

# The repercussions of non-performing assets on financial fragility in banks

## An analytical study on a sample of commercial banks listed in the Iraq Stock Exchange for the period from 2011-2019

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**Abstract:** The research seeks to show the extent of the impact of non-operating assets on enhancing the level of financial fragility in commercial banks. Represented by the hypothesis of the correlation relationship and the hypothesis of the influence relationship, the data and information requirements were collected Through the published annual reports of the banks of the research sample consisting of (10) private commercial banks based on their financial statements for the period from 2011 - 2019, and the analysis adopted a number of financial indicators and statistical tools for data processing Using the statistical program (Eviews 7) and (Excel), the research reached a number of conclusions, the most important of which is that the non-performing assets contribute to enhancing the level of financial fragility of the bank, and that the non-performing assets index has a negative statistically significant effect on the Z(score) index of fragility Finance for commercial banks, the research sample, in addition to providing a number of recommendations.

**Key words:** NPA<sub>s</sub> non-performing assets, financial fragility, Z(score) index.

**An Introduction:** In view of the vital role that commercial banks play in economic growth, such as mobilizing savings and accepting deposits, which is the main source for providing the necessary funds to finance their various activities and advance the reality of the national economy. The excess of many financial institutions in granting credit facilities that are linked to a great deal of risk of lack of liquidity, making them vulnerable to potential financial fragility that makes the future of these banks vulnerable to bankruptcy (Pazzi, 2006: 8). Which necessitated the need to study this phenomenon for the purpose of identifying the causes of financial fragility in the banking system and achieving financial stability by reducing the volume of non-performing assets.

Proceeding from this importance of the study variables in commercial banks, the current research attempted to show the extent of the repercussions of non-working assets (as an independent variable) in enhancing financial fragility (as a dependent variable) in commercial banks. The second topic dealt with the theoretical side of the study variables, while the third topic discussed the financial analysis and the results of hypotheses testing, and finally the fourth topic, which clarified the most important conclusions and recommendations of the research.

### **The first topic: The research methodology**

**The Research problem:** the phenomenon of default has increased in .1 recent times, the inability of debtors to fulfill their obligations towards banks and their failure to manage money for various reasons, which increased the phenomenon of non-performing assets in their financial statements, so it was necessary to study it for the purpose of Stand on its effects and what it causes of financial instability or potential financial fragility in the banking sector, and the researcher assumes that this instability is based on the extent of the levels of non-operating assets in the financial statements of the commercial banks the study sample, and accordingly, the research problem can be identified with the following central problem “Do assets affect Non-operating in enhancing the financial fragility of commercial banks, the study sample.

### **The Research importance: .2**

The importance of the research was embodied from the scientific and practical sides. From the scientific side, the research is interested in presenting the most important research and recent studies related to the variables of non-performing assets and financial fragility and clarifying the intellectual relationship between them, while the practical aspect is represented in the search for analysis and discussion of the variation in the impact of non-performing assets on Creating financial fragility in the targeted commercial banks that suffer from the presence of varying levels of non-performing assets in their financial statements, in addition to clarifying the most important conclusions that have been reached and providing the most important recommendations for those interested.

### **The Research Objectives: .3**

The main objective of the research lies in clarifying the implications of non-performing assets in enhancing financial fragility in commercial banks, the research sample through other sub-objectives:

- A. Determining and measuring the level of non-performing assets in commercial banks, the research sample for the period from 2011-2019.
- B- Determining and measuring the level of financial fragility using the Z (score) indicator in commercial banks, the research sample for the period from 2011-2019.
- C- Analysis of the type and level of impact between non-performing assets and financial vulnerability.
- D - Testing the type and level of correlation between non-performing assets and financial fragility.

#### **4. The Research hypotheses:**

In line with the basic problem, the research adopted two types of hypotheses that represent proposals for testable solutions through the financial and statistical equations adopted in the research to ensure their validity or denial. The hypotheses can be identified as follows:

- A. Correlation hypothesis: “there is a significant correlation between non-performing assets and financial fragility” in commercial banks, the research sample.
- B. Impact relationship hypothesis: “There is a significant influence relationship between non-performing assets and financial fragility” in commercial banks, the research sample.

#### **5.The research community and sample :**

The field of application of the research embodies in the Iraqi banking sector and the selection of the research community from it represented by the private commercial banks listed in the Iraqi Stock Exchange, which numbered 40 banks, and the selection of a deliberate sample of it represented by 10 private commercial banks listed who met the requirements of the study for a time series that extended from 2011 to 2019.

#### **6. Financial indicators and statistical tools adopted in the research:**

To measure the research variables and test their hypotheses adopted from the financial and statistical aspects, some financial indicators approved in the financial analysis were used, to measure the percentage of non-performing assets in banks. The research sample used the total of

bad debts and the allowance for doubtful debts to the total Advances and loans As for the Z (Score) indicator, which is a measure of financial stability that has been relied upon to determine the level of financial fragility, as well as some tools and statistical measures were adopted to analyze the relationships between the research variables to reach the desired results. Quantitative analysis of data from the financial statements of commercial banks, the study sample, using the following equations:

Non-Performing Assets

The following equation was adopted in measuring the non-performing assets in commercial banks, the study sample, and the intention came in many studies, some of which are mentioned: (Al-Jubouri, 2018: 102), (Kapoor, 2014:36), (Swamy, 2014:32).

$$NPA = \frac{DD + DB}{TLA}$$

Since:-

NBA = Non-Performing Assets

DD = Doubtful debts

DB = bad debts

TLA = Total Advances and Loans

Doubtful debts (DD) refer to those debts that the debtors are likely to be unable to pay on the expected maturity dates, in whole or in part, either because of unwillingness to do so or the inability of the borrower to pay due to an uncalculated event or circumstances, problems or imbalances surrounding his activity. It is inferred through some indications such as irregular payment on time or delay of some customers in payment. Bad debts (DB) refer to debts that confirm some phenomena that they cannot be collected either because of the debtor's bankruptcy, leaving the country or his death. (Humaidat and Khadash, 2013: 132)

Financial fragility

We adopt the following equation in measuring the financial fragility index in commercial banks, the study sample, which was adopted in most studies and research, and we mention them: (Onumah and Duho, 2019:9), (Mondher and Lamia, 2016:126), (Goetz, 2018:12) ) (Yasser, 2018: 10).

$$Z = \frac{ROA + \frac{E}{A}}{\sigma(ROA)}$$

Since:

Z = A tool that measures the extent to which the company enjoys financial stability or financial fragility. Its value depends on how high or low it is.

ROA = return on assets

E/A = Equity over the asset

$\sigma$  (ROA) = the standard deviation of the return on assets, and the standard deviation of the return on assets can be measured by the following equation:

$$\sqrt{\frac{\sum(Y_i - \bar{Y})^2}{n-1}} = S$$

whereas :

$Y_i$  = return on bank assets

$\bar{Y}$  = arithmetic mean of return on assets

N = number of views

Where (ROA) refers to the ratio of return to assets, which reflects the extent to which each dinar invested in assets can achieve profits. The more efficient the bank's management is in using its available financial resources, the higher the level of profit margin achieved, which is positively reflected on financial stability (Rauch, 2010). :42). Whereas (E/A) refers to the proportion of the property right of the total assets and the diversity of sources of income plays an important role in financial stability. The bank's focus on one aspect will lead to a high risk of financial hardship that leads to potential financial fragility. This indicator is also related to the volume of investment business. Diversified businesses are able to

generate more stable profits for the bank compared to banks that rely on traditional businesses (Ashraf, et al, 2016):

The second topic: the intellectual framework of non-working assets and fragility

First: the intellectual framework of non-performing assets

Non-performing assets - concept - types - causes - effect

1- The concept of non-performing assets: In fact, a wide range of definitions and interpretations of non-performing assets can be found. There is no specific legal or academic definition for it, or a regulatory framework that defines criteria for accurate classification of the loan. The available literature provided various descriptions of non-performing assets (Agbavor, 2019:24) The process of disbursing loans by financial institutions such as banks is an easy task, but the process of recovering this amount is somewhat difficult as banks want to lend as many loans as possible just to show that they have a large number of borrowers, regardless of the quality of customers They will end up in bankruptcy, (Baselega-Pascual et al. 2015). Banks include in their records different types of assets, such as cash in hand, balances with other banks, investment, loans and advances, fixed assets and other assets. The concept of non-performing assets is limited (NPA) on loans, advances and investments, as long as the asset generates the income expected from it and does not disclose any unusual risks other than normal business risks, it is treated as a working asset (Performing Asset), and when it fails to achieve the expected income it becomes a “non-functioning asset” (NPA) The second topic: the intellectual framework of non-working assets and fragility

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“When it ceases to generate income i.e. interest, fees, commission or any other due to the bank for more than 90 days) (Kumar, 2013: 2:

(Sukul, 2017: 4) mentioned non-performing assets (NPA) when referring to an asset, when it has ceased to generate income for any bank or financing institution for more than 90 days. NPAs should be a loan or advance when they are characterized By:

- A. The interest and/or the installment on the principal of the loan remains past due for a period of more than 90 days in relation to a term loan.
- B. The account remains inactive for more than 90 days, in relation to an overdraft/cash credit.
- C. Documents remain overdue for more than 90 days in the case of purchased and discounted transactions.
- D. The residual installments and interests are overdue for two harvest seasons, but for a period not exceeding two and a half years in the case of an advance granted for agricultural purposes.
- H . Any amount received remains overdue for more than 90 days with respect to other accounts.

(Any amount due to the Bank under any “late” credit facility if not paid on the due date specified by the Bank).

## 2. Types of non-performing assets

Among the criteria for classifying assets and provisions, banks must classify their loans on the basis of repayment status. The assets of the bank are classified

into four classes as follows (Khanna and Maurya, 2016: 2) (Sukul, 2017: 1)  
(Hazarika, 2019: 1) (Tripathi and 1). Mewada,2016:2)

A. Standard Assets: They are those that do not reveal any problem and do not carry more than the normal risks associated with the business, as these are considered working assets, a general provision of 25% must be provided on the basis of the global loan portfolio.

B. Substandard Assets: Assets that have been NPA for a period less than or equal to 12 months, the assets are characterized by a clear probability that the bank will incur some loss, a provision must be made of 10% on the amount owed on the substandard assets

C. Doubtful Assets: These are those that have been NPAs for more than 12 months and are not considered loss-making. Banks are required to provide 100% of the unsecured portion of the advance owed after deducting the amount realized It is a receivable whose payments are likely not to follow the terms of the contract.

D. Loss Assets: are those in which the loss has been determined by the bank or the internal or external auditor, but the amount has not been written off in whole or in part. There is some salvage or refund value. However, only those advances are classified as loss-making assets where no collateral is available. Accounts for which some security cover is available cannot be treated as loss-making assets. Banks must provide a provision of 100% in respect of loss-making assets.

### **3. The Reasons for Non-Performing Assets:**

Having a high percentage of NPA is a very acute issue for banks and their continuity and sustainability, “An increase in the level of total non-performing assets poses a significant risk to banks, the financial sector and the economy as a whole” (Kaaya & Pastory, 2013: 6.

Khanna and Maurya, 2016: 8 (Bhassin, 2017: 6) (Ahmed, 2017: 2) identified the causes of non-factor assets due to a group of factors in general that can be divided into internal and external factors. Internal factors include:

a. Debts borrowed and used for different purposes instead of those to which they are entitled.



- b. The project was delayed due to lengthy procedures.
- C. Mismanagement and mismanagement of funds.
- d. Inappropriate lending decisions and ineffective credit assessment.
- e. Incompatibility between revenue generation and repayment schedule.
- f. Inflated interest rates.
- j. The project was left incomplete due to the delay.

Certain external factors also have a major role in increasing NPA levels that are uncontrollable and include:

- a. Politically motivated lending to the priority sector in the influence of politicians may turn out to be bad.
- b. Slowing economic and industrial growth.
- c. Legal impediments.
- d. Lack of resources, technology and infrastructure.
- e. Paradigm shift in government policies and standards.
- f. Increasing competition due to globalization.
- j. Global recession and recession in economies.

#### **4. The impact of non-performing assets:**

Although banks have taken many steps to reduce the size of non-performing assets, but due to unexpected reasons, it affects the banking industry significantly and this problem affects the credibility of banks and reduces performance by allocating more funds to face losses. Expected future in the future, in addition to its impact on the decline in productivity, the productivity of the bank is calculated on the basis of the return on assets, where the greater the level of decline in productivity, (3) (Harani and Mutyala, 2019), the more it makes banks more risky and becomes more vulnerable to economic shocks.

Sukul, 2017:5 (Gupta and Gautam, 2017:4) (Rajeev and Subramoniam, 2017:3) identified that the growth of non-performing assets has a tremendous impact on the bank itself and on the economy as a whole, namely:

### **A. The Profitability:**

NPAs mean the reservation of funds in terms of bad assets, which occurred due to the wrong choice of the customer, so the NPA does not affect the current profit but also the future profit flow, which may lead to the loss of some useful opportunities in the long run.

### **B. The Liquidity:**

Low profit leads to lack of sufficient liquidity which leads to borrowing of funds for short period of time which leads to additional cost to the bank. Also difficulty in operating the functions of the bank is another reason for NPA due to lack of funds, routine payments and receivables.

### **C. Involvement of management:**

The time and efforts of the management are another indirect cost that the bank has to bear because of the NPA, the time and efforts made by the management in dealing with and managing the NPA could have been diverted into some fruitful activities.

and. Credit Loss: Banks face the problem of NPA and then negatively affect the value of the bank in terms of market credit, they will lose their good reputation, brand image and credit which negatively affects the people who deposit their money in the bank.

## **2. The Theoretical framework for financial fragility :**

Financial fragility - concept - causes - elements of reducing financial fragility

### **The concept of financial fragility: .1**

Economists and policy makers are paying increasing attention to how to know whether the economy is vulnerable to financial fragility (financial instability), and specifically what are the conditions that lead to financial fragility. Institutional and political can frustrate the onset of financial fragility, or contain instability if it occurs, and it is difficult to determine the conditions leading to financial fragility (Schroeder, 2009:287).

The definition of financial fragility appeared as financial instability characterized by a high probability of default (HPD) and low bank profitability. This is an interesting development in the concept of the relationship between financial fragility and financial instability, and in this regard it is preferable to identify the

term " Financial fragility" in the context of the financial instability hypothesis of Minsky (Minsky, FIH), which appeared more than 30 years ago (Minsky, 1975) (Schroeder, 2009: 288). Financial fragility appears in financial institutions as a result of cash flows from Inefficient operational operations that are not sufficient to pay their financial dues, which leads to covering their borrowing obligations, when the country is going through a state of economic prosperity, institutions invest in the most risky projects and this pushes financial institutions to provide institutions with loans to meet their investments from financial need, this leads In turn, the policy of financial and non-financial institutions has shifted from conservative policy to speculative policy, and that any defect may occur in expectations, such as the country entering into an economic recession that leads to financial fragility (Li, 2010: 259.)

## **2.The Causes of financial fragility:**

It was found that the causes of financial fragility in financial institutions are many, multiple and overlapping with each other, and differ between economic sectors and between countries, and their impact depends on the strength of the shocks they leave on the nature of institutions and the economy in general, including:

A. Government interventions and political problems are among the main causes and take the largest role in creating fragility and paving the way for a complete financial crisis represented by the continuous changes in taxes, interest rates and credit ceilings and the impact on the prices of their financial assets, all of which affect the working formula of banks and their dealings in the financial markets (Calomiris, 1995:3),

B. Administrative and legal problems that occur within financial institutions, represented in the availability of administrative competencies and their suitability for work and the level of expertise they possess, can in turn create instability of financial conditions within business institutions (yaser, 2018: 172).

C . The strength of competition between institutions within the same sector is another reason for destabilizing the economy, which in turn creates shocks such as cases of inflation, which in turn develop into a state of complete financial instability.

D. It is also believed that financial fragility stems in part from the presence of moral hazard (Van Order, 2006:565).

E. The globalization of financial markets and the emergence of many financial innovations that led to a reduction in the effectiveness of traditional tools aimed at ensuring stability in the banking system. It consists of strong banks that grant only loans whose interest income covers all the risks that the sector is exposed to.

**3. The aspects of financial fragility:** (Mohammed and Hanash, 2020: 4) identified a set of variables that indicate manifestations of banking fragility, which can be summarized as follows:

**a- High non-performing debts:** The non-performing debt index is an important guide in monitoring banking crises, and the accumulation of non-performing debts in the fragile or unhealthy banking system.

**b-The banking panic:** When the public knows that one or some of the banks is in crisis, it rushes to withdraw its deposits from the banks, whether they are sound or unsound, so the banks' reserves decrease, which contributes to creating a liquidity crisis.

**d-The banking insolvency:** the stage in which the banking institution is unable to pay its obligations, meaning that its total assets exceed its total obligations, as this case is characterized by weakness in Bank profitability and weak operating cash inflows (Hassanpour & Ardakani, 2017:219)

**c- The banking failure:** It is the stage that follows banking distress, in which the bank is close to bankruptcy and unable to pay its obligations, in addition to being suffering from a large accumulation of losses, so that the market value of its obligations exceeds the market value of its total assets.

**Bankruptcy:** Financial bankruptcy is a legal declaration that the bank is in a financial crisis that it cannot meet the rights of others, or stop its activities in preparation for the liquidation of its assets and the payment of the obligations owed by it.

### **The third topic: the practical side**

In this topic, we will discuss and analyze the financial and statistical aspects of the research variables. We first start with the descriptive statistical analysis of the study variables, which includes the arithmetic means and standard deviation, in addition to the (Jarque-Bera) test, and to analyze the correlation between the study variables by relying on the statistical program Excel through

the correlation coefficient R (Pearson's test) The hypotheses of the study through a simple linear regression analysis model to understand how the independent variable affects the dependent variable in this research, and ready-made statistical programs (Eviews7, based on Panel Data analysis) will be used using the simple linear regression equation.

### Descriptive statistical analysis of the research variables

Table (1) presents the results of descriptive statistics analysis of the basic research variables, the non-performing assets and the financial vulnerability of the commercial banks targeted in the research for the period 2011-2019, represented by the arithmetic means and the standard deviation.

Table (1)

Ratios of the general index of the basic variables of the targeted commercial banks for the period 2011-2019

Bank name	The general indicator of non-operating assets in the target banks			The general indicator of financial fragility in the targeted banks		
	Mean	Std. Dav.	Probability	Mean	Std .Dav	Probability
Iraqi investment	0.582	1.145	0.153	0.128	0.097	0.161
Commercial gulf	1.065	2.190	0.081	0.294	0.282	0.073
Middle East	1.932	2.344	0.514	0.139	0.063	0.558
Al-Ahly of Iraq	3.437	3.146	0.677	0.151	0.163	0.079
Mansour	1.611	3.222	0.562	1.529	1.340	0.615
across Iraq	2.218	2.947	0.242	0.163-	0.974	0.062
Iraqi trade	2.150	1.701	0.759	0.174	0.142	0.060
United Investment	0.610	0.370	0.926	0.121	0.063	0.664
Baghdad	1.541	2.691	0.202	2.289	1.142	0.532
Iraqi credit	4.329	3.277	0.636	0.097	0.063	0.476
sector rate	1.952	2.397		0.572	1.124	

Source: Prepared by the researcher according to computer results.

Table (1) shows the results of the analysis of the general index of the non-performing assets of the banking sector for the period from 2011-2019, specifically for ten private commercial banks listed on the Iraqi Stock Exchange,

that the overall average obtained by the sector for the NPAS index was (1.952) and when comparing the percentages obtained by The surveyed banks, it is clear that the NPAS ratio of the (Iraqi credit) bank reached (4,329) and with a standard deviation of (3.277), which exceeded the rate achieved at the level of the surveyed banks, followed by the National Bank of Iraq with a rate of (3.437) and a standard deviation of (3.146), while The (Iraqi Investment Bank) achieved the lowest rate among the banks at (0.582) with a standard deviation of (1.145), while the Z (score) index recorded the financial stability index as a general indicator for the banking sector for the period from 2011-2019 for ten banks listed on the Iraqi Stock Exchange (0.572). By comparing the ratios obtained by the surveyed banks, it was found that the ratio of the Z (score) index of the Bank (Baghdad) amounted to (2.289) with a standard deviation of (1.142) more than the general average index at the level of the surveyed banks, followed by Al-Mansour Al-Ahly Bank with a rate of (1.529) and a standard deviation his worth ( 1.340), and the lowest percentage was for the Middle East Bank with a mean (0.097) and a standard deviation (0.029). It is also clear that the data of the research sample banks are distributed naturally and in terms of the (Jarque-Bera) test, which was adopted by the research in diagnosing whether the researched sample was distributed naturally or not. Search (0.05), as the results of choosing (Jarque-Bera) ranged between (0.060) and (0.702), as shown in Table (1).

Table (2) presents the results of analyzing the correlation between the research variables using the Pearson's R correlation coefficient to measure the strength of the relationship between two indicators. Each increase in the independent indicator may lead to an increase (+) or a decrease (-) in the dependent indicator, which determines the type of The link and its strength, and the results of the main hypothesis of the link will be discussed in the research as in the following table (2):

Table (2) Correlation matrix between search variables

<b>Correlations</b>		
<b>Variable</b>	<b>X</b>	<b>Y</b>
<b>X (non-performing</b>	<b>1</b>	

	<b>assets)</b>		
<b>Y</b>	<b>(financial fragility)</b>	<b>-0.422</b>	<b>1</b>

Source: Prepared by the researcher according to the data of the electronic calculator and at the level of significance (0.05).

**The Correlation Hypothesis:** “There is a significant correlation between non-performing assets and financial fragility in commercial banks, the research sample.

According to the data of Table (2), which presented the results of the correlation coefficient, which amounted to (-0.422), which indicates that there is a negative correlation between the non-working assets and the Z(score) indicator of the financial fragility scale (Y) is significant at the level of significance (0.05), and therefore the hypothesis is accepted Correlation at the current search level. The negative correlation between non-performing assets and the Z(score) financial fragility index is explained, provided that an increase in non-performing assets by one unit will decrease the value of the Z(score) by one unit as well, whose decrease indicates a decrease in financial stability and a rise in financial fragility in contrast to commercial banks the research sample .

Table (3) presents the results of the influence relationships between non-performing assets and the financial fragility of the commercial banks, the sample of the study, using the regression model to clarify how changes in the expectation values are related to the average response variable. The results of the main impact hypothesis will be discussed in the research as in the following table (3):

Table (3) Results of the relationship of the effect of non-performing assets on financial fragility

independent indicator	pointer subordinate	Estimates	standard error	t-statistic	morale level	the decision
Non-Performing Assets (X)	Financial fragility (Y)	<b>-0.30</b>	<b>0.03</b>	<b>-9.43</b>	<b>0.000</b>	Accepted
constant C	0.57	Method: Pooled Least Squares Y=(0.57)-0.30(X)				
coefficient of determination (R2)	0.63					
f-statistic	6.829					

morale level (f)	0.000									
The discriminating effect of a constant on the level of commercial banks, the research sample										
<b>Banks</b>	Iraqi investment	Commercial gulf	Middle east	Al-Ahly of Iraq	Mansour	across Iraq	Iraqi trade	United Investment	Bahda	Iraqi credit
Estimates	-0.33	-0.22	-0.36	-0.31	1.04	-0.64	-0.29	-0.34	1.83	-0.3
ranking	6	3	8	5	2	10	4	7	1	9
The discriminating effect of a constant on the level of the target years in the research										
<b>Banks</b>	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Estimates	-0.42	-0.11	0.01	-0.01	0.03	0.08	0.10	0.11	0.21	
ranking	9	7	6	7	5	4	3	2	1	

Source: Prepared by the researcher according to the results of the statistical program Eviews

According to the method of least squares in the Panel Data method), the sub-hypothesis “there is a significant impact relationship for non-performing assets in financial vulnerability” will be tested, which means that the financial vulnerability index (Y) is a real function of the non-performing assets index (X).

According to the following equation:

$$Y = \beta_0 + \beta_1(X) + \epsilon$$

whereas :

X: Non-Performing Assets Index (Independent Variable)

Y: Financial Fragility Index (Dependent Variable)

$\beta_0$ : the constant term in the model, that is, it is the constant when the independent variable is (0).

$\beta_1$ : the marginal slope of the model, that is, the slope of the relationship between the independent and dependent variable.

$\epsilon$ : Random (element) error term (Net, 2015: 131)



Through Table (3), the coefficient of determination ( $R^2$ ) indicates its amount (0.63), which means that the percentage of non-performing assets explains 63% of the variance in the financial fragility index in the commercial banks of the study sample, and that 0.37 of the unexplained variance is due to variables that were not included in the Regression model, which is an acceptable percentage based on the level of significance ( $F$ ) of (0.000) which is less than the level of significance (0.05), which the researcher assumed. .

The regression equation indicates the value of the constant ( $\beta_0 = 0.57$ ), which means that there is a Z(score) of (0.59) when the value of the percentage of non-performing assets is zero, and either the value of the marginal slope or the impact factor of the percentage of non-performing assets has reached ( $\beta_1 = -0.30$ ), which is an acceptable percentage based on the level of significance (0.05) assumed by the researcher, which indicates that an increase of one unit in the non-performing assets leads to a negative change of (-0.30) in the Z (score) index of the financial fragility scale (Y), what a change in the Z (score) index means a negative change, i.e. a decrease in the value of the Z (score), which reflects a decrease in the state of financial stability against an increase in financial fragility.

Based on the previous data, the impact hypothesis is accepted that (there is a significant influence relationship for non-performing assets in financial fragility), as it was found that the increase in non-performing assets affects the Z(score) value of financial fragility index negatively, which means a decrease in the state of financial stability For the banks investigated, which in turn leads to the creation of financial fragility. This is due to the fact that many cases of default lead to the emergence of levels of non-performing assets that affect the profitability and liquidity of banks in terms of the failure to recover the borrowed money with its interests, which puts the bank in an embarrassing position in front of its customers, in addition to causing confusion in the conduct of its other financial activities. Reflects on the state of its financial stability with possible financial fragility.

#### **Fourth topic: conclusions and recommendations**

- The conclusions :

1. Most of the banks of the research sample suffer from a high level of non-performing assets in their budgets, which indicates a clear lack of awareness on their part of the danger of high levels of non-performing assets, especially the

Iraqi Credit Bank and the Iraqi National Bank, which recorded the highest levels of non-performing assets compared to the general level indicator for the sector .

2. The results showed that banks that suffer from financial fragility have high levels of non-performing assets through the Z (score) index, which recorded low values, as is the case in the credit bank and Al-Ahly of Iraq, compared to the banks that recorded low levels of financial fragility, as in the Investment Bank of Iraq.

3. The results proved the validity of the hypothesis of the correlation relationship with the existence of a negative correlation between non-performing assets and financial fragility. The higher the non-performing assets, which was reflected in a decrease in the value of Z (score), which means a decrease in the value of Z (score), a decrease in financial stability versus an increase in financial fragility.

4. The results are identical with the hypothesis of the impact through the existence of a negative influence relationship between the non-performing assets and the index of financial fragility, that is, whenever the non-performing assets increased by one unit, the value of the Z (score) index decreased by the same amount, which means a decrease in the level of financial stability and a higher level of potential financial fragility For research sample banks.

5. The results of the test showed that most of the commercial banks, the research sample, suffer from high levels of non-operating assets in them, which causes them to lose most of their financial resources and put them in a critical situation that threatens their survival in a sound condition as they are treated in the required time.

#### **- The Recommendations**

1. The necessity of adopting sound credit policies that contribute to reducing the levels of non-performing assets in commercial banks in order to maintain their cash flow in a manner that ensures the continuation of its various financial activities.

2. Urging banks that suffer from high levels of financial fragility to adopt sound remedial mechanisms and procedures that they take to invest what remains of their financial resources can be corrected from their current situation.

3. Banks that have achieved low levels of non-performing assets in their balance sheets are common to maintain these levels by showing the risks of losing financial stability and what it causes, destabilizing the confidence of the public dealing with the bank, which is a wealth that is difficult to lose.

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