The role of marginal capital adequacy in reducing risks and enhancing banking performance

an analytical study of a sample of commercial banks in Iraq

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Abstract

Capital adequacy and risk management in banks is one of the most important topics that economists have given great attention to, both economically and from a banking perspective, following the crisis that struck the global economy and led to the bankruptcy of several major banks. This research aims to analyze the relationship between capital, risk management, and banking performance, taking into account the challenges and special circumstances facing Iraqi banks. Given the importance of the topic at the local and international levels, international regulatory bodies have set standards and criteria for the adequacy of commercial banks' capital, the risks they face, the magnitude of these risks on banking sector indicators, and the measurement of their impact on capital and risk-weighted assets. Given the inadequacy of some provisions of international standards with the nature of private businesses in Iraq due to the underdevelopment of the banking sector in Iraq, this research attempts to shed light on the impact of capital adequacy on commercial banks.

Keywords: *Marginal capital adequacy, risks, commercial banks, banking performance, banks*

Introduction

Research Problem

Considering the significant developments in commercial banking activity globally and the increased risks they face, capital adequacy standards have emerged and developed significantly through the issuance of the three Basel Accords. However, commercial banks in Iraq still fall below the required level in keeping pace with these developments. Hence, the problem of determining the extent of capital adequacy applied to the performance of commercial banks operating in Iraq can be raised.

Research Hypothesis

The research is based on the hypothesis that there is a positive relationship between marginal capital adequacy and the performance of commercial banks, as marginal adequacy affects the performance of commercial banks and is affected by them.

Research objectives

The research seeks to achieve several objectives, the most important of which is to study the most important developments characterizing banking activity, as well as to understand capital adequacy and its impact on the banking sector. This is achieved by examining the impact of the relationship between them according to the controls established by the Basel Committee, with a focus on capital adequacy. This research also seeks to achieve the following objectives:

1. To understand the concept of capital adequacy in banks and how to estimate it.
2. To study the various provisions of the Basel Accords regarding capital adequacy in banks, and to identify the banking system related to capital adequacy in commercial banks, strengthening the credibility of the financial and banking system in Iraq, and the resulting balance between banking risk and return, which is reflected in maximizing the value of commercial banks.

Research structure

The research was divided into two sections. The first section dealt with capital adequacy and commercial banks - the theoretical and conceptual framework. The second section focused on marginal capital adequacy indicators and their role in improving banking performance in the banks of the study sample. The research concluded with a set of conclusions and recommendations.

1-Capital Adequacy and Commercial Banks - Theoretical and Conceptual Framework

To understand the foundations of the relationship between capital adequacy and commercial banks, we need to understand capital adequacy, the risks to which they are exposed, and the impact of these risks on commercial banks. To understand these risks and their impact on the relationship between the two study variables, the first section of the research is as follows:

First: The concept of capital adequacy: is defined as the awareness and awareness of various types of risks that commercial banks may be exposed to in their operational processes. This relationship can be expressed through the following equation:

$$\textbf{Risky assets equity ratio} = \frac{\textbf{intellectual property rights}}{\textbf{Risky assets}}$$

Risky assets are defined as all assets except liquid assets (cash, balances at the central bank, balances at banks and financial institutions), Examples of risky assets include secured or unsecured loans, other securities, and long-term investments (Khrioush, Hosni, et al., 2004, 59-77.).

Capital adequacy refers to the ability and efficiency of commercial banks to measure, direct, and monitor the risks they face, with the aim of limiting and controlling them, making decisions that are consistent with their strategy and policies, and strengthening their competitiveness. Capital adequacy also helps in pricing banking services and maximizing the returns of bank operations. It also helps in establishing the necessary policies and procedures to prevent various types of risks, which arise as a result of technological and electronic developments, increasing complexity in banking operations, and intense competition among banks. Therefore, commercial banks are obligated to provide sufficient capital coverage to confront any potential risks they may be exposed to, and to develop an appropriate strategy to maintain this coverage, ensuring that the bank remains above the specified ratio, avoiding intervention by monetary authorities to prevent its decline. This is known as corrective action (Saud Musa Al-Tayeb, 2011, p359).

This ratio illustrates the relationship between a bank's capital sources and the risks surrounding its assets and any other operations. The capital adequacy ratio is a tool for measuring a bank's ability to meet its obligations and address any future losses. In other words, increased capital adequacy in banks is an indicator of protecting depositors' funds, helping to reduce the risks of crises that a bank may be exposed to, especially the costs of bankruptcy (Ezz El-Din Mustafa Al-Kour, 2010).

Second: Capital components according to the Basel Committee's decisions: Capital adequacy is determined based on the following considerations:

1- Linking the bank's capital reserves to the risks arising from its various activities, regardless of whether they are included on the bank's balance sheet or off-balance sheet.

2- Dividing capital into two groups or tranches:

First // Core capital: Includes shareholders' equity + declared reserves, general and legal reserves + undistributed or retained earnings.

Second // Supplementary capital: Not exceeding 100% of core capital, and includes undisclosed reserves + asset revaluation reserves + reserves to meet bad debts + medium- and long-term lending from shareholders + securities (stocks and bonds that convert to shares after a period). The decisions also stipulate that debt to third parties (i.e., capital bonds) should not exceed a maximum of 50% of supplementary capital.

Risks Surrounding Commercial Bank Assets:

1- Liquidity Risk : represents the current and future risks associated with commercial banks' profitability and capital. These risks arise from banks' inability to meet their obligations as they fall due, as well as their inability to manage unexpected declines or changes in funding sources. Liquidity risk increases when banks are unable to anticipate new demand for loans or deposit withdrawals and are unable to access new sources of cash to cover these demands. Liquidity risk can be measured using the following equation:

$$\textbf{\textit{Liquidity Risk}} = \frac{\textbf{\textit{Liquid Assets}}}{\textbf{\textit{Total Liabilities}}}$$

Liquid assets represent cash and balances with the central bank and balances with banks and financial institutions, while total liabilities represent all long-term and short-term obligations such as current and savings deposits.

2- Interest Rate Risk: It is the risk resulting from interest rate fluctuations that may have a negative impact on banks' revenues and capital, as banks face these risks as financial intermediaries. Therefore, interest rate risks may pose a significant threat to the bank's profits and capital. (Nasr Abdel Karim, Mustafa Abu Salah, 2007, p11)

Interest rate risks are measured using the following equation:

$$\textbf{\textit{Interest rate risk}} = \frac{\textbf{\textit{Interest rate sensitive assets}}}{\textbf{\textit{Interest rate sensitive liabilities}}}$$

Interest rate-sensitive assets represent credit facilities, while sensitive liabilities represent customer deposits, bank and banking institution deposits, and borrowed

funds. The literature indicates that there is an inverse relationship between interest rate risks and capital adequacy, meaning that an increase in capital risks leads to a decrease in capital adequacy (bank solvency), and vice versa.

3- Return on Equity (ROE): This ratio expresses the return owners achieve on their investment in the bank. It is considered one of the most important profitability ratios used, as based on this ratio, owners may decide to continue the activity or transfer funds to other investments that achieve an appropriate return. This model has been used since the early seventies in the United States of America by David Cole, as a measure to evaluate the performance of banks. It is summarized in several forms that enable the analyst to evaluate the source and size of the bank's profits related to selected risks, mainly credit risk, liquidity risk, interest rate risk, capital risk, and operational risk.(Muhammad Qureshi, 2004, 89-95.)

This variable can be measured using the following equation:

$$\textbf{Return on Equity} = \frac{\textbf{Net Profit After Tax}}{\textbf{Total Equity}}$$

This ratio reflects the bank's efficiency and success in investing its funds. Financial and banking literature has demonstrated a direct relationship between the return on equity and the degree of capital adequacy. This means that any increase in the return on equity will lead to an increase in the degree of capital adequacy, and vice versa.

4- Return on Assets (ROA): This ratio represents all the assets owned by the bank and their ability and efficiency to generate profits over a specific period of time. In other words, it demonstrates the bank's success in investing its assets and its adequacy in directing them toward profitable investment opportunities. This ratio is measured using the following equation:

$$\textbf{Return on Assets} = \frac{\textbf{Net Profit After Tax}}{\textbf{Total Assets}}$$

5- Capital Risk: This represents the probability of a bank's inability to meet its obligations. A bank is unable to meet its obligations when it faces negative equity. A bank's net equity is determined by the difference between the market value of its assets and the market value of its liabilities. Capital risk can be measured as follows:

$$\textbf{Capital Risk} = \frac{\textbf{Paid} - \textbf{up Capital}}{\textbf{TRisk} - \textbf{Weighted Assets}}$$

Paid-up capital represents invested capital, while risk-weighted assets represent all assets excluding cash and balances with banks and financial institutions (Hill Ajami Al-Janabi, 2005, 273).

Financial and banking literature indicates a close relationship between capital risk and capital adequacy, represented by the ratio of equity to risk-weighted assets. This means that increased capital risk requires increased capital adequacy to

address investment risks, which ultimately requires the bank to increase equity to address capital risks. Thus, it becomes clear that the relationship between capital risks and capital adequacy is an inverse relationship, meaning that an increase in capital risks leads to a decrease in capital adequacy (bank solvency) and vice versa.

6- Credit Risk (CR) Credit risk arises when banks provide loans or credit to individuals and various economic sectors, but the borrower is unable to repay the loan amount and interest. This may result from the borrower's inability to repay the loan amount and interest by the due date, or because the borrower has the financial ability to repay but does not wish to do so for one reason or another. Therefore, credit risk represents the losses that banks may incur due to the customer's inability to fulfill their obligation or their lack of intention to repay the loan principal and interest (Kamal Raziq, Farid Kurtal, 2007).

This variable can be measured using the following equation:

$$\textbf{Credit Risk} = \frac{\textbf{Total Loans} - \textbf{Provisions for Doubtful Debts}}{\textbf{Total Assets}}$$

Financial and banking literature indicates an inverse relationship between credit risk and bank credit, meaning that the lower the bank credit risk, the higher the bank credit, which leads to a higher equity ratio for risky assets and a higher margin of safety against investment risks.

Third // The Concept of Commercial Banks:

Banks that grant short-term loans and accept deposits that can be withdrawn on demand or after a short period are called commercial banks. The basic criterion that distinguishes commercial banks from other banks is that their economic activity is focused on short-term credit operations and accepting deposits on demand. Most of commercial banks' short-term loans focus on financing commercial transactions, given that their resources depend primarily on deposits that can be withdrawn on demand. This does not mean that they are limited to this type of financing alone, but rather extends to providing all types of lending, whether medium- or long-term (Falih Hassan Khalaf Al-Ghazi, 1976, p29). Commercial banks can be defined as banks that routinely accept deposits payable on demand or for limited periods, engage in domestic and foreign financing operations, and undertake savings and financial investment development operations at home and abroad. They also contribute to the establishment of projects and the banking, commercial, and financial operations required by them, in accordance with the conditions determined by the Central Bank (Mahmoud Younis, Abdel-Nasser Mubarak, 1982, p130).

Fourth // Sources of Financing for Commercial Banks:

Financing sources are the bank's obligations that appear on the liabilities side of the bank's balance sheet (Sayed Mahmoud Al-Hawari, 1987, p212), which contains all sources from which the commercial bank is financed and is divided into internal and external sources.

1- **Internal Sources:** Consisting of the bank's own funds, this group consists of:

A- Paid-up capital, represented by the amounts paid by the bank's owners or shareholders to form the capital. This source represents a small percentage of the total funds the bank obtains from all sources. However, the importance of this source cannot be overstated, as capital helps create confidence among the bank's clients, especially depositors.

B- Retained earnings: Profits are retained in banks for various reasons and represent a part of shareholders' equity. Some see them as a means of obtaining the necessary funds for internal investment. The forms that these profits take can be divided into reserves (which are deducted from profits to meet any emergency at the time of forming the reserve and have different types), provisions (which are the value of assets and represent their actual value at the date of preparing the budget, and profits are usually charged with the value of these provisions), and undistributed profits or retained profits (which are distributable in the form of dividends, and the management may distribute a part of them and retain another part in the form of undistributed profits, and they remain retained and distributable whenever the bank wishes).

2- **External Sources**: External sources of financing for banks are divided into several categories, the most important of which are:

A- Long-term debt securities: Reserve capital, allocations, and undistributed profits are the traditional internal sources of funds for commercial banks. Modern sources include long-term debt securities, which are external sources and are issued by the bank and sold to the public and institutions. The bank retains the resulting funds within its own funds and has the right of priority to repay deposits upon liquidation of the bank's operations (Ziad Salim Ramadan, and Mahfouz Ahmed Joda, 2000, p55).

B- Deposits: Deposits are generally one of the most prominent external sources of financing for banks. Both domestic and foreign deposits constitute the primary source of funds for commercial banks (Falih Hassan Khalaf Al-Ghazi,1976, p25.)

C- Borrowing from the Central Bank or other banks: Borrowing from the Central Bank is an external source of financing, and occurs when the bank's own resources are insufficient to finance its operations. The Central Bank rarely refuses to assist banks facing a liquidity crisis or other emergency. However,

resorting to this source should only be in extreme circumstances, as central banks consider it a rare source of lending to commercial banks, and that lending from them is a privilege granted to commercial banks (Abdul Hamid Siddiq Abdul Barr, 1999, p120).

E- External credit facilities as a source of financing: These are loans and credits obtained by banks from their correspondents abroad. These are usually in foreign currencies. Therefore, this source is not considered a direct source.

2. Marginal Capital Adequacy Indicators and Their Role in Improving Banking Performance in the Study Sample Banks

First // Indicators of the Iraqi Banking System: The Iraqi banking sector consists of (74) banks, divided into (7) government banks, including three commercial banks, three specialized banks, and one Islamic bank, with (389) branches distributed inside and outside Iraq. The number of private banks is (67), including (28) local Islamic banks, (25) commercial banks, (12) foreign commercial banks, and two commercial banks. Table (1) shows an increase in the number of banks and branches operating in Iraq.

Table (1) Number of Banks and Branches Operating in Iraq

Year	Total Number of Banks	Number of Branches	Private Banks	Number of Branches	Government Banks
2014	38	576	32	424	6
2015	64	830	57	405	7
2016	72	866	65	413	7
2017	76	834	69	430	7
2018	78	864	71	427	7
2019	80	888	73	430	7
2020	83	891	76	432	7
2021	81	904	74	411	7
2022	80	907	75	414	7
2023	82	911	77	416	7

Source: *From the researcher's work based on Munther Aliwi Hamid, Mona Shaheen Hussein, Banking Performance between Financial Inclusion and Development Financing in Achieving Sustainable Development in Iraq after 2004, Al-Kut Journal of Economics and Administrative Sciences, Volume (16), Issue: 54-2024, p. 191.*

The efficiency of the banking spread map indicates that the banking density in Iraq rose from (29.9) in (2014) to 46.20 in (2022), while the banking spread index decreased from (3.34) in (2014) to reach 2.2 in (2021) with the increase in the population.

Table (2) Population rate, density index and banking penetration

Year	banking penetration	banking density	number of bank branches	Population (thousand people)
2014	3.34	29.9	1204	36.004
2015	2.31	43.2	1213	36.933
2016	2.29	43.7	1068	37.883
2017	2.27	44.05	843	37.140
2018	2.26	44.16	865	38.200
2019	2.25	44.25	888	39.300
2020	2.21	45.06	891	40.150
2021	2.2	45.51	905	41.195
2022	2.3	46.20	907	41.225

Source: *From the researcher's work based on Munther Aliwi Hamid, Mona Shaheen Hussein, Banking Performance between Financial Inclusion and Development Financing in Achieving Sustainable Development in Iraq after 2004, Al-Kut Journal of Economics and Administrative Sciences, Volume (16), Issue: 54-2024, p. 191.*

As for working capital, it recorded a remarkable increase in the year (2021) by (5.3) percent, recording an amount of (17.8) trillion dinars compared to (16.9) trillion dinars in the year (2020), in order to meet the decision of the Central Bank, which requires banks to increase their capital and funds to (250) billion. From Table (3), we can see the increase in the size of assets, liabilities, and the size of deposits.

First // Assets: Total assets at the end of 2021 recorded an increase of (8.4%) and a value of (28.9) trillion dinars, compared to (26.7) trillion dinars in (2020), with a significant contribution of (20.2%). This is attributed to changes in the exchange rate at the end of 2020 (Central Bank of Iraq, 2021, p39).

Table (1) shows the relative importance of the components of the assets of the consolidated balance sheet of commercial banks for the year 2021, as current deposits with the Central Bank of Iraq occupied 27.5%, followed by debts on the private sector and other sectors at 25.2%, and then foreign assets at 20.2%. Second // Liabilities: Total liabilities of commercial banks increased by the end of 2021 by (15.6) compared to (2020) and a value of (28.9) trillion dinars compared to (26.7) trillion dinars in (2020) with a significant contribution rate of (20.2%). This is attributed to the increase in all its components, as current deposits increased by (18.1%) to reach (43.9) trillion dinars compared to (37.2) trillion dinars in (2020) and to record the highest contribution rate of (30.7%) of the total liabilities of banks. This is attributed to the opening of current accounts for settlement on the one hand and the Central Bank's initiative that requires opening a current deposit for the customer with the bank in order to deposit the loan

amount in it until benefiting from another customer. Other liabilities recorded an increase of (13.8%) to reach (16.1%) of the total liabilities of commercial banks, as shown in Table (3).

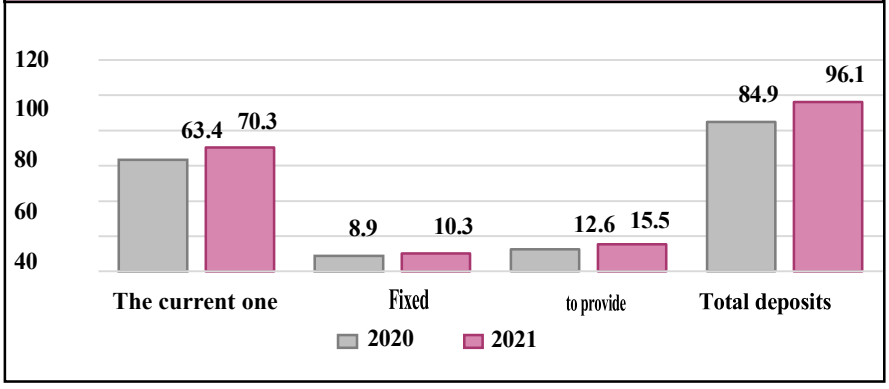
Table (3) Assets and Liabilities of Commercial Banks

Paragraphs	Relative importance%	Change%	2021	2020
Assets				
cash on hand	3.5	-16.7	5,035,598	6,044,136
Current deposits at the Central Bank of Iraq	27.5	41.8	39,364,395	27,768,926
foreign assets	20.2	8.4	28,898,359	26,664,980
government debts	16.8	-5.4	24,069,636	25,452,346
Debts on the private sector and other sectors	25.2	16.5	36,035,305	30,937,352
buildings	2.3	7.0	3,339,607	3,121,884
Other assets	4.6	64.0	6,530,217	3,982,191
Total assets or liabilities	**100**	**15.6**	**143,273,117**	**123,971,815**
Requirements				
Current deposits	30.7	18.1	43,925,173	37,194,354
Savings and fixed deposits	13.7	20.7	19,680,608	16,309,028
Deposits of credits and guarantees	2.8	63.4	4,033,800	2,468,176
government deposits	25.9	8.0	37,145,626	34,383,788
foreign liabilities	0.5	6.6	781,592	733,237
Capital, reserves and allocations	10.2	16.0	14,654,925	12,635,753
Other requirements	16.1	13.8	23,051,393	20,247,479

Source: Researcher's work based on the financial reports bulletin issued by the Central Bank of Iraq.

Third // The volume of deposits : It is clear from Figure (1) that the total volume of deposits increased for the year (2021) compared to the year (2020), as the total deposits increased from (84.9) trillion dinars to (96.1) trillion dinars in 2021.

Figure (1) Deposits in banks operating in Iraq by type of deposit for the year 2020-2021 trillion dinars



Second // Indicators of marginal capital adequacy and their impact on reducing banking risks

1- The ratio of owned capital to deposits: This indicator measures the risk capacity resulting from an increase in deposits from capital (Jamal Hadash Muhammad, and Muhammad Hamid, 2023, p275).

Table (4) shows that the commercial bank with the highest capital adequacy ratio among the banks in the study sample for the specified years was the Trans-Iraq Bank, which reached (5.1736) in (2020). This enabled Trans-Iraq Bank to meet sudden capital withdrawals from depositors without reaching a state of financial difficulty or deficit, while also maintaining a highly sufficient owned capital. The bank that ranked last in terms of the capital adequacy ratio was the Bank of Baghdad.

Table (4) Owned Capital / Deposits

year	Bank Across Iraq	Mansour Bank	Ashur Bank	Mosul Bank	alkhalijBank	Sumer Bank	Credit Bank	National Bank	United Bank	Middle East Bank	Investment Bank	Bank of Baghdad
2014	4.8855	0.4958	2.4589	3.6793	0.7629	1.9150	0.9308	1.0976	1.7024	0.8575	1.1052	0.1960
2015	2.8943	0.3924	2.2371	3.0292	0.8487	3.1562	1.9128	1.5147	1.4055	0.8351	1.0813	0.2992
2016	2.5000	0.3682	2.5043	2.0837	0.7438	3.9470	1.7113	1.9449	2.3200	1.1410	1.0204	0.3416
2017	0.8239	0.2968	2.9951	2.2230	1.2072	2.9794	2.1881	1.5508	2.8626	0.8046	1.0043	0.3875
2018	0.7240	0.2399	1.5133	2.0382	1.3500	3.3238	1.9308	1.3643	2.3610	0.6226	1.0992	0.3392
2019	4.3580	0.2415	1.8817	2.2631	1.5215	4.2982	1.4260	1.0242	4.3695	0.9847	0.9782	0.3407
2020	5.1736	0.2967	2.3337	2.6655	1.6992	4.8160	1.3503	0.7334	1.9945	0.9932	0.8943	0.2594

Source: *Jamal Hadash Muhammad, Muhammad Hamid, The Impact of Capital Expansion on the Structure of Full Expansion Financing: An Analytical Study of a Sample of Nafla for Listing on the Iraq Stock Exchange 2014-2020, Warith Scientific Journal, Vol. 5, 2023, p. 275.*

2- Equity to Assets Ratio: This indicator measures the capital adequacy of banks and determines the extent to which the equity can be used to finance assets. (Jamal Hadash Muhammad, and Muhammad Hamid, 2023, 96.)

Table (5) Ratio of owned capital to assets

year	Bank via Iraq	Mansour Bank	Ashur Bank	Mosul Bank	Gulf Bank	Sumer Bank	Credit Bank	National Bank	United Bank	Bank of the East Middle East	Investment Bank	Bank of Baghdad
2014	0.6611	0.3191	0.6216	0.7553	0.4254	0.6191	0.4641	0.4276	0.5310	0.4495	0.5079	0.1600
2015	0.7234	0.2684	0.5980	0.7185	0.3983	0.7133	0.4880	0.4860	0.5534	0.4117	0.5097	0.1732
2016	0.6650	0.2604	0.6742	0.6478	0.3962	0.7594	0.5976	0.4973	0.6115	0.4292	0.5014	0.2356
2017	0.7893	0.2204	0.7072	0.6066	0.5319	0.6856	0.6618	0.4731	0.5726	0.3620	0.4934	0.2540
2018	0.8353	0.1898	0.5742	0.6486	0.5438	0.6554	0.6299	0.4904	0.5891	0.3340	0.4663	0.2395
2019	0.7701	0.2037	0.6288	0.6545	0.5585	0.7691	0.5686	0.4056	0.5021	0.4060	0.4919	0.2415
2020	0.7844	0.2226	0.5772	0.6783	0.6014	0.7892	0.5573	0.3440	0.4342	0.4088	0.4641	0.1961

Table (5) shows that the highest capital adequacy ratio among the study sample banks was for the Trans Iraq Bank, reaching (0.8353) in (2018).

This indicates that the bank has sufficient capital to preserve the funds of depositors and investors, as well as to guarantee shareholders' rights. It is also a clear indication of the ability of Trans Iraq Bank to meet its current and future obligations and its ability to deal with risks. The lowest capital adequacy ratio was for the Bank of Baghdad, reaching (0.1600) in (2014). Due to this low ratio compared to the banks studied, this is a result of the failure of most of the bank's branches due to the events that occurred in the country, which led to failure and a decline in activities.

Conclusions:

1. The marginal capital adequacy ratios vary among the banks in the research sample. The highest capital adequacy ratio among the banks was held by the Trans-Iraq Bank, reaching 0.8353 in 2018. This indicates that the bank possesses sufficient capital to protect depositors' and investors' funds, as well as to guarantee shareholders' rights. It is also a clear indication of the ability of Trans-Iraq Bank to meet its current and future obligations and its ability to manage risks.
2. The efficiency of the banking spread map (banking density) in Iraq indicates an increase in the banking density index from 29.9 in 2014 to 46.20 in 2022, while the banking spread index decreased from 3.34 in 2014 to 2.2 in 2021, with the increase in population.

Recommendations:

1. Strengthen financial performance measurement tools by using modern tools to measure return on capital (such as ROE and ROA) and analyze profitability by type of investment or loan.
2. Training banking personnel and investing in human capital within the bank itself enhances the availability of a workforce capable of managing risks, analyzing markets, and managing portfolios.
3. Using technology to analyze customer data, evaluate loans, and manage risks increases the efficiency of capital utilization within the bank.
4. Compliance with international standards (such as Basel III), which improves capital quality and ensures a balance between return and risk.

References

1- Central Bank of Iraq. (2021). Annual Economic Report 2021, General Directorate of Statistics.
2- Jamal Hadash Muhammad, Muhammad Hamid.(2023). The Impact of Capital on the Equity Financing Structure: An Analytical Study of a Sample of Commercial Banks Listed on the Iraq Stock Exchange for the Period 2014-2020, Warith Scientific Journal, Volume 5.
3- Hosni Khrioush, et al.(2004). Factors Affecting the Degree of Banking Safety: A Field Study, King Abdulaziz University Journal: Economics and Management, Vol. 18, No. 2.
4- Rizq, Kamal, Kurtal, Farid. (2007). Investment Loan Risk Management in Algerian Commercial Banks, a working paper presented to the Fifth Annual Scientific Conference, Philadelphia University, Jordan.
5- Ziad Salim Ramadan and Mahfouz Ahmad Judeh, Contemporary Trends in Bank Management, first edition, Amman, Wael Printing and Publishing House, 2000.
6- Saud Musa Al-Tayeb and Muhammad Issa Shahateet, An Econometric Analysis of the Application of Capital Adequacy to Commercial Bank Profitability: The Case of Jordan, Studies, Administrative Sciences, Volume 38, Issue 2, 2011.
7- Sayed Mahmoud Al-Hawari, Fundamentals of Banking Management, Cairo, Ain Shams Library, 1987.
8- Abdul Hamid Siddiq Abdul Barr, Money, Banks, and International Financial Markets, Alexandria, Modern Knowledge Library, 1999.
9- Abdul Karim, Nasr, Abu Salah, Mustafa, Operational Risks According to Basel II Requirements: A Study of Their Nature and Management Methods in the Case of Banks Operating in Palestine, Working Paper Submitted to the Fifth Annual Scientific Conference - Philadelphia University, Jordan, 2007.
10- Falih Hassan Khalaf Al-Ghazi.(1976). Bank Credit and Its Role in the Iraqi Economy, Master's Thesis, Submitted to the University of Baghdad, Baghdad University Press.
11- Al-Kour, Ezz El-Din Mustafa .(2010). Structure, Description, Performance, and Competition in the Jordanian Banking Industry, Working Paper, http://www.pdfmachine.com/?cl
12- Muhammad Qureshi.(2004). Collective Evaluation of the Performance of Banking Institutions: A Case Study of a Group of Algerian Banks - During the Period 1994-2000, Al-Baheth Magazine, Issue 3.

13- Mahmoud Younis and Abdul Naeem Mubarak.(1982). Introduction to the Economics of Money and Banking, Alexandria, Shabab Al-Jamiah Foundation.
14- Mundhir Aliwi Hamid, Mona Shaheen Hussein.(2024). Banking Performance between Financial Inclusion and Development Financing in Achieving Sustainable Development in Iraq after 2004, Al-Kut Journal of Economics and Administrative Sciences, Volume (16), Issue(54) .
15- Hil Ajami Al-Janabi.(2005). Commercial Bank Management and Banking, First Edition, Al-Masar Publishing and Distribution House, Mafraq, Jordan.