Pak. j. life soc. Sci. (2024), 22(1): 1667-1678 E-ISSN: 2221-7630;P-ISSN: 1727-4915

Pakistan Journal of Life and Social Sciences

Clarivate Web of Science Zoological Record:

www.pjlss.edu.pk



https://doi.org/10.57239/PJLSS-2024-22.1.00116

RESEARCH ARTICLE

Measurement and Analysis of the Impact of Bank Characteristics On Credit Growth

Batool Khalil Abdel Mohsen^{1*}, Mehdi Attia Mohi²

^{1,2} Management and Economy, University of Babylon, Iraq

ARTICLE INFO	ABSTRACT
Received: May 25, 2024	The impact of bank characteristics on credit growth is a fundamental part of financial system interactions, as banks play a key role in shaping the
Accepted: Jun 27, 2024	credit structure and determining the accessibility of financing.
	Understanding this impact is essential for comprehending economic dynamics and their effects on individuals and companies. This research
Keywords	aims to identify the concept and dimensions of general bank
Measurement	characteristics in general, as well as concepts and dimensions of credit growth and previous failure models faced by shortcomings, and to identify
Analysis	patterns of using the impact of bank characteristics followed by public
Bank characteristics	banks in their expansion operations, debt repayment, or profit generation through them.
Credit growth	
*Corresponding Author:	
khtona96@gmail.com	

INTRODUCTION

The impact of bank characteristics on credit growth is an essential part of financial system interactions, as banks play a key role in shaping the credit structure and determining access to financing. Understanding this impact is necessary to comprehend the dynamics of the economy and its effects on individuals and companies. Credit policies adopted by banks depend on a variety of factors, including risk assessment and the country's financial conditions, reflecting their orientations and business strategies. Making credit decisions requires proactive market insights and a precise understanding of the economic and financial challenges that can affect a bank's performance.

First: Research Problem

The global financial crisis has impacted the economy in general, and the banking sector in particular, due to the increasing value of non-performing loans. This has affected the credit policies followed by bank managements, including Iraqi commercial banks, in granting credit, in anticipation of the risks of customers' inability to repay loans and their interests.

Second: Research Importance

1- Understanding the financial policies of banks and providing an overview of the financial indicators of the research sample.

2- Improving credit policies: The research results can contribute to improving credit policies, enhancing access to financing opportunities, and supporting economic growth.

Thirdly: Research Objectives

1- To understand the concept and dimensions of public banks in general, as well as the concepts and dimensions of credit growth and previous failure models faced by shortcomings.

2- To identify the patterns of utilizing the impact of bank characteristics followed by public participation banks in expansion or debt settlement operations.

Bank Characteristics Impact

Banks are essential institutions in the financial system that play a vital role in providing credit to individuals and companies. However, not all banks are alike, and different bank characteristics can have significant effects on lending practices and credit growth. According to a study conducted by (2002, Altunbas et al), bank characteristics such as size, capital, sources of funding, business growth, and bank risks can influence the amount of credit banks offer to their clients.

For example, large banks tend to have more resources and a wider range of lending opportunities, which may lead to higher levels of credit growth. According to a study conducted by Berger and Udell (2002), banks with higher levels of equity may be more capable of providing credit due to their ability to absorb losses, while banks with higher levels of debt may be more cautious in lending practices (Dell'Ariccia, 2006). Finally, market competition can impact credit growth. According to a study conducted by Bikker and Haaf (2002), increased competition can lead to higher levels of credit growth because banks need to remain competitive.

Bank Size

Bank size is an important characteristic that can influence lending practices and credit growth. Bank size is typically measured by total assets, and larger banks may have more resources and a wider range of lending opportunities, leading to higher levels of credit growth. (De Nicoló, 2005).

Additionally, a study conducted by Demirguc-Kunt and Huizinga in 2010 found that large banks may also face higher regulatory burdens and stricter capital requirements, which could limit their lending capacity and restrict credit growth. (Cetorelli, N. et al, 2013)

In summary, while bank size can positively impact credit growth by increasing resources and lending opportunities, these considerations are important when designing policies to enhance credit growth and financial stability in the banking industry. (Égert, Balázs, 2006)

The size of a bank can be measured by the following equation (Xu et al, 2022:5):

Bank size = Natural logarithm of total assets

Bank capital

Bank capital is a fundamental element in the banking system that refers to the funds held by the bank to absorb potential losses and withstand any unexpected shocks in the economy (Berger & Bouwman, 2013).

The relationship between bank capital and credit growth has been a subject of intensive research. A large body of evidence points to a positive relationship between bank capital and credit growth (Aiyar et al, 2015).

In short, bank capital is a critical element in the banking system and plays an important role in promoting credit growth and financial stability (Gourinchas, 2001).

The indicator can be measured by the following equation (Suganya & Kengatharan, 2018:63):

Capital Adequacy Ratio = Total Equity / Total Risk-Weighted Assets

Stable Sources of Funding:

Stable sources of funding refer to bank financing that is less sensitive to market conditions and less vulnerable to sudden withdrawals or changes in interest rates (Lam, 2016).

Furthermore, stable funding sources can reduce banks' reliance on short-term financing and mitigate risks associated with sudden market conditions or interest rate changes (Ongena & Popov, 2016).

Stringent regulatory requirements on stable funding sources may impose additional costs on banks and limit their ability to respond to market changes, which could stifle innovation and limit competition in the industry (Ongena & Popov, 2016).

In conclusion, stable sources of funding are a crucial element in the banking system that plays an important role in enhancing credit growth and financial stability. (Hall, S.G., 1987,)

Business Growth:

Business growth refers to the process of expanding a company's operations by increasing its customer base, product offerings, or market share. (Berger & Frame, 2017).

Another advantage of business growth is that it can contribute to job creation and economic development. Growing companies tend to hire more employees, which can reduce unemployment and stimulate economic activity. (Ongena & Popov,2017).

In conclusion, business growth is a crucial element in enhancing credit growth and supporting economic development. While there is evidence supporting the positive relationship between business growth and credit growth. (Hilbers, Paul, and others, 2005,)

Bank Risk Reduction:

Research on the relationship between bank risks and credit growth is extensive. Research indicates a negative relationship between bank risks and credit growth. For example, (Bikker, 2002) found that high levels of bank risks can lead to a contraction in credit supply, which may have negative effects on economic growth and development.

One way to reduce bank risks is to implement stricter lending standards. This may involve tightening credit policies, such as requiring higher credit ratings or more guarantees. (Allen, F, et al, 2011)

Credit Growth:

Credit growth refers to the increase in the availability of credit in the economy over time. Credit growth can be measured by the growth in the total credit balance in the economy. Credit growth is an important driver of economic development, as it enables companies and individuals to access the financing they need to invest in new projects, expand their operations, and achieve their financial goals. (Kónya, István, and Hiroshi Ohashi, 2005)

Importance of Credit:

Credit is of great importance, and we mention the following:

The source of funding: Bank credit is considered the most important source of funding for economic activities, and a sensitive and dangerous tool that can lead to undesirable effects in the economy, as excessive use of it can lead to inflationary and contractionary pressures that may lead to a recession. (Al-Zubaidi, 166:2011)

Stimulating consumption: Bank credit raises the current purchasing power of consumers with limited income to obtain some goods, especially durable ones. (Kanaan, 180:2012)

Measuring and analyzing the standard model

Testing research models

In order to determine the common impact of all variables, the model was estimated using three models (PRM, FEM, REM) and the following results were obtained:

Estimation of the aggregate regression model (PRM):

Table (1) Results of the aggregate regression model (PRM)

Dependent Variable: Y?				
Method: Pooled Least Squares				
Date: 10/30/23 Time: 23:21				
Sample: 2004 2020				
Included observations: 17				
Cross-sections included: 10				
Total pool (balanced) observation	ns: 170			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1?	9.59E+09	1.80E+09	5.331100	0.0000
X2?	68240909	1.20E+08	0.567137	0.5714
X3?	1159597.	1505271.	0.770357	0.4422
X4?	-1.31E+09	6.17E+08	-2.121692	0.0354
X5?	-4.71E+08	1.05E+08	-4.475535	0.0000
X6?	1.34E+09	1.44E+08	9.294372	0.0000
X7?	4.39E+08	2.69E+08	1.629061	0.1052
Root MSE	6.82E+10	R-squared		0.530281
Mean dependent var	9.56E+10	Adjusted R-squ	ared	0.512991
Akaike info criterion	52.81193	Sum squared re	esid	7.91E+23
Schwarz criterion	52.94105	Log likelihood		-4482.014
Hannan-Quinn criter.	52.86432	Durbin-Watson	stat	0.438182

Source: The researcher prepared based on the outputs of the Eviews 12 program.

Through observing Table (15), the significance of the variable (x1) is shown at a significance level of 5%, due to the fact that the probability value of the variable's (t) test, which is (0.000), is less than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis, which indicates a significant effect of the bank size variable on cash credit. The causal relationship confirms that an increase in bank size will provide additional resources to the bank, enabling it to expand cash credit granting.

On the other hand, we conclude the insignificance of the variable (2x) at a significance level of 5%, as the probability value of the variable's (t) test, which is (0.57), is greater than (0.05). Therefore, we accept the null hypothesis, which states the absence of a significant effect of the bank's capital variable on cash credit and reject the alternative hypothesis. Changes in capital may not affect the amount of credit granted by banks due to their adherence to the policies and regulations of the Central Bank of Iraq. Therefore, an increase in bank capital as a result of Central Bank policy does not necessarily lead to a similar increase in credit volume provided by these banks. The lack of significance of variable (3x) at a 5% significance level is evident, as the probability value for the t-test of the variable (0.44) is greater than (0.05), leading to the acceptance of the null hypothesis of no significance level is observed, as the probability value for the t-test of the variable (x4) at a 5% significance level is observed, as the probability value for the t-test of the variable (0.03) is less than (0.05), resulting in the rejection of the null hypothesis and acceptance of the alternative hypothesis that there is a significant impact of business growth variable on cash credit.

We also find the significance of variable (x5) at a significance level of 5%, because the probability value of the t-test for the variable, which is (0.00), is less than (0.05). Therefore, we reject the null

hypothesis and accept the alternative hypothesis, which states that there is a significant effect of credit risk variable on cash credit, as the inverse relationship indicates that a decrease in credit risks will encourage banks to expand credit granting, leading to an increase in cash credit.

Similarly, we find the significance of variable (x6) at a significance level of 5%, because the probability value of the t-test for the variable, which is (0.00), is less than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis, which states that there is a significant effect of liquidity risk variable on cash credit, as the direct relationship indicates that an increase in cash credit granting will lead to an increase in liquidity risks, since the majority of the bank's cash resources are from deposits, which may expose the bank to liquidity-related problems.

While the non-significance of the variable (x7) was evident at a significance level of 5%, as the probability value of the variable's t-test (0.10) is greater than (0.05), we accept the null hypothesis that there is no significant effect of the capital risk variable in cash credit and reject the alternative hypothesis.

On the other hand, we find that the coefficient of determination (R2) reached 0.53, meaning that 53% of the variations in the dependent variable are caused by the independent variables, while 47% of the variations are caused by variables not included in the model.

I abi	e (2) Results of the	e Fixeu Effects Moue		
Dependent Variable: Y?				
Method: Pooled Least Squares				
Date: 10/30/23 Time: 23:48				
Sample: 2004 2020				
Included observations: 17				
Cross-sections included: 10				
Total pool (balanced) observation	ons: 170			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-9.70E+11	8.33E+10	-11.65407	0.0000
X1?	1.35E+11	1.09E+10	12.38539	0.0000
X2?	10545253	87427230	0.120617	0.9042
X3?	-173869.5	1141784.	-0.152279	0.8792
X4?	765181.3	4.78E+08	0.001601	0.9987
X5?	-4.01E+08	84187879	-4.759991	0.0000
X6?	9.11E+08	1.21E+08	7.502399	0.0000
X7?	-4.41E+08	2.03E+08	-2.167661	0.0317
Fixed Effects (Cross)				
BBOB—C	-1.21E+11			
BNOI—C	-8.68E+10			
BCOI—C	8.85E+11			
BIME—C	-1.23E+11			
BROI—C	-1.66E+11			
BSUC—C	-8.64E+10			
BGUC—C	-6.73E+10			
BMFI—C	-9.99E+10			
BUND—C	-2.58E+10			
BIBI—C	-1.09E+11			
	Effects Sp	ecification		
Cross-section fixed (dummy vari	iables)			
Root MSE	4.41E+10	R-squared		0.803526
Mean dependent var	9.56E+10	Adjusted R-square	ed	0.782979

Fixed Effects Model (FEM) Estimation:

Table (2) Results of the Fixed Effects Model (FE	M)
--	----

Hannan-Quinn criter.	52.18522	F-statistic	39.10797
Durbin-Watson stat	0.637858	Prob(F-statistic)	0.000000

Source: Prepared by the researcher based on the outputs of Eviews 12 software

By observing Table (16), the significance of the constant term (c) at a significance level of 5% is evident, as the probability value of the variable's t-test (0.000) is less than (0.05), so we reject the null hypothesis and accept the alternative hypothesis.

Also, the significance of variable (x1) is shown at a significance level of 5%, because the probability value of the variable's (t) test, which is (0.000), is less than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis which suggests a significant effect of the bank size variable on cash credit. The positive relationship confirms that an increase in bank size will provide additional resources enabling the bank to expand cash credit granting.

On the other hand, we conclude the insignificance of variable (2x) at a significance level of 5%, because the probability value of the variable's (t) test, which is (0.90), is greater than (0.05). Therefore, we accept the null hypothesis which suggests no significant effect of bank capital variable on cash credit and reject the alternative hypothesis. Despite changes in capital, economic, political, and security instability will lead the bank to fear expansion in credit granting. Therefore, a change in bank capital will not reflect on cash credit.

Similarly, the lack of significance of the variable (3x) is evident at a significance level of 5%, as the probability value of the t-test for the variable, which is 0.87, is greater than 0.05. Therefore, we accept the null hypothesis that there is no significant effect of stable funding sources on cash credit and reject the alternative hypothesis.

Also, we find the lack of significance of the variable (x4) at a significance level of 5%, as the probability value of the t-test for the variable, which is 0.99, is greater than 0.05. Therefore, we accept the null hypothesis that there is no significant effect of business growth variable on cash credit and reject the alternative hypothesis.

Furthermore, we find the significance of the variable (x5) at a significance level of 5%, as the probability value of the t-test for the variable, which is 0.00, is less than 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis that there is a significant effect of credit risks variable on cash credit. The inverse relationship indicates that a decrease in credit risks will encourage banks to expand credit issuance, leading to an increase in cash credit.

We also find the significance of variable (x6) at a significance level of 5%, because the probability value of the t-test for the variable is (0.00) less than (0.05), so we reject the null hypothesis and accept the alternative hypothesis which states the existence of a significant effect of liquidity risk variable in cash credit. The negative relationship indicates that increasing cash credit will lead to higher liquidity risks, as the majority of the bank's cash resources come from deposits, which may expose the bank to liquidity-related problems.

While the insignificance of variable (x7) is evident at a significance level of 5%, because the probability value of the t-test for the variable is (0.03) less than (0.05), so we reject the null hypothesis and accept the alternative hypothesis which suggests a significant effect of capital risk variable in cash credit, and where the inverse relationship shows that a decrease in capital risks will push the bank to expand credit granting.

On the other hand, we find that the value of the determination coefficient (R2) reached (0.53), which means that (53%) of the variations in the dependent variable are caused by the independent variables, while (47%) of the variations are caused by variables not included in the model. It is also noted that the value of the determination coefficient (R2) reached (0.80), which means that (80%) of the variations in the dependent variable are caused by the independent variables, while (20%) of the

variations are caused by variables not included in the model. Additionally, it is observed that the value of the F-test reached (39.107) and is significant at the 5% level, indicating that the model is stable. We find that the Iraqi Commercial Bank has the highest positive impact of its indicators on cash credit, while the Credit Bank has the highest negative impact of its indicators on cash credit.

Estimation of Random Effects Model (REM):

Table (3) shows the results of estimating the Random Effects Model (REM).

Dependent Variable: Y?								
Method: Pooled EGLS (Cross-sect	ion random effects)							
Date: 10/31/23 Time: 00:09								
Sample: 2004 2020								
Included observations: 17								
Cross-sections included: 10								
Total pool (balanced) observation	ıs: 170							
Swamy and Arora estimator of component variances								
Variable	Coefficient	Std. Error	t-Statistic	Prob.				
С	1.75E+10	1.99E+10	0.875542	0.3826				
X1?	8.22E+09	2.14E+09	3.843027	0.0002				
X2?	44029411	82346856	0.534682	0.5936				
X3?	789525.7	1057691.	0.746461	0.4565				
X4?	-1.59E+09	4.62E+08	-3.442154	0.0007				
X5?	-4.67E+08	75533516	-6.182002	0.0000				
X6?	1.34E+09	1.02E+08	13.16070	0.0000				
X7?	3.10E+08	1.94E+08	1.593314	0.1130				
Random Effects (Cross)								
BBOB—C	1.21E+10							
BNOI—C	-4.62E+09							
BCOI—C	1.08E+10							
BIME—C	5.67E+09							
BROI—C	-1.23E+10							
BSUC—C	-1.42E+10							
BGUC—C	8.90E+09							
BMFI—C	-9.05E+09							
BUND—C	6.05E+09							
BIBI—C	-3.48E+09							
	Effects S	Specification						
			S.D.	Rho				
Cross-section random 7.85E+09								
Idiosyncratic random 4.65E+10								
	Weighte	ed Statistics						
Root MSE	Root MSE 6.59E+10 R-squared							
Mean dependent var	7.85E+10	Adjusted R-squared		0.487407				
S.D. dependent var	9.43E+10	9.43E+10 S.E. of regression 6.75E						
Sum squared resid 7.39E+23 F-statistic 23.95								
Durbin-Watson stat	0.465194	0.465194 Prob(F-statistic) 0.00000						

Source: The researcher's preparation based on the outputs of the Eviews 12 program.

By observing Table (17), it appears that the constant limit (c) is not significant at a 5% significance level, as the probability value of the t-test for the variable, which is (0.38), is greater than (0.05). Therefore, we accept the null hypothesis and reject the alternative hypothesis. Also, the significance of the variable (x1) is shown at a 5% significance level, as the probability value of the t-test for the variable, which is (0.000), is less than (0.05). Therefore, we reject the null hypothesis and accept the

alternative hypothesis, which indicates a significant impact of the bank size variable on cash credit. The positive relationship confirms that an increase in bank size will provide additional resources to the bank, enabling it to expand cash credit. An increase in bank size by (1%) will lead to an increase in cash credit by an amount of (8,220,000,000) dinars.

While we conclude the non-significance of the variable (2x) at a significance level of 5% due to the probability value of the variable's t-test (0.59) being greater than (0.05), we accept the null hypothesis that there is no significant effect of the bank's capital variable on cash credit and reject the alternative hypothesis. Despite changes in capital, economic, political, and security instability will lead the bank to fear expanding credit, so a change in the bank's capital will not affect cash credit. An increase in capital by one unit leads to an increase in cash credit by (44,029,411) dinars.

Similarly, the lack of significance of the variable (3x) is evident at the 5% significance level, as the probability value of the t-test for the variable (0.45) is greater than (0.05). Therefore, we accept the null hypothesis that there is no significant effect of stable sources of financing on cash credit and reject the alternative hypothesis. An increase in stable sources of financing by one unit leads to an increase in cash credit by (789526) dinars.

Similarly, we find the lack of significance of the variable (x4) at the 5% significance level, as the probability value of the t-test for the variable (0.00) is greater than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis that there is a significant effect of business growth variable on cash credit.

Also, we find the significance of the variable (x5) at the 5% significance level, as the probability value of the t-test for the variable (0.00) is less than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis that there is a significant effect of credit risk variable on cash credit. The inverse relationship shows that a decrease in credit risks will encourage banks to expand credit issuance, leading to an increase in cash credit. A decrease in credit risks by one unit leads to an increase in cash credit by (467,000,000) dinars. We also find that the significance of the variable (x6) at a significance level of 5% because the probability value of the variable's t-test, which is (0.00), is less than (0.05). Therefore, we reject the null hypothesis and accept the alternative hypothesis, which states that there is a significant effect of liquidity risk variable on cash credit. The negative relationship indicates that an increase in cash credit issuance will lead to an increase in liquidity risks as the majority of the bank's cash resources come from deposits, which may expose the bank to liquidity-related problems. A decrease in credit risks by one unit leads to an increase in cash credit by (1,340,000,000) dinars.

While the non-significance of the variable (x7) is evident at a significance level of 5%, as the probability value of the (t) test for the variable is (0.11) which is greater than (0.05), hence we accept the hypothesis of non-significance indicating a significant effect of the capital risk variable on cash credit, rejecting the alternative hypothesis. A decrease in credit risk by one unit leads to an increase in cash credit by (310,000,000) dinars. It is also noted that the coefficient of determination (R2) reached (0.50), meaning that (50%) of the variations in the dependent variable are caused by the independent variables, while (50%) of the variations are caused by variables not included in the model. Additionally, the F-test value reached (23) and is significant at a 5% level, indicating model stability.

We find that the Bank of Baghdad has the highest positive impact on its cash credit indicators, while we find that the Bank of Sumer has the highest negative impact on its cash credit indicators. The following is a summary of the previous results of the three models:

Variabl e	Significance at 5%		Determination Coefficient R2			F-test			
	PRM	FEM	REM	PR M	FE M	RE M	PR M	FEM	REM
X1	Significance	Significance	Significance						
X2	Insignifican	Insignifican	Insignifican						
	ce	ce	ce						
X3	Insignifican	Insignifican	Insignifican						
	се	се	ce						
X4	Significance	Insignifican	Significance	53	80	50		Significan	Significan
		ce		%	%	%	-	ce	ce
X5	Significance	Significance	Significance		70	70			
X6	Significance	Significance	Significance						
X7	Insignifican	Significance	Insignifican]					
	ce		ce						

Table (4) Results of the three models

Source: Prepared by the researcher based on the estimation of the previous models

Secondly - Choosing the appropriate model

To choose the appropriate model, whether it is the fixed effects model or the random effects model, the Housman test will be relied upon, which is calculated using Eviews 12 software based on the following hypotheses:

H0: The fixed effects model is better than the random effects model.

H1: The random effects model is better than the fixed effects model.

After conducting the test, it was found that the test result is as shown in the following table:

Table (5) Housman Test value						
Correlated Random Effects - Hausman Test						
Pool: BANKS						
Test cross-section random effects						
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.			
Cross-section random	186.784860	7	0.0000			

Table (5) Housman Test Value

Source: Prepared by the researcher based on the outputs of the Eviews 12 program.

We notice that the probability value reached (0.00) which is less than (0.05), so we reject the null hypothesis and accept the alternative hypothesis, which means that the random effects model is the best among the previous models.

Thirdly - Measuring the long-term relationship between research variables:

Testing the stationarity of model variables:

In order to test the stationarity of the cross-sectional time series of model variables, the unit root test specific to cross-sectional time series will be used, including the following tests:

- A- Levin, Lin, Chu test: This test yields two hypotheses:
- H0: The cross-sectional data contain a unit root.
- H1: The cross-sectional data do not contain a unit root.

Variable	Estimated Parameter	Value Probability	Integration Level
X1	-9.98659	0.0000	10
X2	-1.96661	0.0246	10
X3	-6.60383	0.0000	10
X4	-3.81544	0.0001	10
X5	-10.3471	0.0000	IO
X6	-12.8897	0.0000	IO
X7	-3.03703	0.0012	IO
Y	-2.56166	0.0052	IO

Table (6) Results of the stationarity tests of research variables.

Source: Prepared by the researcher based on the outputs of the Eviews 12 program.

It is observed through Table (20) that all variables are stable at the level, thus rejecting the hypothesis of non-stationarity and accepting the alternative hypothesis that there is no unit root in the panel time series.

Common Integration Test

After confirming the stationarity of the time series and that each of them is integrated of the same order, the existence of the equilibrium relationship between these variables in the long term is tested through common integration tests. These tests differ from their counterparts in regular time series, and among these tests are the Pedroni test and the Kao test based on the following hypotheses:

- H0: No common integration in the cross-sectional data
- H1: Common integration in the cross-sectional data

Table (7) Results of the common integration test for the research variables.

Kao Residual Cointegration Test					
Series: Y? X1? X2? X3? X4? X5? X6	5? X7?				
Date: 10/31/23 Time: 13:27					
Sample: 2004 2020					
Included observations: 17					
Null Hypothesis: No cointegration	n				
Trend assumption: No determini	stic trend				
Automatic lag length selection ba	ised on SIC with a i	nax lag of 3			
Newey-West automatic bandwidt	th selection and Ba	rtlett kernel			
			t-Statistic	Prob.	
ADF -4.820694 0.0000					
Residual variance 1.19E+21					
HAC variance			1.26E+21		

Source: Prepared by the researcher based on the outputs of the Eviews 12 program.

It is evident from Table (21) that the probability value for the test of cointegration is (0.00) which is less than (0.05), therefore we reject the null hypothesis and accept the alternative hypothesis which indicates the presence of a cointegration relationship between the variables in the long term, meaning that there is an impact of independent variables on the dependent variable.

CONCLUSION AND RECOMMENDATIONS

Conclusion

1) Bank characteristics, such as bank size, bank capital, stable funding sources, business growth, and good diversification, have a significant impact on achieving higher credit growth compared to small banks due to their ability to lend to a wider range of borrowers.

Recommendations

1) Enhancing transparency: Banks should improve their transparency practices by providing accurate, comprehensive, and up-to-date information about lending activities, credit risk management, and other relevant factors that could impact credit growth.

2) Strengthening risk management: Banks should prioritize effective risk management practices to reduce potential losses from non-performing loans and credit defaults.

SOURCES AND REFERENCES

Books:

- 1- Al-Zubaidi, Hamza Mahmoud, Banking Management: Deposit Mobilization and Credit Provision Strategy, Dar Al-Warraq Publishing and Distribution Establishment, Revised Edition, Amman, 2011.
- 2- Kanaan, Ali, Money, Banking, and Monetary Policy, Dar Al-Minhaj Lebanese Publishing and Distribution House, 1st edition, 2012.

Foreign sources:

Researches:

- 1- Aiyar, S., Calomiris, C. W., & Wieladek, T. (2015). Does macropru leak? Evidence from a UK policy experiment. Journal of Money, Credit and Banking, 47(S1), 1-46.
- 2- Allen, F., Carletti, E., & Marquez, R. (2011). Credit market competition and capital regulation. The Review of Financial Studies, 24(4), 983-1018.
- 3- Altunbas, Y., Carbo-Valverde, S., & Rodriguez-Fernandez, F. (2002). Bank risk and expected returns in European banking. Journal of Banking & Finance, 26(5), 861-881.
- 4- Berger, A. N., & Bouwman, C. H. S. (2013). How does capital affect bank performance during financial crises? Journal of Financial Economics, 109(1), 146-176.
- 5- Berger, A. N., & Frame, W. S. (2017). Small business credit and the COVID-19 pandemic. Journal of Banking & Finance, 119, 106016.
- 6- Berger, A. N., & Udell, G. F. (2002). Small business credit availability and relationship lending: the importance of bank organizational structure. The Economic Journal, 112(477), F32-F53.
- 7- Berger, A. N., & Udell, G. F. (2002). The effect of bank characteristics on loan quality. Journal of Financial Research, 25(3), 383-403.
- 8- Bikker, J. A., & Haaf, K. (2002). Competition, concentration and their relationship: An empirical analysis of the banking industry. Journal of Banking & Finance, 26(11), 2191-2214.
- 9- Cetorelli, N., & Goldberg, L. S. (2012). Banking globalization and monetary transmission. Journal of Finance, 67(5), 1811-1843.
- 10- De Nicoló, Gianni, and others, 2005, "European Financial Integration, Stability and Supervision," in Euro Area Policies; Selected Issues, by Anthony Annett and others, IMF Country Report No. 05/266 (Washington: International Monetary Fund.(

- 11- Dell'Ariccia, Giovanni, and Robert Marquez, 2006, "Lending Booms and Lending Standards," Journal of Finance, Vol. 61, No. 5, pp. 2511-46.
- 12- Égert, Balázs, Peter Backé, and Tina Zumer, 2006, "Credit Growth in Central and Eastern Europe: New (Over) Shooting Stars?" unpublished (Vienna: Oesterreichische Nationalbank)
- 13- emirgüç-Kunt, A., & Huizinga, H. (2010). Bank activity and funding strategies: The impact on risk and returns. Journal of Financial Economics, 98(3), 626-650.
- 14- Gourinchas, P.O., R. Valdes, and O. Landerretche, 2001, "Lending Booms: Latin America and the World," Economia, Spring Issue, pp. 47–99.
- 15- Hall, S.G., 1987, "A Forward "Looking Model of the Exchange Rate," Journal of Applied Econometrics, Vol. 2, No. 1, pp. 47–60.
- 16- Hilbers, Paul, and others, 2005, "Assessing and Managing Rapid Credit Growth and the Role of Supervisory and Prudential Policies," IMF Working Paper No. 05/151 (Washington: International Monetary Fund)
- 17- Kónya, István, and Hiroshi Ohashi, 2005, "International Consumption Patterns among High-Income Countries: Evidence from the OECD Data," CIRJE Discussion Papers, CIRJE-
- 18- Lam, K. (2016). Stable funding sources, deposit composition, and credit supply: Evidence from Asia. Pacific-Basin Finance Journal, 40, 1-12.
- 19- Ongena, S., & Popov, A. (2016). Small businesses and access to credit: Evidence from the Federal Reserve survey of small business finances. Finance and Economics Discussion Series, 2016-057.
- 20- Ongena, S., & Popov, A. (2016). The invisible hand of the government: "Moral suasion" during the European sovereign debt crisis. Journal of Financial Economics, 122(3), 456-478.
- 21- Suganya S.Jeyan & Kengatharan.L .," Impact Of Bank Internal Factors On Profitability Of Commercial Banks In Sri Lanka: A Panel Dataanalysis", Journal Of Business Studies, 5 (1), 2018
- 22- Xu, Jian, Haris, Muhammad & Irfan, Muhammad " The Impact of Intellectual Capital on Bank Profitability during COVID-19: A Comparison with China and Pakistan ", Research Article Hindawi Complexity, Volume, 2022.