AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT

ISSN: 2576-5973
Vol. 6, No. 9, 2023

Investigating the Effect of the Income Smoothing Practice on the Ability to Predict Financial Failure: An Analytical Study of a Sample of Banks Listed on the Iraq Stock Exchange

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Abstract: This research aims to determine the effect of measuring income smoothing on the ability to predict the financial failure of banks listed in the Iraq Stock Exchange. The research sample consisted of ten private local commercial banks registered in the Iraq Stock Exchange for the fiscal period from 2016 to 2021. This study used the (Miller, 2009) model to measure smoothing income as an independent variable and the (Z-Sherrod, 1987) model to measure the dependent variable predicting financial failure.

A set of statistical tools and methods, such as arithmetical averages and regression analysis, were utilized with the help of a set of statistical programs (SPSS and Microsoft Excel) to analyze the dataset. The study resulted in a set of purposeful conclusions and recommendations, the most important of which is a positive relationship between the measurement of income smoothing and the ability to predict financial failure.

Keywords: Income Smoothing, Predicting Financial Failure, Bankruptcy, Earnings Manipulation, and The Iraq Stock Exchange.

Introduction:

The phenomenon of financial bankruptcy of companies is only the result of irrational decisions taken by senior and financial managers of companies. The quantitative and qualitative expansion of economic activities and the transformation of small and individual commercial units into joint-stock and multinational companies attracted many investors, increased competitive markets in the commercial fields, and reduced commercial powers. Thus, this prompted the companies' management to beautify their financial performance by manipulating their earnings figures to enable them to withstand the pressure of competition and remain in the safety circle.

The authors (Hamid and Hassan, 216: 2020) mentioned that the fierce competition market, the inability of the bank to stand up to competitors, and the accumulated losses suffered by the borrowing companies all affect the lack of continuity of the bank, which leads to its failure and liquidation. Economic institutions' monopoly and close cooperation to achieve optimum profitability, on the one hand, and the bankruptcy of major international companies, on the other hand, all have caused bankruptcy to be considered very important in financial management. Therefore, studying the factors causing bankruptcy from a financial perspective and, more importantly, predicting bankruptcy with the help of common models can significantly help financial managers identify signs of financial crises in the company in time, before the

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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collapse, for instance, the financial stumbling block of the Dijlah and Furat Bank Development and Investment, which was established in 2005 with a capital of 112 billion dinars. This stumbling block ended in late 2016, placing the bank under the tutelage of the Central Bank of Iraq until 10/21/2022, which is the date of its declaration of bankruptcy and its removal by the Securities Commission from the list of companies listed in the Iraq Stock Exchange. Therefore, this prompted the researcher to investigate the issue of financial failure and the possibility of reaching strategies that enable management and investors to predict the crisis before it occurs. This study searches for a potential relationship between the income smoothing process that the management deliberately carries out with different motives and predicting the financial failure of the research sample banks.

The rest of the paper is organized as follows: the First Section presents the study and the research methodology. The Second Section will discuss the concept of the methodology and the research variables.

The Third Section represents the methodology and results discussion of the research, followed by the most important conclusions and recommendations.

First Section: Research Methodology

Research Problem:

The opportunistic motives behind the behavior of managers to achieve their personal benefits without caring for the benefits of shareholders by manipulating the numbers of the financial statements led to the failure of large companies such as (Enron Company) and (Lehman Brothers Bank) and others. Economists and experts are divided on the actual concept of earnings manipulation. Is it accounting fraud and giving an unrealistic picture of the financial position, or is it an accounting innovation and beautification of the financial statements as long as it does not violate accepted accounting standards?

The earnings manipulation process has gained many terms, such as creative accounting, cosmetic accounting, ethical accounting, fraudulent accounting or unconserved accounting, and others. The multiplicity of terms is due to the difference in the views of economists and researchers on the concept of manipulation of earnings.

Regardless of the different opinions of specialists regarding the reality of earnings manipulation, the researcher seeks through this research to demonstrate the effect of practicing the process of earnings manipulation by smoothing the income on predicting the financial failure of banks. Through the preceding, the problem of the study can be formulated by asking the following: Is there a statistically significant effect of measuring income smoothing on predicting the financial failure of banks listed in the Iraq Stock Exchange?

Research Importance:

Bankruptcy has fundamental adverse effects on the social and economic levels. These effects extend to (creditors, lenders, managers, employees, and all stakeholders) all these groups are greatly affected by bankruptcy. Numerous studies have shown that managers of bankrupt companies have more motives to smooth income in a direction that serves their desires. For example, to avoid violating debt contracts and concealing their unfavorable terms, to evade taxation, or to convince shareholders about the efficiency of performance of management except in some cases caused by a conflict of interest between managers and shareholders, in other cases, there may be a motive to make the company's performance looks terrible through the tactic of manipulating the earnings figures. In case the hypothesis is proven, this study's results may be necessary to both management and investors in rationalizing them to make investment decisions.

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Research Objectives:

The importance of the study stems from the importance of pre-predicting financial crises in companies whose managements seek to manipulate and falsify the facts of their financial reports. We highlight the means of predicting financial failure, which serve as an early warning indicator before a financial crisis may end the life of a company with its bankruptcy and liquidation. We also focus on the concept of income smoothing, its long-term negative impact on the company's future, and the latest model to measure it. We are trying to determine the impact of the income smoothing practice on the possibility of financial failure of the banks listed in the Iraq Stock Exchange as a research sample.

Research Limits:

The spatial limits of the research are represented in a group of private commercial banks listed in the Iraq Stock Exchange whose financial reports are available during the temporal limits of the study for the financial period that extends to 2016 – 2021.

Research Method:

The researcher relied on the inductive method in covering the theoretical side of the research by looking at Arabic and foreign sources (journals, letters, and theses). As for the practical side, the researcher follows the deductive approach by collecting financial data from the annual reports published by the private commercial banks listed in the Iraq Stock Exchange and the research sample and analyzing it statistically using the (SPSS and Microsoft Excel) program.

Research Hypothesis:

The researcher assumed:

Income smoothing has a statistically significant effect on predicting the financial failure of private commercial banks listed in the Iraq Stock Exchange.

Research Sample:

The study population was chosen from the local private commercial banking companies listed in the Iraq Stock Exchange. There are 25 banks, according to the official website of the Central Bank of Iraq. 10 banks of 25 were chosen according to the conditions below for the fiscal period 2016-2021, with a number of observations amounting to 60 years/bank. As for the conditions that determined the selection of the research sample, they are:

1- All banks in the research sample are registered in the Iraq Stock Exchange.

2- All banks in the research sample are local private commercial banks.

3- All banks in the research sample end their fiscal year on 12/31.

4- All banks in the research sample have a continuous activity during the study period.

5- All the research sample banks have published and audited financial reports.

Second Section: The Conceptual Framework

Income Smoothing Concept:

Income smoothing is one of the most popular forms of earnings management. Through it, management tries to maintain the stability of net income by influencing the timing of particular financial events, or by choosing specific accounting methods, or both. That managements generally prefer to disclose a stable trend in income growth, and do not want to show the fluctuation of earnings and the rise in some periods

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
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and decline in others. To achieve this, it smooths the income to maintain its stability. Income smoothing is shifting revenues and expenses between different reporting periods to provide a false impression that a business has fixed earnings (Obeidat, 2021: 789). It is a method managers resort to when they desire to show the company's financial performance in a situation that serves their interests. The large fluctuations in the earnings from one year to the next are evidence of the company's instability and send a negative message to the users of the financial statements. The possibility of predicting future earnings accurately under such circumstances is a fantasy. On the contrary, the stability of the level of earnings is a good indication of the stability of the company and its ability to abide by its promises and not violate the terms of the contracts concluded with the loan donors. Under these conditions, the possibility of predicting future earnings is more accurate.

Therefore, managers do not always seek to increase earnings, and they do not always do so to reduce them. Managers seek to refine the level of earnings during financial periods to maintain the level of earnings in a stable way. This study(Copland, 1968: 101) defined income smoothing as the repeated choice of accounting rules or reporting rules in a certain pattern. The effect of this is reporting an income stream with less variance than the true income picture. In (Ashari & et al, 1994: 291) defined the concept of income smoothing as a deliberate action by management to reduce income-wide fluctuations using certain accounting tools. Also, (Skinner & Sloan, 2002: 209) believe that some investors have overrated optimistic expectations about the prospects for stock growth, which leads to reduced subsequent stock when these expectations are not met, which drives management to manipulate the company's actual performance to match investors' expectations.

The probability of adopting such a method refers to increases in the year of changing the manager. According to the study's results (Wells, 2002), it is possible to follow such a behavior by the new CEO in the year of changing the manager by transferring the current year's earnings to the next year to reflect a good picture of his performance. This result is consistent with the concept of new CEOs who participate in the "bath of earnings", which was referred to by (Healy, 1985). It is a procedure by which managers reduce earnings by transferring the current year's earnings to the next year by deferring revenue or accelerating write-offs for better personal gain.

Income Smoothing Motives:

After explaining the concept of income smoothing, it became clear that the practice of this behavior is primarily in the interest and desire of the management. However, it is possible to divide the motives into motives that are in the interest of the company and others that oppose the interest of the company, as follows:

First: Motives for smoothing the income that is in the interest of the company

1- Motives for tax evasion: As we mentioned, income smoothing is refining the earnings achieved. Reducing the gained earnings contributes to reducing the volume of taxes imposed on the realized income. Taxes are considered a burden on the company, and in the end, they represent an expense that reduces the volume of the net earnings achieved. Therefore, the management may seek to manipulate earnings and reduce the amount of net earnings achieved, which is considered a form of (tax evasion). The above agrees with (Dopuch & Pincus, 1988; Beatty & Harris, 2001; Krull, 2004; Saputra & Agustin, 2022).

2- Motives for not violating borrowing contracts: Companies rely primarily on shareholders' money to finance their activities. At other times, companies resort to borrowing from banks according to certain restrictions imposed by lending banks to ensure the recovery of their money. Therefore, the management seeks to manipulate earnings to avoid the consequences of violating contracts (Abiola, 2022: 11). The

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm
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management tries to obtain soft loans at low costs to finance its activities. Both studies (Sweeney, 1994; Bowen & DuCharme, 1995) satisfy with this result.

3- Legal motives: The desire to manipulate earnings can be seen among managers when there are legal obstacles to achieve certain goals. In a study (Haw & et al, 2005) conducted in China and according to the security regulations there 1996-1998, one of its paragraphs stipulates (that the rate of return on equity is greater than 10% for three consecutive years in order that the company is qualified for equity offers). The results concluded that large numbers of companies in China manipulate their earnings to achieve entry criteria for the stock market.

In all cases, income smoothing practices may interest the company. However, it will inevitably only be in the short term; sooner or later, its negative consequences will appear in the company's future.

Second: Income smoothing motives that oppose the interest of the company

1- Motives for managers' rewards: Managers' cash dues are divided into fixed and variable. Fixed dues are in the form of a fixed monthly salary, regardless of the volume of commercial activity achieved during the period. While variable dues are granted in the form of cash equivalents and are often calculated on the percentage of earnings or sales achieved. This study (Obeidat, 2021: 791) mentioned that the matter that may motivate management to seek to inflate earnings in order to obtain more rewards; this was confirmed by the results of a study (Healy, 1985; Moses, 1987; Herrmann & Inoue, 1996; Carlson & Bathala, 1997).

2- Motives for changing the manager: In a study conducted by (Murphy & Zimmerman, 1993), they searched for the behavior related to the financial variables surrounding the departure of the CEO. In addition, the opportunistic behavior of the old or new managers alike in the period of changing the executive director. This study assumed that there are three scenarios when changing the manager. First, Managers who are approaching the date of retirement seek to make investment decisions that increase earnings in their last years at the expense of the future. Second, outgoing managers who perform poorly make investment decisions to cover up the deterioration of the company's economy. The third scenario: the new managers make investment decisions that will reduce the earnings of the current year in order to increase the earnings of the coming years; they work to enhance the future at the expense of the earnings of the transitional year. The studies of (Wells, 2002; Godfrey & et al, 2003) agreed that there are opportunistic motives when changing the executive director.

3- Motives for worry of work: In the agency theory, everyone seeks his interests. According to a study conducted by (DeFond & Park, 1997) that examined whether the manager is likely to resort to opportunistic methods in order to maintain his position as a manager of the company. This study confirmed that when the current earnings are low (high), and the expected future earnings are high (low), the manager borrows from the period in which the earnings are high to the period in which the earnings are low. The manager resorts to this method to avoid fluctuations in the volume of earnings from one period to another and to reflect a relatively good image of his performance as a company manager.

Financial Failure:

The study (Gordon, 1971: 348) is considered one of the oldest studies that defined the financial deficit as the decline in the company's profitability, which increases the possibility of the inability to pay the principal and interest on the debt. In economic studies and research, several terms have been used, such as economic decline, financial insolvency, inability to commit to pay debts, and financial hardship. All these terms refer to financial failure. Financial failure is often expressed as the end of a company's economic architecture (Dutzi, & Rausch, 2016: 8).

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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The banking field is characterized by a high risk rate, making it more vulnerable to financial failure than other commercial work areas. The study (Liu & et al, 2021: 1) indicated that banks offer unique functions that make them vulnerable to several types of risks, such as interest rate risks, market risks, credit risks, liquidity risks, off-balance sheet risks, foreign exchange risks, and others. Naturally, banks accept short-term deposits from depositors and offer long-term loans. Thus, this makes it difficult for the banks to accept fluctuations in interest rates and exposes them to more significant losses, as they do not have the flexibility to change the interest rate on long-term loans granted by them. On the contrary, the flexibility enjoyed by depositors is due to the fact that their obligations with banks are short-term.

Specialists sought to develop mechanisms to detect the possibility of companies facing financial bankruptcy early. Therefore, this is due to many bankruptcies that shook the economic milieu and because the issue is essential to several parties. Also, the study (Al-Sunaidi, 2021: 212) indicated that when signs of predicting financial failure appear in a company, reactions appear directly. It may be in the form of lenders' refusal to grant loans, investors' reluctance to invest, and the panic that may afflict shareholders when they sell their shares. All this results in a drop in stock prices according to the theory of supply and demand, which accelerates the declaration of bankruptcy. Furthermore, the authors (Muhammad, 2019: 144) indicated that it is often feared that the effects of a bank failure will quickly spread all over the economy. Thus, this may lead to the failure of other banks, whether those banks have liquidity or not, when depositors try to get their deposits out of these banks to avoid losses that may occur.

Stages of Financial Failure:

The arrival of companies to the point of bankruptcy does not happen overnight, as companies go through certain stages before reaching the stage of bankruptcy. Knowing these stages by management or investors may prevent them from incurring losses. These stages can be utilized as negative indicators that represent warnings before crises occur. Perhaps most of the studies that dealt with the stages of financial failure agreed with what was presented by (Gordon, 1971):

1- Emergence stage: Every major event begins with a step, as with the financial failure that befalls large international companies. Financial failure does not appear suddenly or unexpectedly; however, some indications indicate the existence of imbalances from the management, e.g., continuous rise in indirect costs, high intensity of competition, lack of credit facilities, and increasing burdens with the decrease in working capital (Al-Moussawi and Abdullah, 2013: 227).

2- The financial deficit stage: the signs of financial failure appear gradually. Management has to realize this by observing a financial failure. The financial deficit stage begins when the company is unable to meet the necessary cash needs. At this stage, the company's assets exceed its liabilities. The problem is the inability to convert assets into cash to cover outstanding debts.

3- Insolvency stage: In this stage, the level of revenues declines, which is the main lifeline of any economic activity. At this stage, companies suffer from their inability to pay their expenses. Insolvency arises due to a significant decrease in the cash balance of the company in order to increase the volume of liabilities (Shani, 2020: 165).

4- The stage of total insolvency: the features of financial failure become more evident when the indicators of this stage appear. Among the features of this stage, which predicts the possibility of corporate failure in the coming periods, are the companies' reliance on loans, deterioration of current assets, low liquidity ratios, continuous rise in the volume of debt, decline in profitability for successive periods, and the company's inability to compete (Sabri, 2018: 386).

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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5- The stage of declaring bankruptcy: This is the final stage in which the company becomes unable to meet the obligations due. In which its assets are assigned, and legal procedures are taken to protect creditors' rights. This stage leads to the disappearance of the company's legal form, i.e., declaring its bankruptcy and carrying out liquidation (Al-Amiri and Jabr, 2018: 338).

Strategies for Treating Financial Failure:

Rescue treatments differ from the risk of financial failure from one company to another. There are ways to avoid or reduce losses in every situation of failure or financial hardship. The choice of the appropriate method for treating financial failure depends on which of the stages in which the threat of financial failure was detected. None of these methods of treating financial failure are chosen randomly; rather, they are based on extensive studies and consultations with specialists. In any case, the treatment of financial failure can take one of the following strategies (Al-Janabi, 2019: 72):

1- Restructuring: Based on this method, the company adopts new strategies that address the imbalance that led to confusion in the financial situation. The restructuring is not limited to the financial system alone; it can extend to the administrative restructuring to harmonize the two's performance to achieve the restructuring's objectives.

2- Merger: It is the process of merging two companies into one new entity. After the merger, the legal personality of each company of the two merged companies does not exist. This strategy spread in the late sixties of the last century and continued until the end of the seventies. During this period, large companies merged, which impacted the financial markets.

3- Leasing: It is when the company leases some or all of its assets to others. This strategy aims to obtain returns that enable it to fulfill its obligations and avoid the risk of financial failure. Companies resort to such a strategy in hopes of restoring stability in their financial position in the future and resuming their activity again.

4- Changing the legal form: It is one of the effective ways to deal with financial failure. This strategy transforms the company from a less flexible legal form to a more flexible one. Therefore, this gives them the freedom to make decisions that help achieve earnings to avoid the risk of financial failure (Mohammed and Mohammed, 2022: 14).

5- Liquidation: By this method, the company's assets are sold to provide the necessary funds for the company's obligations to others. This strategy is done according to legal procedures that facilitate the liquidation process. Liquidation can be divided into two types (Al-Musawi and Abdullah, 2013: 229):

a- Voluntary liquidation: The company's management takes the liquidation decision independently. Thus, this is done without any pressure or interference from other parts to fulfill its obligations towards others.

b- Compulsory liquidation: This is when the company's management conducts liquidation according to a judicial decision that requires the liquidation process. Consequently, this comes from the company's inability to fulfill its obligations towards creditors.

In this research, we will highlight the banking sector because of its significant impact on the level of the Iraqi economy. In addition, the fact that high risks characterize banks, as we mentioned earlier. For this reason, it is necessary to point out the crises that banks may be exposed. The crises were divided according to a study (Juma and Khalaf, 2021: 308) into three types, as follows:

a- Liquidity crises: They occur if banks maintain small amounts of liquidity to meet withdrawal requests.

b- Credit crises: They occur when banks refuse to grant loans to borrowers. The reason is not the lack of liquidity; however, it is fear that the borrowers will be unable to repay these loans.

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c- Debt crises: These are the crises resulting from the liberalization of the financial and banking sector and the free movement of capital. As a result of the expansion of international commercial banks in granting loans to the governments of developing countries which was unable to pay off these debts and their burdens, as happened in Mexico and other countries.

Third Section: Methodology and Results Discussion

Description of The Research Sample:

The study population was selected from the 25 private banks listed in the Iraq Stock Exchange, and the research sample was selected based on banks with continuous activity and annual audited and published financial reports during the study period from 2016-2021. So that the study sample consisted of 10 banks, with a number of observations of 60 years/bank, as shown in Table (1):

Table (1) Details of the research sample

NO.	Bank	Code	Establishment
1	Bank of Baghdad	B**B**OB	1992
2	Commercial Bank of Iraq	B**C**OI	1992
3	Iraqi Middle East Investment Bank	I**ME**IB	1993
4	Investment Bank of Iraq	B**I**BI	1993
5	National Bank of Iraq	B**N**OI	1995
6	Gulf Commercial Bank	B**G**UC	1999
7	Sumer Commercial Bank	B**S**UC	1999
8	Union Bank of Iraq	B**U**OI	2002
9	Ashur International Bank	B**A**SH	2005
10	Trans Iraq Bank	B**T**RI	2006

Source: Prepared by the researcher

Variables:

Independent Variable:

Income smoothing is measured according to the (Miller, 2009) model, or Miller Ratio (MR), which is the latest model for measuring earning manipulation. Under this model, the change in working capital is calculated as one of the elements subjected to management's control in manipulation, and net cash flows resulting from operating activities in a capacity that is not subjected to manipulation by management, as follows (Miller, 2009: 140):

$$MR = \left(\frac{\Delta NWC}{CFO}\right)t - \left(\frac{\Delta NWC}{CFO}\right)t - 1 \dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where:

MR = Miller's ratio, representing the volume of management intervention by income smoothing.

ΔNWC = the amount of change in working capital.

CFO = net cash flow from operating activities.

t = the current year.

t-1 = the previous year.

The net working capital is calculated by:

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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$NWC = Current\ Asset - Current\ liablities$

If the Miller ratio is zero, this indicates that the management did not interfere in smoothing the income and other things (negative or positive). It indicates the existence of manipulation of earnings by the management. The study (Habeb et al., 2023: 149) mentioned that it is easy to manipulate the use of short-term accruals by choosing accounting policies that have a short-term impact on the current accounts of the statement of financial position, as well as policies that have an impact on long-term accruals, such as policies related to extinction, deferred taxes, and others. Therefore, (Miller) believes that it is possible to know the extent of the management's interference in manipulating earnings through the change in the elements of working capital.

Dependent Variable:

Prediction of financial failure, measured according to the model (Z-Sherrod, 1987).

$Z = 17X1 + 9X2 + 3.5X3 + 20X4 + 1.2X5 + 0.1X6$ .....(2)

Where:

X1 = Net Working Capital / Total Assets

X2 = Current Assets / Total Assets

X3 = total equity / total assets

X4 = net profit before taxes / total assets

X5 = Total Assets / Total Liabilities

X6 = Total Equity / Fixed Assets

Based on the (Z-Sherrod) model, the value of Z will be determined at any of the five levels shown in Table (2). The bank will be classified according to the degree of risk surrounding the bank's financial future. Whereas the value of Z is inversely related to the degree of risk, the higher value of Z indicates a move away from the possibility of financial failure and vice versa. It is worth noting that the (Z-Sherrod) model determines the degree of risk based on the degree of certainty in recovering loans and the extent of certainty that the borrower will not default. The financial failure of banks was divided according to the (Z-Sherrod) model according to the following five levels:

Table (2) Risk Levels According to the (Z-Sherrod) Model

Level	The degree of risk	Z Value
First	No risk of bankruptcy	Z25 ≤
Second	Small possibility of bankruptcy	Z ≤ 2520 ≤
Third	Difficult to predict bankruptcy risks	Z ≤ 205 ≤
Fourth	Bank is exposed to the risk of bankruptcy to a limited extent	Z ≤ 55- ≤
Fifth	highly exposed to the risk of bankruptcy	Z ≤ 5-

Source: (Al-Khalili, 2022: 130)

Quantitative Description

Table (3) indicates the results of the analysis of calculating the independent variable (income smoothing) using the (Miller, 2009) model according to Equation No.(1). Where the value of (MR) was calculated for each year. The arithmetic mean for each bank was taken over six years, as follows:

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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Table (3) The arithmetic mean of income smoothing

No.	Banks	2016	2017	2018	2019	2020	2021	(MR)
1	BIBI	-0.27	-0.07	0.74	-0.10	-0.03	0.87	0.18
2	BGUC	0.16	0.02	10.07	-3.21	0.46	-1.22	0.2
3	BTRI	0.70	-1.04	-0.90	0.04	-1.96	0.76	-0.27
4	BNOI	1.58	-0.24	0.08	2.96	-11.55	0.58	-0.84
5	IMEIB	8.86	-0.64	0.20	0.09	-4.72	4.18	1.02
6	BBOB	-0.04	-0.68	-1.65	-2.60	2.86	-5.29	-1.06
7	BCOI	-0.16	1.25	9.45	2.07	-1.14	-1.99	1.64
8	BUOI	0.28	-2.70	0.26	-0.87	-0.69	-9.67	-1.9
9	BASH	0.09	-0.18	0.02	-1.92	3.66	12.67	2.08
10	BSUC	37.92	-0.08	-0.05	0.28	2.24	-0.18	6.13

Source: Prepared by the researcher.

Table (3) shows the income smoothing index for the research sample banks for the years 2016-2021 according to equation (1) of the (Miller) model and calculating its arithmetic mean. According to the model, whenever (MR) moves away from zero, whether positive or negative, this indicates that there is an income smoothing process. When rounding the ratios of the analysis, results indicate that the banks (1,2, and 3) did not practice the income smoothing process. While the rest of the banks (4 – 10), we note that there is an indication of a smoothing process of income in varying proportions, the largest of which was in BSUC.

In Table (4), the dependent variable (prediction of financial failure) was calculated using the (Z-Sherrod, 1987) model according to Equation No. (2). Where the value of (Z) was calculated for each year, and the arithmetic mean of the value of Z was taken for each bank over six years, as follows:

Table (4) The arithmetic mean of banks according to the (Z-Sherrod) model

NO.	banks	2016	2017	2018	2019	2020	2021	(Z)
1	BIBI	29.458	35.147	36.628	35.164	38.317	31.103	34.303
2	BGUC	20.081	26.378	25.470	28.847	29.133	28.069	26.330
3	BTRI	27.025	27.868	23.537	25.398	26.958	25.563	26.058
4	BNOI	23.158	21.869	21.253	21.757	21.755	20.369	21.694
5	IMEIB	18.961	20.435	19.090	20.211	21.399	20.535	20.105
6	BBOB	16.237	18.698	18.926	19.701	20.003	19.165	18.788
7	BCOI	15.305	19.097	19.202	18.139	18.863	12.001	17.101
8	BUOI	13.884	14.129	15.016	12.084	14.452	27.612	16.196
9	BASH	11.416	10.828	16.904	14.543	15.845	12.084	14.568
10	BSUC	13.995	14.002	12.477	13.287	12.466	13.107	13.222

Source: Prepared by the researcher.

We note from Table (4) that banks (1, 2, and 3) fall within the first level of (Z-Sherrod) classification, where the value of (Z) is greater than 25, and indicates that these banks enjoy a high degree of safety in terms of the possibility of exposure to financial failure in the future. While the banks (4 and 5) fall within the second level of the (Z-Sherrod) classification, where the value of (Z) is greater than 20 and less than 25, and indicates that there is a small possibility that these banks will be exposed to financial failure in the future. While the rest of the banks, fall within the third level of the (Z-Sherrod) classification, where the value of (Z) is greater than 5 and less than 20, and indicates the difficulty of predicting the risks of

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm
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bankruptcy and financial failure in the future. We also note that the banks in the research sample do not include banks located in the fourth or fifth level of the (Z-Sherrod) classification.

In Table (5), the arithmetic mean of income smoothing and the arithmetic mean of predicting financial failure are presented to note the relationship between them and to confirm the validity of the research hypothesis, as follows:

Table (5) The arithmetic mean for (MR) and (Z).

NO.	Banks	MR	Z
1	BIBI	0.18	34.303
2	BGUC	0.2	26.330
3	BTRI	-0.27	26.058
4	BNOI	-0.84	21.694
5	IMEIB	1.02	20.105
6	BBOB	-1.06	18.788
7	BCOI	1.64	17.101
8	BUOI	-1.9	16.196
9	BASH	2.08	14.568
10	BSUC	6.13	13.222

Source: Prepared by the researcher.

It is clear from Table (5) that the banks (1, 2, and 3) had the income smoothing index ratio (MR) closest to zero, which indicates, according to the (Miller) model, that there are no income smoothing operations. While the financial failure prediction index for the banks above, the value of (Z) was greater than 25, and according to the (Z-Sherrod) model, this indicates that these banks are not exposed to financial failure in the future. Also, the value of (Z) for the banks (4 and 5) is greater than 20 and smaller than 25, indicating a small possibility that these banks will be exposed to financial failure in the future. On the other hand, the value of (MR) rounding one indicates that there were attempts to smooth the income. As for the rest of the research sample banks, we notice the inverse correlation between the value of the (MR) index and the value of (Z), where the farther the value of (MR) is from zero indicates the existence of a smoothing of income, we see that the value of (Z) decreases to enter the second and third levels, respectively. This is refer to the low level of security in terms of the possibility of exposure to financial failure in the future. Also, this indicates that there is an agreement between (Miller) model for measuring income smoothing and (Z-Sherrod) model for predicting financial failure. It also supports the validity of our assumption that there is a relationship between measuring income smoothing and predicting financial failure.

The Statistical Analysis of The Hypothesis

There is a statistically significant effect of income smoothing in the financial failure prediction by private local commercial banks listed in the Iraq Stock Exchange.

The (ANOVA) test was utilized to test the hypothesis's validity. This test depends on knowing the role of income smoothing in predicting financial failure. Table (6) shows the test result:

Table (6) Analysis of the role of income smoothing in predicting financial failure

Var	Coefficients	Std. Err.	t Stat	P-value	F-stat	Sig.	Adjusted R Square
Miller	-0.375	0.0816	-4.60	0.001***	21.22	0.0017***	0.692
Intercept	0.984	0.2586	3.807	0.005***	Z-sherod= 0.984+(-0.375)X		

Source: Prepared by the researcher.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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We note:

- The value of (F) is equal to (21.22), and its significance level is less than 5%, which means that the regression model is statistically significant.
- The value of the income smoothing coefficient was (-0.376), and the significance level was less than 5%, which indicates an inverse relationship between income smoothing and predicting financial failure.
- Determination coefficient (R2) is equal to (0.692), which indicates the percentage that measures the ability of the independent variable to explain the changes that occur in the dependent variable. Where the independent variable (income smoothing) can explain the changes that occur in the dependent variable (predicting financial failure) by (69%).
- Based on the preceding, it can be said that we accept the alternative hypothesis, that is, the existence of a statistically significant effect of smoothing income in the prediction of financial failure by private commercial banks listed in the Iraq Stock Exchange.

The regression for predicting financial failure as a dependent variable on income smoothing as an independent variable can be formulated as follows:

Y = 0.984+ (-0.375) X

Where:

Y = dependent variable (predicting financial failure).

0.984= represents (β0), the function constant.

(-0.375) = represents the regression coefficient.

X = the independent variable (income smoothing).

Conclusions:

1- Based on the research hypothesis which indicates that there is an effect of income smoothing practices on predicting the financial failure of the local private commercial banks listed in the Iraq Stock Exchange. Also, this indicates the importance of relying on measuring models to predict financial failure in proportion to the Iraqi business environment.

2- The study's results indicate agreement between the (Miller, 2009) model for measuring income smoothing and the (Z-Sherrod, 1987) model for measuring financial failure prediction.

3- The research results show the existence of the income smoothing practice in up to 50% of the local private commercial banks chosen as a sample for the study in the Iraq Stock Exchange. These ratios vary between banks based on various factors and operating conditions. It means some banks practice income smoothing regularly or at high rates, while the rest are not involved.

4- According to the indicators of the statistical analysis, we note that the banks chosen as a sample for the research enjoy good safety levels in general. At the same time, no bank was found within the fourth or fifth level according to the classification of (Z-Sherrod) model. It shows that these banks are not exposed to high risks that negatively affect their financial stability. These results show that these banks' financial management and accounting practices are characterized by caution in their financial dealings. This reflects the extent of discipline in liquidity management and the financial risks these banks face. These practices may favor success in achieving financial security standards and maintaining their stability.

ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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5- The results of the study showed that the Investment Bank of Iraq enjoys an excellent level of security and financial stability, as the value of the (Z) index was equivalent to (34.303) according to the results of the study and the classification of the (Z-Sherrod) model, shows a positive indicator level of security and stability of the efficiency of the bank's management and its reasonable control over financial risks. This result provides confidence and reassurance to customers and investors who deal with the Investment Bank of Iraq. This excellent level of security enhances the bank's ability to meet customers' financial needs and provide reliable and efficient banking services.

6- The study concluded that the manipulation of earnings by the method of smoothing the income does not always take one direction but somewhat varies according to the personal interests of the management. This shows that different situations and circumstances of the company and management goals and needs can influence decisions about earnings manipulation. These results indicate that management may use earnings manipulation to improve company performance, attract more investors, or for short-term gains. Sometimes, earnings manipulation may be in the interest of companies in the near term only and may positively impact the company's market value in conjunction with the announcement of its financial reports. However, the study also indicates that earnings manipulation actions may be unsustainable and expose the company to risks in the long run. Sometimes, these practices may conflict with the company's interest and cause investors and other concerned authorities to lose confidence. Thus, this conclusion highlights the importance of integrity and transparency in the management of financial institutions and the importance of adhering to accounting and ethical standards. Companies must follow sustainable management practices that coincide with the company's long-term interests, investors, and other stakeholders. Transparency and integrity build the confidence of investors and others in the company and enhance its stability and sustainable growth.

Recommendations:

1- It is recommended to organize specialized training courses for users of financial statements on the importance and benefits of financial failure prediction measurement models and how to use them properly. These courses should include a detailed explanation of the models used in the study and how to interpret the results and use them in making the right financial decisions.

2- In order to ensure the validity and accuracy of the results, the two models used in this study should be based on a different sample that varies in sectors, sizes, and financial practices. That is because the agreement in the results contributes to achieving accuracy and reliability in applying these models in different contexts.

3- It is preferable to develop the skills of internal and external auditors in exposing methods of earnings manipulation and dishonest accounting practices. It can be achieved by organizing specialized training courses and exchanging experiences and knowledge among auditors.

4- It is suggested that similar studies may be conducted using different models to measure the prediction of financial failure in companies. It will help validate the results and the robustness and applicability of the models in different contexts.

5- The financial policies followed by the Investment Bank of Iraq are commended, as it enjoys excellent safety and financial stability. Based on this, it is advised to continue working to maintain security and stability and develop well-chosen financial policies to achieve sustainable growth and achieve the company's goals.

6- Developing awareness and financial culture among bank management about the financial risks of companies that practice income smoothing is recommended in the long run. It can be achieved by

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organizing educational courses and awareness seminars to clarify potential risks and stress the importance of adhering to correct accounting practices and integrity in financial reports.

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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under Volume: 6 Issue: 9 in Sep-2023 https://globalresearchnetwork.us/index.php/ajebm

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