

THE IMPACT OF FINANCIAL FLEXIBILITY ON THE FINANCIAL STABILITY OF BANKS: AN ANALYTICAL STUDY OF A SAMPLE OF IRAQI BANKS FOR THE PERIOD FROM 2006 TO 2019

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ABSTRACT

The study aimed to determine the effect of financial flexibility on the financial stability of banks to identify indicators of financial flexibility that enhance financial stability in banks. The study was conducted in the sector of Iraqi private commercial banks listed on the Iraq Stock Exchange and the sample of the study included (8) Iraqi banks for the period (2006-2019) as the variables of the study were measured by adopting appropriate financial indicators for the financial flexibility and using the (Z - Score) scale to determine the level of the financial stability, as well as the appropriate statistical equations for this study and in order to achieve the objectives of the study, the hypotheses of the study were formulated and then tested by advanced statistical means based on the program (SPSS V.25). The study reached a set of results, the most important of which is that (Iraqi banks reserve high monetary and quasi-monetary assets and this is good in the short term, but these banks will be exposed to bearing the costs of the sources of these funds without exploiting them, and this will negatively affect the profitability). The study was concluded with a number of recommendations, the most important of which is that (banks which were considered the sample of the study did not adopt clear investment policies, making the net cash flows be volatile (wavering), which necessitates conducting a number of studies to put in place the appropriate policies to maintain the financial flexibility while optimizing the use of cash assets).

Keywords: Financial Flexibility, Financial Stability.

INTRODUCTION

Problem of the Study

The Iraqi banking sector suffers from financial instability as a result of the accumulation of multiple problems. The most prominent of which are issues of the financial and administrative corruption and fraud, which created a negative impression for the citizen, which represented a lack of confidence in dealing with private banks as well as the political and security conditions that made the number of dealers with the banking sector very few compared to the number of the population, as well as the failure of some private banks to meet the needs of customers and this led to put it under guardianship of the Central Bank of Iraq, liquidation, or consolidation

(Claussv, 2010). Therefore, this research came to link between the financial flexibility and the financial stability of banks and for the purpose of dealing with crises that could threaten the future of these banks. Hence, the research tries to answer the following questions:

1. Does the financial flexibility have a role in achieving the financial stability of the banks?
2. Is the net cash flows have a positive effect in achieving the financial stability of the banks?
3. Does the financial leverage have a positive effect in achieving the financial stability of the banks?
4. Does the liquidity have a positive effect in achieving the financial stability of the banks?

Importance Of the Study

The importance of the current study stems from the successive and accelerating developments that occur due to international challenges and changes and the resulting continuous and renewed developments and transformations that require the banking sector to have the ability to keep pace with these developments and transformations, as the private sector banks lead a leading and strategic role in implementing the general policy of the state which related to the economic development and the financial stability, and the process of identifying indicators of the financial flexibility that can support financial stability is one of the important processes that help in reaching better performance. Therefore, the importance of the research is highlighted in that it sheds light on the relationship between the financial flexibility and the financial stability of the banks. Through the foregoing, the importance lies in the following points:

1. The importance of the research comes from the importance of the sector in which it will be applied, which is the banking sector and the great importance it constitutes for the national economy.
2. Explaining the role of the financial flexibility indicators in enhancing the financial stability of the banks because of the great importance of the banking stability in achieving the economic stability for any country.

Objectives of the Study

The current research aims mainly to answer the questions that were previously raised. It also seeks to achieve a basic goal, which is how to achieve the financial stability of the banks by identifying the important role that the financial flexibility plays in that and from this standpoint, the research aims to reaching to the following goals:

1. Knowing and evaluating the direct effects of the financial flexibility on the financial stability in the banks, the sample of the study.
2. Identifying the strengths and weaknesses points in the Iraqi private commercial banks with regard to the financial flexibility and the financial stability.
3. Presenting, studying, and interpreting the (influence) relationship between the variables of the study and making use of the results of this relationship for the purpose of drawing practical conclusions and making recommendations.

Hypotheses of the Study

After defining the problem of the study, certain hypotheses have been developed that serve as initial or temporary solutions, which are tested by various methods and means to ensure their validity or rejection. The null hypothesis was used as follows:

The First Main Hypothesis: (There is no significant correlation relationship between indicators of the financial flexibility and the banking stability).

The Second Main Hypothesis: It states (There is no significant effect of the financial flexibility indicators on the financial stability of the banks). Three sub-hypotheses have branched out from the hypothesis, as follows:

- A. There is no significant effect of net cash flow on the financial stability of banks.
- B. There is no significant effect of financial leverage on the financial stability of banks.
- C. There is no significant effect of liquidity on the financial stability of banks.

The Third Main Hypothesis: It states (there is no significant impact on the combined financial flexibility indicators on the financial stability of banks).

THE FINANCIAL FLEXIBILITY

The Concept Of the Financial Flexibility

The banks seek to secure their own needs and obligations towards clients to gain their confidence by securing adequate liquidity, in all circumstances and times. Because the reluctance to provide adequate liquidity leads to the public's lack of confidence in the bank, and then the inability of the bank to survive and compete. Therefore, the banks seek to diversify and follow flexible policies as much as possible, so financial flexible banks are able to avoid financial distress (Fasnacht, 2009) (Kinywara, 2015). The financial flexibility can be defined as the ability of the bank to respond to the environmental, security and economic fluctuations and changes through its ability to take measures to redirect its resources in a manner that suits with the circumstances, vision, and objectives of the current management (Byoun, 2007). Moreover, it is defined by (Fairhurst, 2014) as the ability of the bank to respond to the state of the uncertainty in the need for the cash flow and investment opportunities, which is one of the most important considerations that is taken into the consideration when choosing the financial policy (Qin & Pastory, 2012). As for (Rahimi & Mosavi, 2016), the financial flexibility is the ability of the bank to restructure and access the financial resources at the lowest cost (Sayyed & Uivenas, 2012). Financial flexibility has a significant positive impact on the enterprise performance (Teng, et al., 2021). This illustrates that the financial flexibility is related to the cash flows and that the enterprise is flexible when it has the ability to take corrective measures to face crises and avoid any increase in pure payments. There are several determinants of financial flexibility, the most important of which is leverage, access to cash, and corporate pay-out policy (Islam, 2019).

Through what was mentioned above from the points of view on the financial flexibility, it can be defined as the possession of the bank to a set of alternatives and the ability to take effective measures to change the size and timing of cash flows through which it can face crises, exploit opportunities, maximize value and maintain the financial stability so that it does not need to curtail its business in the event of a downturn in the economic cycle (Bahadori et al., 2015).

The Financial Flexibility Measures

The financial flexibility represents the ability of the bank to respond quickly and effectively to the unexpected shocks of the monetary obligations or the investment opportunities, and there are a large number of the financial indicators which are used in assessing the banking flexibility, but we will use the most common indicators used in measuring the financial flexibility, which are as follows:

The Net Cash Flow: The cash flow is an important and fundamental topic that summarizes the changes in the cash position of the bank. The cash flow statement is used to help in answering a set of questions, including:

- Does the bank generate enough cash to purchase additional assets needed for growth?
- Does the bank generate any additional funds that can be used to pay off debt or invest in new products?

Such information is useful to managers and investors (Brigham & Ehrhardt, 2005). And if the cash flow is not sufficient to cover the expected investment opportunities and dividends, then this makes the bank need to collect more funds, whether from the capital market or through the sale of the assets (Valentine & Prem, 2005). Therefore, the decline in these flows limits the ability of the bank to meet the customers' needs like withdrawals and the investment opportunities and the failure to manage the cash flows well leads to the bankruptcy (Bahadon et al., 2015) and it is possible to use the following equation:

$$\text{NCF to TA ratio} = \frac{\text{NCF}}{\text{TA}} \dots \dots (1) \text{ (Clauses, 2010)}$$

NCF to TA ratio: The net ratio of the cash flow to the total assets.

NCF: The net of the cash flow.

TA: The total assets.

This high percentage indicates that the ability of the bank to utilize its assets in a good way, generating high cash flows and being more flexible and adaptable to the changing circumstances.

The Financial Leverage: When the banks need additional funds in order to expand and grow in them, there are several options, the most important of which is either to transfer this production from the profits achieved, and in the case that it is not sufficient, there are two options. First, it turns to the external borrowing or second, heading to the financial markets (offering new shares - stocks) or collecting funds by using a combination of these options (Valentin & Perm, 2005). The leverage represents the ratio of the amount of debt to the property right of the bank, and the extent to which the bank relies on the financing of its assets on the funds of others affects the returns it receives as well as the degree of the risk that this could be exposed to. (Akhtar et al., 2012), there are many ratios by which the financial leverage is measured, and one of these ratios is the following:

$$\text{TL to TE} = \text{TL/TE} \dots \dots (2) \text{ (Berk & Demarzo, 2013)}$$

TL to TE Ratio: The ratio of the total liabilities to the total equity.

TL: The Total Liabilities.

TE: The Total Equity (property) Right.

This increase in this percentage indicates a high indebtedness, i.e., use (money of others) in financing assets, and as far as this percentage is increased; the greater the bank will be exposed to risks.

The Liquidity: It means the ability of the bank to fulfil its obligations immediately by converting any of its assets into cash quickly and without loss. So the liquidity does not only

mean converting the asset into cash as much as it is converted without any loss because the liquidity should be linked to the profitability and the liquidity of the bank is its ability to fulfil the requests of its clients related to withdrawing their various deposits or providing them with the necessary facilities (Falconer, 2001; Jonathan & Peter, 2013). The liquidity has three dimensions that must be taken into account, which are time (the speed of converting the asset into cash), the risk (the possibility of a decrease in the value of the asset to be liquidated) and the cost (the loss: the financial sacrifice that may exist in the process of implementing the transfer to cash (Howells & Bain, 2008). Although obtaining funds in the market at a competitive cost would allow the banks to achieve the profits to meet the increasing demand of the customers for loans and that the wrong or inappropriate implementation of debt management can have significant impacts achieved in the risks associated with managing the liquidity on the basis of the market financing they are as follows: (Loan & Dragos, 2009).

- The funds cannot always be available when needed.
- If the market loses confidence in a bank, the liquidity of the bank will be threatened.
- The interest of the banks in obtaining funds at the lowest possible cost and insufficient interest in distributing the entitlements, which may expose the bank to the risk of the fluctuations in the interest rates. There are many ratios by which the liquidity of the bank is measured, and one of these ratios is:

$$LA TO D = \frac{LA}{D} \dots \dots \dots (3) \text{ (Qin \& Pastory, 2012)}$$

LA TO D: The ratio of the liquid assets to the deposits.

LA: Liquid Assets.

D: The deposits.

THE FINANCIAL STABILITY

The Concept of the Financial Stability

The state of the financial instability was defined as the state in which the bank becomes unable to pay its obligations or there is a large fluctuation in revenues (Ramzan et al., 2021). The financial stability is achieving progressively escalating cash flows and profits (achieving sustainable growth) while continuously maintaining the ability to meet the customer needs (Berger et al., 2019).

The Financial Stability Measures

The (Z- Score) indicator was used to measure the financial stability. This indicator is considered one of the most important modern measures used to measure the degree of the financial stability for the banks. The value of this indicator increases with increasing the levels of the profitability and the capital, while the value decreases when there is instability in the returns which is shown by the high standard deviation of return on assets. The higher the value of this indicator, the higher the value of this indicator, this indicates that the bank under study is further from the possibilities of the financial failure, then it is more stable, and its decline indicates that there is instability in returns.

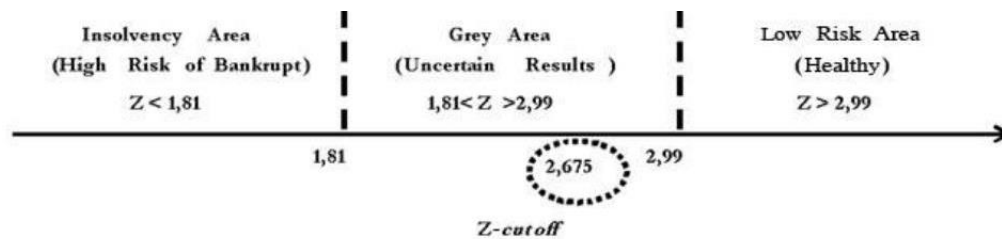


FIGURE 1
SHOWS THE FIELDS OF Z- SCORE

The figure illustrated that the Z- Score can be divided into three fields as follows:

The first field: $Z < 1.81$ the bank is in a high risk area.

The second field: $2.99 < Z < 1.81$ the bank is in a medium risk area.

The third field: $2.99 < Z$ the bank is in a low risk area.

The decrease in the value of Z indicates the possibility of the bank entering the stage of the financial hardship, but in the case of the increase in the value of Z, it indicates the stability of income as a result of the non-fluctuation of the rate of return on assets. The value of Z- Score is measured by the following equation:

$$Z = \frac{ROA+E/A}{6(ROA)} \dots \dots \dots (4) \text{ (Ramzan et al., 2021)}$$

THE PRACTICAL ANALYSIS

The Financial Analysis

Analyzing the impact of the financial flexibility on the financial stability of a sample of private sector banks operating in the Iraqi market and listed in the Iraq Stock Exchange (the regular market) and for the period (2006 - 2019). This analysis was conducted with the aim of highlighting the role played by the financial flexibility in achieving the financial stability of the banks. Three indicators were used to measure the financial flexibility (the net cash flow, the financial leverage, the liquidity), and (Z - Score) was used to measure the financial stability of the banks.

The Net Cash Flow: The net cash flow was measured by using the ratio of the net cash flow to the total assets. In the appendices indicates (the ratio of the net cash flow to the total assets) of the banks the sample of the study and for all years of the research. It illustrates a gradual decrease in the first five years of the research period, then began to fluctuate after that and achieved the lowest rate in the year 2014 as it reached (-0.061) and the highest rate in the year 2011 as it reached (0.197), which is the result of the fluctuations in the net cash flows and sometimes negatively for the banks , the sample of the research due to the volume of the cash that the bank keeps without investment, which raises the costs of the financing as well as the instability of the security, political and economic situation in the country.

The Financial Leverage: The financial leverage was measured by using the ratio of liabilities to the property right, and that the increase in this ratio indicates the extent of the

dependence of the bank on the funds of others in financing its assets. In the appendices indicates the ratio of the total liabilities to the property right of the banks, the sample of the study for all the years of the research, as it appears from it that there is a gradual decrease in the rates of the ratio of the total liabilities to the property right during the research period, then the lowest rate was achieved in 2019 as it reached (1.172) and the highest rate in the year 2008 as it reached (3.546), which is a result of the gradual increase in the capital of these banks with the decrease in the deposits of some banks, which represent the largest part of the liabilities (Ioan & Dragos, 2009).

The Liquidity: The liquidity was measured by using the ratio of the liquid assets to deposits, and that the increase in this ratio indicates the ability of the bank to pay all its obligations towards others and then achieve stability. In the appendices indicates (the ratio of the liquid assets to deposits) for the banks, the sample of the study and for all the years of the research, as it appears from in that there is a gradual increase in the rates of the ratio of the liquid assets to deposits during the research period, then the lowest rate was achieved in 2006, reaching (1.150) and the highest rate in 2016 when it reached (1.998), which is a result of the gradual increase in the liquid assets of those banks with a decrease in deposits of some banks, which was reflected in the gradual increase in the ratio of the liquid assets to deposits, due to the deterioration of the security, economic, and political situation and the lack of confidence of the public in the banking sector as well as the failure of some banks continuously and placing them under the custody of the Central Bank of Iraq, which led to Hoarding money at home.

D- Z – Score: The financial stability was measured by using the Z - Score scale, and the increase in the Z - Score indicates the financial stability of the bank and vice versa. In the appendices indicates (the value of Z - Score) for the banks, the sample of the study and for all years of the research, as it appears in that there is a fluctuation in the rates of the value of Z - Score in the research period and achieved the lowest rate in 2008, when it reached (11.725) and the highest rate in 2016 was (18.462), as Sumer Commercial Bank achieved an average study period of (39.385), which is the highest average among the studied banks, due to the low standard deviation - (ROA) that the net income achieved is convergent, although it is low. The Investment Bank achieved the lowest rate among the studied banks, despite achieving high net income in some years, but there was a large fluctuation between the years of the research, which led to a decrease in the value of the Z-Score, as it reached (2.867).

Testing the Hypothesis

This section deals with testing the hypotheses of the research by testing the effect between the research variables. The two researchers used in this paragraph the simple and multiple regression coefficient in order to measure the effect of the independent variables on the dependent variable, and as stated in the research hypotheses, and through the statistical program (SPSS V. 25), and as follows:

The First Main Hypothesis: (There is no significant correlation for the financial flexibility indicators in banking stability). The correlation coefficients between the net cash flow, the financial leverage, and the liquidity on the one hand and the banking stability on the other hand amounted to (0. 56, 0. 88, 0.97), respectively, as in Table 1 with less than (0.05), which confirms that there is a positive significant correlation between indicators of the financial flexibility and the banking stability (Kenywara, 2015).

The Second Main Hypothesis: There is no significant effect of the financial flexibility indicators on the financial stability of the banks). Three hypotheses have branched out of the hypothesis, as follows:

1. There is no significant effect of the net cash flow on the financial stability of the banks.
2. There is no significant effect of the financial leverage on the financial stability of the banks.
3. There is no significant effect of the liquidity on the financial stability of the banks and (Table 1) illustrates the values of the simple regression coefficients that test the aforementioned sub-hypotheses.

The Independent Variable	r	R ²	F	P- Value	a	b	t	The Dependent Variable (The Financial Stability)
X1 The Net of the Cash Flow	0.56	0.31	5.49*	0.037	15.71	-14.93	-234*	
X2 The Financial Leverage	0.97	0.94	191.41**	9.76E-09	20.57	-2.69	-13.83**	
X3 The Liquidity	0.88	0.78	42.87**	2.74E-05	5.58	6.22	6.55**	

The Source: The two researchers prepared by depending on the outputs of the statistical program (SPSS Var. 25).

* Significant at the level 5%.

** Significant at the level 1%.

The above table illustrates the following:

1. The effect of the net cash flow on the financial stability of the banks is (-14. 93) and this means that the stability will change with amount (14. 93) if the net cash flow increases by one unit, which is a significant effect at a significant level (0.05) because the calculated value of (t) which is counted and reached (2. 34) was significant at the aforementioned level, and the value of the coefficient of the determination (R²) reached (0.31) and this means that the net cash flow explains the ratio of (31%) of the changes in the financial stability of the bank as for the remaining percentage is due to other factors not included in the model, and accordingly the researchers infer the rejection of the first sub-hypothesis, meaning (there is a significant effect of the net cash flow on the financial stability of the banks). As for the regression equation, it is represented by the following:

$$Y1 = 15.71-14.93X1$$

2. The effect of the financial leverage on the financial stability (- 2.69) and this means that the financial stability of the banks will decrease with amount (2. 69) if the financial leverage increases by one unit, which is a significant effect at the level of (0.01) because the calculated value of (T) which is counted and reached (13. 83) was significant at the above level, and the value of the coefficient of the determination (R²) reached (0.94), which means that the financial leverage explains the ratio of (94%) of the changes in the financial stability, and the remaining percentage is due to other factors not included in the model, on which the researchers infer the rejection of the second sub-hypothesis, meaning (there is a significant effect of the financial leverage on the financial stability of the banks). As for the regression equation, it is represented by the following:

$$Y2 = 20.57-2.69X2$$

3. The effect of the liquidity on the financial stability (6. 22) and this means that the financial stability of the banks will increase with amount (6. 22) if the liquidity increases with amount one unit, which is a significant effect at the level (0.01) because the calculated value of (T) which is counted and reached (6. 55) was significant at the aforementioned level, and the value of the coefficient of the determination (R^2) reached (0.78) and this means that the liquidity explains the ratio of (78%) of the changes in financial stability, while the remaining percentage is due to other factors not included in the model. The researchers infer the rejection of the third sub-hypothesis, meaning (there is a significant effect of the liquidity on the financial stability of the banks). The regression equation is as follows:

$$Y_3 = 5.58 + 6.22 X_3$$

The Second Main Hypothesis: It states that (there is no significant effect of the financial flexibility indicators collectively on the financial stability of the banks).

(Table 2) shows the values of the multiple regression coefficients that test the aforementioned hypothesis.

(The Independent Variable) The Financial Flexibility	r	R^2	F	Sig.	a	b	t	Y The Dependent Variable (The Financial Stability of the banks)
X1 The Net of the Cash Flow	0.988	0.976	136.319**	2.08 E-08	16.645	-3.172	-2.137*	
X2 The Financial Leverage						-1.980	-8.245**	
X3 The Liquidity						1.726	2.849**	

The Source: The two researchers prepared by depending on the outputs of the statistical program (SPSS Ver. 25).

** Significant at the level 1%.

* Significant at the level 5%.

Table 2 above shows the testing of the second main hypothesis through the analysis of the multiple regression of the financial flexibility indicators, as it was found from the ANOVA table and some accompanying tables that there is a strong effect between the indicators of the independent variable in the dependent variable, as the coefficient of its determination (R^2) reached (0.976), which means that the three indicators of the financial flexibility explain the ratio of (97.6%) of the changes that occur in the financial stability of the banks, and the value of test (F) of the significance of the regression equation reached (136. 319) at a significant level 1%, as the value of Sig. reached (2.08E-08), which is less than 5%, which means that the second main hypothesis is rejected, meaning (there is a significant effect of the combined financial flexibility indicators on the financial stability of the bank).

As for the regression equation in light of these results as displayed in Table 2, it is represented by the following:

$$Y = 16.645 - 3.172X_1 - 1.980X_2 + 1.726X_3$$

** Significant at the level 1%.

** Significant at the level 1%.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

1. The financial flexibility is of great importance in the banking sector due to its impact on the ability of these banks to face crises in the future.
2. The results of the financial analysis showed that Iraqi banks maintain high cash and cash equivalents assets and this is good in the short term but these banks will be exposed to bearing the costs of the sources of those funds without exploiting them and this will be reflected on the profitability.
3. The results of the financial analysis showed that the net cash flows of the banks, the sample of the study, is fluctuated and sometimes it is in a negative rank.
4. The results of the statistical analysis showed that there is a significant effect of the net cash flow on the financial stability of the banks but it is reversed, that is, the higher the financial leverage, the lower the financial stability and this is due to the failure of the banks, the sample of the study, to properly exploit the money they have gathered from the deposits and the other sources, which makes the process of the increasing funding sources only raises costs and does not enhance the profitability.
5. The results of the statistical analysis showed that there is a significant effect of the financial leverage on the financial stability of the banks, but it is reversed, that is, the higher the financial leverage, the lower the financial stability and this is a logical reason, because increasing the debt leads to an increase in the liabilities owed by the bank and the costs of the financing.
6. The results of the statistical analysis showed that there is a significant effect of the liquidity on the financial stability. This means that the financial stability of the banks will increase if the liquidity increases by one unit, that is, the more the bank strengthens the liquidity, and the financial stability will be greater.

Recommendation

1. That the banks 'study sample did not adopt clear investment policies that made the net cash flows volatile, which necessitates conducting a number of studies to develop appropriate policies to maintain financial flexibility with optimal utilization of cash assets.
2. The necessity to maintain and enhance the rates achieved from the value of the Z-score in banks, the research sample of 9 through enhancing the rate of return on assets and maintaining the sustainable growth of that return.
3. The necessity to invest in high rates of the capital and the property right and the work to improve the reputation of the bank as a result of the maintaining high rates of the property right through which it can avoid any financial crisis, but it is important to maintain reasonable capital ratios and not to exaggerate the reliance on proprietary financing, and then this weakness must be transformed into a strength that supports the position of the bank towards the customers.

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