

## INVESTIGATING OF BACKGROUND FACTORS RELATED TO ABNORMAL ALLOWANCE FOR BAD DEBTS IN BANKS OF TEHRAN STOCK EXCHANGE

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### ABSTRACT

*Credit risk is one of the most important factors affecting the health of the banking system, in this regard; related factors can lead to the vulnerability of banks. Therefore, this research examines the background factors related to the reserve of suspicious claims of unusual access by Tehran Stock Exchange banks. In this research, the number of 14 banks admitted to the Tehran Stock Exchange in the period of 2012-2021 has been examined. In order to test the hypotheses, panel regression was used, the findings of the research show that, in general, the comparability of financial statements has a negative and significant effect on the provision of doubtful receivables and the reserve of doubtful receivables also has a positive and significant effect on the risk components.*

**KEYWORDS:** *Comparability of Financial Statements, Reserve for Doubtful Debts, Risk Components.*

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### 1. INTRODUCTION

A healthy and profitable banking system can better withstand economic shocks and play a stronger role in the stability of the financial system (Ekinci and Poirazeh, 2019). Explaining the factors affecting the performance of the banking system is one of the areas of interest for academic researchers, banking system managers, monetary supervisors, and economic activists (Al-Eitan and BaniKhaled, 2019). In this regard, credit risk is one of the most important risks due to its connection with the operational activities of banks (in the fields of loans, interbank transactions, scrap bonds, currency transactions, ordinary shares, option transactions, issuance of guarantees and swaps). It exists in the banking system and in most cases the loss related to credit risk is more than other risks. Risk, as a threat, affects the activity of banks, and among them, credit risk is doubly important because it arises from the most important banking operations, i.e. granting loans and facilities (Zhou, 2021).

Credit risk, as one of the most important factors affecting the health of the banking system, is related to losses caused by non-repayment or late repayment of the principal or sub-loan by the client, "credit risk". In another definition, credit risk is the possibility of delay, doubtful collection or non-collection of facilities provided to customers. In other words, credit risk is a risk based on which the borrower is not able to pay the principal and sub-principal (loan) according to the conditions stated in the contract; That is, according to this risk, repayments are either delayed or not received (Bosle, 2018). The existence of such a risk can adversely affect the performance of banks. Therefore, in order to survive, banks must control risks and reduce their adverse effects, for

which it is necessary to investigate the effect of credit risk on bank performance (Susinelli, 2018). Considering the role that the qualitative variables of financial statements can have on the most important source of credit risk (the reserve of bad debts), this study examines the origin and consequences related to the reserve of unusual bad debts of Tehran Stock Exchange banks. In the following sections, the theoretical foundations and study backgrounds, hypotheses, methodology, findings and conclusions of the research are presented.

## **2- Theoretical Framework and Research Background**

### **2-1- The Theoretical Framework of the Research**

One of the most important sources of credit risk is the reserve of doubtful receivables, which can lead to considerable inefficiency in a financial institution. According to the definition, the purpose of the efficiency of the reserve for doubtful receivables is the optimal and favorable forecast of uncollectible receivables in the future, in such a way that it has the best reflection in the financial statements in terms of transparency and the quality of reported profit and capital (Anandar Jan, 2005). In other words, efficient doubtful receivables reserve is a reserve that is no less than optimal doubtful receivables reserve. Therefore, it is obvious that the reserve of doubtful receivables is a reserve that is less than the reserve of optimal receivables. For this reason, the optimal amount of reserve for doubtful debts should be based on the ratio of losses from investment on assets, the ratio of deposits to assets, the ratio of risk-weighted assets to assets, the ratio of current assets to assets and total facilities. Be determined on the assets (Tsai Lin Yeh, 2010).

According to Tsai Lain Yeh (2010) and Anandarjan (2005), one of the factors affecting the inefficiency of banks' bad debt reserves is bank size, non-interest income, shareholders' equity, number of branches, and capital adequacy ratio. Because the financial situation and consequently the total risk of banks varies with their size and from one bank to another, it is expected that the method of saving doubtful debts of banks is proportional to their size. Therefore, how the size of the bank affects the reserve of bad debts is the first hypothesis that should be considered and tested. Regarding non-interest income, it can be said that the higher the bank's income from sources other than the interest of the facility, due to the reduction of the risk of the whole bank due to the non-collection of receivables, the reserve for doubtful receivables can be considered lower. Therefore, if a bank, with a low fee income, has also considered a small reserve, the reserve for doubtful claims will be inefficient and misleading. Banks with a higher capital ratio accept less total risk, and hence, a lower reserve for doubtful debts can be considered for them. The number of branches and employees of the banks in the branches are in direct contact with the customers and are continuously evaluating (validating) and granting facilities to the customers. Therefore, the employees of the banks in the branches participate in the credit risk management of the branch and finally the credit risk of the whole bank. Therefore, with the increase in the number of branches, the bank's credit risk increases, so it is necessary to consider the reserve of doubtful receivables. The capital adequacy ratio is obtained from the effective factors in risk control and from the result of dividing the base capital by the total assets weighted by the risk coefficients in percentage terms (Central Bank Regulations, No. MB.1966) Reserve for doubtful debts is used in the calculation of basic capital and in case of deduction of capital adequacy ratio calculations, in such a way that with the increase of reserve for doubtful debts, capital adequacy ratio also increases. Therefore, a bank with a high capital adequacy ratio has less risk and less reserve should be consider.

On the other hand, one of the factors that is different in different levels of comparability of financial statements of economic units is their reserve of doubtful receivables. In relation to related information and the quality of financial reporting of banks, Gray (1995) state that there should be an interaction between information disclosure and stakeholders. In general, stakeholders expect more information to be disclosed about business entities. According to the signaling theory, the

more information disclosed about business entities should have a direct impact on the performance of the economic enterprise, the more disclosure leads to the reduction of the importance of the problem of information asymmetry, improving the efficiency of monitoring financial institutions and other suppliers of financial resources (Leftwich, 1981). and reducing the capital cost of the business unit (Jensen and Blanchet, 2000) (Clarkson, 2008). In general, the ability to compare financial statements is considered one of the qualitative features that improve quality, and it is defined as "the qualitative feature of information that enables users to identify the similarities and differences between two sets of economic phenomena" (Foroghi and Ghasemzad, 2014). In general, the availability of information about peers facilitates comparability for foreign investors, and in this way, understanding financial statement information among companies makes comparability easier for investors. Li (2015) explain that by having access to and ability to understand information, investors cannot have a better understanding of the company's performance, but value-related information through inference based on performance or disclosure of peer information. Company comparison) are obtained. For example, in the absence of disclosure of bad news for a particular company, investors may be able to obtain at least some negative information through inferences based on the performance or disclosure of their company's peers. Therefore, this issue plays an important role in limiting the ability and motivation of managers to accumulate bad news. On the other hand, due to the existence of discretion in estimating the reserve for doubtful debts, it should be seen how this authority affects the banking system and the country's economy. The results of Bushman and Williams (2012) studies emphasize that the exercise of discretion in accounting for the reserve of doubtful debts in the form of It works as a double-edged sword, in other words, increasing discretion can be used to take into account information about expected future losses, but the possibility of applying it with opportunistic purposes is not ruled out. Therefore, the main purpose of managers to exercise discretion in reserve calculation (creating a shock absorber for the upcoming crisis or opportunistic profit management) is not clear.

This lack of clarity about the motivation to exercise discretion in the face of financial crises becomes more important in the banking sector; Because according to the theory of capital fragmentation, timely recognition of reserves can prevent the occurrence of very heavy debt and risk and bring stability to the banking system (Acharya, 2016). Jin (2016) argue that the optional component of the reserve for doubtful accounts is related to risk-taking and crisis indicators, and in addition to the timely identification of credit losses and considering the reserve for potential futures, it has a direct effect on profitability and ratios. It invests and limits the growth of risky facilities during credit boom periods so, if the inverse relationship between the bank's risk-taking and the abnormal part of the reserve is confirmed, it can be concluded that the bank has not used its discretion to accumulate sufficient reserves for the possible crisis caused by the increased risk. Also, according to the theory of Bushman and Williams (2012), this important item has not been used to limit the upper limit of risk. From the results of the above, it can be concluded that the model of estimation and the current way of granting authority to managers in order to fulfill the function of financial reporting and establish stability The banking system (or avoiding the occurrence of a banking crisis) has not worked and needs to be revised. On the other hand, if a positive relationship between the two is observed, according to the theory of capital shrinkage and also the statements of researchers such as Acharya (2016) and Ryan (2018), It can be concluded that the current model of estimating the reserve of doubtful receivables works in line with establishing and ensuring the stability of the banking system.

Bradshaw (2010) found that corporate opacity can lead to information asymmetry, which hinders the timely reaction of stock prices. Kim and Zhang (2014) found that the lack of transparency of financial accounting as well as the lack of information content related to profit (including accrual items such as the reserve for doubtful accounts) of companies can also be caused by the lack of

internal control. Can interactively have a significant effect on stock price fluctuations. Therefore, the ability to compare financial statements is one of the qualitative characteristics of financial reporting that the managing director of an economic unit should provide. But due to the fact that managers' abilities and opportunities to accumulate and not disclose news (negative or positive) depend on its costs and benefits, on this basis, it is possible for managers to provide information based on this qualitative feature (comparability of financial statements) do not take action, therefore, according to the above concepts, this research examines the origin and consequences related to the reserve of suspicious claims of unusual access by banks.

## 2-2 Research background

In line with the evidence provided by the empirical studies conducted in the subject area, Shijia (2022) investigated the effect of the comparability of financial statements on the pricing of bonds of banks and financial institutions. The results of their research show that institutional investors tend to buy bonds from companies that have high comparability of financial statements. Based on this, the empirical results show that the companies that issue bonds are convergent in terms of yield rates and comparability of financial statements.

Ozili (2022) investigated the effect of economic uncertainty on banks' profitability in a research regarding managers' concerns about how the macroeconomic environment affects business profits. The result of their research shows that the high economic policy uncertainty has a negative effect on the non-interest income of banks, also among the explanatory variables, the decrease in the gross domestic product; the growth rate of non-current loans and the regulatory capital ratio have a negative relationship with profitability.

In a research, Habib (2021) investigated the effect of the comparability of financial statements on the behavior of banks' profit smoothing through loan loss reserves. Which limits the comparability of financial statements, the smoothing of profits through loan loss reserves. They also show that this restrictive effect is more pronounced for larger banks and during the Global Financial Crisis (GFC).

In a research, Saduk (2021) examined the relationship between economic uncertainty and accounting quality (qualitative characteristics of profit). Using data from 19 countries in the period of 1992-2017, they examined the economic policy of companies and found that uncertainty economy leads to a decrease in the quality of accounting. It should be noted that the intensity of this relationship is greater in state-owned companies than in other companies.

Ikinci and Poiraze (2019) have studied the effect of credit risk on the financial performance of deposit banks in Turkey and found that there is a negative relationship between credit risk and return on assets, as well as between credit risk and return on equity. This result shows that there is a relationship between credit risk management and profitability of Turkish deposit banks. Accordingly, banks should focus more on credit risk management, especially on controlling and monitoring non-performing loans. In addition, managers should focus more on modern credit risk management techniques.

Elayatan and Bani Khalid (2019) addressed the issue of credit risk and financial performance of Jordanian commercial banks: by analyzing Patel's data, both fixed and random effect models and GLS method were used. The results show that credit risk has a significant negative effect on asset returns and equity returns. While, total deposits and bank size have a positive and significant effect on the financial performance of Jordanian commercial banks.

Susinelli (2018) have addressed the issue of credit risk in European banks. This article follows the current systematic framework by examining the approaches based on valid internal ratings of banks in improving risk management methods. They found that banks based on internal ratings are able to control and curb the increase in credit risk caused by economic recession, and this is more

favorable than banks that have a standard approach. Kalu (2018) evaluated the relationship between credit risk management techniques and financial performance of microfinance institutions and collected primary data using questionnaires and secondary data from annual reports of microfinance institutions and showed that identifying And credit risk assessment has a positive and significant relationship with financial performance, while credit risk monitoring and credit risk reduction have a balanced positive and significant relationship with financial performance.

According to Agarwal(2007), three main motivations lead to the manipulation of bad debt reserves by bank managers: profit management, capital management and the mechanism of messaging to shareholders. Therefore, a classification of research conducted in this field has been made according to the three motivations mentioned.

Behradfar and Nishari (2023) studied the effect of credit risk on the relationship between managers' compensation and the performance of financial institutions. In their research, the index "Reserve of Doubtful Claims" was used to calculate credit risk. The results of research hypotheses showed that there is a positive and significant relationship between managers' compensation and financial performance, and a negative and significant relationship between managers' compensation and credit risk. Also, there is a negative and significant relationship between credit risk and financial performance.

Arab Mazar Yazdi and colleagues (2023) investigated the relationship between comparability of companies and debt maturity in a research. The findings of their research show that there is a negative and significant relationship between the comparability of financial statements and the company's debt maturity; Therefore, the comparability of financial statements plays an important role in aligning incentives in the company, and by reducing information asymmetry and potential agency costs, it can replace the use of short-term debt as a corporate governance mechanism.

In a research, Fallah (2019) investigated the impact of the comparability of financial statements on the relationship between profit announcements and the delayed reaction of stock prices in Tehran Stock Exchange companies. In order to test the hypotheses, a panel regression model was used, the findings of the research show that comparing financial statements and profit announcements have a negative and significant effect on the delayed reaction of stock prices. Also, the ability to compare financial statements has a negative and significant effect on the relationship between profit announcements and delayed stock price reactions.

In a research, Ferdowsi and Fitras (2016) investigated the effects of credit risk and liquidity risk on the performance of Iran's banking system. The results showed that an impulse equal to one standard deviation in credit risk leads to a decrease in banks' liquidity, return on assets, and banks' profitability. Based on these results; in the long term, credit risk does not play a significant role in determining the profitability of banks, but the liquidity and return on assets of banks in the long term are significantly affected by credit risk. Hassah Yaganeh (2015) in a research investigated the factors affecting the ineffectiveness of banks' reserves for doubtful debts. The main question of their research was whether the reserves for doubtful debts of banks, estimated according to the instructions of the Central Bank, are of the optimal amount based on the financial situation and Does the bank have risk or not? If the value of this variable is far from the desired value, how much is it and what are the causes? The findings show that banks in different years have different degrees of inefficiency in determining the amount of reserve for doubtful debts. Iran Zameen Bank was identified as the most efficient bank in 1990 with an inefficiency rate of 0.000054 and Bank Mellat in 1992 with an inefficiency rate of 0.0421749 was identified as the most inefficient bank in storing doubtful receivables.

### 3- Research Hypotheses

According to the theoretical foundations presented and to answer the research questions, the following hypotheses are proposed:

Hypothesis (1): The comparability of financial statements has an effect on the reserve of suspicious receivables.

Hypothesis (2): reserve of doubtful receivables has an effect on risk components.

Hypothesis (2-1): Reserve for doubtful receivables has an effect on the deviation of the profit standard.

Hypothesis (2-2): Reserve of unusual uncollectible receivables has an effect on the proportion of uncollectible doubtful receivables reserve.

## 4- Research Method

In terms of its purpose, the present research is considered as applied research. The goal of applied research is to develop applied knowledge in a specific field. In other words, applied research is directed towards the practical application of knowledge. Also, in terms of data collection, this research is descriptive and correlational in terms of type. Because it examines the degree of dependence of the dependent variable and the independent variable on each other. The research method is inductive, in which the theoretical foundations and background of the research are collected through the library, articles and the Internet, and in order to reject or prove the research hypothesis by applying appropriate statistical methods, inductive reasoning is used to generalize the results. In this research, to test the hypothesis, data will be used in the form of company-year. It should be noted that SPSS software (version 21) and Eviews (version 9) were used for statistical analysis.

### 4-1- Hypothesis Testing Model

Considering that in this research, the origin and consequences related to the reserve of suspicious claims of abnormal access of Tehran Stock Exchange banks have been investigated. Therefore, the hypothesis test model based on Ozili 's research (2022) is presented as follows:

The results of the first main hypothesis test

$$ABN\_ALLOW_{it} = \beta_0 + \beta_1 COMP_{it} + \beta_2 A\_CAPITAL_{it} + \beta_3 SIZE_{it} + \beta_4 ROE_{it} + \beta_5 LOAN_{it} + \beta_6 LIQ_{it} + e_{it}$$

The results of the first sub-hypothesis test

$$STD\_PROF_{it} = \beta_0 + \beta_1 ABN\_ALLOW_{it} + \beta_2 A\_CAPITAL_{it} + \beta_3 SIZE_{it} + \beta_4 ROE_{it} + \beta_5 LOAN_{it} + \beta_6 LIQ_{it} + e_{it}$$

The results of the second sub-hypothesis test

$$ALLOW_{it} = \beta_0 + \beta_1 ABN\_ALLOW_{it} + \beta_2 A\_CAPITAL_{it} + \beta_3 SIZE_{it} + \beta_4 ROE_{it} + \beta_5 LOAN_{it} + \beta_6 LIQ_{it} + e_{it}$$

**TABLE (1) NAME AND SYMBOL OF RESEARCH VARIABLES**

Storage of suspicious claims of unusual access( <i>ABN_ALLOWANCE</i> )	bank size ( <i>SIZE</i> )
Comparability of financial information ( <i>COMP</i> )	Return on Equity ( <i>ROE</i> )
Standard Deviation of Profit ( <i>STD_PROF</i> )	The ratio of granted facilities to total assets ( <i>LOAN</i> )

Doubtful receivables reserve ratio (ALLOW)	Liquidity (LIQ)
Capital adequacy (A_CAPITAL)	Model error (e)

## 4-2- How to Measure Research Variables

In the following, the method of measuring each of the research variables is presented:

### Ability to Compare Financial Information

In this study, to measure the comparability of financial information, the model presented in Babaei's doctoral dissertation (2019) based on the theory of relative valuation was used. Babaei (2019) showed that the model based on the theory of relative valuation has more explanatory power in comparison with other comparability measurement models in the country. Based on valuation theory, Babaei (2019) argued that comparable companies should be a function of variables that better explain relative valuation ratios. The best version of this model is to measure the comparability of financial information based on the ratio of price per share to operating earnings per share (P/OE). To calculate the comparability according to this model, first, the regression model explaining the ratio of price to operating profit per share (P/OE) as described in equation (1) is fitted at the level of each industry. Then, the correlation of the absolute value of the residuals of the model is considered as an index to measure the comparability of financial information.

(1)

$$\left(\frac{P}{OE}\right)_{i,t} = C + \beta_1(b_{it}) + \beta_2(g_{it}) + \beta_3(B_{it}) + \beta_4(ROE_{it}) + \beta_5(Q_{it}) + \beta_6(SIZE_{it}) + \beta_7(Re_{it}) + \beta_8(Adjpm_{it}) + \beta_9(CPI_{it}) + \varepsilon_{it}$$

In model (1) according to the research of Babaei(2019); (P/OE) ratio of price per share to operating profit per share; (b) the cash dividend distribution ratio through the result of dividing the cash dividend per share by the profit per share; (g) Company growth is calculated through equation (2).

$$g = \left(1 - \frac{DPS}{EPS}\right) \times ROE \tag{2}$$

In relation (2); (DPS) is dividend per share, (EPS) is earnings per share and (ROE) is the rate of return on equity (the ratio of net profit to equity). Company risk (B) is measured through systematic risk as described in equation (3). In relation (3); i represents the company's stock return and (m) represents the total market return on a monthly basis.

$$\beta_{i,t} = \frac{Cov_{i,m}}{\delta_m^2} \tag{3}$$

Qotobin ratio (Q) through the ratio of the market value of the company's assets to the book value of the assets at the end of the period; Company size (Size) through the natural logarithm of total assets at the end of the financial period; The cost of equity (Re) was also calculated through Gordon's growth model according to equation (4).

$$R_e = \frac{DPS}{P_0} + g \tag{4}$$

The company's adjusted profit margin based on the industry (Adjpm) is calculated through the

difference between the company's profit margin and the median profit margin of the companies in the industry. The profit margin of each company was also calculated through the ratio of operating profit to sales. The inflation rate (CPI) is also extracted from the statistical archive of the Central Bank on an annual basis.

## Risk Components

In this research, the risk components include the standard deviation of profit and the reserve of doubtful claims, which is used to calculate the first index of risk components from the three-year standard deviation of banks' profits, and to calculate the second index of risk components, the division of the reserve of doubtful claims by the total facilities is used. (Ozili, 2022).

Storage of suspicious claims of unusual access:

In this research, the following model is used to calculate this variable based on the research of Habib (2021) and Zhou (2021):

$$LLP = \gamma_0 + \beta_1 NPL + \beta_2 \Delta NPL + \beta_3 LLR + \beta_4 NLC + \beta_5 LOAN + \beta_6 \Delta LOAN + YEARDUMMY + \varepsilon$$

LLP: reserves of general and specific claims to the total granted facilities.

NPL: Amount of non-current facilities to total granted facilities.

$\Delta$ NPL: Change ratio of non-current facilities.

LLR: The ratio of changes in the loss reserve (burned) of the facility

NLC: ratio of changes in the cost of bad debts of banks

LOAN: logarithm of total facilities granted by banks

$\Delta$ LOAN: ratio of changes in total facilities granted by banks

YEARDUMMY: year virtual variable

$\varepsilon$ : The error value indicates the storage of suspicious claims of unusual access.

## Control variables

The control variables and how to measure them are as follows:

Capital adequacy percentage: The following ratio is used to measure this variable:

Capital adequacy rate=

$$\left( \frac{\text{Basic capital}}{(\text{Risk coefficient} * \text{top line of items}) + (\text{bottom line of items} * \text{risk coefficient} * \text{coefficient conversion})} \right)$$

Bank size: There are various criteria for measuring the "bank size" variable, which are: the total amount of assets, the amount of sales and the total number of employees, but in this research, the size of the company is calculated using ln assets.

Return on equity: To measure this variable, dividing net profit by equity is used.

Ratio of granted facilities to total assets: To measure this variable, the division of total granted facilities to total assets is used.

Liquidity: To measure this variable, dividing the cash balance by total assets is used.

## 5- Society and Statistical Sample

The statistical population of this research includes the banks accepted in the Tehran Stock



Exchange, and these banks are tested in the period of 2011 to 2014. has been:

1. To comply with their comparability, the financial year of the companies should end at the end of March every year.
2. During the time period of the research, they have not stopped their activities and have not changed their financial period.
3. All the information required from the banks should be available for research, the selected banks. By applying the above conditions, 14 banks have been included in the statistical sample of this research.

## 6- Research findings

### 6-1- Descriptive Statistics of Research Variables

The results of the descriptive analysis of research variables are presented in table (2).

**TABLE (2) DESCRIPTIVE STATISTICS RESULTS OF RESEARCH VARIABLES**

Variable	Mean	Median	Max.	Min.	STD	Skewness	Kurtosis
<i>ABN_ALLOWANCE</i>	0.0001	-0.004	0.275	-0.147	0.056	1.764	9.226
<i>W</i>	0.068	0.052	0.418	0.014	0.069	0.958	3.624
<i>COMP</i>	-6.742	-4.791	-0.145	-25.425	5.923	-1.073	3.324
<i>STD_PROF</i>	0.014	0.006	0.236	0.001	0.030	0.782	3.831
<i>A_CAPITAL</i>	0.071	0.078	0.355	-0.575	0.110	-2.241	15.229
<i>SIZE</i>	19.472	19.400	22.746	15.227	1.411	-0.276	3.179
<i>ROE</i>	0.149	0.169	1.852	-2.125	0.372	-2.378	21.684
<i>LOAN</i>	0.567	0.607	0.727	0.129	0.127	-1.197	4.094
<i>LIQ</i>	0.030	0.017	0.171	0.0001	0.033	1.806	6.668

According to table (2), the number of bank-year observations based on balanced composite data, 140 observations were equal to 14 banks in 10 years. According to the descriptive statistics, the above indices can be divided into central indices, dispersion and other indices, where the central indices are mean and median indices, dispersion indices are standard deviation indices and other indices are The index is maximum, minimum, skewness and elongation. In short, the average variable of capital adequacy shows that on average, the banks in the research sample have a capital adequacy of 7.1%. It should be noted that the rate of 8% is a number that if the bank has capital adequacy below the mentioned number, it is associated with risk. They face bankruptcy, which is also not favorable for banks and indicates a considerable risk in the country's banking system. Regarding the negative skewness coefficient of some variables, it can be said that this indicates the existence of skewness to the right and the tendency of these variables to have smaller values. Also,

the positiveness of the coefficients of elongation indicates that it is higher than the normal distribution and the data are around the mean is centered.

## 6-2- Normality test of Dependent Variables of the Research

Since in conducting this research in order to estimate the parameters of the model, the ordinary least squares method is used and this method is based on the assumption that the dependent variables of the research have a normal distribution and its non-normal distribution leads to exceeding the assumptions of this method to estimate the parameters. Can be done, in this study, this issue is investigated through the Kolmogorov-Smirnov (K-S) test.

**TABLE (3) THE RESULTS OF EXAMINING THE NORMALITY OF THE DISTRIBUTION OF DEPENDENT VARIABLES**

Variable	K-Stest results					
	Mean	Std.	Positive	Negative	K-S	Sig.
ABN_ALLOWANCE	0.0001	0.056	0.275	-0.147	1.129	0.082
STD_PROF	0.014	0.030	0.236	0.001	1.052	0.105
ALLOW	0.068	0.069	0.418	0.014	1.075	0.091

According to the table above, after the normality test, the significance level of the Z statistic of the KS test for the dependent variables has increased to above 0.05, so the H0 hypothesis that the distribution of the dependent variables is normal is accepted, and it indicates that the dependent variables of the research It has a normal distribution, so parametric statistical methods are used to test the hypotheses.

## 6-3- The Results of the Research Hypothesis Test

The results of the default test and the regression test are as follows.

### 6-3-1- Flimer Statistic Results For Research Hypotheses

In order to determine which method (consolidated or panel data) should be used to fit the model, we should test the F-limer or Chau test, considering that the significance level of the F-limer statistic is lower than the acceptable error level (5 percent). So the panel data method is preferable to the pooled data method.

**TABLE (4) THE RESULTS OF FLIMER STATISTICS FOR RESEARCH HYPOTHESES**

Hypotheses	The value of the statistic	Significance level
The first main hypothesis	10.128	0.000
The first sub-hypothesis	3.034	0.000
The second sub-hypothesis	11.486	0.000

### 6-3-2- Hausman Statistic Results For Research Hypotheses

There are two methods for estimating the pattern using panel data, which are fixed effects and random effects, determining which of these two methods should be used for a sample of data is done through the Hausman test. Since the significance level of H-hausman statistic is less than the accepted error level (5%), therefore, the regression method with fixed effects is preferable to the regression method with random effects.

**TABLE (5) HAUSMAN STATISTIC RESULTS FOR RESEARCH HYPOTHESES**

Hypotheses	The value of the statistic	Significance level
The first main hypothesis	36.178	0.000
The first sub-hypothesis	39.145	0.000
The second sub-hypothesis	39.652	0.000

### 6-3-3- The results of White's Statistics for Research Hypotheses

One of the important issues that we deal with in econometrics is the issue of heterogeneity of variance. Variance heterogeneity means that in estimating the regression model, the values of the error sentences have unequal variances. If the significance level of the White statistic is higher than the accepted error level, we are not faced with variance heterogeneity, but if the significance level of the White statistic is lower than the accepted error level, we are facing the problem of variance heterogeneity. The method of least squares is adjusted.

**TABLE (6) THE RESULTS OF F-WHITE STATISTICS FOR RESEARCH HYPOTHESES**

Hypotheses	The value of the statistic	Significance level
The first main hypothesis	2.448	0.000
The first sub-hypothesis	2.664	0.000
The second sub-hypothesis	11.110	0.000

### 6-3-4- Godfrey statistic results for research hypotheses

One of the important issues we deal with in econometrics is serial autocorrelation. In statistics, the autocorrelation of a random process describes the correlation between the values of the process at different points in time as a function of two times or time differences. Considering that the significance level of Godfrey's statistic is higher than the acceptable error level, the regression does not have the problem of serial autocorrelation.

**TABLE (7) THE RESULTS OF GODFREY'S STATISTIC FOR RESEARCH HYPOTHESES**

Hypotheses	The value of the statistic	Significance level
The first main hypothesis	3.291	0.089
The first sub-hypothesis	3.317	0.091
The second sub-hypothesis	2.800	0.115

### 6-3-5- The results of the first main hypothesis test

Hypothesis (1): The comparability of financial statements has an effect on the reserve of suspicious receivables.

**TABLE (8) MODEL ESTIMATION RESULTS FOR THE FIRST RESEARCH**

## HYPOTHESIS

Variable name and symbol	Regression coefficient	t statistic	Sig.	VIF statistic
COMP	-0.0008	-2.446	0.009	1.260
A_CAPITAL	-0.092	-2.167	0.016	1.435
SIZE	0.011	3.057	0.002	1.305
ROE	0.009	2.285	0.014	1.056
LOAN	-0.108	-4.377	0.000	1.063
LIQ	0.051	1.088	0.278	1.116
Constant	-0.167	-2.117	0.036	-
F statistic (Sig.)	11.057 0.000	Durbin-Watson statistic		1.940
(Coefficient of determination)	0.636	Jarque-Berastatistic (Sig.)		9.898 0.107

Based on the results of the first hypothesis test presented in table (8), considering that the F statistic (0.000) has a significance level below (5%), therefore the regression has explanatory power. The coefficient of determination of the model also shows that 63.6% of the changes in the reserve variable of suspicious receivables are explained by the variables entered in the model. Also, in the examination of the assumptions of classical regression, the results of the Jarcoobra test show that the residuals obtained from the estimation of the model at the 95% confidence level have a normal distribution, so that the significance level of this test is greater than 0.05 (0.107). Also, due to the fact that the Durbin-Watson statistic of the model is between 1.5 and 2.5 (1.940), it can be said that there is no residual autocorrelation problem in the model. Finally, according to the significance level of the variable of comparability of unusual financial information (independent variable) which is below 0.05 (0.009), therefore, the comparability of financial information has a negative and significant effect on the reserve of doubtful receivables. Among the control variables, the capital adequacy and the ratio of granted facilities to total assets have a significant negative effect on the reserve of doubtful and unusual claims, and the size of the bank and the rate of return on equity have a positive and significant effect on the reserve of doubtful and unusual claims. Finally, with the collinearity test between research variables, the value of VIF (Variance Inflation Factor) for all variables is smaller than 5, indicating that there is no strong collinearity problem between research variables.

### 6-3-6- The results of the first sub-hypothesis test

Hypothesis (2-1): Reserve for doubtful receivables has an effect on the deviation of the profit standard.

**TABLE (9) MODEL ESTIMATION RESULTS FOR THE FIRST SUB-HYPOTHESIS OF THE RESEARCH**

Variable name and symbol	Regression coefficient	t statistic	Sig.	VIF statistic
ABN_ALLOWANCE	0.271	6.560	0.000	1.104
A_CAPITAL	-0.110	-4.413	0.000	1.224
SIZE	-0.003	-1.108	0.269	1.304
ROE	0.004	0.956	0.340	1.025
LOAN	-0.067	-2.645	0.009	1.118
LIQ	-0.007	-0.111	0.911	1.116
Constant	0.131	2.045	0.043	-
F statistic	10.052	Durbin-Watson statistic		1.637

(Sig.)	0.000		
(Coefficient of determination)	0.614	Jarque-Berastatistic (Sig.)	7.125 0.136

Based on the results of the first sub-hypothesis test presented in table (9), considering that the F statistic (0.000) has a significance level below (5%), therefore, the regression has explanatory power. The coefficient of determination of the model also shows that 61.4% of the changes in the profit standard deviation variable are explained by the variables entered in the model. Also, in the examination of the assumptions of classical regression, the results of the Jarcoabra test show that the residuals obtained from the estimation of the model at the confidence level of 95% have a normal distribution, so that the significance level of this test is greater than 0.05 (0.136). Also, due to the fact that the Durbin-Watson statistic value of the model is between 1.5 and 2.5 (1.637), therefore, it can be said that there is no residual autocorrelation problem in the model. Finally, according to the significance level of the variable of the reserve of suspicious receivables of abnormal arrival (independent variable) which is below 0.05 (0.000), therefore, the reserve of doubtful receivables of unusual arrival has a positive and significant effect on the deviation of the profit standard. Among the control variables, capital adequacy and the ratio of granted facilities to total assets have a negative and significant effect on the deviation of the profit standard. Finally, with the collinearity test between research variables, the value of VIF (Variance Inflation Factor) for all variables is smaller than 5, indicating that there is no strong collinearity problem between research variables.

### 6-3-7- The Results of the Second Sub-Hypothesis Test

Hypothesis (2-2): Reserve of unusual uncollectible receivables has an effect on the proportion of uncollectible doubtful receivables reserve.

**TABLE (10) MODEL ESTIMATION RESULTS FOR THE SECOND SUB-HYPOTHESIS OF THE RESEARCH**

Variable name and symbol	Regression coefficient	t statistic	Sig.	VIF statistic
ABN_ALLOWANCE	0.913	15.568	0.000	1.104
A_CAPITAL	-0.164	-4.667	0.000	1.224
SIZE	0.009	1.290	0.176	1.304
ROE	0.001	0.197	0.843	1.025
LOAN	-0.087	-2.443	0.016	1.118
LIQ	0.056	0.621	0.535	1.116
Constant	0.321	3.517	0.000	-
F statistic (Sig.)	37.360 0.000	Durbin-Watson statistic		1.650
(Coefficient of determination)	0.855	Jarque-Berastatistic (Sig.)	8.245 0.125	

Based on the results of the second sub-hypothesis test presented in Table (10), considering that the F statistic (0.000) has a significance level below (5%), therefore, the regression has explanatory power. The coefficient of determination of the model also shows that 85.5% of the variable changes in the reserve ratio of doubtful receivables are explained by the variables entered in the model. Also, in examining the assumptions of classical regression, the results of the Jarcoabra test show that the residuals obtained from the estimation of the model at the 95% confidence level have a normal distribution, so that the significance level of this test is greater than 0.05 (0.125). Also, due to the fact that the Durbin Watson statistic value of the model is between 1.5 and 2.5 (1.650), it can be said that there is no residual autocorrelation problem in the model. Finally, according to the significance level of the variable of the reserve of doubtful claims of unusual

access (independent variable) which is below 0.05 (0.000), therefore, the reserve of doubtful claims of unusual access has a positive and significant effect on the ratio of the reserve of doubtful claims. Among the control variables, capital adequacy and the ratio of granted facilities to total assets have a negative and significant effect on the deviation of the profit standard. Finally, with the collinearity test between research variables, the value of VIF (Variance Inflation Factor) for all variables is smaller than 5, indicating that there is no strong collinearity problem between research variables.

## 7- CONCLUSION

Credit risk is one of the most important factors affecting the health of the banking system, in this regard, the origin and consequences related to this issue can lead to the vulnerability of banks. Therefore, this research investigates the origin and consequences related to the reserve of suspicious claims of unusual access by Tehran Stock Exchange banks. In this research, the comparability of financial statements is the source of the variable, and the risk components (variables of profit standard deviation and doubtful debt reserve ratio) are considered for the results. The findings of the research show that, in general, the comparability of financial statements has a negative and significant effect on the provision of doubtful accounts receivables and the reserve of doubtful accounts receivables also has a positive and significant effect on the risk components. Regarding the analysis of the results, it can be said that the result of the first hypothesis is generally in agreement with the research of Habib

According to the confirmation of the first hypothesis, investors obtain information related to the value of the bank through inference based on performance or disclosure of peer information (comparison of the company). Therefore, it is consistent with the argument that more comparable financial reporting increases the transparency of banks' financial statements, thus providing a lot of motivation for bank managers to minimize Take steps to reserve doubtful receivables. Also, considering that one of the important indicators for evaluating the performance of banks and calculating their capital adequacy ratio is the reserve of doubtful receivables, it is therefore important for bank managers to always seek to reduce the reserve of doubtful receivables. Finally, from a financial point of view, the lack of comparability of financial statements due to the inflated reserve of doubtful accounts will lead to the lack of transparency of banks and lead to information asymmetry, which can even cause stock price fluctuations in the future. According to the confirmation of the second hypothesis, this is true, which is considered a behavioral finding and shows that Iranian bank managers use this option in a positive way. Al-Araqihave also identified more risk so that it can be a shield for them when facing a crisis.

Next, because the results of this research can be used in the decision-making process, this research is applied in terms of purpose. Therefore, suggestions for each of the beneficiaries of the research are briefly stated. A) Bank managers: As it was said earlier, one of the important indicators for evaluating the performance of banks and calculating their capital adequacy ratio is the reserve of doubtful claims. Accordingly, it is suggested to bank managers to gain the trust of the beneficiaries with as much control as possible. Provide facilities, look for non-inflating the reserve of doubtful claims because this is one of the important components in comparing and checking the financial information of banks.b) Investors and depositors: According to the results of the assumptions, it is suggested that in order to prevent the violation of rights, depositors and investors should always look for the comparability of banks' financial statements. is. c) Central Bank: Considering that the Central Bank, as a governing body, has considerable control over banks and financial institutions, it is therefore suggested to pay special attention to the quality of the facilities granted by banks and to use laws and tools that reduce the risk of facility default. d) Stock Exchange Organization: In order to determine the true value of banks, to clarify their information and to better understand their performance, the stock exchange organization should adopt rules

and regulations to inject as much information as possible correctly and timely (by increasing the comparability of financial statements) into the market. One of the most important advantages of this behavior on the part of the organization is the management of banks and their managers in order to minimize the risk of facility default and ultimately reduce the reserve of doubtful receivables.

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