit is one of the most important banking services provided by commercial banks in Iraq and for all sec-tors, in addition to being one of the banking activities that brings the largest revenues to commercial banks. Its role as an intermediary between depositors and investors is through granting loans and various banking facilities, even if we look at the reality of the Iraqi economy and the difficult conditions in which it lives. Which reflected negatively on the various aspects of economic, social and political life, because we found it necessary to provide the appropriate climate for the banking system to upgrade its work to its highest level and to work hard to move towards a market economy and to create the appropriate conditions for that, such as providing the necessary liquidity for the success of the transformation. Hence the importance of bank credit by providing growth requirements Economic that the country strives to achieve.

Research Problem

The ability of banks to contribute to the economic growth depends largely on the degree of development and effectiveness of the banking system and private commercial banks and their compatibility with the vision of the aspirations of the economic bodies responsible in our research will be the answer to the question Is there a relationship effect between bank credit and economic growth and what kind of relationship.

Research Hypothesis

Based on the research problem and its importance, and in order to achieve the desired goals, the research hypothesis was formulated in the belief that it rises to solve the research problem, which is that bank credit has a positive effect on economic growth towards an increase.

Research Objective

The research seeks through its methodology and its theoretical, analytical and applied aspects to achieve a set of goals between various bank loans and economic growth in Iraq.

Research Importance

The importance of the research stems from the tendency of Iraq, like other countries of the world, to pursue an economic policy of increasing reliance on the private sector to achieve economic growth, and that the private sector de-pends on the credit provided by commercial banks to achieve its goals, and the achieved results depend on the effectiveness of the credit provided by banks to the sectors of the economy in Iraq.

Research Structure

The research was divided into three topics, the first of which dealt with theoretical concepts of bank credit and economic growth, while the second study dealt with analyzing the reality of bank credit and economic growth in Iraq during the period of the research, while the researcher used the method of standard analysis to know the effect of bank credit on the rate of economic growth. The research was concluded with a number of conclusions and recommendations.

The First Topic

Conceptual Framework

First - The Concept of Bank Credit:

Economists and bankers have paid great attention to the issue of bank credit due to its contribution to financing the process of economic growth through these banks collecting savings and making use of idle resources to present them to investors for investment and undertaking various projects.

Saving money leads to managing the wheel of the economy, securing manpower, and increasing production capacity and national income. Goals of this importance require special attention by the monetary and financial authorities to control and direct credit.

Economists have defined bank credit with multiple definitions whose content differs according to the re-searcher's point of view, including:

Bank credit has been defined as (the confidence that the bank places on a person, whether natural or intangible, to grant him an amount of money to use for a specific purpose and within a specific period of time and within certain conditions in return for an agreed upon material return and with guarantees that enable the bank to recover his loan in the event of the borrower's failure or abstention from Repayment) [1].

Likewise, (the confidence that the bank grants to a person if it places at his disposal an amount of cash or guarantees him in it for a specific period agreed between the two parties, as the borrower at the end of which he fulfills his obligations in return for a certain return that the bank gets from the borrower, which is the interest, commissions and expenses) [2].

As for bank credit, it is considered one of the most important types of credit at all and appeared as a natural result of the emergence of commercial banks as intermediary financial institutions between owners of surplus funds (savers) on the one hand and those who have the ability to manage investment projects (investors) [3].

Either From The Point of View of Bank Credit Researcher Defines the Following:

It is a debt relationship based on trust between the creditor (bank) and the debtor (customers) through which the debtor can obtain a certain amount, a certain asset, or a guarantee provided by the bank to customers according to certain conditions and to achieve specific purposes in exchange for the debtor's pledge to return the original amount or principal with the agreed interest it on schedule.

When commercial banks grant (credit) banking facilities, they carry out many procedures, including inquiring about the debtor's reputation, the extent of his good qualities, his commitment to his promises, his financial position, the bank's financial analysis of companies, and then studying loan applications by studying the amount of the loan, its purpose, and how to pay it in installments. Annual, monthly, or one-time payment as well as studying the general conditions surrounding the borrower from economic and political circumstances, *..etc*. Then the bank decides to grant him credit or not.

In the event that the bank grants credit, it follows up on this credit to verify the safety of the debtor and his use of the credit for the purpose specified for it.

Bank Credit is Classified into:

A- Bank credit according to its purpose:

1- **Trade credit:** It is the credit provided for the purposes of internal and external trade, as a result of the increase in international transactions between countries and companies from different countries of the world, the need to finance foreign trade has increased, and the commercial banks undertake financial settlement arising from international trade in providing the necessary credit to the exporter or importer, The exporter needs financing to produce the exported commodity and needs security and security as he can recover the value of the goods and collect his rights from the importer, as well as reduce the risks to which international credit is exposed, including production risks, settlement risks, credit risks, political risks, risks of changing the value of the currency and preventing the transfer and control. On the exchange. In turn, the importer provides the necessary guarantees to protect the seller.

As for credit for internal trade, where commercial banks provide credit to the exporter and importer, credit provided for internal trade purposes is less exposed to risks than credit provided for foreign trade purposes [4].

2- **Consumer credit:** This type of credit granted by commercial banks to individuals when their income and savings are unable to meet their needs. This type of credit is used to purchase durable consumer goods.

3- **Investment credit:** that investment projects need this type of credit to finance their investment operations, establish projects and purchase investment goods. This type of credit contributes to an increase in output and an increase in income.

B- Bank credit according to its maturity period:

1- **Long-term credit:** a period of five years or more. This type of credit is used to finance investment projects and purchase of capital goods. This type of credit is very vulnerable to risks.

2- **Medium-term credit:** its period of one to five years, which is used, for example, for the purposes of expanding projects.

3- **Short-term credit:** with a duration of less than a year, used for purposes of financing the daily operations of pro-ducers to pay wages or to purchase raw materials and other businesses. This type of credit is less vulnerable to risks.

C- credit depending on the economic sectors funded, such as the industrial sector, commercial sector, real estate, popula-tion, ... etc .. [5].

D- Bank credit according to the borrower

(public sector, private sector), meaning that the credit is granted to the public sector if it is granted to the central treasury or to public sector institutions, or credit for the private sector.

The first type of credit is less exposed to risks, but the interest rate on it is lower than the second type.

E- Bank credit according to guarantees:

This type is divided into [6]: -

1- A bank credit granted with a guarantee: the guarantee is either in-kind, such as land, real estate, securities, etc., or personal with a third person’s guarantee. Often the bank credit is granted with a guarantee.

2- Bank credit granted without collateral: This type of credit is more exposed to risks than the first type.

Second - Forms of bank credit

A- Direct credit facilities (cash credit), which include: -

1- Loans: It is one of the simplest forms of credit and is one of the most important and profitable assets of banks.

A loan is a contract achieved by providing money to the beneficiary or the borrower, who in turn pledges to pay the price or the interest rate in addition to the original amount of the loan, there are different types of loans that vary according to the variety of credit facilities (such as long-term, short and medium-term loans, commercial loans, ... etc.).

2- Advances: They are cash sums provided by commercial banks to their employees and permanent customers for commercial or social purposes in exchange for the beneficiary’s commitment to return the advance with the interest amount in one payment.

3- Overdraft: which is for the bank to allow its customer to have his account in debt within the limits of a certain agreed upon amount in exchange for the customer’s presentation of certain guarantees that preserve the bank’s right to recover its money within a certain period of time, often a tenable year to renew.

4- Discount commercial papers (Discounted Bill Of Exchange): is the commercial banks put the value of the bill under the disposal of the customer before it comes for repayment, after the paper raises the value of the interest and commission and expenses of collection.

B- Indirect credit facilities (pledged credit), which include: -

1- Letter of credit: a written undertaking issued by the bank to the beneficiary upon the request of the opening of the credit (the issuer) whereby the bank undertakes to pay a specified amount or accept time-based withdrawals of a specified value within a specified period and in exchange for the issuing bank's receipt of specific documents [7].

2- Letter of Guarantee: It is an undertaking issued by the bank to guarantee one of its customers as a result of the commitment placed on him and as a guarantee for the customer to fulfill his obligations towards a third party (the beneficiary) within the limits of a specified amount and for a certain period and for the implementation of a specific purpose. The bank shall not fulfill its obligations, then the beneficiary requests the bank to pay the amount.

So, a bank guarantee (letter of guarantee) is an amount of money that the bank pays to the beneficiary for whom the guarantee is issued when requested by the beneficiary.

There are many types of letters of guarantee including Bid Bond, Performance L / G Letter, Maintenance L/G Letter, Down Payment L/G Letter of Guarantee [8].

3- Credit Cards: It is a plastic card that enables its holder to obtain credit and is a copy of consumer credit, whereby its holder can purchase goods and services and buy travel cards ... etc., and if the beneficiary is able to pay the receipts due on him within the specified period does not have to pay any interest, but if he pays the receipts after the specified period ends, he must pay the interest for the delay period.

Third - The Concept of Economic Growth and its Importance:

Economic growth is defined as a continuous increase in the gross domestic product to achieve an increase in the average per capita real national income[9].

It is also defined as a process in which real income is increased cumulatively and continuously over an extended period of time, so that this increase is greater than the rate of population growth.

Economic growth is one of the most important economic indicators and is defined as the sum of the values added to all production units operating in the different branches of production in a particular economy, such as agriculture, mining and industry, and the added value of a particular production unit represents the difference between the total production of this unit and the value of goods and intermediate services consumed in that production [10].

The concept of economic growth focuses on the change in the quantity of goods and services that the individual gets on average, without being concerned with the structure of the distribution of real income between individuals or the quality of the goods and services provided [11].

There are two important factors that must be taken into account in the process of achieving growth, the first of which is that the growth is greater than the increase in the number of population, which results in an increase in the level of per capita income, and the second is that the increase must be real, so if the rates of prices for goods and services in society rose at a rate greater than the rate of increase in per capita income the final product will be a decrease in real per capita income despite the increase in his money income. In addition, economic growth must be characterized by continuity in the medium and long term [9].

Economic studies are very interested in the process of achieving economic growth and seek to measure its rates as well as seek to determine the factors affecting growth in order to achieve increased rates of it, and among these factors that affect economic growth [12]:

1- The increase in capital through investment and capital formation (the physical and human capital component).

2- The increase in the number of members of the labor force (the work component).

3- Technical progress that increases the productivity of both capital and labor over time.

In order to achieve the increase in economic growth rates through these factors, resources must be directed towards investment and production purposes instead of directing them towards consumer alternatives, because economic growth requires sacrificing current consumption and directing the bulk of domestic economic resources towards developing growth sources in the absence of external sources that compensate for local Sources [13].

Fourth - Indicators for measuring economic growth

Economic growth is usually measured by the rates of increase in the total output achieved by increasing the pro-ductive capacities of the society. Economic growth in a country and in a particular year is usually expressed through the increase in real GDP during that year, and as economic growth is sometimes measured through the increase in per capita share. Of real GDP during that year (real gross domestic product divided by population) and this measure relates increases in real GDP to population changes directly, and two types of economic growth can be distinguished by linking increases in real GDP with changes in number Population as follows[14]:

1- Broad comprehensive growth: means real GDP growth even if the per capita share of it does not increase.

2- Intense and concentrated growth: it means growth in real gross domestic product with a rise in its per capita share.

Fifth - the relationship between bank credit and economic growth

The banking system represented the cornerstone of the development process through its basic function as a com-munity of financial resources from the surplus economic sectors and then transforming them and feeding the economic sectors with deficit, in order to achieve two main objectives, namely, to contribute to the economic growth process on the one hand, and to achieve the profits that are necessary for the continuation of the banking system, but the ability of banks to contribute to the process of economic growth depends to a large extent on the degree of development and effectiveness of the banking system, especially commercial banks, and the extent of their compatibility with the aspirations of the economic vision of the responsible authorities. And the process of promoting the national economy and increasing productivity requires a balance between the productivity of all economic sectors (balanced development), linking loans to production, and granting all sectors equitable quota facilities in line with their productivity, With a focus on directing bank credit to sectors that lead to achieving high levels of economic growth, and as it is known that not all real GDP growth is necessarily a desirable development, the GDP may increase at reasonable or good rates, and yet it may not be the majority People benefit from that, but it is possible to lose as a result of the rise in prices that usually accompany the growth process, while a small percentage of people benefit, and in this case the growth rate does not reflect a desirable development, and also when the economic growth process takes place at the expense of the main productive sectors that produce Basic commodities, the increase in the variety of final goods and services involved in the growth rate must be examined [15].

The monetary policy has the task of contributing to achieving high economic growth rates, by collecting or attracting savings and encouraging investment, that is, providing financial resources and savings so that their tools are able to attract inflation or deflation and bring about economic recovery, so the central bank works to provide the legal and regulatory conditions for the structure banks that provide loans for investment, through the provisions of supervision by means of monetary policy and encouraging the establishment of specialized banks in all economic fields that serve the process of growth and economic development [16].

Many studies, including Hofmann's study, indicate that there is a positive relationship between the expansion in the volume of bank credit and economic growth, and this relationship appears by following an expansionary monetary policy that allows banks to follow measures that would increase the money supply and increase the volume of bank credit, with the aim of providing the necessary financing for individuals and institutions who will work to increase Their production and improvement of its quality, and as a result the increase in the production of the economic sectors will achieve an increase in the gross domestic product and thus increase the rate of economic growth in the country [17].

The economic systems try to set strategies, policies, and make reforms that serve as the basis for real economic growth, such as those known as the import substitution strategy, without this means abandoning the achievement of the export capacity of the economy or covering the domestic needs of individuals. Arab countries (member states of the IMF have followed for Arab study sample) such strategies, In the hope of achieving higher levels of economic growth, as these countries are characterized by increased consumption rates that exceed rates of growth of GDP and investment, as well as the modest economic structure in general and the ineffectiveness of the prevailing economic and social systems, and their strong link with international economic variables, which exceeds the rates of development the growth of consumption depends on the growth of investment and gross domestic product, and then deepening the resource gap and misuse of it in all of those countries, which leads to a slowdown and a decline in economic growth rates in them [18].

Based on the foregoing, we can say that the economic and financial systems in the Arab countries in general are weak, underdeveloped and ineffective systems, which are consumerist in the first place, low investment rates and suffer from external dependency, and the banking system is underdeveloped, all of this leads to a slowdown and a decline in their economic growth rates.

The Second Topic

The reality of bank credit and growth in the Iraqi economy

Analysis of the reality of bank credit and economic growth:

This period represents a major turning point at the economic, political and social levels, as a new phase in the reality of banking began, which is the post-political phase of change in Iraq, after the banking system during the previous years of the period of change was suffering from a number of problems and at several levels and what it witnessed in terms of intertwining plans and policies, as the monetary policy represented by the central bank before 2003 did not have any independence and clear meanings, The period of 2003 and earlier was marked by the dominance of fiscal policy and the state's government over the decisions of the central bank, but after the change in the country's political system, a number of developments occurred in the banking system, most notably the issuance of the new law of the Central Bank of Iraq No. 56 of 2004, which enshrined the independence of the Central Bank and assuming the required role in moving to a market economy as a cornerstone of the transitional missions of the national economy.

Table No. (1) Bank credit and economic growth in Iraq for the period (2003-2019) / (billion dinars)

the years	Total Bank Credit (1)	Bank Credit Growth Rate (2)	GDP at current prices (3)	GDP growth rate (4)
2003	621130	-3.737	295857.886	-27.879
2004	930053.8	49.735	532353.587	79.935
2005	1240176.1	33.344	735335.986	38.129
2006	2555131	106.029	955879.548	29.992
2007	3783810	48.086	1114558.134	16.6
2008	4816431.2	27.290	1570260.616	40.886
2009	6405354	32.989	1306432.004	-16.801
2010	11864443.9	85.226	1620645.655	24.051
2011	19638917.2	65.527	2173271.074	34.099
2012	29611217	50.778	2542254.907	16.978
2013	34288681.8	15.796	2735875.292	7.616
2014	38967465.8	13.645	2664203.842	-2.619
2015	43525671.9	11.697	2078761.918	-21.974
2016	44182151.6	1.508	1965363.508	-5.455
2017	44725577.1	1.229	2259951.791	14.988
2018	46178954.7	3.249	2650375.083	17.275
2019	48153492.2	4.275	27766991.587	4.4

Source: The table prepared by the researcher based on the Central Bank of Iraq data (separate annual bulletins) and the column (2,4) was calculated by the researcher

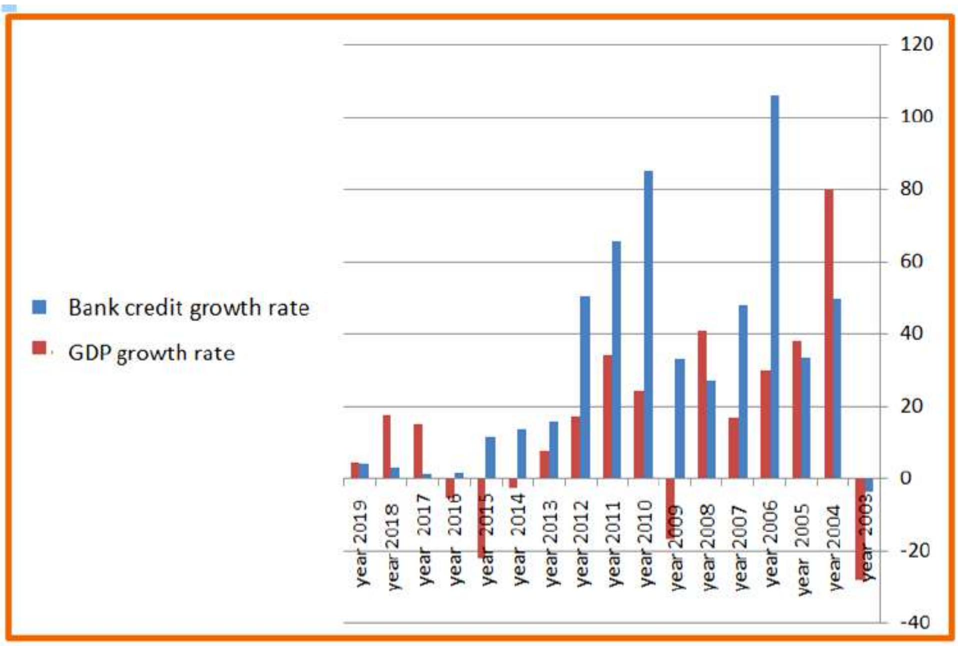

Figure No. (1) Bank credit growth rate and GDP growth rate
Source: The figure prepared by the researcher based on the data of Table (1)

When you notice Table (1), it is evident that in 2003 a new phase began in the reality of banking, at a rate of (621,130) billion dinars, which is a stage after the political change in Iraq and that the gross domestic product began to grow in this year as well as in the years that followed as a result of the openness of Iraq to the world In the field of trade and the relentless pursuit of extinguishing or writing off large percentages of the debts incurred by it as a result of the futile wars that Iraq fought with its neighbors and imposing economic sanctions that lasted for more than 13 years Note that the total credit in 2002 amounted to (645244) billion dinars, and that the gross domestic product for the same year reached (410229) billion dinars. As for the year 2004, the World Trade Organization agreed to open negotiations on Iraq's membership in the organization, so Iraq became an observer member in the organization in addition to that the volume of bank deposits witnessed a clear increase, which is the main source on which credit is granted by commercial banks previous table Where the table data indicate an increase in the volume of credit to reach (1240176.1) billion dinars in 2005 as a result of the increase in the incomes of individuals, especially the income of employees in the country after 2003, where salaries were delivered to citizens in foreign currency, which encouraged many of them to save in banks as a result of the new instructions of the Central Bank Law No. 56 of 2004 included the freedom to set interest rates for banks to encourage them to compete with each other to increase the ability of banks to attract deposits, which increased the volume of credit. As well as replacing the Iraqi currency with a new currency, which increased the citizen's confidence in this currency and its adoption as a store of value and all this contributed to the expansion of banks by granting credit as the volume of credit increased for the years (2006-2007) to reach (2555131, 3783810) billion dinars, respectively, as a result of the improvement in the economic situation the country has some stability in the security situation in 2008 despite the expansion in the volume of credit granted by banks. However, it recorded (4816431.2) billion dinars, meaning that its increase is at a lower growth rate than the previous year, as a result of the global financial crisis that occurred this year and its effects were reflected on the country's financial situation reflected positively on the volume of credit increasing after that in 2014, a decrease in the rate of growth of GDP, as well as the rate of credit, is noted, due to the focus of banks on in-kind guarantees in order to grant the loan The purpose of granting the loan is neglected. In 2015, the rate of GDP growth decreased significantly, reaching (-21,974). The reason is that the government borrowed internally, meaning borrowing from the central bank or commercial banks to meet the financing needs of the budget, and in (2016/2017) the sector went the banking sector is moving towards expanding lending to enhance financial inclusion in Iraq, reaching (44182151.6, 44725577.1) billion dinars, respectively, which led to stimulating economic growth by launching an initiative that is the largest in the history of Iraq to lend small and medium enterprises to stimulate the real sector and establish a unit to support and control microfinance and at the end The research period for the years 2018 and 2019 amounted to (46178954.7,48153492.2) billion dinars, respectively.

Thus, the period of research from (2003-2019) witnessed that the total structure of credit granted by commercial banks increased clearly for several reasons, including developments after the year 2003 and at all levels in the country, including the improvement in the economic situation of citizens as a result of the increase in their incomes and the improvement of the living situation, which led many of them to the request for facilities provided by banks and the improvement in the economic situation motivated many investors and contractors in the country to invest and request credit facilities, as they generate large profits for donor banks as a result of the profitable interests imposed on credit facilities.

The Third Topic

Measuring the effect of the bank credit rate on the rate of economic growth in Iraq

First: the model description

After we explained the nature of the relationship from an analytical point of view, we will now measure this relationship with the help of the statistical program (Eviews9), after extracting the growth rate of GDP, which represents economic growth and measuring it with the rate of bank credit in order to access more accurate data compatible with the logic of economic theory and this will be done Determining the independent and dependent variables included in the model, as it represents the independent variable bank credit rate, symbolized by (G), and the dependent variable economic growth rate whose symbol is (Y).

Second: Presentation and analysis of standard results

1- Stability Test

a- The first variable is the bank credit rate

We notice from the shaded value in Table No. (2) resulting from the time series of the variable, which indicates its stability at the level without a break and a trend at the level of 10% of significance.

Table No. (2) Bank credit stability test

Null Hypothesis: G has a unit root					
Exogenous: None					
Lag Length: 3 (Automatic - based on SIC, maxlag=3)					
			t-Statistic	Prob.*	
Augmented Dickey-Fuller test statistic			-1.837664	0.0647	
Test critical values:	1% level		-2.754993		
	5% level		-1.970978		
	10% level		-1.603693		
*MacKinnon (1996) one-sided p-values.					
Warning: Probabilities and critical values calculated for 20 ob servations and may not be accurate for a sample size of 13					
Augmented Dickey-Fuller Test Equation					
Dependent Variable: D(G)					
Method: Least Squares					
Date: 12/01/20 Time: 21:40					
Sample (adjusted): 2007 2019					
Included observations: 13 after adjustments					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
G(-1)	-0.208696	0.113566	-1.837664	0.0993	
D(G(-1))	-0.159225	0.168597	-0.944413	0.3696	
D(G(-2))	-0.309930	0.170094	-1.822107	0.1018	
D(G(-3))	-0.392124	0.149601	-2.621132	0.0278	
R-squared	0.636852	Mean dependent var			-7.827231
Adjusted R-squared	0.515803	S.D. dependent var			25.33339
S.E. of regression	17.62805	Akaike info criterion			8.824520
Sum squared resid	2796.735	Schwarz criterion			8.998351
Log likelihood	-53.35938	Hannan-Quinn criter.			8.788790
Durbin-Watson stat	1.063477				

Source: The table was prepared by the researcher based on the results of (Eviews9) program

b- The second variable is the rate of economic growth

We notice from the shaded value in Table (3) that the time series for the variable stabilized at the level with the presence of the cutter and at the level of 1% significance.

Table No. (3) Stability test of the economic growth rate

Null Hypothesis: Y has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=3)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.197656	0.0059
Test critical values:	1% level		-3.920350	
	5% level		-3.065585	
	10% level		-2.673459	
*MacKinnon (1996) one-sided p-values.				
Warning: Probabilities and critical values calculated for 20 observations				
and may not be accurate for a sample size of 16				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(Y)				
Method: Least Squares				
Date: 12/01/20 Time: 21:46				
Sample (adjusted): 2004 2019				
Included observations: 16 after adjustments				

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-1.025688	0.244348	-4.197656	0.0009
C	17.77592	7.451527	2.385541	0.0317
R-squared	0.557247	Mean dependent var		2.017438
Adjusted R-squared	0.525621	S.D. dependent var		37.38219
S.E. of regression	25.74704	Akaike info criterion		9.450985
Sum squared resid	9280.738	Schwarz criterion		9.547558
Log likelihood	-73.60788	Hannan-Quinn criter.		9.455930
F-statistic	17.62032	Durbin-Watson stat		0.973585
Prob(F-statistic)	0.000895			

Source: The table was prepared by the researcher based on the results of (Eviews9) program

2- Estimated Model

After the process of estimating the model, we conclude several things, the most important of which is that all statistical tests support the estimated model, where the explanatory power of the model (R2) reached (26%) and it is statistically significant and economically acceptable, meaning that it is the correct and zero bin. This is consistent with the logic of economic theory, but the strength of the variables explained in the effect of the dependent variable represented by the low GDP growth rate is due to the weakness of the banking sector and the remaining percentage is due to other factors affecting it that were not included in the estimated model, as it reached (Fs) prob the calculated (0.03530) and it is close to zero. Thus we reject the null hypothesis and accept the alternative hypothesis, meaning that the relationship between the independent variable and the dependent variable is significant and there is an effect of the independent variable in the dependent variable, this indicates on the possibility of relying on the results of the model statistically and economically in addition to the conformity of the fixed term with the economic logic in terms of the sign, as well as the parameter of the independent variable, as shown in Table (4). The estimation results showed the effect of bank credit on the economic growth rate as follows: $\boldsymbol{Y = 0.972 + 0.428G}$

Table (4) Test the relationship between the credit rate (G) and the economic growth rate (Y)

Dependent Variable: Y				
Method: Least Squares				
Date: 12/01/20 Time: 21:38				
Sample: 2003 2019				
Included observations: 17				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.971761	8.227565	0.118110	0.9075
G	0.427502	0.184715	2.314384	0.0352
R-squared	0.263130	Mean dependent var		14.71888
Adjusted R-squared	0.214005	S.D. dependent var		26.47647
S.E. of regression	23.47307	Akaike info criterion		9.259715
Sum squared resid	8264.774	Schwarz criterion		9.357741
Log likelihood	-76.70758	Hannan-Quinn criter.		9.269459
F-statistic	5.356375	Durbin-Watson stat		2.070318
Prob (F-statistic)	0.035230			

Source: The table was prepared by the researcher based on the results of (Eviews9) program

3- The Test for the Instability of the Homogeneity of Variance

This test is used to detect whether or not the contrast homogeneity is unstable and the Breusch-Pagan-Godfrey test will be relied on to test the model.

Table No. (5) Contrast homogeneity instability problem - Breusch-Pagan-Godfrey test

Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	0.076441	Prob. F(1,15)		0.7860
Obs*R-squared	0.086194	Prob. Chi-Square(1)		0.7691
Scaled explained SS	0.086603	Prob. Chi-Square(1)		0.7685
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 12/01/20 Time: 21:59				
Sample: 2003 2019				
Included observations: 17				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	428.1364	290.7100	1.472727	0.1615
G	1.804492	6.526672	0.276480	0.7860
R-squared	0.005070	Mean dependent var		486.1632
Adjusted R-squared	-0.061258	S.D. dependent var		805.0965
S.E. of regression	829.3895	Akaike info criterion		16.38939
Sum squared resid	10318304	Schwarz criterion		16.48741
Log likelihood	-137.3098	Hannan-Quinn criter.		16.39913
F-statistic	0.076441	Durbin-Watson stat		1.621226
Prob(F-statistic)	0.785953			

Source: The table was prepared by the researcher based on the results of (Eviews9) program

It is evident from Table (5) that the model does not suffer from the problem of uniformity of variance instability and this is what it is indicated by (Obs * R-squared), which is (0.086194) is smaller than (Prob. Chi-Square (1)) and (0.7685), which means that the model is free from the problem of contrast uniformity instability.

4- Self-correlation test

It is clear from Table (6) that the model does not suffer from the problem of self-correlation, and this result was reached depending on the overall significance of the model (Fs), which is (1.345006) and (Prob. F (2,13)), as it reached (0.2945) in the model and as shown in the table below.

Table No. (6) Results (LM Test) for the estimated model

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	1.345006	Prob. F(2,13)		0.2945
Obs*R-squared	2.914607	Prob. Chi-Square(2)		0.2329
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 12/01/20 Time: 22:02				
Sample: 2003 2019				
Included observations: 17				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.017953	8.889031	-0.677009	0.5103
G	0.172244	0.210709	0.817446	0.4284
RESID(-1)	-0.111819	0.253417	-0.441246	0.6663
RESID(-2)	-0.482381	0.299806	-1.608978	0.1316
R-squared	0.171447	Mean dependent var		-1.75E-15
Adjusted R-squared	-0.019757	S.D. dependent var		22.72770
S.E. of regression	22.95112	Akaike info criterion		9.306935
Sum squared resid	6847.799	Schwarz criterion		9.502985
Log likelihood	-75.10894	Hannan-Quinn criter.		9.326422
F-statistic	0.896671	Durbin-Watson stat		1.707267
Prob(F-statistic)	0.469063			

Source: The table was prepared by the researcher based on the results of (Eviews9) program

5. Conclusions

1- The credit facilities provided by banks are one of their most important activities, which are seen as the backbone of banking activity because they lead to meeting the financing needs of projects on which economic growth de-pends, and it is a double-edged sword. Exaggeration in the volume of credit may lead to inflationary effects. To the difficulty of continuing the projects to their activity and limit the growth process.

2- The standard results confirmed the validity of the research hypothesis that there is a positive relationship between bank credit and economic growth in Iraq during the research period.

3- The standard results regarding the stability test showed that all the time series of the variables included in the es-timated standard model were stable at their level, which indicates the existence of a long-term equilibrium rela-tionship between the variables and there is no need to conduct a joint integration test to prove this.

4- The results of the estimated equation indicated that the GDP growth rate reached (0.972) units, while other factors remained constant, and that the positive sign indicates that an increase in the bank credit rate by one unit will lead to an increase in the GDP growth rate by (0.427) units.

6. Recommendations

1- The necessity of a measure of financial development in order for the economic system to be able to absorb the positive impact of bank credit on economic growth in Iraq.

2- Providing new and varied financial services and administrations that cover all the desires sought by investors at the local and global levels.

3- The government should undertake to conduct an audit of its financial statements when they are due in order to avoid misappropriation of funds and reduce their rates.

4- After providing modern technologies, the bank's management must train some of its employees to use these tech-nologies, as well as familiarize themselves with the advanced methods in some countries and what is published in the developed world with regard to financial and banking institutions in particular.

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