The Iraqi legislations regulating the granting of credit facilities

Introduction:

No one can deny the vital and pivotal role played by the banking sector in supporting and developing the macroeconomy across various industrial, agricultural, and service sectors. Economic activity in any country operates within two spheres: the first is the sphere of real, tangible activity, i.e., "production," and the second is the sphere of monetary flows necessary to finance productive activity. Banks act as intermediaries between these two spheres of economic activity by providing credit facilities. Banks accept savings in the form of deposits with varying terms and diverse saving instruments, then allocate a portion of these savings to various investments, while a significant portion is issued to clients as credit facilities and loans that benefit numerous sectors.

The credit policy adopted by a bank forms the foundation of its financial planning processes, especially since the credit facilities granted to clients represent a risk. Although banks generate substantial returns from credit facilities, they also face significant potential risks associated with these facilities.

Because the process of granting bank credit involves numerous risks, primarily those related to the borrower and their ability to repay the principal loan amount along with the accrued interest on time, the decision to grant credit is one of the most challenging decisions for bank management. This is particularly true in light of increasing competition among banks in the field of credit facilities, which requires a capable banking management that can address these challenges, balance the volume of deposits with the volume of loans, and minimize risks associated with borrowers.

Governments assist banks in this regard by establishing a comprehensive legal framework governing the granting of credit facilities. These regulations ensure that such facilities align with the state's economic policies. To accomplish such credits, the Central Bank of Iraq Law No. 56 of 2004 includes some provisions related to banking facilities. Additionally, the Instructions for Credit Information Exchange of 2014 were issued based on the provisions of Paragraph 3 of Article 4 of the Central Bank of Iraq Law No. 56 of 2004, as amended, and Paragraph A of Article 104 of the Iraqi Banking Law No. 94 of 2004.

From this perspective, this research addresses the Iraqi legislations regulating the granting of credit facilities through the following points:

First: The Importance of the Research

The significance of this research lies on focusing on the scale of risks that banks may face due to the increasing value of non-performing loans resulting from credit facilities. These risks have repercussions on the national economy, necessitating the existence of protective legislative policies for these banks.

Second: The Objective of the Research

A well-integrated banking sector that provides necessary financing to institutions, individuals, and even the government at times contributes to increased investment and drives economic growth. There is a positive correlation between the rate of economic growth and the volume of credit provided by the financial and banking system. Given the risks of loan defaults that banks may face due to credit facilities, there is a need for a legal framework to regulate these transactions. Therefore, this research primarily aims to explore the Iraqi legislations regulating banking credit operations and their role in safeguarding the national economy and protecting banks from the problem of non-performing loans.

Third: The Research Problem

Banking credit is a significant and influential factor in boosting economic growth. Financial institutions provide banking services to both depositors and investors. However, this process is accompanied by the risks of loan defaults. Thus, the research problem is as follows:

1. Do banks have the capacity to reduce non-performing loans?

2. Do government legislations provide sufficient protection for banks to address the issue of non-performing loans?

3. Do banks objectively adhere to the regulations governing the granting of credit?

Fourth: Research Hypotheses

Based on the presentation of the research problem, its importance, and objectives, the following main hypothesis has been formulated:

Government legislations contribute to reducing the phenomenon of non-performing loans arising from banking credit operations.

From this main hypothesis, the following sub-hypotheses can be derived:

- The extent to which credit management departments in banks can reduce non-performing loans.

- The extent to which credit management departments in banks adhere to the requirements for granting credit.

- The extent to which credit management departments in banks comply with the legislations regulating banking credit operations.

Fifth: Research Methodology

The research relies on the descriptive-analytical approach, which is considered the most suitable methodology for such studies. This involves reviewing literature related to the research topic, examining relevant legal texts, and subsequently analyzing them.

Sixth: Previous Studies

- Study by Musaed Al-Nuwairee (2010) titled: "Loan Default and Its Impact on the Financial Performance of Commercial Banks in Sudan":

This study aimed to identify the causes of loan defaults and their impact on the overall economic situation, particularly on the banking sector in Sudan. The study found that the prevalence of defaults is attributed to several reasons, including:

- The absence of clear credit policies, leading to unfair valuation of collateral.

- Inadequate flow of customer information.

- Weak performance of human resources in the banking sector.

The study concluded with several recommendations, the most important being:

- The necessity of having qualified and reliable expertise to evaluate the collateral provided by borrowers.

- The need to adopt more effective information flow systems, such as credit scoring systems.

- Study by Al-Arabid (2007) titled: "An Analytical Study of Non-Performing Loans in the Iraqi Industrial Bank":

This study aimed to analyze the relative importance of non-performing loans and their evolution from 1998 to 2005 through an analytical study of the Iraqi Industrial Bank, relying on financial data. It highlighted the measures taken by the bank to address non-performing loans.

The study concluded that the Iraqi Industrial Bank had shortcomings in preparing credit studies and lacked continuous field monitoring of client activities after granting loans, leading to defaults in some cases.

The study recommended:

- Continuous field monitoring of client activities.

- Utilizing financial analysis indicators for early prediction of potential defaults.

- Conducting objective credit risk analysis by re-evaluating collateral and ensuring its relevance to the purpose of the loan.

- Chiang, Y. and Cheng, E. (2010), "Revealing Bank Lending Decisions for Contractors in Hong Kong":

This study aimed to explore and understand the perceptions of commercial banks regarding lending decisions for contractors in Hong Kong. The researchers sought to identify the factors influencing lending decisions and the variables shaping evaluation criteria. They initially identified a set of financial and non-financial factors based on previous studies and then applied them to a group of borrowers.

The researchers developed a model for evaluating borrowers based on the assumed variables to assist banks in making lending decisions. They concluded that the lending policies followed by banks in Hong Kong are internationally recognized.

- Study by Adel Hebal titled: "The Problem of Non-Performing Bank Loans – A Case Study of Algeria (2012)":

This study aimed to identify the causes of loan defaults in Algerian primary banks. It concluded that non-performing loans cannot be entirely avoided but can be reduced in volume and mitigated in impact. Incorrect credit facility decisions can lead to significant losses for banks, emphasizing the need to monitor collateral provided to banks.

Key recommendations included:

- Adopting modern information systems for risk management.
- Ensuring the availability of competencies and expertise to adopt new standards and decisions on risk measurement in line with international standards.

Keywords: Credit, Credit Facilities, Credit Risk, Economic Legislation.

Based on the above, the research will be divided into several axes that help answer the research questions. Each axis branches out into a set of explanatory and interpretive points, as follows:

1. **First Axis**: The concept and objectives of credit policy.
2. **Second Axis**: Determinants of credit policy.
3. **Third Axis**: General rules for granting credit facilities.
4. **Fourth Axis**: Balancing the returns and credit risks of granting credit facilities.
5. **Fifth Axis**: Iraqi regulations governing the granting of credit facilities.

Finally, the research concludes with a set of results and recommendations

First Axis

The Concept of Credit Policy

The definitions of credit policy vary and take different forms according to the perspectives of researchers. Some define it as: "The general framework that includes a set of factors, foundations, and guiding trends adopted by the bank's management in general and the credit management in particular to achieve its objectives and make credit decisions. It can also be defined as: "The general framework that includes a set of principles and rules that organize the process of studying, approving, granting, and following up on credit facilities, determining the areas of activity that can be lent, related credit ceilings, cost elements, and time limits that should not be exceeded, and the conditions that must be met for each type of facility[1].

Therefore, the credit decision-making process in banks must be within the framework and objectives of the credit policy, which differs from one bank to another according to the specific conditions of each bank, and sets the controls for the bank's activity in granting credit facilities. In another definition, the bank's credit policy is described as: "The general framework that includes a set of principles and rules that organize the process of studying, approving, granting, and following up on credit, determining the areas of activity that can be lent, related credit ceilings, cost elements, and time limits that should not be exceeded, and the conditions that must be met for each type of credit. Many models have been developed to measure credit risks and credit ratings[2].

In the same context, we refer to the definitions of both credit strategy and credit procedures:

- **Credit Strategy:** "The general framework or the main direction and path that the bank takes to achieve its short-term and long-term objectives. The bank's credit strategy aligns with the national credit strategy set by the central bank at the macroeconomic level."
- **Credit Procedures:** "The detailed steps and specific analytical methods within the framework of implementing the bank's credit policy. These are phased procedures that deal with the credit process from the beginning, starting from

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[1] Hassan Hussein Qala', Muaid Abdulrahman Al-Douri, *Bank Management: A Quantitative Approach and Contemporary Strategy*, Wael Publishing House, Amman, Jordan, 2003, p. 126.

[2] Chen, Xiaohong A., Xiaodhig Wang A, Desheng Dash Wu B. (2010). Credit risk measurement and early warning of SMEs: An empirical study of listed SMEs in China. *Decision Support System*, Vol. 49, No. 10, pp. 301–310.

the customer's request for facilities, going through its various stages until its completion, and until the customer repays the credit and interest to the bank[3].

First: Controls of Credit Policy

Based on the previous definitions of the concept of credit policy, a set of considerations governing credit policies can be derived, including[4]:

1. **Economic Activity Needs**: Credit policies adopted by banks should not be unrestricted but should fundamentally serve and help in the growth and stability of the national economy. Therefore, credit policy should reflect the needs of the society in which the bank operates.
2. **Loan Amounts and Types**: Clear accounting and financial standards must be followed by the bank when granting credit, such as the volume of deposits, available resources, and the type of loan. As previously mentioned, the credit process involves risks, so each bank must have an approved policy for issuing loans, which may vary from one bank to another.
3. **Loan Conditions**: These are the conditions related to repayment methods, purposes, and guarantees provided by the borrower. The bank cannot exceed these conditions.
4. **Determining Loan Safety Requirements**: The main objective of credit policy is to achieve profits for the bank, but this should not come at the expense of the degree of safety the bank seeks to ensure. Therefore, credit management in banks must verify certain conditions related to the borrower that help ensure the safety of the loan, such as the borrower's reputation, attributes, and financial capabilities, consistent with the size of the granted loan or credit[5].
5. **Legal Considerations**: These include the legal terms and restrictions on granting credit to avoid discrepancies between the bank's policies and banking regulations, credit policies, and restrictions imposed by the monetary authority.

Second: Objectives of Credit Policy

[3] Hamza Mahmoud Al-Zubaidi, *Bank Credit Management and Credit Analysis*, Al-Warraq Publishing and Distribution, Amman, 2002.

[4] Khaled Wahib Al-Rawi, *Banking Operations Management*, 3rd edition, Dar Al-Manahij Publishing and Distribution, Amman, Jordan, 2003, pp. 166-167.

[5] Mounir Ibrahim Hindi, *Financial Institutions Management and Financial Markets*, El-Maaref Establishment, Alexandria, Egypt, 2006, p. 100.

The primary objective of establishing a credit policy is to provide a general framework and specific factors to guide credit officers in their decision-making process regarding the granting or denial of bank credit. Additionally, it serves as a tool to help management in defining and planning its objectives and monitoring them. The presence of such factors ensures uniformity in the bank's work, whereas their absence leads to differing decision-making bases. Thus, the objectives of establishing a bank's credit policy are numerous, and this research highlights the most important of these objectives[6].

1. Despite the bank's freedom in its credit policies, these policies must align with the state's general financial policy issued by the central bank, which aligns with the state's economic development plans. Therefore, credit policies in banks should support and assist the state's economic policies.
2. Credit is one of the most important sources of income for banks. To achieve profitability from it, the bank must operate on two fronts: maximizing profits and minimizing losses. This results in an increase in the bank's market value due to the strength and solidity of its financial position.
3. The bank's credit policy should follow a clear policy for both the bank's credit management and its clients to prevent decision-making conflicts.
4. Each bank has a lending policy through which it aims to achieve its overall objectives and mission. Therefore, it may prioritize financing certain activities. Consequently, the bank may find itself committed to rationalizing its credit decisions to finance some activities over others to maintain the safety of the granted credit.
5. The bank may identify areas of credit that are prohibited from financing for religious, ethical, environmental reasons, or due to high risks in these areas. Regardless of the rationale behind this prohibition, the bank's credit policy may include areas that are not allowed to be financed.

Second Axis

Determinants of Credit Policy

Credit determinants are a set of controls and conditions set by the authorities regulating economic activity in the country to organize the credit process. These determinants are established in the banking sector by the monetary authority due to the importance of credit, its role in economic activity, and its impact on achieving

[6] Nassar, 2005, pp. 56-57.

objectives such as safeguarding depositors' funds in banks, maintaining the value of the monetary unit, controlling the general price level, or creating economic prosperity and breaking periods of economic recession.

These determinants may also be set by credit-granting banks to avoid as much credit risk as possible, collect their debts, maximize shareholders' equity, and maintain an appropriate level of liquidity.

There are a set of determinants that should be considered when setting the credit policy, taking into account that these determinants are numerous. Some are specific to each bank and its policy, while others pertain to the country, general policies, and the current economic situation. These can be summarized as follows:

1. **The monetary policy adopted by the central bank**: This clearly affects credit policies, whether in terms of determining interest rates, exchange rates, commercial financing decisions, and other banking regulations.
2. **The prevailing economic situation in the country**: Reflecting the economic conditions the country is experiencing, such as recession, inflation levels, unemployment rates, and growth.
3. **The risk and profitability associated with types of loans**: Each economic activity has a certain degree of risk that corresponds to a certain profitability. Therefore, the difference in risk and profitability between types of loans and credit affects credit policies.
4. **Legal considerations**: One of the most important determinants to consider when setting credit policies is the legislation governing banking operations and the instructions issued by central banks, along with legal restrictions and conditions related to granting credit, to avoid discrepancies between the bank's policies and the credit policy set by the central bank[7].
5. **The volume and composition of deposits**: The amount of money deposited in the bank and its nature affect the credit policy, making it open and encouraging lending if the deposit volume is large or if the deposits are long-term, for example, or making it stringent if the deposit volume is not large.
6. **The size and components of the bank's capital**: The size of the bank's capital and its equity play an important role in shaping the credit policy and setting its broad outlines.
7. **The human element**: The expertise of bank employees plays an important role in setting the credit policy. Therefore, the bank must have trained personnel with sufficient experience to manage the credit policy efficiently.

[7] Amjad Izzat Abdul-Maazouz Issa, *Lending Policy in Banks Operating in Palestine*, Master's Thesis, Graduate Studies College, An-Najah National University, Nablus, Palestine, 2004, p. 53.

8. **The society's need for credit**: The need for credit varies between societies, from sufficiency to need. The need for credit also varies among different economic sectors within the society. Therefore, when setting the credit policy, these needs must be covered in various sectors with a degree of balance.

Third Axis

General Rules for Granting Credit Facilities

The banking system plays a crucial and central role in the economic life of both developed and developing countries. This role comes from the banks' acceptance of cash deposits and the granting of credit facilities that contribute to stimulating demand in the national economy, which in turn significantly and effectively increases production. Credit facilities are the channels through which funds flow to various branches of economic activity.

Despite the importance of credit facilities provided by banks to their clients, as credit is considered the most attractive investment for bank activities due to its high profitability sources, in addition to the significant role that credit plays in the economic development of countries, this process carries a substantial amount of risk. Banks may face crises affecting the collection of these debts in case some borrowers default on their loans. Therefore, bank managements must handle the credit facilities portfolio according to controls and standards that reduce the potential risks resulting from granting credit facilities.

First: The Concept of Credit Facilities

The definitions of credit are numerous and varied in perspective. Credit has an economic meaning, which is the ability to lend, and a conventional meaning, which is the commitment of one party to another to lend or finance. It involves the creditor granting the debtor a period of time in which the debtor is obliged to pay the debt's value. It is a financing investment formula adopted by banks of various kinds.

Bank credit is defined as a process in which the bank, for a certain and specific interest or commission, grants a client (individual or business entity), upon their request, either immediately or after a certain period, facilities in the form of funds or any other form to cover liquidity shortages to enable the client to continue their usual activities. It may also involve lending the client for investment purposes or in the form of a guarantee, represented by the bank's guarantee for the client or the bank's commitment on behalf of the client to others[8].

It is also defined as: "The exchange of present value for a promise of an equivalent future value, often in the form of money[9]."

Additionally, it is defined as: "A debtor-creditor relationship where the creditor grants funding (in the form of money, goods, or services) and the debtor receives the funding. It is based on the trust and honesty between both parties and includes an obligation for the debtor to repay within a specific period between granting and repayment, where the value is sometimes recovered through a series of cash payments over the maturity period[10]

Second: Elements of Credit[11]

From the previous definitions of the nature of credit, four elements of credit can be distinguished:

1. **Debtor-Creditor Relationship**: The foundation of this relationship is trust between two parties: the creditor ("credit grantor") and the debtor ("credit receiver").
2. **Existence of Debt**: A credit relationship cannot exist without a "debt," which is the amount of money given by the creditor to the debtor, who is obligated to repay it to the creditor when it becomes due.
3. **Time Period**: There must be a specific and precise period for repaying the debt. This period is the time between the occurrence of the debt and its repayment. This time difference is a core element of credit and differentiates between immediate transactions and credit transactions.
4. **Risk**: This represents what the creditor can bear as a result of waiting for the debtor, including the possibility of the debtor defaulting on the debt.

Third: Foundations of Granting Credit

[8] Hamza Mahmoud Al-Zubaidi, *Bank Credit Management and Credit Analysis*, Al-Warraq Publishing and Distribution, Amman, 2002, p. 18.
[9] Zainab Awadallah, Osama Mohamed Al-Fouli, *Fundamentals of Monetary and Banking Economics*, Al-Halabi Legal Publications, 2003, p. 77.
[10] Abdul Salam Lafta Saeed, *Bank Credit*, Academy of Graduate Studies and Economic Research, Tripoli, Libya, 2000, p. 17.
[11] Hamza Mahmoud Al-Zubaidi, *previous reference*, p. 18.

For bank credit facilities to be conducted within their correct legal and legislative framework and according to established and well-known banking work rules, they must adhere to the following rules and standards:

1. **Security**: Granting credit facilities should not compromise the security measures that banks must consider, especially as credit facilities are one of the main income sources for banks due to the returns they generate. However, this process carries risks of debtor default on debt repayment and interest at the specified times. If this default exceeds safe limits, it poses a significant problem for the bank.
2. **Profitability**: The main objective of credit facilities is to achieve a good profit return for the bank. Therefore, the returns from these facilities should exceed the expenses, resulting in a return on the invested capital.
3. **Liquidity**: One of the biggest problems banks may face is a shortage in available liquidity, especially as banks are required to meet clients' withdrawal requests without delay. This necessitates that bank management ensures maintaining a safe level of liquidity to cover such requests. However, this may conflict with the bank's desire to achieve profits, of which credit facilities are a major source. Therefore, a balance must be struck between maintaining liquidity levels and profits.

Based on the above, each bank must formulate its credit policies according to these foundations and market needs. These policies are essentially a "framework that includes a set of standards and guiding conditions provided to the relevant credit-granting management to ensure uniform handling of the same subject, provide confidence for the employees of the management to enable them to work without fear of making mistakes, and offer sufficient flexibility, i.e., quick action without referring to higher levels as long as it falls within the delegated authority[12]

Fourth: Rules of Granting Credit

The lending study, which forms the basis for the decision to grant or reject credit, is significantly linked to two types of credit analysis:

1. **Qualitative Analysis**: Its purpose is to determine the client's willingness to meet their obligations on time, measured outside the financial statements.
2. **Quantitative Analysis**: Its purpose is to determine the client's ability to meet these obligations on time, measured through the financial statements.

[12] Abdel Ghafar Hanafi, Abdel Salam Abu Qafh, *Modern Management in Commercial Banks*, University House, Alexandria, Egypt, 2004, p. 140.

There are several models that credit management in banks relies on to reach principles and standards of good lending, each characterized by the creditworthiness of the borrower[13]. One of the latest developments in the banking industry for credit analysis and future reading is the "PRISM" model, which reflects the client's strengths and weaknesses. This model is based on deficiency, repayment ability, credit purpose, and guarantees. The elements of this model are:

1. **Concept**: This refers to having a comprehensive understanding of the loan risks and expected returns from the loan, meaning the ability to identify the risks and returns associated with the client and the operational and financial strategies that would improve performance and maximize the stock's market value.
2. **Repayment Ability**: This refers to the client's ability to repay the loan and its interest within the agreed-upon period, by determining the type of repayment source linked to the operational ability to generate cash flows that will be used to meet obligations[14].
3. **Purpose of the Loan**: This forms the basis for studying the sector to which the loan is directed. The purpose or aim of the loan must be clear, specific, and understood by the bank's management. One of the main reasons for borrower default is using the loan for purposes other than those it was granted for[15].
4. **Collateral**: These are the guarantees provided by the borrower to the bank, forming a security element in case the borrower fails to repay. Collateral can be internal, relying on the client's strong financial position, in addition to the conditions set in the loan agreement. Collateral acts as a preventive measure the bank demands to address the risks arising from lending[16].

[13] In addition to the PRISM model mentioned, there are several standards that banks rely on for credit decision-making. Among these standards is the 5Cs model, which is based on five elements: "Character, Capacity, Collateral, Capital, Conditions." There is also the lending standard model based on the 5Ps method, which consists of five basic elements: "Person, Purpose of Credit, Payment Capacity, Protection, Prospects." Another lending standard model is the 8Cs method, meaning that there are eight elements to be studied when the bank is lending, which are: "Character, Capacity to Borrow, Capital, Collateral, Conditions, Past Experiences with the Borrower, Coverage, Cash Flows."

[14] Abdul Salam Lafta Saeed, Alaa Ihsan Ali, *Using the 5S Model in Granting Credit: A Proposed Model*, Baghdad College of Economic Sciences University Journal, Issue 51, 2017, p. 109.

[15] Ali Abdullah Ahmed Shaheen, *A Scientific Approach to Measuring Bank Credit Risk in Commercial Banks in Palestine: An Analytical Study*, Islamic University, Gaza, Palestine, 2010, p. 12.

[16] Abdel Latif Belghersa, *The Knowledgeable Guide in Banking Management*, Publications of the University of Baji Mokhtar, Annaba, Algeria, 2007, p. 172.

5. **Management**: This involves analyzing the administrative methods and procedures of the credit applicant, in addition to determining how the loan will be utilized and information about the management personnel[17].

Fourth Axis

Balancing Returns and Credit Risks in Granting Credit Facilities

There is a strong connection between the profits that a bank achieves and the level of risks surrounding its investment operations and the extent to which these risks can be avoided. However, there are inherent risks in the prevailing economic climate of financial markets that cannot be avoided. Banks may face various risks, including liquidity risks, exchange rate risks, interest rate risks, operational risks, capital risks, in addition to credit risks, which are the focus of this study, and which will be discussed in more detail.

First: Credit Risks

The Banking Organization and Risk Management Committee of the United States Banking Sector defines banking risks as: "The possibility of incurring losses either directly through losses in business results or capital losses, or indirectly through constraints that limit the bank's ability to achieve its objectives and goals. Such constraints weaken the bank's ability to continue its operations and conduct its activities on one hand, and limit its ability to exploit available opportunities in the banking environment on the other hand[18].

The Basel Committee[19] defines risk in the banking sector as: "The risk of loss resulting from inadequate or failed internal processes, people, and systems, or

[17] Mohamed Abbadi, *Evaluation of Trade in Granting Credit: An Analytical Study for the Period from 1989 to 2009*, Journal of Communication in Economics, Administration, and Law, Algeria, 2014, Issue 39, p. 34.

[18] Mohamed Dawood Othman, *The Impact of Credit Risk Mitigants on Bank Value: An Applied Study on the Sector of Jordanian Commercial and Foreign Banks Using Tobin's Q Ratio*, Ph.D. Thesis, College of Financial and Banking Sciences, Arab Academy for Banking and Financial Sciences, Department of Banking, Specialization in Banking, Jordan, 2008, p. 54.

[19] The Basel Committee is a technical advisory committee not based on any international agreement but established by a decision from the central bank governors of industrial countries. This committee meets four times a year and is assisted by working groups composed of technicians to study various aspects of banking supervision. This committee has played a significant role in providing an international framework for banking supervision and creating a common understanding among central banks in different countries of the world, aiming for coordination between various supervisory authorities and finding mechanisms to address the risks faced by banks, recognizing the importance and seriousness of the banking sector. Thus, this committee has become a cornerstone for international cooperation in banking supervision. Hayat Najjar, *Bank Risk Management According to Basel Agreements: A Study on the Situation of Public Commercial Banks in Algeria*, Ph.D. Thesis in Economic Sciences, Ferhat Abbas University, Setif, 2014, p. 94.

from external events that cause damage to fixed assets, or loss of these assets due to disasters or other events[20].

Therefore, it is now commonly accepted that banks have a specialized risk management department. One of its main tasks is to identify, measure, and evaluate all significant potential risks and report them to management to prevent, control, or mitigate their damage in a timely manner.

Regarding the risks associated with granting credit facilities, it is the responsibility of risk management to evaluate the adequacy of banks' capital and liquidity in comparison to their risk levels and market and economic conditions. This also includes developing and reviewing emergency measures, taking into account the specific circumstances of the bank. The process of managing credit risks should be proportionate and balanced with the returns from granting credit facilities.

Credit risks are related to the quality of assets and the probabilities of default. There is a significant challenge in evaluating the quality of assets due to the scarcity of available high-quality information.

Credit risk metrics focus on loans because they are subject to the highest default rates. Most ratios examine net loan losses and non-performing loans. Total loan losses equal the amount written off due to uncollectibility during a specific period.

Credit risk arises when the bank cannot assess the client's ability to fulfill their obligations to repay the loan principal and interest. The financial decision is based on identifying two critical variables: the expected return and the level of risk, known as the trade-off between return and risk.

The optimal and correct decision is one where management feels the generated return balances or exceeds the surrounding risk level. Based on this principle, the credit management's activity in its credit decisions is determined. The principle is a state of balance between the return variable and the risk variable. The balance state means that the expected return from the credit decision is sufficient to compensate the bank for the risks surrounding that return, which the credit management demands for the funds it provides to credit applicants.

[20] Tarek El-Gamal, *Risk Management Strategy*, First Edition, Police Printing Press, Egypt, 2011, p. 9.

Therefore, the process of credit risk analysis is one of the essential pillars on which the decision to grant bank credit relies. Through this process, the borrower's quality is usually classified, and the level of risk surrounding the requested loan is assessed, based on which the loan applicant's fate is decided either with approval or rejection. If the application is approved, the interest rate, type of collateral, or guarantees to be provided are determined.

Because an imbalance in the process of balancing returns and credit risks in granting credit facilities results in adverse effects and outcomes that harm the bank's financial position, the credit policy must be strong enough to reduce these risks to the lowest possible level.

Second: Types of Credit Risks

1. Liquidity Risks: These occur when there is a mismatch between customers' cash withdrawals and loan repayments.

2. Pricing Risks: These arise when the bank incorrectly sets fair prices for loan products borne by the customer. Prices should be linked to the level of risk the bank may face.

3. Execution Risks: Banks are expected to maintain a database of customers and classify them based on their loan repayment quality. However, banks must regularly and accurately update this data.

4. Collateral Erosion Risks: Collateral obtained by the bank against credit should be strong and not susceptible to erosion under any emergency circumstances, such as exchange rate changes or changes in the central bank's monetary policy.

5. Political and Legal Risks: Legislative and legal policies issued by legal authorities in the country should be monitored to ensure the legitimacy of the bank's credit decisions. Political changes in the country should also be considered, as security and political instability are among the major risks facing the credit process.

6. Non-Performing Loan Risks: These are credit facilities obtained by the client from the bank that have not been repaid by the due date, transforming credit from a source of income for the bank into overdue debt balances.

Third: Risk and Return Measures

All types of risks previously mentioned must be evaluated both descriptively and regularly. They should also be quantitatively assessed whenever possible, considering the impact of expected and unexpected events.

Building a quantitative model to determine, measure, and predict the extent of exposure to specific risks is the second fundamental pillar of financial engineering in its role in risk management. This pillar relies on utilizing available quantitative techniques and methods within the framework of operations research and single and multiple variable statistical analysis, as well as existing econometric methods. Regardless of the model used, it must be designed to fit the nature of banking work and serve the bank's risk management objectives.

The profitability of a bank directly varies with the level of risk surrounding its investment portfolio and operations, and what can be avoided of these risks. Given the nature of banking work, it is difficult to completely eliminate risks. However, a sound system and clear identification of risks surrounding banking activities contribute significantly to reducing these risks, predicting them, and taking sufficient precautions to avoid them as much as possible.

Fourth: Methods for Measuring Credit Risks

1. Standard Approach: This primarily relies on assigning risk weights according to different exposure positions ("governments, banks, companies") based on the rating given by external rating agencies to these entities. The role of the central bank is evident here in accrediting these agencies and approving them as bases for determining customer ratings and thus the degree of risk weights[21].

2. Internal Rating Approach: Banks estimate the probabilities of customer default, and the remaining inputs for calculating credit risks are provided by the central bank. This approach consists of two methods[22]:

- Basic Method: This method allows banks to assess the creditworthiness of the borrowing customer within certain criteria. Borrower's eligibility translates

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[21] *Naima Khadraoui,* Bank Risk Management: A Comparative Study between Conventional and Islamic Banks - Case of Agricultural and Rural Development Bank and Al Baraka Bank Algeria*, Master's Thesis in Economic Sciences, Specialization in Money and Finance, Mohamed Khider University, Biskra, 2009, p. 113.*

[22] *Jamal Al-Isani,* Capital Adequacy Calculation for Islamic Banks under Basel II Requirements: An Applied Study on Al Baraka Bank Algeria for the Year 2008*, Master's Thesis in Economic Sciences, Specialization in Finance and Banking, Amar Telidji University, Laghouat, 2012-2013, p. 73.*

into estimates for potential future losses, on which the minimum capital requirements are based.

- Advanced Method: This method is adopted by banks themselves to calculate their estimates of default probability, loss given default, exposure at default, and the maturities of credit facilities.

The Fifth Axis

Iraqi Legislations Governing the Granting of Credit Facilities

The Iraqi banking sector suffers from structural problems and faces market challenges and risks due to the instability of the investment environment. This has led to its lack of development and weak connection with the global banking system. After 2003, Iraq inherited a deteriorated banking system characterized by weak confidence in Iraqi banks and the weak role of banks in economic and developmental activities. During this period, the role of the Central Bank of Iraq was subject to the management of the Ministry of Finance. Its main task was to create money as liabilities corresponding to the monetary authority's possession of government debt instruments, the most significant of which were treasury transfers, a phenomenon known as "monetization of debt." This policy only resulted in an increase in the money supply and high inflation rates[23]. Therefore, banking reforms were necessary, especially concerning the organizational structure, identifying financial, operational, and supervisory problems, and issuing appropriate regulatory frameworks by the Central Bank to regulate the work of government and private banks and exercise supervision.

To face these challenges, the Central Bank of Iraq Law No. 56 of 2004 was issued, along with the Banking Law No. 94 of 2004, which allows foreign banks to operate. Based on the market economy methodology, some measures were taken, including:

- Cancelling the annual credit plan prepared by the Central Bank for banks and leaving each bank the authority to set its plan.

- Allowing banks to provide large joint loans contributed by more than one bank.

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[23] *Hussain Jawad Kazem – Mundhir Jabbar Daghir, "The Banking Sector in Iraq and the Obstacles to Adapting to the International Banking Supervision Standard – Basel II," p. 168.*

- Providing loans based on economic feasibility studies with appropriate guarantees and monitoring their use for the intended purposes.

- Implementing a credit classification guide and setting financial allocations commensurate with the risks of each category, from excellent credit to losing credit, to ensure the safety of banking operations.

- Reviewing banking legislation in Iraq to improve the banking sector. The Central Bank of Iraq prepared a workshop to amend Law No. 56 of 2004 and Law No. 24 of 2004.

As a culmination of the Central Bank of Iraq's efforts to enhance financial inclusion, the balance of deposits in the banking sector increased from 76.9 trillion dinars in 2018 to 82 trillion dinars in 2019, an increase of 6.6%, continuing the relative improvement in economic conditions in 2019[24].

The credit provided by banks to the public and private sectors (cash credit[25] and contingent credit[26]) increased by 5.5% in 2019, reaching 67.3 trillion dinars in 2019 after being 63.8 trillion dinars in 2018.

This increase occurred in cash credit, which rose to 42 trillion dinars in 2019 after being 38.5 trillion dinars in 2018, a 9% increase, raising its relative importance to total credit from 60.30% in 2018 to 62.46% in 2019. The growth rates of cash credit granted to the central government and public institutions and the private sector increased by 17.7% and 4%, respectively, while the growth rate of cash credit to public institutions decreased by 0.8% in 2019[27].

As for contingent credit, it slightly decreased from 25.33 trillion dinars in 2018 to 25.26 trillion dinars in 2019, a negative growth rate of 0.26%, reducing its relative importance to total credit from 39.7% in 2018 to 37.5% in 2019. Contingent credit granted to the central government and the private sector declined by growth rates of 3.32% and 0.38%, respectively, while contingent credit granted to public institutions saw a slight increase of 0.94%.

[24] Central Bank of Iraq, Monetary and Financial Stability Department, Financial Stability Report for 2019, p. 4.

[25] Includes all outstanding balances for all types of cash credit facilities and direct financing operations (overdrafts, discounted commercial papers, advances and loans, and any other facilities) provided by commercial banks to all economic sectors, Central Bank of Iraq, General Directorate of Statistics and Research, Annual Statistical Bulletin, p. 7.

[26] Includes all outstanding balances for all types of contingent credit facilities (letters of credit and guarantees) provided by commercial banks to all economic sectors, Central Bank of Iraq, General Directorate of Statistics and Research, Annual Statistical Bulletin, p. 7.

[27] Central Bank of Iraq, Monetary and Financial Stability Department, Financial Stability Report for 2019, p. 11.

This reflected an increase in cash credit from 38.5 trillion dinars in 2018 to 42 trillion dinars in 2019, a 9% increase, while contingent credit decreased from 25.33 trillion dinars in 2018 to 25.26 trillion dinars in 2019, a decrease of 0.26%, reducing its relative importance to total credit from 39.7% in 2018 to 37.5% in 2019.

Also, the volume of overdue debts decreased from "4.8" trillion dinars in 2018 to "4.1" trillion dinars in 2019, with a reduction rate of "15%," reflecting an increase in the repayment of due loans. The percentage of total overdue debts to total cash credit decreased from "12.8%" in 2018 to "9.89%" in 2019. This was due to the decrease in the value of non-performing loans of government banks, reflecting a decline in the risks faced by the banking system, especially the risks arising from the activity of the private sector, whose non-performing loans constitute the largest proportion of defaults[28].

From the previous indicators, it is clear how the development of monetary policy according to the steps taken by the Central Bank of Iraq, applied to the Iraqi banking system, contributed to increasing its activity and development. This development contributed to the growth of banking capital and assets on the one hand and the development of bank deposits and banking credit on the other hand.

As previously defined credit criteria as: "a set of controls and conditions set by the authorities regulating economic activity to organize the credit process. These criteria are set in the banking sector by the monetary authority, given the importance of credit and its role in economic activity and its impact on the goals it seeks to achieve, whether related to preserving depositors' funds in banks or maintaining the value of the monetary unit, or controlling the general level of prices. These criteria may also be set by commercial banks – credit grantors – to avoid as much credit risk as possible to collect their debts, maximize shareholders' equity, and maintain an appropriate level of liquidity."

Looking at the essential features of the banking sector in Iraq, particularly concerning credit facilities – the subject of the study – there is a significant imbalance in the volume of lending activity, and this imbalance can be observed through:

[28] Central Bank of Iraq, Monetary and Financial Stability Department, Financial Stability Report for 2019, p. 4 and onwards.

- The Iraqi banking sector always operates on the basis of granting loans with collateral guarantees, which has led to the exclusion of "95%" of the population from borrowing, which poses a severe obstacle to the development of the private sector.

- The volume of loans provided by private banks to the private sector by the end of "2001" amounted to approximately "4" million dollars, representing more than half of what the total government banking sector provided.

Monetary authorities and commercial banks, due to the surrounding economic and financial changes in the banking sector and the conditions of the money market, tend to change these criteria, either by adding other criteria, modifying them, or canceling some, making them variable according to changing conditions. The Iraqi legislator stated in the Banking Law No. of 2004 some of these criteria to achieve a set of different goals, which can be summarized as:

- Control the redirection by the monetary authority to achieve its goals.

- Enhance safety measures within banks to contribute to achieving their general objectives.

- Increase confidence in the performance of banks and reduce investment risks to encourage investment.

Types of Credit Limits:

Credit limits are often established in a correlational relationship with the bank's funds sources (liabilities) or the use of these funds (assets). The most common credit limits imposed by central banks include:

- The mandatory cash reserve ratio on deposit liabilities in banks.

- The legal liquidity ratio to deposit liabilities.

- The total credit facilities ratio to total deposit liabilities.

- The credit facilities ratio for a single customer to equity (capital and reserves).

- Linking the value of facilities to the type and value of guarantees provided.

- Linking the type of facility granted to the total facilities granted or to total assets.

To achieve these limits, Article "30" of the Iraqi Banking Law "Large Credit Exposures" states that:

1. No bank shall grant credit to a person if it results in:

(a) The total outstanding amount of all credits to that person exceeds "15%" or a lesser percentage specified by the regulations issued by the Central Bank of Iraq of the bank's capital and sound reserves and the large credit exposure without prior approval from the Central Bank of Iraq, or

(b) The total outstanding amount of all credits to that person exceeds "25%" or a lesser percentage specified by the regulations issued by the Central Bank of Iraq of the bank's capital and sound reserves.

(c) The total outstanding amount of all large credit exposures of the bank based on subparagraphs (a) and (b) exceeds "400%" or a lesser percentage specified by the regulations issued by the Central Bank of Iraq of the bank's sound capital and reserves.

2. The restrictions specified in paragraph (1) do not apply to any original credit amount that is fully secured by readily marketable collateral according to the standards set by the regulations of the Central Bank of Iraq for this purpose, provided that no bank grants secured credit of this type if the total outstanding amount resulting from all its secured credits to the person receiving this credit exceeds "20%" of the sound capital and reserves and a lesser percentage specified by the regulations issued by the Central Bank of Iraq.

- The cash collateral ratio on credits and guarantees.

- Setting maximum limits for financing an individual client and related parties.

- Defining the areas in which employment is prohibited and the persons to whom loans and facilities are prohibited, such as board members and others.

To achieve these limits, Article "31" "Transactions with Related Persons[29] and Senior Bank Employees[30]," of the aforementioned Iraqi Banking Law states:

1. No bank shall grant credit to a related person or a senior bank employee:

(a) Without the approval of the board of directors in the case of a local bank on the credit and its financial terms and conditions.

(b) If the credit is granted to an administrator in the bank or a senior bank employee and the credit results in the total credit amount granted by the bank to that person, including credit granted to one or more subsidiaries of the bank, exceeding "50%" of that person's annual compensation, or if the credit results in the total credit amount granted to all related persons exceeding "10%" of the sound capital and reserves or a lesser percentage specified by the regulations issued by the Central Bank of Iraq, provided that the aforementioned percentage limits do not apply to any credit secured by a mortgage on a property owned by a local resident whose appraised value, in the opinion of the Central Bank of Iraq, at the time of granting the credit exceeds the original credit amount by at least one-third of the original credit amount, or

(c) If the credit is granted under terms and conditions less favorable to the bank than the terms and conditions offered by the bank to the public according to the usual practices of granting credit.

(d) If the credit is not fully secured to the extent and manner determined by the regulatory guidelines issued by the Central Bank.

[29] Any bank manager, any person related to the manager either by kinship up to the second degree or by adoption or guardianship, including the manager's children or any other person residing in the manager's residence, any person holding a qualifying interest in the bank, a project in which such person or bank manager holds a qualifying interest, and any manager of such person or project, any project not subject to consolidation in the bank's financial statements in which the bank holds a qualifying interest, and any manager of such project, in addition to any spouses and children of related persons up to the first and second degrees or any spouses and children of such persons.

[30] The person (excluding the administrator) who holds a title or regardless of the title holds one or more of the following positions in a local bank or, in the case of a foreign bank, in the bank's branch in Iraq: Chairman of the Board, General Manager, President, Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Chief Lending Officer, or Chief Investment Officer, as well as the term "senior bank employee" includes any other person required by the Central Bank of Iraq to comply with the requirements stated in paragraph (4) of Article (18) of this law, in addition to any person related to the senior bank employee up to the first or second degrees or any spouses and children of such persons.

2. A bank is not allowed to purchase assets from or sell assets to a related person, any natural person, any employee or official of the bank, or a related person.
3. A bank is not allowed to purchase assets from a related legal person: a. If the board of directors of the local bank has not approved the financial terms and conditions for the purchase of the assets. b. If the assets are purchased under less favorable terms and conditions for the bank than the terms and conditions offered by the bank to the public according to customary practices when purchasing assets.
4. The bank's audit committee must be immediately informed of any credit provided by a local bank to or purchase of assets from a related person or a senior bank employee. In the event that a bank provides credit to or purchases assets from a related person in violation of paragraph (1), this credit must be repaid immediately, and the board members or authorized directors, as the case may be, are personally and collectively responsible for paying the original credit amount granted in violation of paragraph (1) with their knowledge and without their objection, as well as paying the interest and other fees related to this credit.
5. The Central Bank of Iraq may issue instructions to a bank to deduct any loan granted to a related person or a senior bank employee from the capital for the purposes of calculating the ratio according to paragraph (1) of Article (16).

In addition to the above, banks may impose other limits from time to time, including:

- Linking long-term loans to stable deposits in the bank.
- Linking the rate of change in credit to the rate of change in deposits.
- Defining credit authorities for each functional level in the bank.
- Excluding certain sources of funds, such as government deposits and seasonal deposits, from the employable funds.
- Determining the percentage of employment in each type of credit relative to the sources of funds.
- Setting a ceiling for each type of credit and determining the purpose and terms of granting.
- Establishing maximum limits for indebtedness outside the state, the required guarantees for the indebtedness, and the concentration of these employments.

Conclusion

Results and Recommendations

Legislative efforts to develop the Iraqi banking sector cannot be denied, but there is still noticeable weakness in its performance, reflecting negatively on the banking sector's contribution to development and investment. This is evident in[31]:

1. The Central Bank's decision to grant cash credit amounting to eight times the capital, regardless of the size of deposits at private banks, leading them to raise interest rates on credit, which hampers its granting.
2. Weak credit rating of borrowers, who are generally of high moral risk.
3. Weakness or difficulty in evaluating appropriate and sufficient guarantees for granting credit, resulting from the impact of inflationary expectations or what is called market risk.
4. Most banks, especially private ones, do not allow high solvency, enabling them to expand their credit activities due to the short-term nature of their deposit structure.
5. Low banking density, negatively affecting the performance of the credit sector in banks, especially as most banks are concentrated in the capital.
6. The administrative structure is cumbersome in many banks, especially government banks.

Recommendations[32]

Despite the significant challenges facing the Iraqi economy in general and the banking sector in particular, and despite the diligent efforts made to develop this sector, especially after 2003 with the issuance of the Central Bank of Iraq Law No. 56 of 2004 and the Banking Law No. 24 of 2004, developing the banking sector requires concerted efforts to advance and protect it, especially credit facilities and loan granting. This is particularly important as the performance indicators of the banking sector in Iraq have not revealed a clear model approaching the acceptable ratios between capital, deposits, and credit. For instance, the ratio of cash credit to deposits in government banks was "53%" in 2015, while the ratio of cash credit to owned capital, including reserves, in government banks was "76%," an acceptable average but significantly varying and higher in the Rafidain and Rasheed banks from the generally accepted ratios. The ratio of cash credit to deposits in private banks was "84%," an appropriate ratio, but exceeds deposits in "18" private banks,

[31] Muntadhar Fadel Saad, "Challenges Facing the Iraqi Banking Sector," Journal of Financial, Accounting, and Administrative Studies, Issue No. 5, June 2015, p. 29.

[32] It is worth noting that some of these recommendations were proposed by the Finance Committee in the Iraqi Council of Representatives, Council of Representatives, Finance Committee, 2015, pp. 44-47.

indicating that part of the credit is financed from capital. The ratio of cash credit to capital in private banks was "93%," indicating significant capital idleness at the sectoral level, confirming that the total banking capital exceeds the market's needs due to the high number of banks. The total deposits in 2016 amounted to about "62.4" trillion dinars, less than one-third of the GDP, with a high percentage of current deposits, on which banks do not pay interest, indicating a low financing cost. On the other hand, the volume of private deposits amounted to "23.7" trillion dinars, a modest amount compared to the private sector GDP, with private banks receiving "8592" billion dinars from these deposits, of which "73.6%" were current deposits, indicating no financing cost but a shortage of deposits directed to them. This issue becomes evident when compared to the capital, including reserves, which amounted to "9902" billion dinars in 2016 for the total banks, excluding government banks, meaning that the average deposits received by a single private bank are roughly equal to its capital—a unique phenomenon.

As deposits are the source of credit financing and the main component of banking assets, the ratio of the latter to capital is extremely low and does not align with the minimum efficiency levels. This problem is likely to exacerbate with the entry of new banks into the market, indicating that the private banking sector has not been able to possess the inherent capacity to perform the banking credit function. Moreover, the credit market is insufficient to absorb the banking capital. Therefore, the researcher recommends:

1. Reconsider banking legislation to advance the Iraqi banking sector to keep up with global developments and face challenges, especially in the credit facilities market.
2. Focus on increasing credit, financing, and soft loans and activating deposit employment.
3. Hold workshops and conferences to analyze the performance efficiency of banks and how to improve credit management in banks.
4. Develop strategies to improve credit rules to attract and encourage foreign investors to achieve economic development.
5. Develop human capital in banks and enhance their skills to increase efficiency and effectiveness and keep up with rapid technological developments.
6. Activate Article "26" of the Banking Law by developing effective strategies and detailed annual plans.
7. Expand by opening new banks and branches of existing banks in major cities outside the capital to increase banking density.

8. Prepare studies and research supported by reliable statistics on the Iraqi credit market to develop effective solutions to address credit gaps.

References

Arabic References:

- Hussain Jawad Kazem and Mundhir Jabbar Daghir, *The Banking Sector in Iraq and the Obstacles to Adapting to the International Banking Supervision Standard – Basel II*.
- Central Bank of Iraq, Monetary and Financial Stability Department, *Financial Stability Report for 2019*.
- Muneer Ibrahim Hindi, *Management of Financial Institutions and Financial Markets*, Al-Maaref Institution, Alexandria, Egypt, 2006.
- Ali Abdullah Ahmed Shaheen, *A Scientific Approach to Measuring Credit Risk in Commercial Banks in Palestine: An Analytical Study*, Islamic University, Gaza, Palestine, 2010.
- Abdellatif Belghrassa, *The Knowledgeable Source in Banking Management*, University of Badji Mokhtar Publications, Annaba, Algeria, 2007.
- Abdelghafar Hanafi and Abdelsalam Abu Khaf, *Modern Management in Commercial Banks*, University House, Alexandria, Egypt, 2004.
- Abdelsalam Lafta Saeed, *Banking Credit*, Academy of Graduate Studies and Economic Research, Tripoli, Libya, 2000.
- Tarek El-Gamal, *Risk Management Strategy*, First Edition, Police Press, Egypt, 2011.
- Zeinab Awadallah and Osama Mohammed Al-Fouly, *Fundamentals of Monetary and Banking Economics*, Al-Halabi Legal Publications, 2003.
- Khalid Wehib Al-Rawi, *Banking Operations Management*, Third Edition, Dar Al-Manhaj Publishing and Distribution, Amman, Jordan, 2003.
- Hamza Mahmoud Al-Zubaidi, *Banking Credit Management and Credit Analysis*, Al-Warraq Publishing and Distribution, Amman, 2002.
- Hamza Mahmoud Al-Zubaidi, *Banking Credit Management and Credit Analysis*, Al-Warraq Publishing and Distribution, Amman, 2002.
- Hassan Hussein Qalaji and Moayyed Abdul Rahman Al-Douri, *Bank Management: A Quantitative Approach and Contemporary Strategy*, Wael Publishing House, Amman, Jordan, 2003.

Foreign References:

- Chen, Xiaohong A., Xiaodhig Wang A, Desheng Dash Wu B. (2010), "Credit Risk Measurement and Early Warning of SMEs: An Empirical Study of Listed SMEs in China," Decision Support System, Vol. 49, No. 10.

Scientific Theses:

- Mohammad Dawood Othman, *The Effect of Credit Risk Mitigants on the Value of Banks: An Applied Study on the Jordanian Commercial and Foreign Banks Sector Using Tobin's Q Ratio*, PhD thesis, Faculty of Financial and Banking Sciences, Arab Academy for Financial and Banking Sciences, Department of Banking, Specialization in Banking, Jordan, 2008.
- Hayat Najjar, *Banking Risk Management According to Basel Agreements – Study of the Reality of Algerian Public Commercial Banks*, PhD thesis in Economic Sciences, University of Ferhat Abbas, Setif, 2014.
- Naima Khadraoui, *Banking Risk Management: A Comparative Study between Traditional and Islamic Banks – Case of the Agriculture and Rural Development Bank and Al Baraka Bank Algeria*, Master's thesis in Economic Sciences, Specialization in Money and Finance, Mohamed Khider University, Biskra, 2009.
- Jamal Al-Isani, *Capital Adequacy Calculation for Islamic Banks within the Framework of Basel II Decisions – An Applied Study on Al Baraka Bank Algeria for the Year 2008*, Master's thesis in Economic Sciences, Specialization in Finance and Banking, Ammar Thleiji University, Laghouat, 2012-2013.
- Amjad Ezzat Abdel Maazouz Issa, *Lending Policy in Banks Operating in Palestine*, Master's thesis, Faculty of Graduate Studies, An-Najah National University, Nablus, Palestine, 2004.

Journals and Periodicals:

- Abdelsalam Lafta Saeed and Alaa Ehsan Ali, *Using the 5S Model in Granting Credit: A Proposed Model*, Journal of Baghdad College of Economic Sciences, Issue No. 51, 2017.
- Mohamed Abbadi, *Evaluation of Trade in Granting Credit: An Analytical Study for the Period from 1989 to 2009*, Journal of Communication in Economics, Management, and Law, Algeria, 2014, Issue No. 39.