THE IMPACT OF NON-PERFORMING DEBTS ON BANKING PERFORMANCE: AN ANALYTICAL STUDY OF THE MIDDLE EAST BANK AND THE IRAQI INVESTMENT BANK

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ABSTRACT

Purpose: The research aims to study the practical measurement of non-performing debt risks on banking performance and present the results, which provide valuable financial information to bank users and decision-makers.

Theoretical framework: The theoretical framework of this research involves categorizing loans encountered by banks to identify non-performing and written-off loans resulting from credit risks. It also seeks to understand how to address non-performing loans to prevent financial distress that banks might face as a result, thus enhancing the value of accounting information derived from the banking accounting system.

Method/design/approach: In this study, banking credit risks are measured using indicators based on the primary financial statements of the Middle East Bank and the Iraqi Investment Bank for the period from 2005 to 2008.

Results and conclusion: The study indicated that the importance of financial disclosure is increasing, especially in the context of the banking sector, given the complexity of financial instruments such as derivatives and securities, their significant trading volume, and the associated risks.

Research implications: The research results revealed that banks do not disclose the reasons behind financial distress, represented by credit risks and non-performing loans, nor do they disclose the quality of banking credit, loan classifications based on due dates, and how to calculate provisions for doubtful loans.

Originality/value: The analysis sheds light on the relationship between non-performing debt risks and banking performance through the process of analyzing banking credit risks. Banking credit risks are among the most significant risks faced by commercial banks, as they arise from the probability of customers not meeting their obligations on their due dates, leading to potential losses for the banks.

Keywords: Non-performing Debts – Financial Insolvency – Financial Default – Credit Risk.

1. INTRODUCTION

Banking risks, which pose threats to financial institutions, encompass financial distress and consequently potential bankruptcy. Banks must strive to mitigate the impact of these risks since they are inevitable but manageable. Employing scientific and logical methods to measure and hedge these risks according to estimated potential losses is crucial. Today, banks confront global
competitive challenges, emphasizing the need to focus on the credit function of a bank. The financial position of any bank is influenced by numerous variables and elements, with the loan portfolio particularly occupying a significant position within the financial structure. Maintaining a healthy loan portfolio leads to achieving high returns for the bank with minimal levels of associated credit risks.

2. RESEARCH METHODOLOGY
Firstly: Research Problem
The research problem lies in the absence of an effective system to measure banking credit risks in commercial banks. This deficiency weakens the bank's ability to make appropriate decisions in determining credit risk provisions (provisions for doubtful loans) for the purpose of hedging credit risks.

Secondly: Research Significance
The significance of the research stems from its focus on the necessity of an efficient banking system that employs accounting measurement of banking credit risks. This system should also ensure accounting disclosure of these risks in a manner that assists users of the resulting accounting information in evaluating the bank and assessing its susceptibility to financial distress.

Thirdly: Research Objectives
The research aims to study the process of accounting measurement of banking credit risks and provide the resulting information that constitutes valuable accounting insights for the users of this information.

Fourthly: Research Hypothesis
The hypothesis posits that measuring banking credit risks leads to reducing these risks and preventing the bank from facing financial distress.

Second topic
Firstly: Definition of Financial Distress
The topic of financial distress has garnered significant attention from researchers due to its potential negative implications on the national economy and various working classes. Financial distress places an economic burden on both customers and banks simultaneously. For customers, financial distress involves reputation damage, survival challenges, debt accumulation, and related burdens. For banks, losses from loans and other facilities affect their capital and liquidity, consequently reflecting negatively on their profitability. (Ariel, 2000) Important concepts associated with financial distress include:

1. Bankruptcy
This legal term refers to the state of insolvency a business entity faces when it fails to meet its debt obligations as they become due. Bankruptcy is officially declared by a court to initiate liquidation and sale proceedings, aiming to repay debts to the rightful claimants. (Bagchi, 2004)

2. Financial Insolvency (Lack of Solvency)
Financial insolvency occurs when an economic entity reaches a point of failure beyond bankruptcy, where its liabilities exceed its assets. (Barry, 2007)

3. Financial Failure
The term "failure" is used to denote the end of an economic entity's life due to its bankruptcy declaration. It can also refer to the period following bankruptcy declaration, which marks the entity's exit from economic activity. (Barry, 2000)

4. Financial Distress
Financial distress is defined as the stage where an entity faces severe financial turmoil, bringing it very close to levels of financial insolvency that could eventually lead to bankruptcy declaration. This turmoil might involve an inability to meet external obligations or continuous year-on-year losses, forcing the entity to intermittently cease its activities. Financial distress often results from a combination of problems, often indicating genuine financial difficulty. (Basel, 2008)

Second: The stages of financial failure
Five basic stages have been identified that make up the financial failure process, which are as follows: (Basel, 2001)

The first stage, which is the stage of the appearance of the accidental event, when the economic unit faces an accidental accident, which is often related to its financial aspect, as if the unit enters into obligations that constitute a burden on it without the funds being invested effectively in areas that generate an appropriate return.

The second stage is the stage of disregarding the status quo, i.e. the stage in which the administration ignores the risks that surround it as a result of the accident that appeared in the previous stage, and this is due primarily to the weak efficiency of this administration.

The third stage, which is the stage of coexistence and underestimating the risks, and it is the stage in which the danger increases while the unit management continues to ignore this danger, and may even continue its unplanned spending policy, and here the losses begin to appear and accumulate.

The fourth stage, which is the stage of coexistence with financial stumbling, which is the most dangerous stage, as the state of financial stumbling becomes a normal daily situation, in which new investments stop. Here, a crisis begins, as news and information about the financial failure of the unit leaks to external parties that deal with it, including creditors and government agencies, and here they will start claiming their rights and taking the necessary legal measures.

The fifth stage, which is the last stage, through which the crisis or liquidation of the unit is dealt with, through debt rescheduling, merger, or through the final liquidation of the unit.

Third: The causes of financial failure:
There are multiple reasons for financial failure, all of which are ultimately due to mismanagement and that management is primarily responsible for making investment, operational and financing
decisions adopted by the economic unit. Likewise, the unit that does not conduct economic feasibility studies for investment projects will have nothing but failure. Relying on intuition and speculation and taking verbal advice from specialists in selecting or implementing capital investments may generate large losses that the unit cannot bear. (Basel, 2000)

As for the external causes, they are related to economic conditions such as recession, high interest rates, the steady decline in the value of the currency, and the instability of economic policies. And the internal causes of financial failure are due to the following: (Bedford, 2001)

1. Administrative reasons:
   1. Negligence on the part of some workers in the absence of direct supervision.
   2. Lack of initiative and fear of taking responsibility.

2. Financial reasons:
   1. Low profits compared to similar units.
   2. Unjustified high expenses and costs.
   3. The confusion of financial policy in the field of financing and credit.

3. Technical reasons:
   1. Complicated procedures and delays in completing the work.
   2. Inability and inefficiency in the use of modern technology.

4. Marketing reasons:
   1. Customers complained about poor service and handling.
   2. Lagging behind market requirements to a clear degree.

Fourth: - The effects of financial failure on the bank:
The financial failure has effects on all parties, whether it is the debtor-borrower (the customer) or the creditor-lender (the bank), and the following are some of these effects: (Belkaoui, 2000)

1- Depriving the bank of interest on loans as long as they are non-performing.
2- Creating a provision for non-performing loans, since the creation of the provision requires that the bank’s profits be reduced in the year during which this provision was taken.
3- The greater the size of the bank's non-performing loans, the lower the bank's rating on the scale of the strength of the bank within a specific country or globally.

Fifth: - Forecasting financial failure:
There are many parties that pay great attention to the possibility of predicting the failure of the economic unit, such as investors, creditors, management, government agencies, auditors, and others. The investor is concerned with predicting the failure of the economic unit in order to make his investment decisions, compare the available alternatives, and avoid very risky investments. As for the interest of creditors or lenders in the subject, there are many reasons for it, including making a decision to grant credit or not, determining the interest rate and the terms of the loan based on the size of the risk related to it. (Booth, 2010)

1- The concept of prediction:
Forecasting is the process of anticipating and estimating what will happen in the future, and that
is why it is necessary for the purpose of planning. Financial forecasting is not planning, but rather an estimate or estimation of the variables in the light of which the planning process is prepared. Forecasting means everything related to the future, and financial forecasting is defined as: it is a set of measurements and estimates that an individual (or an institution) makes related to future events and conditions, with the aim of preparing to face these expected conditions by developing the necessary plans and policies to deal with these conditions. (Burchett, 2020)

2- Financial default prediction models
The financial default prediction models are a means to test the customer's continuity or give early warning about the customer's default or bankruptcy, and the models depend on accounting ratios in most of them, as well as we find that they relied on quantitative indicators derived from the financial statements, and the point of fundamental difference between these models is their difference in weight. The percentage given for each financial ratio. It should be emphasized here that none of the models can be applied as it is in its original form to study the possibilities of financial default and in all circumstances, due to the possibility that the unit under study is different in the nature of its activity or the environmental conditions surrounding it from the nature of the activity or the environmental conditions that were surrounding the sample that it was included in the study, through which the model was built. (Bushman & Smith, 2001)

We will review some of the financial default prediction models above as follows:

A- The Beaver 1966 model:
Beaver analyzed 14 financial ratios in which he concluded that the ratios of non-liquid assets exceed the ratios of liquid assets in their ability to predict corporate failure in both the long and short term, and he concluded that: the ratio of cash flow to total liabilities and the ratio of net profit after Tax to total assets is one of the most effective ratios of liquid assets in predicting the failure of companies, and also note that the failed companies kept less stock than the successful companies, and that the best liquid assets in predicting the failure of companies are: the ratio of cash to total assets, the ratio of net working capital to total Assets, it was found that failed companies were distinguished from successful companies by the increase in their balances of receivables and the decrease of their cash balances, hence the explanation for the inability of trading ratios, and the ratio of quick assets to predict the failure of successful and failed companies that disappear when receivables and cash are collected together. (Cavalla & Majnoni, 2001)

B- Altman 1968 model:
This model is based on five independent variables, each of which represents a financial percentage of the recognized ratios and a dependent variable (Z). (1946-1965). Many attempts led to the use of credit scoring models to reach the credit capacity of borrowers, and the idea in general of these models was to find the factors that could lead to the distinction between good and bad credit risks, and the development of these models needs to be accurately matched to the specifications of borrowers that can be used to predict bankruptcy (Choi, 2022)

C- Ohlson, 1980:
Ohlson proposed the log model to analyze the effect of four basic factors on the probability of
bankruptcy: the size of the economic unit, measures of the financial structure of the economic unit, measures of performance, and measures of current liquidity. The following nine financial ratios were chosen as independent variables to represent the four elements:

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<tr>
<td>1.(size) TA</td>
<td>total assets</td>
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<tr>
<td>2.TL/TA</td>
<td>Total Liabilities/Total Assets</td>
<td></td>
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<tr>
<td>3.WC/TA</td>
<td>working capital/total assets</td>
<td></td>
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<tr>
<td>4.CL/CA</td>
<td>Current liabilities / current assets</td>
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<tr>
<td>5.OENEG</td>
<td>A value of 1 if total liabilities are greater than assets and zero if the opposite</td>
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<tr>
<td>6.NI/TA</td>
<td>Net income/total assets</td>
<td></td>
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<td>7.FU/T</td>
<td>Cash from operations/total liabilities</td>
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<tr>
<td>8.INTWO</td>
<td>1 if net income was negative for the past two years and zero if it was the opposite</td>
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<td>9.CHIN</td>
<td>NI2-NIt-1/NIt+NIt-1) since NIt represents net income for the last year and the denominator reflects a level indicator and CHIN is a measure of change in net income</td>
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Source: Prepared by the researcher

Sixth: Non-Performance Loans Disclosure:
Non-performing loans represent a serious problem, with exorbitant costs and complex effects, not only on the banking system, but also on the state, due to its dangerous and intertwined impact on economic activity in general, not only at the present time, but more dangerously on the future as well, with what this problem causes. Instability and lack of confidence in the bank. The phenomenon of non-performing loans, even successful banks, cannot avoid its emergence. Banks struggle to settle their hard-to-collect debts, reduce the ratio of bad debts to the total volume of loans, and get rid of loans whose chances of recovery have vanished or due from borrowers on the verge of bankruptcy or They have already gone bankrupt, while these banks are still facing some outstanding issues and financial disputes existing between them and some of their customers. Although several years have passed since some hot financial issues erupted between banks and their customers, the banks’ moves did not succeed in settling these files. The traditional treatment used in settling this type of loan is resorting to the liquidation of guarantees or mortgages, especially mortgages such as lands, buildings, precious metals, cars, machinery and equipment. If the debts are in large amounts and it is difficult to collect them using traditional methods. (Cornett & Nutt, 2006)

Seventh: Disclosure of bank credit risks:
Disclosure of credit risks aims to encourage banks to provide users of the financial statements with all the information they need and to help them make accurate and targeted assessments of the importance of credit risks that surround the bank. Disclosure in this field is of particular importance because it is due to an assessment of the efficiency of the bank, as the emergence of credit risks in banks is a natural thing according to the nature of the banking business, which is surrounded by a
group of risks. The weakness of the applications and procedures followed by banks in the field of risk and the poor quality of credit is the main reason behind defaults and bankruptcies in banks. The current and prospective investors and well-informed depositors, as well as creditors and other parties used for the financial statements, are able to provide the bank with strong incentives that drive it to maintain sound systems and internal controls in measuring banking risks in general and bank credit risks in particular, as well as managing the bank’s activity in A wise method consistent with the bank's goals in achieving profitability and continuity and maintaining the confidence and satisfaction of customers and market dealers.

Disclosure and transparency enhance and strengthen confidence in the banking system by reducing uncertainty in the evaluation of banks. For this reason, the disclosure of banking risks resulting from banking activity is the main element in a sound and safe banking system that is subject to effective control and supervision. Therefore, the Basel Committee issued a guide to sound applications in measuring credit risk in disclosure and loan accounting. (Basel, 2000)

The procedures and applications issued by the Basel Committee to determine the information needs of users of accounting information in general, market analysts and other users of information. It includes the field of information needed by users of financial reports for banks in five broad fields of information, those that are essential and essential to assessing the image of credit risks that surround banks. These areas are: (David & Huaiyu, 2006).

1. Accounting policies and applications.
2. Credit quality.
3. Credit risk management.
4. Exposure to credit risk.
5. Profitability.

The disclosures specific to each bank vary in scope and content according to the level and type of activity carried out by the bank. Therefore, it may not be necessary for the bank to provide all types of disclosure mentioned previously, in the event that certain information is not important in the external evaluation of the bank. However, all banks expect to provide detailed and sufficient information in a timely manner that does not enable participants in market operations to make accurate evaluations. Aiming at the picture of the credit risks surrounding the bank, as well as the need for regulatory information and all kinds of information collected by the observers and supervisors on the credit risks. (Basel, 2000).

Information about credit risks is important and necessary for the evaluation process of the financial position of the bank and its performance, activity and exposure to risks, so the Basel Committee presented several research and reports on (Enhancing Bank Transparency) by providing more detailed evidence in the field of bank credit risks. (Henriksone, 2009)

Several studies have been presented on the issue of disclosure and transparency related to banking and credit risks, and the results were that there is a clear demand for accurate information on credit risks and that there is a lack of actual information disclosed at the present time. This information includes the classification of internal credit risks, credit concentrations, etc. This shortcoming is addressed by strengthening and encouraging disclosure processes that provide more transparency and comparability. (Hirtle & Lopez, 2009)

And the weaknesses inherent in the provision and use of information by banks and financial
Institutions can be a major source to the growth and spread of financial turmoil (or financial instability) in both the local or global financial markets alike. Information disclosed by banks is necessary for accurate assessment of the bank's activity and the risks inherent in those activities for observers and market participants. (Bushman, 2001:16)

Eighth: The methods used by banks to confront the problem of non-performing loans
1. Continuing to deal with the borrower: If the bank finds that the customer has an excellent reputation and is obligated through their previous dealings with him, and that he can remedy the errors in his work, or that the bank is fully confident that the additional facilities will lead to a solution to the problems faced by the borrower and after a full and thorough study about him and his obligations towards other parties, the bank can cooperate with him to grant him additional facilities, and keep in contact with him. (Handerson, 2008)
2. Contacting the guarantors and putting pressure on them for the purpose of paying the debtors’ obligations, even if the matter requires stopping or canceling the facilities. (Hemple & Colenam, 2006)
3. Carrying out financial settlements: This procedure is widely used by banks in various ways, according to the agreement with the customer. Its aim is the bank’s attempt to obtain his money, whether it is the original debt only or with interest, after giving the customer a suitable period for the purpose of paying customers in installments agreed upon. Contracts and guarantees that guarantee their implementation are obtained, and you find multiple types of settlements or debt scheduling: (Gupe, 2020)
   1. As monthly or quarterly installments.
   2. Exempting the debtor from part of the interest.
   3. Exempting him from interest in full, provided that the principal amount is fully paid.
And there are specific powers for bank officials to make these settlements (Hampel & Simonson, 2022).
1. Liquidation of guarantees: If the bank decides to stop dealing with borrowers, it resorts to liquidation of guarantees for the purpose of resolving the problem and buying time, especially when credit risks are expected, especially guarantees of movable materials such as goods, machinery, equipment, or bond.
2. Compulsory execution and filing a lawsuit to collect the bank's rights, and this method is followed in the event that the debtor does not respond to the payment, and usually it is by seizing his money.
3. The bank may agree with the customer to pay the interest and continue working with the facilities, and the installments for the original amount will be collected later.
4. Giving a grace period and postponing the payment of interest instead of paying it every three months, as it is added to the principal amount until the customer’s situation improves according to the terms of the settlement.
5. Some banks may resort to contributing to the capital of the debtor company with the value of the debts it owed for the purpose of collecting the debt and counting it as a new investment, and this method is not known in the work of Iraqi banks. (Al-Khazraji, 2004: 12).
Measuring the bank credit risks of the research sample banks

This topic deals with the measurement of bank credit risks based on the financial statements through which credit risks will be measured using financial indicators for the fiscal years (2005-2008) and then the results that have been reached will be analyzed by the researcher.

First: - Measuring bank credit risks:

Bank credit risks are among the most important risks to which commercial banks are exposed. As it arises from the possibility of the customer not paying his obligations on the due date, which leads to exposure of banks to losses as a result of non-payment of the customer. It is known that banks cannot eliminate these risks, but mitigate them by following an effective credit policy based on the criteria for granting bank credit, which works to mitigate these risks, as well as effective loan structuring. Restricting Loan.

The customer’s credit rating provided by the Basel 2 Credit Rating Committee is one of the effective tools that help provide information for the purpose of reducing bank credit risks to which the bank is exposed. The methods of credit rating, whether internal or external, depend on scientific and statistical methods that classify customers according to their credit worthiness and then their credit rating. Thus, banks can avoid granting credit to customers with low credit worthiness and high credit risks.

The use of these scientific methods, which came with the Basel II agreement, is difficult to apply in Iraqi commercial banks at the present time due to the novelty of the issue, as it needs a period of time to meet the requirements and needs of applying these scientific methods from specialized cadres and programs to implement them and apply them effectively and achieve their purpose. As Iraqi banks rely on the indicative regulations issued by the Central Bank of Iraq, which classifies credit according to the maturity period.

To measure bank credit risks, we will use credit risk indicators that depend on the main financial statements of banks, and the most important of these indicators are:

1. The index of total short-term loans / total current assets, as the increase in this indicator indicates an increase in bank credit risks, due to the increase in short-term loans that the bank must face in the event that it is not repaid by the borrowing customers on their due dates. The Iraqi Middle East Bank recorded the highest rate in 2008, reaching 512%. As for the Iraqi Investment Bank, it recorded the highest rate for the year 2005, amounting to 30%, which means that the increase in short-term loans compared to what it was in previous years.

2. The index of non-performing loans (late payments) / short-term loans, that most of the loans granted by Iraqi commercial banks are short-term loans, which constitute the largest percentage of the total loans and credits granted by commercial banks in the absence of long-term loans due to the instructions of the Central Bank of Iraq Based on the balance ratios between the use of available resources (cash credit / total deposits), not exceeding 70% of the total deposits available at the bank.

The rise of this indicator means a rise in non-performing loans in relation to the loans granted, which leads to exposure of banks to greater credit risks due to the inability of the bank to collect the values of these loans and the benefits arising from them, which leads to the exposure of the bank to large losses as much as these non-performing loans. We note that the Middle East Bank
of Iraq. The highest percentage was recorded for the year 2007, as the percentage of non-performing loans amounted to 40% of the total short-term loans, while it was for the years 2005 (13%) and 2006 (25%), but it decreased for the year 2008 when it reached 8%. The highest percentage of non-performing loans out of the total short-term loans was 2.05, i.e. it was double the short-term loans, which means that there are high credit risks for the Iraqi Investment Bank for the year 2008, although the risk percentage was also high in 2007, when it reached 31% in 2007. This means there are very high risks for non-performing loans, as it amounted to 1.5 for the year 2005, i.e. equal to short-term loans one and a half times, and for the year 2006 (2.6), i.e. almost two and a half times of loans, and this percentage was increased for the year 2007, as it was 3 times the loans, and this is the highest percentage that the bank was exposed to during the research period.

3. Provision for doubtful loans / non-performing loans, as the high of these ratios is good, that is, the larger the ratio, this means that the banks have taken into account the realization of these credit risks and thus hedge to confront them when they occur, we note that the Middle East Bank of Iraq was the ratio for the three years of research The first are almost close to the range (1.15-1.6), i.e. twice as much for non-performing loans, but this percentage decreased for the year 2008, i.e. it became 15% of the total non-performing loans, and this is an indicator indicating the existence of high risks to confront these non-performing loans, while the Investment Bank of Iraq was approximately 100% of non-performing loans for the research years, except for the year 2005, when it was 1.6 times, and this indicates that the loans exceeded the maturity period for more than a year, so the provision reached 100%.

4. The indicator of the provision for doubtful loans / loans written off, as this indicator shows the coverage of these loans actually written off and their amortization through the provision to hedge these risks, as the Middle East Bank wrote off a number of non-performing loans for the years 2006, 2007, 2008 and they were amortized, and these are considered losses for the bank. As a result of the realization of credit risks, it is not possible to collect these loans from customers. As for the Iraqi Investment Bank, the ratio of the provision to the written-off loans was the provision covering these loans for the research years 2005, 2007, 2008, as it ranged (1.2, 7.2, and 2.6), respectively. The year 2006, the provision was insufficient, as the percentage reached 28% of the provision covered. These loans were written off, but the bank adjusted the provision for the following years to cover non-performing loans.

5. Written-off loans index / total loans, the ratio for the Middle East Bank for the year 2006 (0.00059) was very low, while for the year 2007 it was 19% of the total short-term loans and 3% for the year 2008. Risks for the year 2007, the lower this ratio, the better for the bank. The Iraqi Investment Bank represented the ratio of 3% for the year 2005, 15% for the year 2006, 3% for the year 2007, and 36% for the year 2008. We note that the ratio fluctuates between high and low, and this is a dangerous indicator because the percentage of written-off loans rises and falls, and then rises much more, and this is an indicator of the credit risks that the bank faces it as a result of writing off loans from the total loans, as the percentage of written-off loans is constant for the years of research, as it maintained this indicator and ranged between (1%-4%).

6. It is well known that banks require customers seeking credit to provide guarantees in exchange for credit facilities, and these guarantees are either in the form of a personal guarantee, real estate, goods, shares, ... etc. These guarantees are provided to the bank and it can dispose of them in the event that the customer does not pay. As the bank liquidates mortgages to obtain its money, so the
last indicator is mortgages against facilities / total loans. The Middle East Bank kept mortgages against facilities during the years of research at rates ranging from (2.5-4.5) times twice the facilities granted, and this is a good indicator through which the bank can mitigate the risks. The bank credit that it is exposed to, while the Iraqi Investment Bank also keeps mortgages in exchange for the facilities at almost constant rates for the years 2005 and 2006, but in the year 2007 it rose to 3 times and continued to rise for the year 2008 and became 5 times in return for the credit facilities, that the banks should cover the credit granted in return for the banking facilities. This is to ensure the recovery of its money in the event that the customer does not pay what he owes to the bank, but the decrease in these percentages does not mean that the bank did not take mortgages in exchange for the facilities, but that these granted facilities are a personal guarantee and not a tangible asset, shares or other forms of guarantees.

But although the mortgages in return for the facilities constitute the guarantee for the bank, it is preferable that the value of the guarantee be greater than the value of the credit facilities by one and a half times at most, because it is the expenses of following up on bad loans, lawsuits against the customer, the costs of the lawsuit, the liquidation of the asset and its liquidation (converting it into cash) are all costs and losses. Additional fees on the bank must be taken into account when granting banking facilities in order to avoid any losses that the bank may face as a result of the credit risks to which the bank is exposed.

Second:- The relationship between credit risk and liquidity risk:
Here we will try to clarify the relationship between both types of risk, as the higher the credit risk, the higher the liquidity risk. To test this, we will try to analyze the relationship between both types of risk statistically. This paragraph aims to know the level and type of correlation between the independent variable (credit risk X) and the dependent / dependent variable (liquidity risk Y) to show the correlation or not between both variables, according to the use of the correlation coefficient (R), and the regression coefficient, and then test the significance according to the test (F,t) using simple linear regression method.

<table>
<thead>
<tr>
<th>bank</th>
<th>correlation coefficient R</th>
<th>Corrected coefficient of determination R²</th>
<th>regression coefficient B</th>
<th>t</th>
<th>F</th>
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<tbody>
<tr>
<td>Middle East</td>
<td>0.802</td>
<td>0.618</td>
<td>17.258</td>
<td>5.028</td>
<td>25.258</td>
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<tr>
<td>Iraqi investment</td>
<td>0.757</td>
<td>0.543</td>
<td>12.490</td>
<td>4.339</td>
<td>18.824</td>
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Source: Prepared by the researcher

1. Iraqi Middle East Bank:
Table (1) above showed that there is a strong direct correlation between credit risk (x) and liquidity risk (y), as the value of (R) was 0.802, as shown by the analysis of variance (ANOVA) table. The calculated F value is 25.258, which is greater than The tabular value of F at a significant level of
0.05 \[F(1,14 , 0.5) = 4.6001\] confirmed the significant relationship between both variables. To test the significance of the regression coefficient $B$, the researcher used the $t$-test statistic. The calculated $t$ value was 5.028, which is less than the tabular $t$ value at a significant level of 0.05 and a degree of freedom of 14 \[t(14,0.05) = 1.761\], and this confirms the significance of the regression coefficient for both variables.

**Third: Measuring liquidity risk:**

By measuring the liquidity risks of the banks, the research sample, according to the following indicators:

1. **The index of cash and balances with banks / total assets:** The index ranged between (33-53%) for the Iraqi Middle East Bank, and the ratio is good, as its high indicates a decrease in liquidity risks to which the bank is exposed. (%) which is a good percentage. As for the Iraqi Investment Bank, the percentages ranged for years of research (30-86%), which is a very good percentage, as it indicates low liquidity risks, and the arithmetic mean was (57%).

2. **The index of cash and short-term investments / total assets:** Middle East Bank achieved the index for the years of research between (71-91%), and the highest percentage for the year 2007 was (91%), and the arithmetic mean for the years of research was (84%), which is a good percentage, as its rise indicates Low liquidity risk in the bank. As for the Iraqi Investment Bank, the indicator for the years of research ranged between (57-87%), which is also a good percentage, and the highest percentage recorded was for the year 2008, but the arithmetic mean was (73%), which is a good percentage.

3. **Total Loans/Total Deposits Index:** An increase in this indicator indicates a high liquidity risk, as it indicates the existence of loans that are difficult to liquidate to obtain new liquidity for new lending, as the Middle East had an index ranging between (4-9%), which are low indicators, and this indicates a decrease in risk. Liquidity either the arithmetic mean was (7%) which is a good percentage. Either the Iraqi Investment Bank recorded a percentage ranging between (13-58%), which is not considered a good percentage, as it is considered high compared to the banks in the research sample. Either the arithmetic mean was (35%), which means high liquidity risks.

4. **Current Assets/Total Deposits Index:** The increase in this indicator indicates a decrease in liquidity risk. The index was for the Middle East Bank 1.1, which indicates that current assets cover deposits without the need for additional liquidity to meet its obligations towards withdrawals and demand. The same is the case for the Investment Bank of Iraq, as The index ranged between (1.3-1.6), which is also high and good.

**3. CONCLUSIONS**

1. There are a number of credit foundations and standards adopted by banks for the purpose of granting bank credit to the customer, including banks guaranteeing the recovery of their money, and the multiplicity of types of credit facilities offered by banks to their customers, but the most important type of facility is cash credit.

2. Banks are exposed to two main types of risks, which are financial risks and operational risks. Credit risks are among the financial risks that banks are exposed to, resulting from the borrower's
failure to pay according to the contract.

3. The research sample banks do not disclose the causes of financial default represented by credit risks and non-performing loans, nor the quality of bank credit, the classification of loans according to maturity dates, and how to calculate the provision for doubtful loans.

4. The research sample banks do not measure banking risks in general and bank credit risks in particular.

5. The research sample banks do not have a special committee for banking risks within their organizational structure, independent or within the Credit Facilities Division.

6. There is a positive relationship between credit risk and liquidity risk.

### 4. RECOMMENDATIONS

1. Banks should have the ability and ability to diagnose risks early, measure and treat them. This is achieved through the existence of an information system that enables management to achieve its goal, which is measuring credit risks, as well as the availability of procedures for monitoring the financial performance of customers.

2. The need for qualified, specialized banking human resources for the purpose of measuring credit risks and applying models for forecasting financial failure, as well as qualifying workers in the field of banking risks.

3. The need to note the growth rates of non-performing loans and work to reduce them to rates that do not pose a threat to the bank.

4. The research sample banks should expand their accounting disclosure by disclosing the causes of financial default represented by credit risks, non-performing loans, bank credit quality, and classifying loans according to their maturity dates.

5. Disclosure of the methods of dealing with non-performing loans and the procedures taken by the bank for the purpose of collecting these loans.

6. A special committee for banking risks should be formed within its organizational structure and be independent. There should also be an exchange of information and the results it achieves with the Credit Facilities Division for the purpose of reducing bank credit risks to the lowest possible extent.

### REFERENCE


September, 250.