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## Journal of Global Scientific Research in Social Sciences and Humanities

journal homepage: [www.gsjpublications.com/jgsr](http://www.gsjpublications.com/jgsr)



# The Impact of Bank Credit on the Gross Domestic Product of Selected Countries for the Period (2004-2020)

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### ARTICLE INFO

*Received: 11 Sep 2022,  
Revised: 11 Sep 2022,  
Accepted: 13 Sep 2022,  
Online: 21 Sep 2022*

#### *Keywords:*

Bank, Bank Credit, Domestic Product,

### ABSTRACT

Bank credit is one of the main sources of financing for economic development in different economies, as the financial sector in general and the banking sector in particular provides credit through which it exerts influence on economic activity, The characteristic of credit granted to the private sector, which has become the largest contributor to creating the appropriate climate for achieving economic growth through the large role in financing productive projects, The research attempts to show the nature of the interrelationship between the banking sector through the credit granted to the private sector and the overall economic activity represented by the GDP, In Iraq, the Kingdom of Saudi Arabia and the Arab Republic of Egypt for the period (2004-2020). The research has proven that there is a long-term equilibrium relationship between bank credit and GDP in both the Kingdom of Saudi Arabia and the Arab Republic of Egypt, in addition to the existence of a reciprocal causal relationship between the two variables and in opposite directions in each of the Kingdom of Saudi Arabia and the Republic of Egypt, while in Iraq, the causal relationship is One-way, from GDP to bank credit, thus the researchers conclude that the banking system in Iraq is unqualified and inefficient to be commensurate with developments in the global and regional economy.

## 1. Introduction

### Bank Credit Concepts and Indicators

Despite the multiplicity of functions performed by commercial banks, their main function is to create money, which is the important result of commercial banks dealing with credit. In achieving the profitability goal that banks seek, this is one of the most dangerous jobs that banks perform. The strength and strength of the financial position depends on it, as well as the safety of the banking assets associated with it.

### The Concept of Bank Credit and its Main Characteristics

Adequate and timely financing is an important precondition for growth, as monetary policy affects economic activity not only through the traditional interest rate channel, but also through the provision of bank credit. In most developing economies and in some advanced economies, banks have traditionally been the source The main source of financing for various sectors of the

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doi: [10.5281/zenodo.7086293](https://doi.org/10.5281/zenodo.7086293)

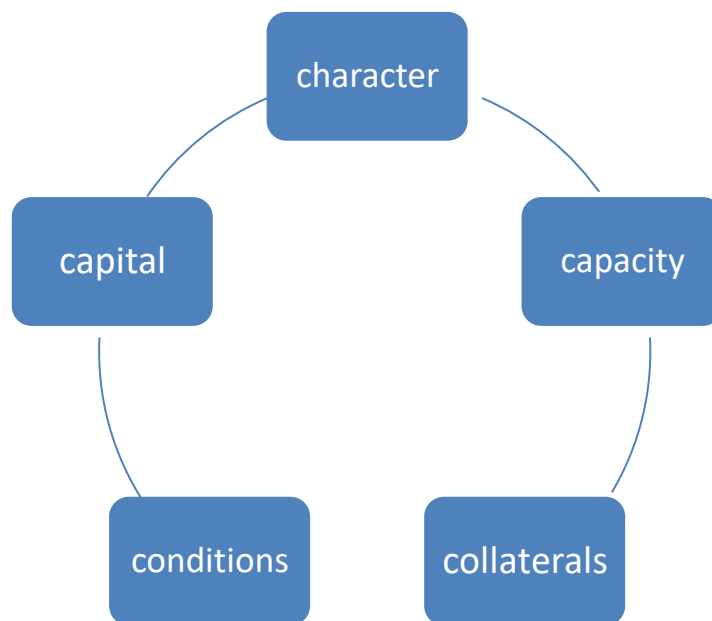
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economy, where financing systems and mechanisms based on the market economy prevail, as a developed local banking financial system can help in mobilizing domestic savings and directing these funds to borrowers, in a way that contributes to promoting economic growth. Bank credit, in its simplest form, is a form of financing of all kinds, short, medium and long-term, which are used in all sectors of the national economy, including industrial, commercial and service. **(Muhammad: 2021: 138)**

Which means that it is the ability to obtain wealth or part of it in exchange for payment in the future, or it is a measure of the ability of a legal to obtain present values, whether money, goods or services in exchange for postponing the payment, which is usually cash until a certain time in the future. **(Abu Hamad and Qaddouri: 2005: 259)** It is also known as “the purchasing power available to the borrower, as the credit markets make it possible for those individuals who are currently unable to wait to obtain the financial resource, and this work must have a price or cost represented by the interest rate resulting from the borrowing.” On the other hand, it is a process that takes place Whereby the bank receives a specific and specific interest or commission when it grants customers,

individuals or companies, at their request, whether immediately or after a certain time, facilities in the form of money or any other form, to cover the liquidity deficit and thus enable it to continue its activity, or lend to the customer for investment purposes in the form of a pledge Represented by the customer's guarantee from the bank. **(Al-Sayegh: 2018: 21)**

Or it is an agreement between the bank and the customer that gives the latter the right to borrow within the limits of a certain amount determined by the agreement. **(Al-Sin: 2007: 290)** Bank credit takes different classifications, where there is short, medium and long credit according to the criterion of the time period, and there is consumer and investment credit according to the criterion of the purpose of the credit, and according to the entity that requested the credit, it is classified into public and private credit. **(Al-Amin et al.: 2020: 81)** So the credit granted to the private sector is the credit that is requested by the private sector, whether in its monetary form such as advances and loans, bills of exchange, debit or non-cash current account such as letters of guarantee and bank guarantees in order to employ and invest them in various productive and economic fields. Figure 1 shows the criteria for granting credit.



**Figure-1 Criteria for granting credit**

Source: Prepared by the two researchers based on: Ali Hassan Zayer and others, Banking Administration, Dar Al-Seisban for Publishing and Distribution, Baghdad, 2018, pg. 204

1- Since the main function of the bank is financial intermediation by mobilizing savings from individuals and various economic sectors, which have financial surpluses, and then directing these surpluses to economic units that suffer from deficit and need funds for various productive and investment purposes, this makes bank credit a very activity in It is important because of its intertwined effect on the economy, so that the growth of that economy depends on it, and therefore it can be considered a sensitive tool whose damages may be very important in the economy if it is not used properly. This causes inflationary pressures, and both conditions may cause structural imbalances that may be difficult to treat. **(Afaneh: 2018: 17)**

Thus, bank credit granted to the private sector plays a major role in the process of economic growth through. **(Shaheen: 2018: 98)**

2-Funding and liquidity that are provided to investors and direct them towards the most effective and efficient investments as a driving force for growth, and this is done by creating the banking system for the liquidity necessary to finance projects, as it can be done through credit facilities granted to the private sector that is reliable in different economies, including developing countries that are witnessing A shift towards a market economy and its mechanisms, to contribute to a large extent in creating the appropriate climate for economic growth.

3-Its contribution to financing consumer spending by financing purchases and individuals' needs of consumer goods, and thus its importance in influencing economic growth, through this channel, considering consumer spending as one of the stimulating factors for aggregate demand, especially under unfavorable conditions during economic cycles, through which it can be moved. By focusing on the three actors involved in creating these cycles, namely consumers, merchants and banks.

The link between granted bank credit and economic growth is not only through the influence that credit exerts on the growth process, but also the economic growth affects bank credit, as high rates of economic growth will lead to a higher need for bank credit and then a higher demand for it. Controlling the amount, duration and purpose

of credit and regulating the process of granting it in proportion to the actual financing needs of the various sectors of the economy. **(Al-Sayegh: 2018: 23)**

## 2. Analysis of the Evolution of the Performance of the Variables

Bank credit exerts a great influence on the economy, specifically through its main functions. At the level of production financing, credit can transfer economic resources in society through financing production and the needs of developing productive investment that require a large amount of capital liquidity. Therefore, resorting to banking institutions has become a natural and necessary thing to finance production operations. And various investment, at the level of financing consumption and financing consumers who want to buy consumer goods, which falls within the framework of this type of credit, so-called credit cards. **(Fawzi: 2014:1)**

Or at the level of exchange settlement and debt settlement and rescheduling in accordance with the principles of legitimacy and discharge of debts, and its importance appears through modern credit payment methods in society. The possibility of distributing cash and credit resources to various sectors and thus optimizing their use by ensuring their flow to all projects. **(Said: 2019: 190)**

All of this contributes to achieving economic growth, especially if it takes into account the relative importance of credit granted to the private sector in the gross domestic product (GDP), which is known as the banking depth index, which reflects. **(Al-Shukri: 2013: 186):**

1- The amount of funds actually directed directly to the private sector Thus, it reflects confidence in the private sector and its productivity.

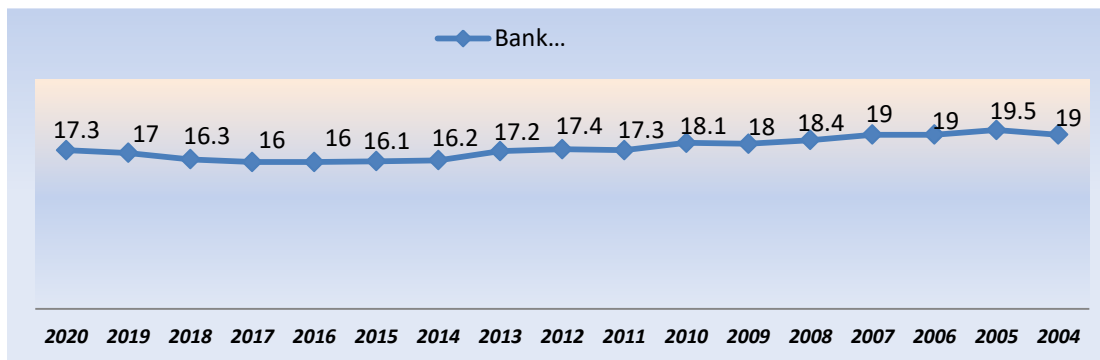
2-The size of the financial intermediation of banks and their ability to attract deposits and then grant loans to investments that achieve the highest possible return. This indicator reflects the size of the banking sector and its relationship to economic activity.

During the period (2004-2020), the bank credit granted to the private sector in Saudi Arabia,

Egypt and Iraq witnessed a great development. In the Kingdom of Saudi Arabia, the volume of credit increased from (302998.414) million riyals in 2004 to (1703432.49) million riyals in 2020, with an increase rate of (462) %). In spite of the multiple directions of credit facilities for economic activities in the Kingdom and specifically granted to the private sector, in 2004 the trade sector accounted for the largest percentage (22%) compared to other sectors such as the industrial sector, which accounted for approximately (11%) and ( 9%) for the construction sector. **(Annual Report: 2004: 100)** Despite the discrepancy in the relative importance of the mentioned sectors, they continued to acquire the largest percentage of the granted credit despite the decline in 2020 due to the repercussions of Covid-19 on the

economy as a whole, as the percentage decreased in the trade sector to reach (17%), and in the industrial sector (9 %), while it reached in the building and construction sector up to (5%). **(Annual Report: 2020: 112)**

The increase in credit granted to the sector necessarily reflects more banking services provided, which is reflected in the rise in the banking density index and consequently the expansion of the banking sector, as shown in Figure-1, which shows the banking density in the Kingdom of Saudi Arabia for the period (2004-2020), despite the stability of this indicator Almost the length of the study period, but it is considered one of the high rates when compared with Egypt and Iraq.

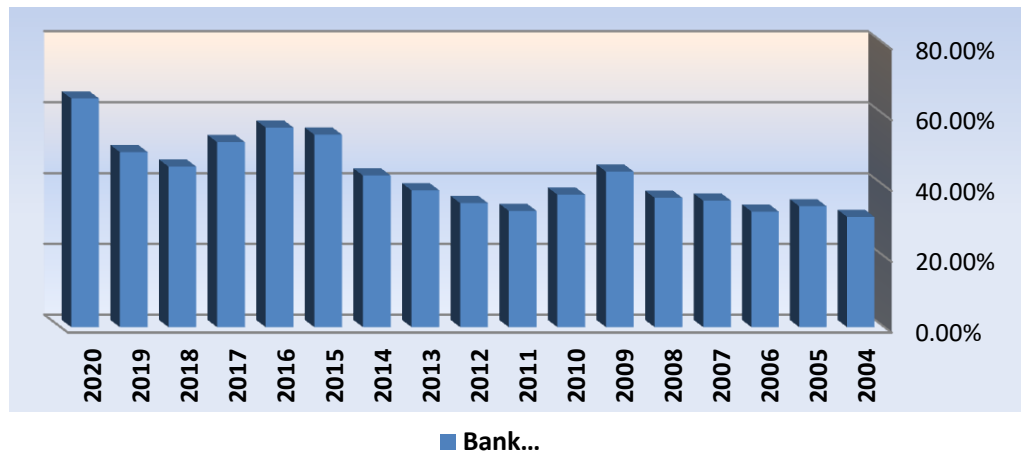


**Figure (1) Banking Density Index in the Kingdom of Saudi Arabia**

Source: Figure prepared by the researchers: based onThe Saudi Central Bank is available at: <https://www.sama.gov.sa/ar-sa/Pages/default.aspx>.

It is noted from the figure that the density index reached its highest level in 2005, with a limit of (19.5) thousand people per one banking branch, and the lowest level in 2017, with a limit of (16) thousand people per one bank branch. The rise in the banking density indicator means more banking services and higher credit, as indicated earlier, and this is reinforced by the increase in the relative importance of credit granted to the

private sector in the gross domestic product (GDP). Consequently, financial intermediation improved, as the banking depth index rose from (31%) in 2004 to (65%) in 2020, a very high percentage that necessarily reflects the development of the banking sector in the Kingdom. Figure (2) shows the banking depth index in the Kingdom of Saudi Arabia for the period (2004-2020).

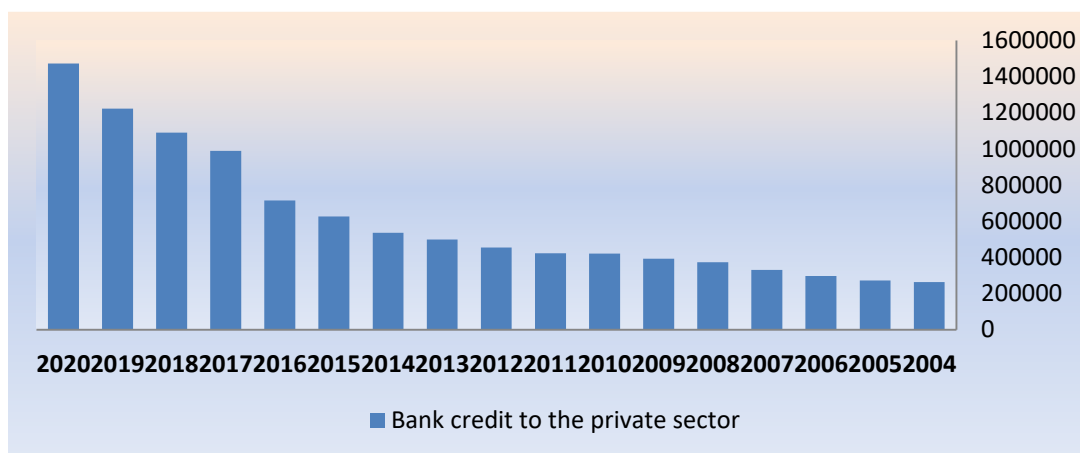


**Figure (2) Banking Depth Index in the Kingdom of Saudi Arabia**

Source: Figure prepared by the researchers: based onThe Saudi Central Bank is available at: <https://www.sama.gov.sa/ar-sa/Pages/default.aspx>

In Egypt, the credit granted to the private sector witnessed a remarkable increase during the period (2004-2020), as it rose from (262535) million Egyptian pounds in 2004 to (453832) million Egyptian pounds in 2012, with a growth rate that exceeded the limits of (70%). Procedures The Central Bank of Egypt prepares and implements programs to develop the banking sector through the process of restructuring banks, increasing their capital and strengthening risk management in them, specifically the Application

of Basel (II) decisions, and in line with the proposal of the Basel Committee (II) to add a direct complementary measure known as (financial leverage) It supports the measurement of the capital adequacy criterion associated with risks in line with the timetable for the implementation of Basel (III) decisions. **(Central Bank of Egypt: 2020: 33)** Figure (3) shows the evolution of the volume of bank credit granted to the private sector for the period (2004-2020).

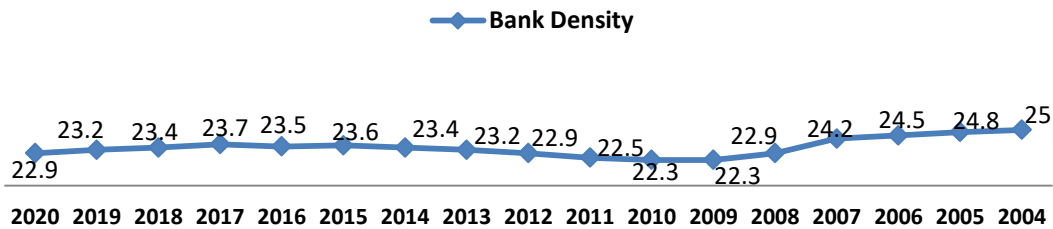


**Figure (3) Evolution of the volume of bank credit granted to the private sector in the Arab Republic of Egypt.**

Source: Figure prepared by the researchers based on Egyptian Central Bank. (2020). The Economic Journal, Cairo, Volume (60), Issue (4)

It is noted from Figure (3) the significant increase in the volume of credit granted to the private sector in the Arab Republic of Egypt for the years that followed 2013, as the volume of credit increased in 2020 to reach (147,1119) million pounds, with a growth rate of (224%) compared to 2013 and (460%). ) in 2004, especially with the increase in the number of banks and their branches and this is reflected in the indicators of

financial inclusion, despite the decrease in the banking density index in 2020 compared to 2004, but the percentage is considered one of the high rates, especially if compared with the Kingdom of Saudi Arabia and Iraq taking into account In view of the large difference in the population in Egypt compared to Saudi Arabia and Iraq, Figure (4) shows the indicator of banking density in Egypt for the period (2004-2020).

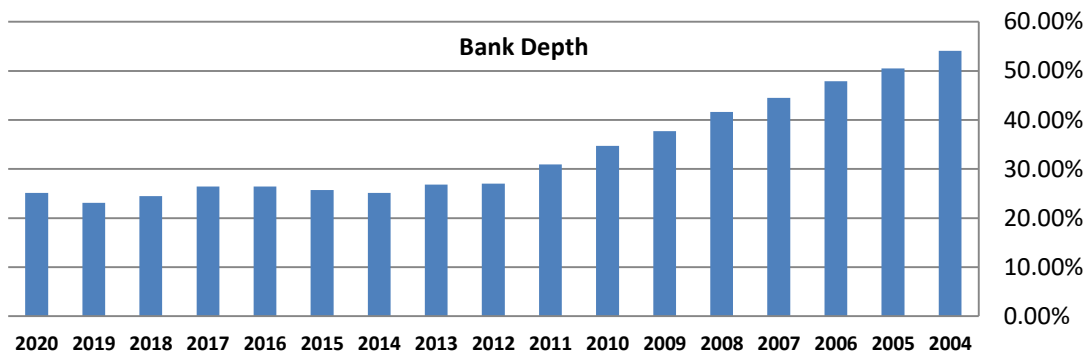


**Figure (4) Banking Density Index in the Arab Republic of Egypt**

Source: Figure prepared by the researchers based on Egyptian Central Bank. (2020). The Economic Journal, Cairo, Volume (60), Issue(4)

As for the ratio of credit granted to the private sector to GDP (banking depth), it is noted during the period (2004-2020) a significant decrease in this indicator, as the ratio decreased from (54%)

in 2004 to (27%) in 2012 and to (25%) ) In 2020, this decline indicates that there is no excessive lending in the banking sector, as shown in Figure (5).



**Figure (5) The banking depth index in the Arab Republic of Egypt**

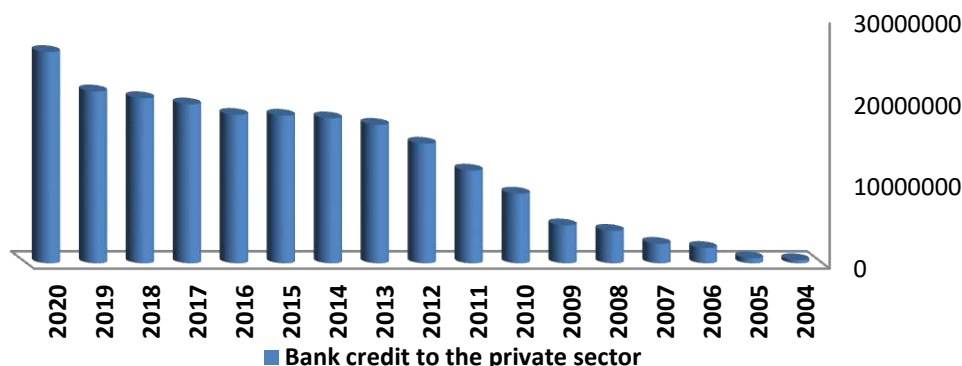
Source: Figure prepared by the researchers based on The Central Bank of Egypt (2020). The Economic Journal, Cairo, Volume (60), Issue (4).

In Iraq, the credit granted to the private sector witnessed a significant increase during the period (2004-2020), as it rose from (389,125) million dinars in 2004 to (14650102) million dinars in 2012, and the increase continued until it reached

(2586652) million dinars in 2020, noting The Central Bank of Iraq, during the period of the Covid-19 pandemic, has adopted a number of measures with the aim of regulating the work of banks and enhancing their financing role in

overall economic activity, as it proceeded to provide banking facilities by rescheduling bank loans to the private sector, as well as increasing the repayment period for loans. The existing future of the sectors most exposed to the

repercussions of the pandemic and the reduction of the cost of borrowing **(Annual Economic Report: 2020: 31)** Figure (6) shows the evolution of the volume of bank credit granted to the private sector in Iraq for the period (2004-2020).



**Figure (6) Evolution of the volume of bank credit granted to the private sector in Iraq**

Source: The table prepared by the researchers based on Central Bank of Iraq, Annual Statistical Bulletin, General Directorate of Statistics and Research, Baghdad, the years (2010-2017)

Noting that the bulk of this credit is granted by government banks, which in some years exceeds the limits of (80%), and thus the credit policy is characterized by risk compared to their capital. This is due to a number of reasons, the most important of which are **(Financial Stability Report: 2010: 6)**

1-The credit rating of the category of borrowers is weak, and it is the category that is dominated by the nature of moral risk.

2- Decreased evaluation of guarantees against granting credit, and this is due to the effect of inflationary expectations or what is known as market risks, in addition to the invocation of these banks by credit risks and failure to pay.

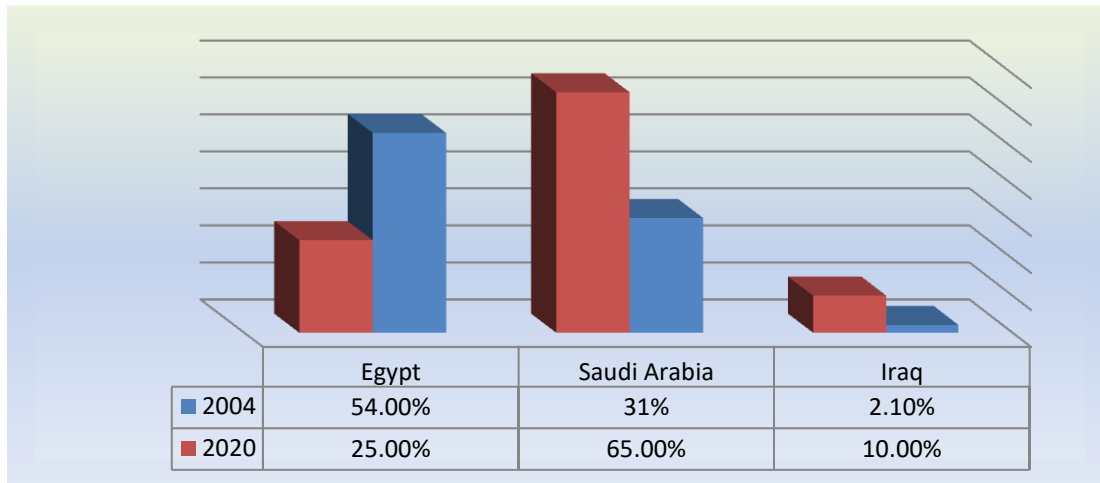
As a natural result of the increase in bank credit granted to the private sector, and despite the significant increase in the gross domestic product (GDP), the banking depth also witnessed a significant increase, as it rose from (2%) in 2004 to (10%) in 2020, here it must be noted The rate (5%) according to international standards is

considered low and therefore a limited contribution to economic activity in order to finance sustainable economic growth. **(Annual Economic Report: 2008: 31)**

Especially since the increase in the banking depth indicator is evidence of the increase in banking services provided by banks, which means an improvement in financial intermediation, since this indicator does not include credit granted by the central bank and credit provided to the public sector. **(Khalaf & Rashid: 2017: 343)**

By comparing the ratio of total bank credit granted to the private sector to the gross domestic product, represented by banking depth with Saudi Arabia and Egypt, we note that this ratio is significantly low. In 2004, this ratio in Saudi Arabia reached (31%) and in 2020 it amounted to (65%) , and in Egypt it reached (54%) in 2004 and (25%) in 2020, which means a decrease in the level of financial intermediation in the economy as a result of the lack of development of the Iraqi banking sector, as shown in Figure (7).





**Figure (7) The financial depth index in Iraq compared to Saudi Arabia and Egypt for the years (2004-2020)**

**3. Measuring the Relationship between Economic Variables**

**Unit Root Tests**

Unit root tests clarify the nature of the stability of the variable or not, and help the researchers to get rid of the problems of false regression, which delude researchers into morality and therefore do not help in predicting the future of the variables under study, as there are many tests for stability, and the researchers believe that the appropriate test is the Dickey test Expanded Fuller (Dickey-fuller), and for the purpose of adopting this test, we take the random walk model of the models, which is a first-order autoregressive model (AR(1)), where it is written in the formula (Y<sub>t</sub>=Y<sub>(t-1)</sub>+ε<sub>t</sub>), where (ε<sub>t</sub>) which represents the limit of the random error whose arithmetic mean is assumed to be equal to zero and the variance is constant and uncorrelated values(Httat: 2006:94)

When the autoregressive coefficient is equal to the correct value (1), this is that the variable suffers from the presence of a unit root, that is, the variable is unstable, and the series that includes the unit root is known as the series of random running of the variable. What distinguishes this aforementioned test is that it is based on the hypothesis Alternative (H<sub>1</sub>:|φ|<1) and based on the ordinary least squares as in the equations below (D.Gujaratr:2003: 696)

$$\nabla Y_t = \lambda Y_{t-1} - \sum_{j=2}^P \phi \nabla Y_{t-j+1} + \varepsilon_t \dots \dots \dots (1)$$

$$\nabla Y_t = \lambda Y_{t-1} - \sum_{j=2}^P \phi \nabla Y_{t-j+1} + c + \varepsilon_t \dots \dots \dots (2)$$

$$\nabla Y_t = \lambda Y_{t-1} - \sum_{j=2}^P \phi \nabla Y_{t-j+1} + c + bt + \varepsilon_t \dots \dots \dots (3)$$

We can determine the stability through (Prop) according to a set of criteria, including the (Akaike) criterion or (Schwarz) criterion. The program and (t) tabular are as follows:

- 1-If the calculated (t) is greater than the tabular (t) we reject the null hypothesis (H<sub>0</sub>=0) and accept the alternative hypothesis (H<sub>1</sub>≠0) and the decision is that the series is in the steady state.
- 2-If the computed (t) is less than the tabular (t) we accept the null hypothesis (H<sub>0</sub>=0) and reject the alternative hypothesis (H<sub>1</sub>≠0) and the decision is that the series suffers from false regression and is unstable. It is possible to detect stability or not through the probability value (prop) (•), if the value is less than (5%), then this means that the series is stable, and if the value is greater than (5%), this means that it is unstable, table (1) It shows the results of the expanded Dickey and Fuller test on the variables of the study at the first level and difference in the selected countries.



**Table (1) shows the ADF test for the study variables at the first level and difference.**

Test I(1) ADF			Test I(0) ADF			VAR	
None	Intercept & Trend	Individual Intercept	None	Intercept & Trend	Individual Intercept		
-1.966270(*)	-3.75743(*)	-3.081002(*)	-1.96418	-3.733200	-3.06585	5%	GDP1
-1.605026(*)	-3.32476(*)	-2.681330(*)	-1.60503	-3.310349	-2.67359	10%	
-2.958377	-4.728363	-3.205067	0.89853	-1.499287	-1.89549	T - statistic	
-1.966270(*)	-3.759743	-3.081002	-1.96670	-3.828975	-3.06585	5%	BC1
-1.605026(*)	-3.324976	-2.681330	-1.60526	-3.362984	-2.67459	10%	
-2.728252	-1.938738	-2.066230	1.379714	-3.460516	0.273034	T - statistic	
-1.968430(*)	-3.875302	-1.745252(*)	-2.71711	-3.733200	-3.92050	5%	GDP2
-1.604392(*)	-3.388330	-2.681330(*)	-1.96418	-3.310349	-3.06585	10%	
-2.740613	-3.075118	-3.959148	-1.60503	0.529493	-2.67359	T - statistic	
-1.970978(*)	-3.759743	-3.081002	-1.96418	-3.733200	-3.92050	5%	BC2
-1.603693(*)	-3.324976	-2.681330	-2.71711	-3.310349	-3.06585	10%	
-2.754993	-3.244592	-1.396622	-1.60503	1.190456	-2.67359	T - statistic	
-1.966270(*)	-3.180362	-3.081002(*)	-1.96418	-3.733200	-3.06585	5%	GDP3
-1.605026(*)	-3.759743	-2.681330(*)	-1.60503	-3.310349	-2.67359	10%	
-2.912437	-4.728363	-2.989362	0.83108	-1.570424	-1.98952	T - statistic	
-1.966270(*)	-3.388330	-3.144920(*)	-2.71711	-3.828975	-3.06585	5%	BC3
-1.605026(*)	-3.875302	-2.713751(*)	-1.96418	-3.362984	-2.67359	10%	
-2.728252	-3.180704	-3.538020	-1.60503	-3.815885	0.07655	T - statistic	

The table was prepared by the researcher based on the results of the statistical bag (Eviews)

**4. Discussing the Results of the (ADF)**

It was found through the test that all the variables are unstable in the level, and stable in the first difference, integrated in the first degree (AR(1)), and this is clear through the comparison between the calculated value (t) less than the tabular in the level at the level of significance (5%) and the level of Significant (10%), while it is stable in the first difference.

**Estimate The Simple Linear Regression Equation**

**The first model:-** Simple linear regression model between the gross domestic product (GDP1) dependent variable and bank credit (BC1) an independent variable in the Iraqi economy that includes the following:

1- After estimating the simple regression equation, it was found that the value of (prob = 0.06) is not significant for bank credit, as every change in bank credit does not lead to a change in the gross domestic product in Iraq, due to the absence of effective and influential money markets in economic activities.

2- The value of (R<sup>2</sup>) for the third model was reflected by about (35%), which is the percentage of what the bank credit represents in the GDP,

meaning that (65%) of the effect is for other variables that were not included in the model. The Iraqi economy, where the calculated value of (F) was significant and was (8.81), as for the value of (D.W) which amounted to (1.94), which is in the acceptance area and the autocorrelation problem did not appear.

**The second model:** - a simple linear regression model between the gross domestic product (GDP2) dependent variable and the bank credit (BC2) independent variable in the Egyptian economy that includes the following:

1-When estimating the parameters of the simple linear model, it was found that the value of (prob = 0.028) means the significance of bank credit, as every change in bank credit by one time leads to a change in GDP by (0.25) in a direct way, that is, the more bank credit leads to an increase in output The gross domestic product in Egypt, and this reflects the effectiveness of the Egyptian financial markets and their great role in influencing economic activities, and it is consistent with the prior theoretical expectations of the relationship between the two variables, which says that there is a direct relationship between the two variables.

2-The value of (R<sup>2</sup>) was reflected by about (89%), which is the percentage of what bank credit represents in the GDP, meaning that (11%) of the

changes in GDP were not due to bank credit in Egypt, but rather due to other variables that were not included in the model The Fisher test showed that the model is significant and is suitable for measurement and prediction in the Egyptian economy, as the calculated (F) value is significant and was (10.5), while the (D.W) value of (1.99) is in the acceptance area and the autocorrelation problem did not appear.

**The third model:** a simple linear regression model between bank credit (BC3) as an independent variable and the gross domestic product (GDP3) in the Kingdom of Saudi Arabia as a dependent variable that includes the following:

1-When estimating the parameters of the simple linear model, it was found that the value of (prob = 0.009) means the morale of bank credit, as every

change in bank credit by one time leads to a change in the gross domestic product in Saudi Arabia by (0.31) and in a direct manner, which shows the active role of cash money And its significant impact on the commodity and service sectors.

2-The value of (R<sup>2</sup>) for the fifth model was reflected by about (70%), which is the percentage of what bank credit represents in the GDP, meaning that (30%) of the changes in GDP were not due to bank credit in Saudi Arabia, but rather due to other variables that were not included in the model. And it was found from Fisher's test that the model is significant, as the calculated (F) value is significant and was (11.9), while the value of (D.W) which is (2) in the acceptance area and the absence of the autocorrelation problem.

**Table(2) Estimation of simple regression functions for the selected countries with other statistical tests**

Method: Least Squares						
Date: 23/04/22 Time: 12:48						
Sample: 2004 2020						
Included observations: 16						
Dependent Variable	Variable	Coefficient	Prob	Adjusted R <sup>2</sup>	F-statistic	D.W
GDP1	BC1	30.49660	0.0637	0.350313	8.801472	1.90
GDP2	BC2	0.250463	0.0282	0.894251	10.52408	1.94
GDP3	BC3	0.310667	0.0096	0.702051	11.91005	2.01

Source: Prepared by the researchers based on the report of the statistical program (E-vives 10)

**Measuring the Causal Relationship between Bank Credit And Gross Domestic Product (GDP)**

The causal relationship test is one of the important tests that provides a clear answer to the cause and effect in the light of economic theory, as it clarifies a very important philosophical topic that requires great effort in order to reveal and clarify it through theoretical descriptive analysis, and to clarify the truth of the prevailing belief among people that everything causes everything something, or vice versa, as people do not believe in the existence of causality between everything, as some prefer to use the term (predictive causality).

So it is a concept that shows the case in which an independent variable is always dependent on another variable, where the succession of events occurs between the variables during a specific time, and this relationship between the two variables where the first variable is the cause and the second variable is the causative. **(Al-Ward: 2006:5)**

This standard statistical test is used to determine the nature of the relationships between economic variables (bank credit and GDP in selected countries), that these economic variables may move in an opposite or compatible direction for the purpose of showing the nature of the relationship between variables and the amount of. **(Abdul-Hussein: 2002: 83)**

### Mathematical Model Granger Causality Test

The causality test means that if a change occurred in the first variable (a) before the second variable (b), it may be that (a) is the cause of the change in the second variable (b). But it is possible that (b) causes (a), that is, the change and event in the past may be the cause of the present event, but future events cannot do the above. **(G.s.maddala&kajal :2009: 571)**

If the bank credit (PCt) and gross domestic product (GDPt) represent the time course of the two different economic variables over time (t). To clarify more, does bank credit affect GDP, or vice versa? The Kranger test assumes that the data and information are appropriate for the relevant variables.

### Granger Causality Test Analysis

Table (3) shows the Granger causality test for the model variables and in two directions to the state of existence or non-existence of the causal relationship in two directions or at least one direction and according to (Granger) if we have a time series which in the research represents both bank credit and GDP, in this the condition.

1-The test shows the existence of a one-sided causal relationship of GDP to bank credit in Iraq, that is, GDP causes bank credit, and this trend from GDP to bank credit shows the nature of the Iraqi economy, which is where bank credit is a variable dependent on GDP. This is due to the ineffectiveness of the money market and its monetary institutions and tools.

2- There is a causal relationship in two directions, the first from GDP to bank credit in the Arab Republic of Egypt, meaning that GDP causes bank credit, and the second trend from bank credit to GDP for the existence of the basing monetary market and the interrelationship between the monetary and commodity streams, diversity and flexibility In the Egyptian production system.

3-The existence of a causal relationship in two directions, one from GDP to Egyptian credit in the Kingdom of Saudi Arabia, and the second trend from bank credit to GDP, which reflects the nature of the Saudi economy and shows the extent of forward and backward links between economic sectors.

**Table (3) Kranger causality test between bank credit and GDP**

Pairwise Granger Causality Tests			
Date: 03/24/22 Time: 22:08			
Sample: 2004 2020			
Lags: 2			
Prob.	F-Statistic	Obs	Null Hypothesis:
0.0820	3.24467	15	BC1 does not Granger Cause GDP1
0.0472	7.16859		GDP1 does not Granger Cause BC1
0.0250	4.93195	15	BC2 does not Granger Cause GDP2
0.0401	5.77343		GDP2 does not Granger Cause BC2
0.0189	6.05428	15	BC3 does not Granger Cause GDP3
0.0429	5.37842		GDP3 does not Granger Cause BC3

### 5. Conclusions

1-Financial intermediation is a factor that causes economic growth, and vice versa. A positive view of the finance-led growth hypothesis usually focuses on the role of the banking sector in mobilizing domestic savings and investment

through a more open and liberalized banking system.

2-The credit provided to the private sector is a very good incentive for economic development, in line with the main objectives of the process of economic correction and structural reform aimed

at achieving a broader participation of the private sector in economic activity in order to increase the rates of sustainable growth and create productive job opportunities, which are approved in various countries.

3-The low rate of expansion of the volume of credit is not only a symptom of weak economic growth, but it may also be one of its causes.

4- The existence of a causal relationship from the gross domestic product to the Egyptian credit in Iraq, due to the presence of structural imbalances and the absence of an efficient monetary market, which affects the commodity production or the real sector in Iraq.

5-There is a two-way causal relationship from bank credit to GDP, or vice versa, from GDP to bank credit in both the Arab Republic of Egypt and the Kingdom of Saudi Arabia

## 6. Recommendations

1- Drawing from the experience of the Kingdom of Saudi Arabia in building an efficient and effective money market that contributes to creating links between the commodity sector and the monetary sector, which diversifies the sources of national income and addresses the problem of unilateralism and rentierism in the economy to some extent.

2-The need to work on developing banks, both governmental and private, for the sample countries, especially Iraq, by restructuring them by developing the regulatory, legislative and institutional frameworks for banking, in a way that ensures exit from their traditional financing formula by involving the banking sector to contribute in an actual way to achieving economic growth.

3-Working on developing banks that prefer more credit to the private sector in a more specific way in order to stimulate competition in the banking sector and thus stimulate economic growth by increasing the relative importance of this sector.

4-Despite the reforms adopted in the sample countries to develop the banking sector, there are still many obstacles facing this development, especially in Iraq, which calls for the need to work

on removing them, especially with regard to the work of economic policy, specifically monetary and financial ones.

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