The Impact of Accounting Conservatism on Financial Stability: An Applied Study on a Sample of Algerian Banks

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Abstract:

This study aimed to examine the impact of accounting conservatism on the financial stability of a sample of Algerian banks during the period 2011-2019, The (Z-Score) model was used to measure financial stability and the ratio of accruals to earnings before extraordinary items (TACC/EXBT) as per (Jain and Rezaee, 2004) model was used to measure accounting conservatism.   The study found that there is a significant positive relationship between accounting conservatism and financial stability in a sample of Algerian banks, where the cautious accounting policies adopted by the banks have reduced financial risks and, therefore, increased levels of financial stability.

key words: Accounting Conservatism, Financial Stability, Algerian Banks.

Introduction

Accounting conservatism minimizes volatility in financial reporting and ensures a realistic picture of an organization's financial activities, as it is considered one of the basic principles in accounting science, which relies on the need for the accountant to follow a prudent approach in estimating profits and losses by avoiding boasting profits or minimizing the size of losses, That is excessive estimates that may lead to deviations in the financial statements, which helps enhance the confidence of the parties related to the organization that are considered users of accounting information, such as investors, lenders and others, and accounting conservatism enhances the ability to absorb economic shocks and adapt to sudden changes, making it an important tool for achieving balance and sustainability in the financial system.

Financial stability is a vital element that ensures the growth of the economy and the long-term health of the financial system. Financial stability refers to the ability of the financial system to react flexibly to economic shocks and ensure the continuity of the flow of funds and financial services without interruption or negative effects on the national economy. Financial stability also relates to the ability of financial institutions to bear financial risks without experiencing crises or collapses that affect confidence in the financial system in general.

In this article, we will review the importance of accounting conservatism and how it affects financial stability, focusing on its role in enhancing transparency, minimizing financial risks, supporting informed investment decisions, as well as the challenges it may face in Algerian banks.

Based on the above, the research problem is stated as follows:

What is the impact of accounting conservatism on the financial stability of Algerian banks?

To study this problem, the research based on three hypotheses as shown above:

Hypotheses N° 01: There are no significant differences between the level of accounting conservatism and financial stability in the sample banks.

Hypotheses N°02: There is no significant relationship between accounting conservatism and financial stability.

Hypotheses N°03: There is no statistically significant relationship between accounting conservatism and financial stability.

The importance of the study: this study derives its importance from the importance of financial stability and the importance of accounting conservatism in banks, which can be summarized in the following points:

- Achieving financial stability for banks by providing sufficient reserves to face economic fluctuations or any unexpected shocks, by minimizing financial risks and ensuring that financial statements reflect financial reality more accurately.

- The accounting conservatism policy is an indicator of seriousness and transparency in the management of financial resources, which enhances confidence among customers and investors, and helps attract investments and preserve the funds deposited with the bank.

- The application of the principle of accounting conservatism may contribute to ensuring the stability of the financial and banking system, thereby achieving wider stability in the national economic system and reducing the risks of inflation and economic recession.

Previous study:

- (Cho & Choi, 2016)

This study aimed to examine the relationship between the effectiveness of accounting conservatism and the decision to invest in companies listed on the Korea Stock Exchange. The study used (Tobin's Q) and (McNichols & Stubben, 2008) to measure investment opportunities, and the model (Basu, 1997) was used to measure accounting conservatism, The study found that there is a negative significant relationship between accounting conservatism and overinvestment, This suggests that conservative accounting policies serve as an efficient monitoring and controlling.

- (Alsunaidi, 2021)

This study aimed to examine the relationship between accounting conservatism and financial failure in Jordanian industrial companies listed on the Amman Stock Exchange during the period (2014-2018). The study used (Beaver & Ryan, 2005) model to measure the accounting conservatism, and Altman model to measure financial failure, the study found that most industrial companies practice accounting conservatism, in addition they don't experiencing financial failure, but there is no statistically significant relationship between accounting conservatism and financial failure.

- (Saeb, 2022)

This study aimed to examine the impact of accounting conservatism on financial stability in Iraqi banks during the period (2010-2019). The study used (Givoly & Hayn, 2000) and (Cho, 2016) models to measure the accounting conservatism, and (Zscore) model to measure financial stability, the study concluded that there is an effect of accounting conservatism, especially unconditional conservatism in the financial stability of the research sample banks.

1- Theoretical Framework

1.1. The concept of accounting conservatism:

The controversy still exists about defining the concept of the term accounting conservatism, as there is still no agreement on single concept for this term, and researchers have begun to provide different definitions, each of which deals with one of the aspects of accounting conservatism (Ali Jabbar & Dheyaa Zamel, 2022)

According to Basu (1997) accounting conservatism is: "capturing accountants tendency to require a higher degree of verification for recognizing good news than bad news in financial statements (Basu, 1997), It is also defined as the choice of accounting alternatives that reduce the book value from the market value of net assets, for purpose of addressing uncertainty in the enterprise's business, through prior recognition of unpleasant events (Zahraa Ahmed Khalil, 2023).

Based on above, it is evident that accounting conservatism is one of the most longstanding issues in accounting, particularly regarding its effect on the quality of information presented in financial statements, and it can be defined as a principle that guides accountants to adopt a cautious approach when reporting financial information. it suggests that, in situations of uncertainty, potential losses should be recognized and recorded as soon as they are identified, while potential gains should only be recognized when they are realized or certain.

1.1.2. Types of accounting conservatism:

The literature distinguished between two types of accounting conservatism: (Bouzid & Benlamoudi, 2023)

1.1.2.1. Conditional accounting conservatism: it is related to potential economic events that result in a reduction of the book value of assets only in the case of undesirable events, and it is also called subsequent conservatism.

1.1.2.2. Unconditional accounting conservatism: It is application of accounting policies that reduce the value of assets at less than their market value and liabilities by more than their value in the event of bad news. (Zahraa Ahmed Khalil, 2023)

1.1.3. Measures of accounting conservatism:

There are several measures adopted to measure it, including the following:

1.1.3.1. (Basu) Model: This model was developed by (Basu, 1997), This model is used to measure accounting conservatism through the impact of market returns on company profits, it is based on the idea that the process of recognizing profits and gains requires a high level of verification, in addition to the exclusion of assets and financial liabilities. (Mansoor & Noora, 2019)

1.1.3.2. (C-Score) Model: This model was developed by (Zhang and Penman, 2002), This assesses the impact of conservatism on the balance sheet by comparing the level of estimated reserves to net operating assets. (Penman & Zhang, 2002)

1.1.3.3. (MTB) Model: This model was developed by (Beaver and Ryan, 2000), This model is founded on the ratio of the market value of a company's shares to its book value. (Beaver & Ryan, 2000)

1.1.3.4. Accrual base measure: This model was developed by researchers (Givoly and Hayn, 2000), This approach emphasizes conservatism in the income statement. Accrual-based conservatism is calculated by adding income before extraordinary items and depreciation, then subtracting operating cash flows. The sum of these elements is divided by the average total assets over a three-year period, with the focus on the year t to assess conservatism. A negative conservatism value indicates a high level of conservatism. This is because conservatism typically results in negative accruals, and when negative accruals increase significantly during certain periods, it suggests the presence of highly conservative accounting practices. (Muthana, Ashraf, & Ayad, 2021)

1.2. The concept of financial stability:

Financial stability is one of the most important issues nowadays that companies seek to achieve and maintain, and adopt the right methods in performing their tasks, as the term financial stability emerged as a result of successive financial crises in both developed and developing countries, and although its impact varied from one country to another over the past decades, it became one of the most widely used terms in all areas of economic, financial, and even political and social work. (Al-Araji, Al-Zubaidi, & Al Sharifi, 2022), Argues (Mishkin, 1999) that the overlap between shocks in the financial system and the flow of information leads to financial instability, which leads to the inability of the financial system to perform its function of directing

funds to those who have opportunities for productive investment, One study considers the concept of financial stability in a bank as the state in which confidence in the bank's financial system is maintained and preserved, and that there are various crises that threaten the financial stability of the bank, which leads to liquidity imbalances in the bank, and therefore financial instability can lead to unexpected changes, and preventing these fluctuations is a real challenge for banks that must be faced. (Toufik, 2015)

1.2.2. Financial Stability Indicators: There are a set of indicators for the stability of economic units, particularly banks, including (Saib, 2022):

1.2.2.1. The Assets: Assets are a key pillar of financial stability in economic units as they help auditors determine the strength of the unit's financial position through the capital ratio, as well as its ability to provide liquidity to face the risk of financial distress as well as providing.

1.2.2.2. Deposits: Deposits are cash amounts that individuals or institutions lend to the bank, where the bank undertakes to return them according to agreed terms, and the deposit is considered one of the sources of financing and constitutes the largest part of the obligations of economic units.

1.2.2.3. Capital: The main pillar for facing losses and paying liabilities to others is capital, which represents the ability of an economic unit to cover liabilities to others, or what is known as Financial Solvency.

1.2.2.4. Bank credit: It is the trust given by a bank to individuals or organizations, through which they are provided with a sum of money to be used in various fields within a period of time in exchange for an interest rate, along with securing guarantees that enable the bank to recover the amount in case of default.

1.3. The relationship between accounting conservatism and financial stability: The extent to which accounting conservatism contributes to financial stability is still widely debated, especially after the criticism of accounting conservatism by the joint project of the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) in 2010, calling for the elimination of conservatism in financial reporting because accounting conservatism conflicts with impartiality, as conservatism leads to bias in financial reporting and financial performance, which reduces confidence in it. (Alsunaidi, 2021), According to the above, the researcher sees the possibility of a role for accounting conservatism that may contribute to reducing financial stability in the coming years, and this is what we aim to discover through the practical aspect of this study.

2. Applied framework:

This section deals with the descriptive statistics of the study variables as well as the results of the statistical analysis in order to reveal the potential effects of accounting conservatism on financial stability.

2.1. Population and study sample: the population of the study consists of private banks in Algeria during the period 2011-2019, while the study sample includes 07 private banks in Algeria, equivalent to 54% of the population as a whole, for which all the necessary data are available to conduct the study tests.

Table (1) : Study Sample Banks

N	Bank	The code	N	Bank	The code
1	Gulf Bank - Algeria	AGB	5	Paribas Algeria	BNP
2	Algerian Albaraka Bank	BBA	6	Trust Bank Algeria	TBA
3	Arab Banking Corporation - Algeria	ABC	7	Societe Generale Algerie	SGA
4	Bank Al Salam - Algeria	ASBA			

Source: Prepared by researchers

2.2. Study Variables

2.2.1. The Dependent Variable:

The dependent variable is financial stability, which was measured by the (Z-score) method and in accordance with the study (Phan et al. 2020) according to the following steps:

$$\text{z-score} = \frac{ROA + \frac{Equity}{Assets}}{\sigma\, ROA}$$

Z-score: Financial Stability

ROA: Return on Assets.

ROA: Standard deviation of return on assets. σ

Since this scale indicates the degree of financial risks, meaning the higher it is, the higher the risks and consequently the lower the financial stability, we will multiply the value of the (Z-score) by (-1), so that the measurement process indicates that the higher the value, the higher the level of financial stability. (Saeb, 2022)

2.2.2 The independent variable:

The independent variable is represented by accounting conservatism, where the measure used is the ratio of accruals to earnings before extraordinary items (TACC/EXBT) as per Jain and Rezaee (2004). According to this study, accounting conservatism leads to the persistence of negative accruals over a long period of time, because accruals increase income when the sign is positive and decrease income when the sign is negative. With other factors held constant, an increase in total negative accruals over time is considered an indicator of increased conservatism. Based on this model, the lower the ratio of accruals to earnings before extraordinary items, the higher the degree of conservatism, and vice versa. According to this model, a company is

considered conservative in its accounting policy if this ratio is less than one. It is noteworthy that this measure has been used in several studies, including (Wakil, 2011), (Zhan, 2007), and (Lobo and Zhou, 2006). The following equation illustrates how conservatism is measured according to this model: (Bouzid & Benlamoudi, 2023)

$$CONSERVATISM = TACC/EBXT$$

EBXT: Earnings Before Extraordinary Items

TACC: Total Accruals, it can be calculated by two different approaches: the cash-flow approach, in which total accruals are calculated by the difference between net income and cash-flow from operations, and the budget approach, which we will use in this study in order to determine them.

$$TACC_{it} = (\Delta CA_{it} - \Delta CL_{it} - \Delta Chach\ it + \Delta STDEPT_{it} - DEPIN_{it})$$

$TACC_{it}$: Total Accruals for company i in year t

ΔCA_{it}: Change in current assets for company i in year t

ΔCL_{it}: Change in current liebilities for company i in year t

$\Delta Chach\ it$: Change in cash equivalents for company i in year t

$\Delta STDEPT_{it}$: Change in short-term debt for company i in year t

$DEPIN_{it}$: Depreciation and amortization are added back as non-cash expenses for company i in year t

2.3. Descriptive data Analysis

Both financial stability and accounting conservatism were calculated for the sample in the study period:

Table (2): Descriptive Analysis of Research Variables.

		Mean		Standard Deviation		Minimum Value		Maximum Value	
N	Bank	Conser	Stab	Conser	Stab	Conser	Stab	Conser	Stab
1	AGB	5.47	-10.37	4.08	1.091	-2.44	-11.39	11.99	-7.86
2	BBA	2.55	-15.74	2.58	3.60	-1.41	-18.51	7.90	-7.42
3	ABC	3.55	-78.24	12.11	13.32	-23.75	-99.48	20.70	-61.84
4	ASBA	5.09	-9.03	5.40	3.12	-3.19	-14.70	12.86	-4.50
5	BNP	2.01	-13.82	6.05	2.23	-4.99	-19.24	13.37	-11.94
6	TBA	2.78	-21.75	5.49	50.00	-6.78	-26.57	12.46	-9.28
7	SGA	2.89	-22.28	3.87	3.23	-0.75	-27.20	10.40	-17.60

Source: Prepared by the researchers based on the outputs of Eviews.12

It can be observed from Table (2) regarding accounting conservatism that the ABC – Algeria recorded both the lowest and highest levels of conservatism among the banks in the sample during the study period. Meanwhile, the results of the standard deviation indicate variability in the Arab Banking Institution, BNP Paribas, and Trust Bank, suggesting that the levels of accounting conservatism varied among the banks during the study period, and that the arithmetic mean of these banks does not reflect their level of accounting conservatism. Regarding financial stability, it is noted that Al Salam Bank has the highest level of financial stability, while the Arab Banking Institution recorded the lowest level of financial stability, with a relatively significant difference compared to the other banks. The standard deviation results also indicate variability, meaning that the levels of financial stability varied during the study period.

2.4. Statistical data analysis

2.4.1. Testing hypotheses

The research included three main hypotheses:

The first main hypothesis: There are no significant differences between the level of accounting conservatism and financial stability in the banks included in the research sample.

To test this hypothesis, a one sample t-test was used, as show in the following table:

Table (3): Test of variance for levels of conservatism and stability.

Variables	T value	Significant	Degree of freedom	Medium
Conservatism	2.317849	0.0238	62	3.786564
Stability	-8.43051	0.0000	62	25.02290

Source: Prepared by the researchers based on the outputs of Eviews.12

It is evident from table (3) that the significance level is (0.000) for stability and (0.0238) for conservatism, both of which are less than (5%) This indicates the presence of significant differences for both accounting conservatism and financial stability in the research sample. Therefore, we reject the first main hypothesis.

The second main hypothesis: There is no significant relationship between accounting conservatism and financial stability.

To test this hypothesis, Pearson's correlation coefficient was calculated to examine the relationship between accounting conservatism and financial stability, as show in the following table:

Table (4): The relationship between accounting conservatism and financial stability.

Variables		Financial Stability
Accounting Conservatism	Correlation coefficient	0.261172

	Sig	0.0387

Source: Prepared by the researchers based on the outputs of Eviews.12

It is clear from Table (4) that the correlation coefficient recorded a significance level of less than 5%, so the alternative hypothesis is accepted, which states that there is a significant relationship between accounting conservatism and financial stability. On the other hand, the positive value of the correlation coefficient, which is (0.261172), indicates that the relationship between the two variables is direct. In other words, as the level of accounting conservatism in the banks of the research sample increases, there is a corresponding increase in the level of financial stability, which confirms the rejection of the second main hypothesis.

Third main hypothesis: There is no statistically significant relationship between accounting conservatism and financial stability.

A simple linear regression equation was prepared to determine the level of impact of accounting conservatism on financial stability levels, as shown in the following table:

Table (5): The impact of accounting conservatism on financial stability

Variable	Coefficient	Prob.
(C)	130.6011	0.0114
Accounting Conservatism	11.27816	0.0387
R-squared	0.068211	
Adjusted R-squared	0.052936	
F.statistic	4.465457	0.038686

Source: Prepared by the researchers based on the outputs of Eviews.12

It is clear from Table (5) that the model is statistically significant at the 5% significance level, where the value of the F-statistic was (4.465457), with statistical significance of (0.038686). This indicates the possibility of estimating financial stability levels based on accounting conservatism.

The adjusted R-squared value was 0.052936, meaning that the change in accounting conservatism explains 5.29% of the change in the dependent variable financial stability. This also implies that 94.71% of the change in financial stability is due to other factors unrelated to accounting conservatism.

The results of the statistical analysis in the previous table also indicate a statistically significant positive relationship between accounting conservatism and financial stability, and thus the third main hypothesis is rejected.

Conclusion:

Through what we have discussed in our study on the impact of accounting conservatism on financial stability: An empirical study on a sample of Algerian banks, a set of results has been reached, as well as some recommendations presented.

A- Study Results: The study reached the following results:

- There is a significant positive relationship between accounting conservatism and financial stability in a sample of Algerian banks, where the cautious accounting policies adopted by the banks have reduced financial risks and, therefore, increased levels of financial stability.

- More conservative accounting policies help banks maintain their financial stability, making them less vulnerable to financial crises or unexpected fluctuations.

- Banks can achieve a balance in their financial performance by maintaining their financial stability in the face of economic fluctuations and potential risks, by avoiding exaggerated estimates in order to achieve more realistic financial reports.

B- Study Recommendations: Based on the results obtained, there are a set of recommendations that should be noted, and they can be summarized as follows:

- It is necessary for banks to balance conservatism in financial reporting with the need to achieve profits in order to contribute to sustainable growth.

- It is necessary to adopt more conservative accounting policies in order to enjoy greater financial stability.

- Consider relying on other determinants to measure accounting conservatism.

Bibliography

Al-Araji, K. S., Al-Zubaidi, M. N., & Al Sharifi, S. A. (2022). The Impact Of The Indicators Of Iraq Stock Exchange On Some Variables Of Financial Stability In Iraq. *World Bulletin of Management and Law, 7*, 135-144.

Ali Jabbar, A., & Dheyaa Zamel, K. (2022). The Effect Of Accounting Conservatism On Financial Performance An applied study of a sample of banks listed in the Iraq Stock Exchange. *Al-Qadisiyah Journal For Administrative and Economic Sciences QJAE, 24*(2), 513-527.

Alsunaidi, M. M. (2021). The relationship between Accounting conservatism and Financial Failure - an applied study for Jordanian industrial public shareholding companies. *Journal of Economic Sciences, 16*(60), 204-233.

Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics, 24*, 3-37.

Beaver, W. H., & Ryan, S. G. (2000). Biases and Lags in Book Value and Their Effects on the Ability of the Book-to-Market Ratio to Predict Book Return on Equity. *Journal of Accounting Research, 38*(01), 127-148.

Bouzid, I., & Benlamoudi, H. (2023). Measuring and Analyzing the Relationship Between Accounting Conservatism in Financial Reports and the Cost of Capital - A Standard Study of a Sample of Algerian Joint Stock Companies For the Period 2012-2019. *Journal of Quantitative Economics Studies, 09*(01), 343-355.

Mansoor, S. a., & Noora, S. b. (2019). Factors That Effect on the Level of Accounting Conservatism A sample study of insurance companies which listed on the Amman Stock Exchange (2005-2016). *Journal of Economics and Administrative Sciences, 25*(113), 595-613.

Muthana, R. J., Ashraf, H. F., & Ayad, D. S. (2021). The effect of gender diversity of board directors and accounting conservatism on firm value. *Journal of Economics and Administrative Sciences, 27*(127), 285-306.

Penman, S. H., & Zhang, X.-J. (2002). Accounting Conservatism, the Quality of Earning, and Stock Returns. *The Accounting Reviews, 77*(02), 237-264.

Saib, S. M. (2022). The Impact of Accounting Conservatism on Financial Stability: an empirical study on a sample of Iraqi banks. *Tikrit Journal of Administrative And Economics Sciences, 18*(58), 1-14.

Toufik, h. t. (2015). Measuring the Financial Stability for a Sample of Commercial Banks Registered in the Iraq Stock Exchange For the period from 2006 to 2010. *Journal of University of Zakho, 3*(2), 537-555.

Zahraa Ahmed Khalil, W. (2023). The impact of accounting conservatism on the financial analysis of the financial statements in light of the application of standard 9: an analytical study of a sample of Iraqi banks for the period (2017-2021). *Al-Qadisiyah Journal For Administrative and Economic Sciences QJAE, 25*(4), 39-48.