The effect of applying the capital adequacy standard in improving the quality of the internal control system of banks

Suha Ahmed Mohammed

College of Administration and Economics, Al-Iraqia University, Iraq
Accounting Audit Department, College of Economics and Business Administration, Islamic University of Lebanon, Lebanon
Email: marwansuha@gmail.com

Dr.Rita Naima

Accounting Audit Department, College of Economics and Business Administration, Islamic University of Lebanon, Lebanon
Email: Ritanaimeh@gmail.com

Abstract

The main function of commercial banks is the process of transferring liquid sources of funds such as deposits to less liquid assets, which are loans, and to liquid assets such as present cash and cash equivalents, in a balanced manner between liquid and less liquid assets that guarantee the preservation of the rights of depositors and the bank. Therefore, we find that capital adequacy indicators may reflect a misleading picture of the status of commercial banks, in terms of the strength of their balance sheets and the extent of their commitment to the instructions and standards of Basel ш decisions and the instructions of the Central Bank.In order to find out about this problem and try to find solutions to it, the study aimed to determine the impact of applying what was approved by the Basel ш Committee in determining the optimal capital adequacy ratio. It also represented the study population in the banks listed within the Iraq Stock Exchange. While the study sample consisted of two banks, namely the Bank of Baghdad and the Sumer Commercial Bank, for the period from (1/1/2019) until the period (31/12/2020) .The capital adequacy standard was actually applied in Iraq, specifically in the year 2020. The Central Bank issued a memorandum to all licensed commercial banks in Iraq to start the experimental application of the capital adequacy standard on the thirteenth of November 2018. The actual implementation of it will take place within a year 2019. To find out the difference between before and after the application of this standard and its impact on the capital adequacy of the banks between 2019 before the actual application of the standard in banks and after its

application in 2020. The Social Statistical Sciences (spss) program was also used to analyze and test the hypotheses of the study.

Keywords

Capital adequacy standard **,** Basel III decisions **,** Internal control system

Introduction

Capital adequacy indicators are among the most important international indicators for measuring the degree of insolvency risk of commercial banks. It is used to develop the performance and efficiency of the banking system, protect depositors and enhance financial stability. It also takes into account the most important financial risks, such as credit, liquidity, exchange rates, interest rates, and others. Most of the countries in the world have issued laws specifying the minimum capital required for commercial banks. Interest in the solvency of banks also developed with the establishment of the Basel Committee on Banking Supervision in 1974 within the framework of the Bank for International Settlements, with the aim of regulating the relationship between the adequacy and capital coverage of the risk-weighted assets of banks, given the different legislations applied to banks from one country to another. Basel ı capital adequacy standards were issued in 1988, and were updated in 2004, with the issuance of Basel standards as a result of the emergence of new risks that faced banking activity during that period. In 2010, Basel ш standards were issued, taking into account the risks associated with the global financial crisis that appeared in the year (2007-2008) about the adequacy of bank capital. Banks' capital plays a very important role in maintaining the banking soundness of banks. As it enables the hedge against the losses that banks may be exposed to, which may be reflected in the depositors' funds, and hedging them by strengthening the banks' capital, given that the banks operate in an uncertain environment that leads to their exposure to various risks and losses that may result from them.

Capital Adequacy Ratio (CAR) indicators are also considered one of the most important indicators of financial safety[1] that highlight the nature of the financial and banking sector and the extent of its stability and vulnerability to financial and economic crises. It acts as an early warning tool when the banking sector of countries is exposed to any risks it may face.

The First Axis: Research Methodology

Research Problem

The problem of the current research is evident through the researcher's familiarity with his theoretical problem that he would like to study in commercial

---

[1] - Capital adequacy indicators include the ratio of regulatory capital to risk-weighted assets, the ratio of basic capital to risk-weighted assets, non-performing loans after deducting provisions as a percentage of capital, and a number of other indicators included in the financial safety indicators issued by the Monetary Fund

banks, which is evident through his handling of the research variables (capital adequacy, internal control system). In addition to its broad and open-ended problems, in light of the priorities and priorities that lie with the researcher to take care of them and look at them with (focus, diagnosis, and explanations) and pass through the smallest details to raise the banks' ability to survive and thrive in a manner that meets what the stakeholders hope for.

The research problem can be summarized in the following question:

.1Does the application of the capital adequacy standard in accordance with the requirements of Basel ш have an impact on improving the quality of the internal control system of banks?

Research Objectives

The current study seeks to achieve the following objectives:

(Determining the effects of applying the capital adequacy standard according to the requirements of Basel ш in the quality and activation of supervisory control in the Iraqi banking system)

Research Hypotheses

Each researcher has hypotheses that he guesses and sticks to temporarily, as it is the researcher's primary opinion to solve the research problem, and at the same time it is not a random conclusion or interpretation, as it is based on information expressing the causes and dimensions that formed the research problem. Based on the questions raised by the researcher in the problem of the scientific study, the research hypothesis can be formulated as follows:

1.   There is a significant positive correlation between the adequacy of bank capital and the internal control system.
2.   There is a statistically significant effect of the adequacy of bank capital in the internal control system.

The hypothetical scheme of the research:
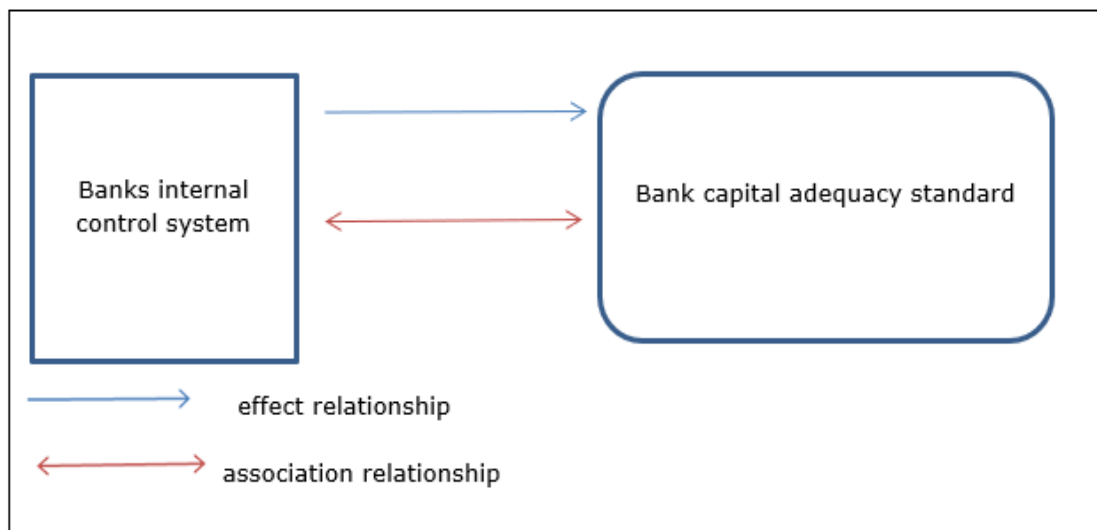
The Scientific Importance of the Research

1. The occurrence of the 2008 financial crisis was accompanied by a gradual erosion of the level and quality of the capital ratio, with banks possessing an insufficient stock of liquidity. This happened in conjunction with the credit losses incurred as a result of the concentration of investments. All the previous data contributed to raising the pace of the global crisis and increasing its repercussions on the various financial and banking systems. This prompted the Basel Committee to reconsider the standards of the previous agreement, which proved to be insufficient, especially after the bankruptcy of many banks.

2. The study relied on measuring the impact of the capital adequacy standard on improving the quality of supervisory control in banks on the statistical analysis by making a questionnaire that measures the level of influence and the correlation between the variables included in the study.

Research Limits

Spatial and temporal limits: The research was applied to two Iraqi commercial banks for the period (2019-2020) because it is a period in which data were available in an integrated manner for a sample of important and effective banks in the market. It is also considered a transitional period for banks for the actual application of the capital adequacy standard in accordance with the decisions of Basel ш officially after the issuance of a list of instructions for the actual application of it by the Central Bank of Iraq 2018. Note that the financial statements of the two banks are not audited for the year 2021.

The second axis: The theoretical framework for the capital adequacy standard and the internal control system for banks

The concept of Basel III decisions

In the aftermath of the American mortgage crisis in 2008, the G20 called for measures to develop the banking and financial sector, in order to avoid another global crisis, which would lead to a review of legislation and standards regulating the work of banks and financial institutions. These amendments and versions were crystallized in the decisions of the Basel III Committee on Banking Supervision as one of the new global regulatory standards related to capital adequacy and banking liquidity, which was approved by the committee in 2010 to address the shortcomings in financial regulation that were revealed by the global financial crisis[2].

---

[2] Institute of Banking Studies. (2012): Basel III Convention (3), State of Kuwait, Fifth Series, Fifth Issue, December.

Axes of the agreement

There are some main axes from which the agreement was formed, and they are as follows a

1.   Improving the quality, transparency and basis of banks' capital base.

The agreement limited the concept of tier1 capital ratio to the ratio of subscribed capital and undistributed profits. That is, unconditional, non-accumulating, and non-maturity-restricted capital ratio instruments. Any tools that absorb losses as they happen. As for the tier2 supporting capital ratio, it was limited to instruments for at least five years, which are capable of bearing losses before deposits, or any other liabilities of the bank. And Basel Ш removed all the basics of the capital ratio that was previously in force, including the third tier of the tier3 capital ratio.

2.   Imposing additional formal requirements

This is to cover the credit risks of the counterparties arising from dealing in derivatives, securitization, and REPO or repurchase operations, as well as covering any possible losses that may result from the revaluation of financial assets in the light of fluctuations in their prices in the market.

3.   Adding barriers to the capital ratio against economic fluctuations

It aims to limit the adoption of lending policies by banks that could increase excessive financing of economic activities in the stage of growth and prosperity, as they are policies that keep pace with a greater degree of expectation, which forces them to scarce lending at a time of recession, and this in turn leads to economic recession and prolongs its duration[3].

Equity ratio basics

First: Forcing banks to maintain a proportion of the preferred capital ratio (primary capital), which consists of the ratio of paid-up capital and retained profits, equivalent to at least 4.5% of its risk-weighted assets. Where the percentage increased by 2% based on the Basel II agreement.

Second: Formation of a new reserve, a separate "margin for preserving the capital ratio," consisting of ordinary shares equivalent to 2.5% of the company's assets. Banks should increase the amount of preferred capital held to meet potential losses to 7%. The financial authorities can impose restrictions on the

---

[3] Turgut Tursoy ,2018 , Risk management process in banking industry , Munich Personal RePEc Archive. Online at https://mpra.ub.uni-muenchen.de/86427/ MPRA Paper No. 86427, posted UNSPECIFIED

mechanism of distributing profits to shareholders, or granting financial rewards by banks in the event of failure to meet the prescribed percentage[4].

Third: Banks retain a percentage of the reserve to face the negative effects of the economic cycle, at a rate between 0% and 2.5% of the basic capital percentage. Providing the minimum level of stable financing sources and liquidity ratios to ensure the fulfillment of its obligations, and raising the basic capital ratio from 4% to 6%. And not counting the third tranche in the capital adequacy ratio[5].

-Increasing the capital adequacy ratio from 8% to 10.5% by providing the largest amount of the capital consisting of shareholders' equity in the bank's total capital.

The following table shows the requirements for capital ratio and hedge capital according to Basel III agreement:

Table 1 shows the ratio of capital and hedge capital[6]

	Shareholders' equity)ordinary shares(	Slide 1 percentage of the capital	capital ratio Total
minimum	%4.5	%6	%8
Hedge capital	%2.5	-	-
minimum	%7	%8.5	%10.5
opposite to the economic cycle	%2.5- 0		

Measuring the adequacy of the risk-based capital ratio

1- The Commercial Financial Services Corporation relied mainly in formulating a standard for the risk-based capital ratio[7] for commercial banks on the documents of the Basel Committee in its revised framework in 2004 and the amendment that was made within the Basel framework for the risk-based capital ratio to add market risks. Here, the necessary amendments were made to the standard to cover the specifications of commercial products and services that are consistent with commercial texts.

2- The standard for commercial banks covered the requirements of the minimum capital adequacy ratio based on the standard method with regard to credit risks, in order to develop a classification of risk weights used in weighting potential risks in commercial investment[8] tools. The basic indicator method

[4] Qiandi chen, 2017, market Risk Management For financial institutions Based on GARCH Family models, Washington university.

[5] Dermine, J., (2013), Bank Regulation after the Global Financial Crisis: Good Intentions and Unintended Evil, European Financial Management, Vol.9999, No.9999.

[6] Ozkan. C., (2015), Regulatory and Supervisory Challenges of Islamic Banking After Basel-3,COMECE Financial Cooperation Working Group Meeting ANKARA, The International Bank for Reconstruction and Development, Washington, USA, p11.

[7] Pichaphop, C., Seksak, J. & Pornsit, J., (2014), Basel III, capital stability, risk-taking, ownership: Evidence from Asia, Journal of Multinational Financial Management, Volume 28

[8] Alsayyaed, S. M., Eh Alzurqan, S. T. & Alruod, S. F., (2015), The Readiness of Jordanian banks to Apply the Requirements of Basel (III) Convention, International Business and Management, Volume 11 No (01(

was also used to calculate the operating risks of the commercial financial services institutions in the first axis of the modified Basel framework for the capital ratio. As for market risk estimation, the Corporation has adopted the most advanced method, which is the advanced measurement method.

Supervision of commercial banks

The presence of prudent supervision by the Central Bank over commercial banks, and in return, the commitment of those banks to sound banking controls and the instructions of the Central Bank regarding institutional control, the principles of risk management, and commitment to transparency and disclosure is a sufficient condition to enhance the performance of the bank in order to achieve the desired profit and to ensure the strength, safety, efficiency and effectiveness of the bank in carrying out its role[9].

Commercial banks have achieved rapid growth over the past two decades, and it is expected to continue in the coming decades (the assets of commercial banks are estimated at $1,000 billion, with an expectation that they will reach one trillion by the end of 2018). Controlling the market by securing the necessary information in terms of quantity and quality for all relevant parties and interests of the bank is one of the most important features inherent in commercial banking to ensure that its rapid growth is reflected positively on systemic stability in global markets[10].

The revised Basel framework for the risk-based capital adequacy ratio was not only limited to developing banks' sensitivity to risk and thus achieving more accuracy in the criteria for assessing banks' capital adequacy for risks[11], but, mainly, creating a solid ground for effective risk management in banks by stimulating financial disclosure To achieve transparency in the work of banks leading to the implementation of the institutional governance system, which in turn enhances the elements of accountability and disclosure. The relationship between the rules of good governance and transparency is a reciprocal relationship based on the fact that the bank's work according to the rules of good corporate governance means transparency. The fact that the bank is transparent in its operations means that it applies the rules of institutional governance. Asset risk weighting according to Basel standards achieves effective risk management in commercial banks through an internal classification process and appropriate control systems[12].

---

[9] Nasser Suleiman. (2013). Capital adequacy for Algerian commercial banks, a diagnosis of reality and proposals The second international forum for the commercial financial industry, mechanisms to rationalize the commercial financial industry, Algiers, Algeria

[10] Najjar, Hayat (2013), The Basel Accord and its Potential Effects on the Algerian Banking System; Journal of Economic Sciences and Management Sciences; college
Economic and Commercial Sciences, Management Sciences, Farhat Abbas University, Setif, Algeria, No. 13

[11] AlFawwaz, T. M. & Alrgaibat, G. A., (2015), Capital Adequacy of the Jordanian Banking
Sector for the Period 2000-2013, International Journal of Academic Research in Accounting,
Finance and Management Sciences, Volume 5 No (1(

[12] supporter . Suleiman; (2012), Commercial Banks and Basel III Advantages and Challenges, Journal of Banking and Financial Studies,
Arab Academy for Banking and Financial Sciences, Amman, Jordan, Issue (20.(

The first axis in the framework of Basel amended the risk-based capital adequacy ratio must be applied to commercial banks, taking into account the uniqueness of these banks with some characteristics related to:

•Principles of commercial finance: sharing of profits and losses. There is no current value for the money, as it is not an asset and does not achieve any additional interest as a result of its use as money. Commercial investment is based on assets and ownership, not on a cash basis[13].

The assets side (the uses of funds in the bank)[14]: where loans are replaced by commercial financing models that range from models based on debt, such as Murabaha, and models based on sharing ownership, such as Musharaka, and diminishing partnerships, and models based on assets such as commercial sukuk. This necessitates updating the risk weights in each of these models when applying Basel standards.

Liabilities side (the bank's funding sources): Deposits and the percentage of capital, which are considered limited obligations on the bank, unlike traditional banks. Where the obligation towards the owners and owners of deposit accounts (unlimited liability). Preserving the rights of the owners of these accounts in light of the bank's limited commitment towards them requires the highest degree of transparency in the use of these funds, so that the owners make sure that the bank takes into account all banking norms, rules and guarantees necessary to preserve them. Where the projects in which these funds were used are recorded in a special account for each project that includes all operations related to the work of this project and the source of its financing, with the need to rely on the real flow resulting from the project's work, not the registered one.

The third axis: the practical framework for the bank capital adequacy standard and the internal control system

A summary of the study sample banks

A deliberate sample was chosen for the study, as it consisted of two commercial banks, namely Sumer Commercial Bank and Baghdad National Bank. These two banks were chosen as a deliberate sample for the research due to the availability of the data of these banks necessary for the preparation of the research and their lack of availability for other banks.

Sumer Commercial Bank

The Sumer Commercial Investment Bank (a private joint-stock company) was established in (1999) with a capital of (400) million Iraqi dinars paid in full, according to the book issued by the Central Bank No. 1/2000 The contract of

---

[13] Pichaphop, C., Seksak, J. & Pornsit, J., (2014), Basel III, capital stability, risk-taking, ownership: Evidence from Asia, Journal of Multinational Financial Management, Volume 28

[14] Jablecki, . J., (2009), The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy, International Journal of Economic Sciences and Applied Research, Volume 2 No (1.(

incorporation was amended by increasing its capital several times until it reached (250,000) billion Iraqi dinars (two hundred and fifty billion dinars)

As of the period ending December 31, 2020, the number of bank branches has reached (9) operating branches inside Iraq, (6) of which are spread in the areas of the capital, Baghdad, and (3) branches in other governorates.

Table 2 The development of Sumer's commercial capital and reserves
For the period from (2019-2020) (million dinars)

Pointer Years	Paid Capital	Reserves	Total
2019	25000	85002	110002
2020	25000	87051	112051

Source: Prepared by the research based on the annual reports of the Sumer Commercial Bank for the period (2019-2020)

Baghdad National Bank

The Bank of Baghdad is the first bank licensed in Iraq. It started banking operations in the year 1992, making the national economy one of its business priorities. The Bank of Baghdad was established after amending Article Five of the Central Bank of Iraq Law.

The Bank of Baghdad practiced commercial business only until September 25, 1998. Then, it diversified its service portfolio, which included banking services on a larger scale, after the Central Bank of Iraq allowed all private banks to practice all banking activities and services.

The year 2005 was called the year of transformation of the Bank of Baghdad, due to its expansion and its possession of shares in both the United Gulf Bank and the Iraq Holding Company from the bank's capital. In 2009, the Bank of Baghdad acquired the share of United Gulf Bank from Burgan Bank, becoming its largest owner.

This participation helped the Bank of Baghdad to diversify the global banking business by paying attention to competitive services.

The Bank of Baghdad was established as an Iraqi private joint stock company on (February 18, 1992) with an initial capital of (100 million Iraqi dinars.(

The Bank of Baghdad is a member of the Kuwait Projects Company (Holding) Group and has a presence in the Middle East and North Africa as well, and this in turn led to the transformation of the Bank of Baghdad from a local bank to a global bank during the past years.

Table 3 The evolution of the capital and reserves of the National Bank of Baghdad For the period from (2019-2020) (million dinars)

Pointer Years	Paid Capital	Reserves	Total
2019	25000	89112	114112
2020	25000	13935	35935

Source: Prepared by the research based on the annual reports of the National Bank of Baghdad for the period (2019-2020)

Study population and sample

PSOBs (Private Commercial Banks of Iraq) make up the vast majority of the banking sector's capital. Where it represents 75.4%, due to the large number of them and their commitment to the directives of the Central Bank of a capital with a minimum of 250 billion Iraqi dinars[15].

The study population consists of the employees working in the bank. It showed that the number of workers in the above departments for both banks is approximately (100) male and female employees. Where the researcher conducted two visits to the two banks, the study sample, and to ensure that the questionnaire questions were answered seriously and carefully, it was agreed to distribute the questionnaire electronically on the bank's website (the study community). Where it was distributed randomly from the study population, and (15) questionnaires were sent to each group randomly to a selected sample of specialists from the departments (internal control and internal audit, bank management, accounts department, risk management department). The questionnaire included two axes, the first of which tests the first hypothesis of the study, which is (the existence of a direct correlation with significant significance between the capital adequacy standard and the internal control system). Where this axis included 23 items distributed on the dimensions of the independent variable. While the second axis tests the second hypothesis of the study, which is (there is a significant effect of Basel III decisions and its dimensions and the internal control system, and the sub-hypotheses emerged from it), and this axis included 7 items.

6-3 Reasons for Selecting the Research Sample

The time period for the research sample was chosen for the years (2019-2020) because the experimental application for compliance with the requirements of Basel III decisions was its beginning in the year 2018 and the actual application was in the year 2020. In order to prove the hypothesis of the research, it was necessary to measure the level of capital adequacy and bank liquidity before compliance By applying the decisions of Basel III. As in the book issued by the Central Bank of Iraq. The beginning of the experimental application begins on 9/30/2018 according to the book issued No. 9/2/420 and the actual capital increase. In addition to choosing the time period, the two banks were chosen as a sample for the research, as they are among the leading banks in the field of applying international financial reporting standards and international accounting standards. In addition to complying with all regulations, laws and instructions issued by the Central Bank.

Questionnaire

The current study relied on the questionnaire as a main tool in collecting the necessary data as the main source in collecting information and data. And testing

---

[15] - https://kapita.iq/content/issue/iraqi-banking-sector-and-financial-infrastructure-overview

the hypotheses of the study sample in order to complete the practical aspect, and to see through it the opinions of the sample, which were designed based on a number of foreign and Arab standards adopted in most studies similar to the subject of the study. The study relied on the five-point Likert scale, which confirms the distinction between the strength of the word's compatibility with the choice or phrase according to the weights or values (1,2,3,4,5), because it is one of the scales that are characterized by accuracy and frequent use in research and studies. The questionnaire was divided into three parts. The first part includes questions about (gender, age, position, number of years of service, academic achievement and number of years of active service.(

Table 4 Characteristics of the demographic research sample

No.	Variables	Category distribution	number	percentage
1	gender	male	45	60%
		female	30	40%
	total	75		100%
2	Qualification	diploma	2	2.7%
		Bachelor	44	58.7%
		Master	24	32%
		Ph.D	5	6.7%
	total	75		100%
3	Career Level	auditor	20	26.7%
		accountant	22	29.3%
		Audit manager	6	8%
		Account Manager	11	14.7%
		Senior Audit Manager	6	8%
		Senior Account Manager	10	13.3
	total	75		100%
4	scientific expertise	Less than 5 years	7	9.3%
		From (5-10) years	18	24%
		From (10-15) years	33	44%
		15years and over	17	22%
	total	75		100%
5	age	Less than 30 years old	4	2%
		From 30-40 years old	18	8.8%
		From 40-50 years old	30	14.6%
	total	75		11.7%
	Have you taken courses?	Yes	66	88%
		No	9	12. %
	total	75		100%

Tools used in data analysis

A set of statistical methods have been used to measure and test the study variables and hypotheses. Among these methods is the ready-made statistical program (SPSS.V25) and the program (Amos.V25) in some statistical aspects. (Al-Bayati and Abu Shair, 2012)[16], (Abbas, 2016: 18)[17] as follows:

❖ Percentage: This percentage is used to define the percentage of answers to the variables of the study. Where the result of its value is represented by the quotient of dividing the partial value by the total value multiplied by "100."

❖ Arithmetic mean: One of the most important tools used to determine the level of response to the variables or dimensions researched in the items of the questionnaire. As well as full access to the level of variables and extract the arithmetic mean for them.

❖ Standard Deviation: It is considered one of the most important measures of absolute dispersion. Where its value represents the quotient (square root) of the average sum of the squares of the deviations of the values of the random variable from its arithmetic mean.

❖ Simple Correlation Coefficient (Pearson): One of the tools used to define the nature of the relationship between the study's main and secondary variables. This is done by linking the large values of the first phenomenon to the large values of the second phenomenon, and the correlation is usually positive or direct in this case. Either when one of the two phenomena goes in a direction opposite to the direction of the other, the correlation will be negative or inverse, and the values are not labeled in the form of numbers.

❖ Simple linear regression: This tool is used to measure the effect of the independent or explanatory variables on the dependent variable or what is called the response variable.

❖ coefficient of determination (R^2): the tool shows the amount of changes in the dependent variable that can be explained by the independent variable.

❖ Relative importance: We can extract (relative importance) by dividing the arithmetic mean by the number of items of the five-point Likert scale. It reflects the importance of responding to each item of the questionnaire individually from the point of view of the researched sample.

❖ Scale of skewness and flatness: It is one of the statistical methods used to study the characteristics of frequency distributions and to test the normal distribution of data. An acceptable value is between (-2, +2) depending on the sample size and the level of significance. The closer the values are to zero, the greater the growth. As (skewness) is defined as the amount of

---

[16] 1 Al-Bayati, Mahmoud Mahdi and Abu Shair, Mahmoud Jawad, (2012), the SPSS program, a practical application for statistical data analysis, first edition, Al-Jazeera Printing and Publishing Office, Baghdad.

[17] 2 Abbas, Ziyad Ali, (2016) Strategic Leadership in Achieving Organizational Reputation by Mediating Transparency, Analytical Exploratory Research in Some Departments of the Ministry of Construction and Housing, Master's Thesis in Public Administration, University of Baghdad.

asymmetry of the frequency distribution curve from the case of symmetry. While (flattening) is defined as the dispersion of the values of the observations significantly and affects the shape of the frequency curve of that distribution, which makes the distribution curve flat. While if the dispersion of the observations was small, this led to the curvature of the frequency curve (Al-Ta'i et al., 2013: 175-183.(
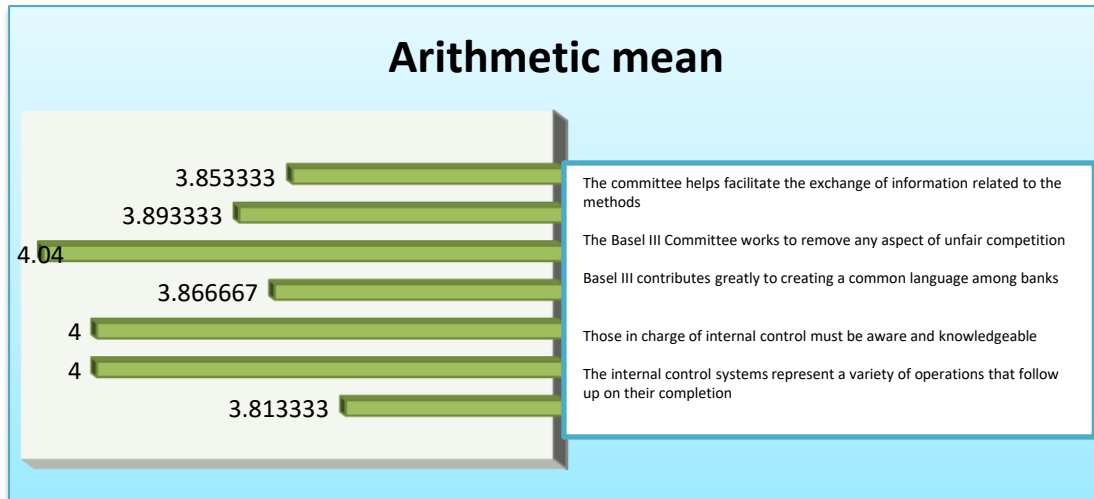
Bank capital adequacy X1

- ❖ Table-6- below shows the frequencies, percentages, arithmetic mean, deviations and the relative importance of the answers of the researched sample towards the dimension of the coherence of the task. The results showed that item (1) "The Basel framework modified for the adequacy of the capital ratio contributed to supporting the pillars in the banks" had obtained the highest arithmetic averages, as it amounted to (3.973) and a standard deviation (0.568), which shows a good consistency in the answers of the research sample towards these items and within the level of the answer is high. This means that the sample's answers indicate that there is agreement that capital adequacy contributes to supporting the pillars of banks. As for item (4), "Determining risk weight functions is the means by which risk components are converted into risk-weighted assets." At the lowest arithmetic mean, which amounted to (3.72), at a moderate level, and with a standard deviation (0.814), which shows a good level of consistency in the research sample answers and at a moderate level of response. In the light of the foregoing, the general rate for the bank capital adequacy dimension was (3.87), with a high level and a standard deviation of (0.305).
- ❖ Based on these results, the sample has a clear vision that the adequacy of bank capital is of great importance in strengthening bank capital and thus strengthening banks and making them more resilient in front of financial crises

Table -6- Frequencies, percentages, arithmetic averages, standard deviations, and the relative importance of the banking capital adequacy dimension

Items	Totally agree		agree		neutral	I do not agree	Totally disagree		Arithmetic mean		standard deviation		Relative importance
	No.	%	No.	%	No.	%	No.	%	No.	%			
The bank capital adequacy standard seeks to complete the requirements of the risk weighted capital ratio	10	13.3	46	61.3	12	16	2	2.7	1	1.3	3.826667	0.7420	7
The bank capital adequacy standard aims to complement the requirements of the financial leverage ratio	13	17.3	46	61.3	15	20	1	1.3	0	0	3.946667	0.6554	3
Defining risk weight functions is the means by which risk components are converted into risk-weighted assets.	11	14.7	38	50.7	20	26.7	6	8	0	0	3.720000	0.8147	8
The capital adequacy standard aims to limit banks' excessive lending policies in the stage of growth and prosperity.	14	18.7	41	54.7	13	17.3	7	9.3	0	0	3.826667	0.8442	6

Items	Totally agree		agree		neutral	I do not agree	Totally disagree		Arithmetic mean		standard deviation		Relative importance
	No.	%	No.	%	No.	%	No.	%	No.	%			
Basel III proposes reforms aimed at increasing capital ratio requirements and enhancing capital ratio quality for the banking sector	17	22.7	44	58.7	9	12	4	5.3	1	1.3	3.960000	0.8291	2
The reforms proposed under this Basel III agreement contribute to reducing inconsistencies and working to strengthen the financial soundness of banks.	13	17.3	46	61.3	14	18.7	1	1.3	1	1.3	3.920000	0.7307	5
The adoption of Basel III decisions for the financial leverage ratio leads to limiting the large expansion of bank loans to get rid of bankruptcy.	15	20	45	60	10	13.3	5	6.7	0	0	3.933333	0.7769	4
The revised Basel framework for capital adequacy ratio contributed to supporting the pillars of the banks	10	13.3	54	72	10	13.3	1	1.3	0	0	3.973333	0.5688	1
Bank capital adequacy								3.87619		0.530			

Arithmetic mean

3.853333	The committee helps facilitate the exchange of information related to the methods
3.893333	The Basel III Committee works to remove any aspect of unfair competition
4.04	Basel III contributes greatly to creating a common language among banks
3.866667	Those in charge of internal control must be aware and knowledgeable
4	The internal control systems represent a variety of operations that follow up on their completion
4	
3.813333	

The figure above shows the arithmetic averages for the bank capital adequacy dimension

Analyzing and testing hypotheses of the correlation between the variables studied

(Capital adequacy standard, internal control system)

The current analysis aims to prove the first main research hypothesis through the use of the correlation coefficient (Pearson). It studies the relationship between the main variables of the study (capital adequacy standard, internal control system), and measures the strength and direction of the linear relationship between them.

Where it shows us the correlation relationships in three forms, when the correlation coefficient is equal to zero (the relationship between the variables under consideration is negated). While if it is greater than zero to positive one, it indicates the existence of (a direct correlation). If the correlation coefficient is less than zero, it indicates a negative inverse relationship. The relationship can be considered weak if the value of the correlation coefficient is less than (0.30), and it is considered medium when it appears between (0.30-0.50). When its value is greater than (0.50), the relationship is considered strong between the variables under study (Al-Fatlawi, 2018). Therefore, the researcher used the correlation directly in measuring and evaluating the linear relationship between the two main research variables. The data was normally distributed and the relationship of the variables is linear, and the sample is larger than (50 respondents The researcher can use the Pearson Correlation Coefficient when it meets the conditions (Ben Saleh, 2015: 90). The researcher achieved the terms of using the correlation coefficient (Pearson) through the normal distribution test and the linearity test, and the size of the research sample (75) respondents in the research sample banks.

The relationship between the banking capital adequacy standard and the internal control system as a whole

The first main research hypothesis stems from the researcher's expectation (the existence of a significant correlation between capital adequacy and the internal control system). The results of the table below showed positive correlations between the capital adequacy standard and the internal control system in general, as the results were as follows:

1. The capital adequacy standard variable showed, in general, a positive, significant, direct relationship with the internal control system. The dimension achieved a significant positive correlation of (0.704**) with the total internal control system at a significant level of (0.000). Since this relationship indicates that any increase in the axis of capital adequacy leads to an increase in the robustness and sobriety of the internal control system, as shown in the results of Table -7.-

Table 7 shows the correlation between capital adequacy and the internal control system

independent variable dependent variable		bank capital adequacy
internal	Pearson correlation	0.704**
control	Sig- (2-tailed)	.000
system	N	75

Correlation is significant at the 0.01 level (2-tailed).
Source: Prepared by the researcher based on the SPSS V.25 program

Presentation and analysis of the results of the relationship of the impact of the bank capital adequacy standard on the internal control system in banks, the study sample

From the results of table -8-, we can see the relationship between the impact of bank capital adequacy on the internal control system. At the level of the sample under study (75) in the two banks, it was found that the moral value of the calculated test is (0.000), which is less than the significance level (0.05), with the value of the (t) test amounting to (8.46), and with the value of the (F) test (71.69), and at a degree Freedom (1, 73), and all of these values are greater than their tabular values. These results indicate that the regression curve is sufficient to clarify the relationship between the explanatory dimension of capital adequacy and the variable responding to the internal control system, with a confidence level of (95%). As this level indicates the acceptance of the results of the first hypothesis, which states that (there is a significant effect of the standard of banking capital adequacy and the internal control system).

The positive dimension was recorded in the internal control system, and the determination coefficient of the model reached ($R^2 = 0.495$). This indicates that

the adequacy of capital explains the value of (49.5%) of the changes that occur in the internal control system. As for the remaining percentage (50.5%), it is attributed to other variables that were not included in the researched model, and it is an acceptable coefficient that can be relied upon to some extent in explaining the dependent variable. As for the value of the marginal slope, it amounted to (β = 0.71). It indicates that the increase in interest By one unit of capital adequacy, it will automatically lead to a change of 71% in the internal control system.The prediction equation below shows the relationship between the two variables of capital and internal control:

(Capital adequacy) (y) = 0.15 + 0.71 Internal control system

Table -8- The effect of the bank capital adequacy dimension on the internal control system (n = 75)

Variable internal control system								
explanatory variable	R	R²	AR²	F	Sig	T	β	α
capital adequacy	0.704	0.495	0.489	71.69	0.00	8.46	0.716	0.15
Df		1,73		Std. Error			0.149	

Conclusion

By explaining the theoretical aspect of the study and the results of the practical analysis of the hypotheses of the study, the conclusion was reached about the studied phenomenon. As it turned out to us that there are two hypotheses that have proven their direct impact on the extent of the commitment of the two banks to the actual application of the standard of capital adequacy in accordance with the decisions of Basel III, and their impact and connection with the quality and improvement of the internal control system.

Where the results showed the following- :

The first main hypothesis

There is a significant positive correlation between the adequacy of bank capital and the internal control system.

The second main hypothesis

There is a statistically significant effect of the adequacy of bank capital in the internal control system.

The Fourth Axis Conclusions and Recommendations

After the theoretical and analytical study of the capital adequacy standard and in the light of analyzing the results of the study conducted by the researcher, a

set of conclusions and recommendations were reached, and what the researcher reached does not represent the end of the research results. The doors have always been open to deal with this vital and important issue and its various aspects, in order to advance the Iraqi banking reality. Banks in general, whether commercial or Islamic, are the cornerstone and the main engine of economic growth in all countries.

Results

This paragraph deals with the most important conclusions that were reached through the theoretical and practical study of the study, which confirms that the standard of bank capital adequacy in accordance with the decisions of Basel III, was designed by the Basel Committee on Banking Supervision to stand up to the risks to which the banking system is exposed, both at the level of the world in general and Iraq Specially. Where it was found through the questionnaire that the banks of Iraq have followed a new organizational approach to the banking system in bringing the local financial situation to safety in developing the Iraqi banking system to be efficient and sober to face all kinds of risks that the banking system may be exposed to. The Iraqi private commercial banking sector was chosen as an area of application according to these requirements. By selecting a sample of Iraqi banks, according to what was stated in the questionnaire, the main Iraqi banks adopt and implement modern policies in fortifying the banking sector in Iraq and developing it present and in the future.

Therefore, we see that the adherence of all Iraqi banks to the standard of banking capital adequacy and its application (the results of which are contained in the above questionnaire) will work to increase the efficiency of its performance and thus the success of the banking system in particular, which in turn will support the rest of the economic and industrial sectors by consolidating the financial position that it enjoys It has the banking systems in granting and directing credit and thus protecting the acquired wealth from waste, loss and misuse through the development of the strict regulatory system in it.

Recommendations

One of the most important practical and theoretical recommendations that the researcher concluded in the previous paragraph of this chapter is a specification of the most prominent results that resulted from the research in the application of international standards approved by international organizations such as the Basel Committee and the extent to which they can be applied to banks operating in Iraq. On this basis, the recommendations that the researcher believes come within the framework of an attempt to contribute to strengthening the positive aspects that the researcher saw through focusing on the banking business in Iraq, and trying to alert the negative aspects of them for treatment and correction, as follows:

1.   Increasing the capital of commercial banks operating in Iraq and not excluding any bank from that, such as governmental and branches of

foreign banks, by following a time dimension, as in the implementation of Basel III decisions, so that the process of increasing capital does not affect the economy as a whole.

2. The adequacy of capital, although it is a high percentage in commercial banks, is not alone sufficient to achieve banking security, but rather requires the availability of liquidity, and the reasonableness of the financial leverage ratio, hence the Basel III Committee added two additional criteria represented in the liquidity ratio and financial leverage. The Basel Committee believes that balancing these ratios spares the financial sector in general and the banking sector in particular from financial crises, which pose a risk that may lead to bankruptcy.

3. The necessity for the departments of the commercial banks of Baghdad and Sumer to reconsider the numbers of the capital adequacy index and try to invest their surplus cash in assets of a liquid nature and others that are less liquid and try to achieve a reasonable indicator of capital adequacy.

Review References

1. Institute of Banking Studies. (2012). Basel III Convention (3). State of Kuwait, Fifth Series, Fifth Issue, December.

2. Nasser Suleiman. (2013). Capital adequacy for Algerian commercial banks, reality diagnosis and proposals for the second international forum for the commercial financial industry, mechanisms for rationalizing the commercial financial industry. Algiers, Algeria.

3. Hayat Najjar. (2013). Basel Accord and its possible effects on the Algerian banking system. Journal of Economic Sciences and Management Sciences; Faculty of Economic and Commercial Sciences, Management Sciences, Farhat Abbas University, Setif, Algeria, No. 13

4. Nasser Suleiman. (2012). Commercial banks and Basel III advantages and challenges. Journal of Banking and Financial Studies, Arab Academy for Banking and Financial Sciences, Amman, Jordan, ed. (20).

5. Al-Bayati, Mahmoud Mahdi and Abu Shair, Mahmoud Jawad. (2012). SPSS is a practical application for statistical data analysis. First edition, Al Jazeera Printing and Publishing Office, Baghdad.

6. Abbas, Ziad Ali. (2016). Strategic leadership in achieving organizational reputation by mediating transparency. An exploratory analytical research in some departments of the Ministry of Construction and Housing, a master's thesis in administration.

English References

1- Turgut Tursoy ,2018 , Risk management process in banking industry , Munich Personal RePEc Archive. Online at https://mpra.ub.uni-muenchen.de/86427/ MPRA Paper No. 86427, posted UNSPECIFIED

2- Qiandi chen, 2017, market Risk Management For financial institutions Based on GARCH Family models, Washington university.

3- Dermine, J., (2013), Bank Regulation after the Global Financial Crisis: Good Intentions and Unintended Evil, European Financial Management, Vol.9999, No.9999.

4- Ozkan. C., (2015), Regulatory and Supervisory Challenges of Islamic Banking After Basel-3,COMECE Financial Cooperation Working Group Meeting ANKARA, The International Bank for Reconstruction and Development, Washington, USA, p11.

5- Pichaphop, C., Seksak, J. & Pornsit, J., (2014), Basel III, capital stability, risk-taking, ownership: Evidence from Asia, Journal of Multinational Financial Management, Volume 28

6- Alsayyaed, S. M., Eh Alzurqan, S. T. & Alruod, S. F., (2015), The Readiness of Jordanian banks to Apply the Requirements of Basel (III) Convention, International Business and Management, Volume 11 No (01)

7- AlFawwaz, T. M. & Alrgaibat, G. A., (2015), Capital Adequacy of the Jordanian Banking

Sector for the Period 2000-2013, International Journal of Academic Research in Accounting,

Finance and Management Sciences, Volume 5 No (1)

8 -Pichaphop, C., Seksak, J. & Pornsit, J., (2014), Basel III, capital stability, risk-taking, ownership: Evidence from Asia, Journal of Multinational Financial Management, Volume 28

9- Jablecki, . J., (2009), The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy, International Journal of Economic Sciences and Applied Research,

Volume 2 No (1). - https://kapita.iq/content/issue/iraqi-banking-sector-and-financial-infrastructure-overview.