The Effect of Solvency on Return on Assets: An Applied Study in Iraqi Insurance Companies for The Period (2012-2020)

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Abstract

The aim of the research is to identify the effect of solvency on the return on assets, where a number of indicators were used to measure solvency, namely (liquidity (trading ratio), net cash flow, debt ratio, ownership ratio), and the research was applied to a sample of insurance companies. The Iraqi (5) companies listed in the Securities Commission for the period from 2012 - 2020, the model (Panel data for standard tests was used). The study has reached a set of results, most notably (**there is an impact relationship between solvency and return on assets**), and the study recommended the need for insurance companies to provide support and attention to indicators of solvency because of their importance in strengthening the company's financial position and giving a safety indicator to creditors with the ability of companies to fulfill their financial obligations , and this will be reflected positively in achieving a return on assets.

Keywords: *Solvency, return on assets, insurance companies.*

DOI Number: 10.14704/nq.2022.20.5.NQ22608 **NeuroQuantology 2022; 20(5):3062-3070**

Introduction

There is no doubt that the Iraqi insurance companies have an important and effective role in the sustainable development process, and of course, they are affected by the economic and security conditions, especially the period that Iraq went through during the previous period, which may be reflected on its revenues in one way or another, hence the need to know and understand the integrity of its position and position The problem of the research dealt with the companies facing a number of challenges that affect their revenues, and whether the low level of solvency is the reason for that. Based on the research problem, the main hypothesis has been developed (there is a significant influence

relationship for solvency in the return on assets index), from which sub-hypotheses are branched, and solvency is one of the tools that analyze the financial health of companies. The company is considered solvent if it owns more than it owes. It has good financial management to bear the debt, and there are many indicators that measure the solvency of companies and their ability to meet their financial obligations or rely heavily on debt to finance their assets. As for the return on assets, it is an indicator of the company's profitability relative to its total assets. An idea of the efficiency of the company's management in using its assets to generate profits,Giving sufficient attention to the level of solvency would help companies reduce the financial risks that they may be exposed to, and solvency ratios help assess the company's ability and continuity to provide liabilities to finance its assets, and solvency is considered one of the basic conditions for achieving returns, and companies cannot achieve a return without enjoying solvency The good, and the Iraqi insurance companies listed in the *Securities Commission* were selected as a sample for research to measure and analyze the level of their financial solvency because of the importance of these companies in the life and property insurance process, as well as from the active trading companies that work to update their data periodically.

THEORETICAL FRAMEWORK

THE FIRST AXIS: THE CONCEPT OF SOLVENCY, ITS IMPORTANCE, OBJECTIVES, INDICATORS OF ITS MEASUREMENT

1- The concept of solvency

Solvency is traditionally viewed as arising from financing activities, and solvency ratios are used to measure a company's ability to meet its long-term debts. Generally analyzing the components of its financial structure, solvency ratios provide information regarding the relative amount of debt in the company's capital structure and the adequacy of profits and cash flows to cover interest expenses and other fixed fees when due, The company is considered able to meet its obligations if the current assets exceed or equal the total liabilities, if the total assets are less than the current liabilities, the company faces the risk of bankruptcy and cannot pay its debts, and solvency affects the company's ability to obtain loans, financing and investment capital (Yenni et al. , 2021:16). It has been defined as the company's ability to meet its obligations in the event of the activity stopping or liquidation, and the company is considered liquid if the current assets are greater or equal to the total liabilities, but if the total assets are less than the current liabilities, the company faces the risk of bankruptcy and cannot pay its debts (Kyule, 2015 :3), as it has been defined as a major metric used to measure a company's ability to meet its liabilities, often by potential commercial lenders, and indicates whether or not the company has sufficient cash to meet short and long-term liabilities (Karzaeva&Karzaeva, 2019:3).

2- **The importance of solvency**: After reviewing the views that were addressed by many sources in the field of financial management, the researchers will classify some of these importance in the form of main points and briefly as follows:

A- Solvency affects the company's ability to obtain financing, and because of the solvency, the company's current and long-term financial well-being and stability appear, as it is controlled by the ratio of assets to liabilities (dabo et al., 2018: 125).

B- The concepts of liquidity and solvency are considered among the most important issues in financial analysis at the level of companies in theory and practice, both of which refer to the financial health of companies. These indicators have some significant differences in calculation and interpretation, but they are also considered equally important in order to obtain a sound company (Chiriac, 2015:834.).

C- Solvency ratios give important information about whether the company will be able to repay the debt when there is a loss or decrease

eISSN 1303-5150

in the value of the assets and the required cash flow does not occur (Berk, 2019:933).

D- D- It indicates the long-term financial viability of the company and its ability to cover long-term liabilities, and the company is considered easy if the total assets exceed the total liabilities, if the total assets are less than the total liabilities, the company faces the risk of bankruptcy and is said to be financially insolvent (Mburu, 2015: 3).

3- **Solvency indicators**: Solvency in business is measured through the relationship between assets and liabilities in the business at a specific time, and there may be the ability to cover current liabilities by liquidating assets quickly with little commercial intervention (Dabo et al., 2018: 125), and there are a number of indicators that can be used to measure solvency according to the following:

A- Liquidity/Trading Ratio: It is the liquidity ratio that measures the company's ability to pay off liabilities in the short term or those that are due within one year (Jihadi et al., 2021:425), and it is measured through the following equation:

$$\boldsymbol{Current\ Rati = Current\ Assets / Current\ Liabilities}$$

B- Net cash flow: net cash flow is cash that the company does not have to hold or reinvest to generate future cash flows, net cash flow is produced from operations and other sources such as interest income and asset sales, in other words available cash paid to shareholders (Yasir &Alabassi ,2020:1590), and it is measured through the following equation:

$$\boldsymbol{net\ cash\ flow = cash\ flow / total\ assets}$$

C- Debt ratio: total debt to total assets is a ratio to determine debt participation in financing assets and the high ratio will be directly proportional to debt participation in financing the company's assets (Yahya &Hidayat, 2020: 63), and it is measured through the following equation:

$$\boldsymbol{debt\ ratio = total\ liabilities / total\ assets}$$

D- Ownership ratio: It is used to finance the company's assets and it can be measured by dividing the ownership into the total assets. The higher the equity ratio to the total assets, the less the required external financing is required (Candraeni et al., 2013:218), and it is measured through the following equation:

$$\boldsymbol{Equity\ Ratio = Equity / total\ assets}$$

The second axis:The concept of return on assets, its importance, its measurement

1- **The concept of return on assets**: It is the ratio of net income to total assets that measures the return on total assets after interest and taxes. A low rate of return on assets does not always mean that it can be bad due to a deliberate decision to use large amounts of debt. Higher interest expenses cause Relatively low net income, looking at the situation as a whole when evaluating the performance of the company and trying to think about what needs to be done to improve the situation is the best thing to do (Santoso et al., 2020:212), and return on assets shows the efficiency of companies in transferring money used in Purchase of assets leads to net income, so the higher the return on assets shows that companies are more profitable (Rehman et al., 2015:165).

2- **The importance of return on assets**: Return on assets has an impact on the value of the company. High profitability shows good prospects for the company. Even investors will respond positively to these signals, which leads to an increase in the value of the company. This is understandable because the company was able to record increasing profits, indicating that the company has Good performance generates a positive feeling among investors and will lead to an increase in the company's share price (Husna&Satria, 2019:51), which is useful for measuring the company's effectiveness in utilizing all the available resources it owns, and the higher the return on assets, the higher the company's profits so that it reflects the company's efficiency in managing its assets (Kurniasih et al., 2013:59).

3- **Measurement of return on assets**: ROA is used to determine the amount of net profit that can be obtained from the company's operations using all its assets (Bintara, 2020:30) , and the ratio of return to assets is measured through the following equation:

$$\boldsymbol{ROA = net\ income\ after\ tax / total\ assets}$$

Research Methodology

A- Research problem: Many Iraqi insurance companies face many difficulties that affect in one way or another on their returns. Return on assets for insurance companies, where solvency helps to meet financial obligations, and from here the main research problem can be formulated (the effect of solvency on the return on assets for Iraqi insurance companies) and it is divided into several sub-questions:

1. *What are the indicators of financial solvency?*
2. *What is the return on assets indicator?*
3. *Do the indicators of solvency affect the return on the assets of the Iraqi insurance companies?*
4. *Can the return on assets be improved by increasing the levels of solvency?*

B. Research objectives:

1- Identifying the indicators of solvency and determining their standards in the Iraqi insurance companies listed by the Securities Commission, the research sample.

2- Identifying the return on assets index and determining its scale in the Iraqi insurance companies listed in the Securities Commission, the research sample.

3- Indicating the extent to which the solvency indicators are able to influence the return on assets of Iraqi insurance companies.

4- Analysis of solvency indicators to determine the possibility of improving the level of return on assets for Iraqi insurance companies, the research sample.

C - Importance of the research: The research gains its importance through the following:

1- The importance of the research variables, as they focused on recent variables in the field of financial management, which are the solvency and return on assets for companies in order to employ them in the study of insurance companies.

2- This research deals with real and actual problems that require finding specific solutions by defining and enlightening insurance companies about the importance of solvency and the extent of its reflection on the return on the company's assets.

D- Research hypotheses: The research relied on a major hypothesis as follows:

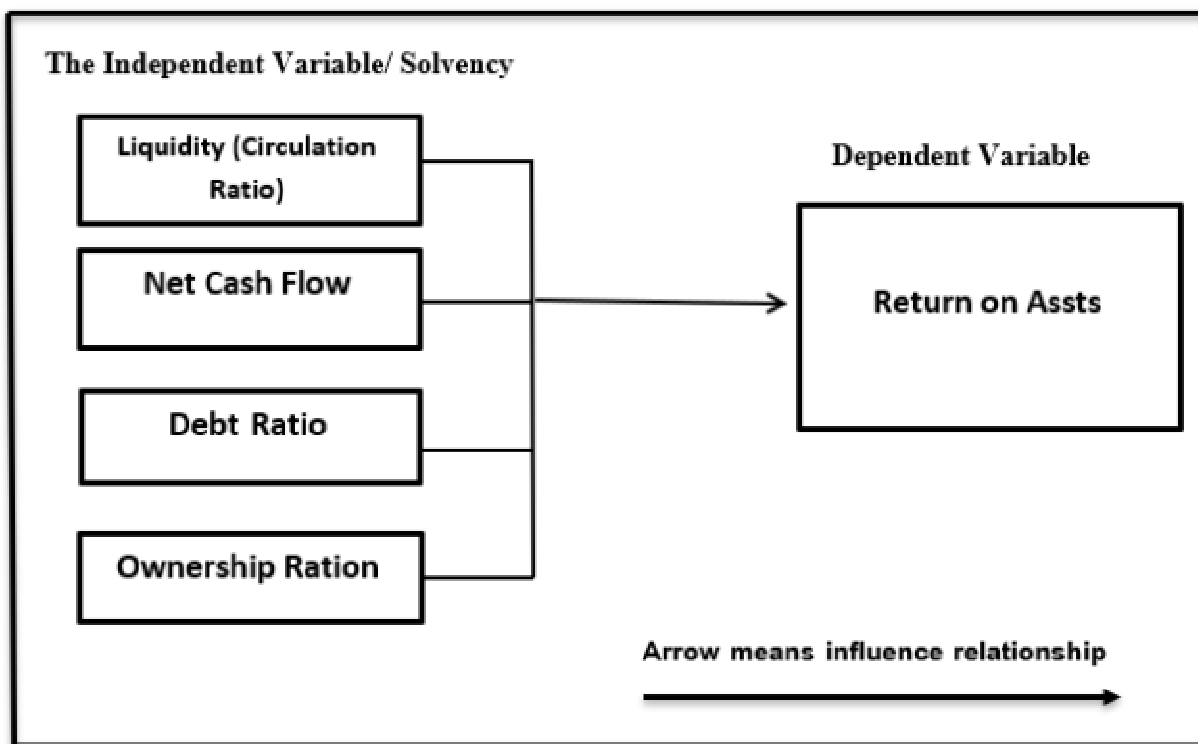
(There is a significant influence relationship of solvency on the return on assets for Iraqi insurance companies) Four sub-hypotheses are derived from this hypothesis:

1- There is a significant effect of the liquidity index (trading ratio) on the rate of return on assets for Iraqi insurance companies.

2- There is a significant impact relationship of the net cash flow index on the rate of return on assets for Iraqi insurance companies.

3- There is a significant effect relationship for the debt ratio indicator on the rate of return on assets for Iraqi insurance companies.

4- There is a significant impact relationship of the ownership percentage indicator on the rate of return on assets for Iraqi insurance companies.



Hypothetical Research Scheme

E- Research community and sample:

The research community represented the Securities Commission, where the research sample included the insurance companies listed in the Commission, which amounted to (5) companies. Below is the table (1) shows the research sample companies in terms of date of establishment, capital and company sector.

Table (1) Joint Stock Companies, Research Sample

No.	*Company Title*	*Establishing Date*	*Seed Capital*	*Company Sector*
	Al Hamra`a	7/1/2001	300.000.000	Insurance
	AL Ahliyah	19/6/2000	500.000.000	Insurance
	Dar Asslam	11/6/2000	300.000.000	Insurance
	Al Ameen	31/7/2000	150.000.000	Insurance
	Al Khalij	1/9/2004	1000.000.000	Insurance

Source: Prepared by the researchers based on available data on insurance companies

Data discussion and analysis

The relationship between the main research variables was analyzed through the results of the standard test that clarified the relationship between the solvency and the return on assets index for insurance companies. The change in time factors and the effect of change between vocabulary, and after conducting a comparison test and Hausman test for the three panel models (aggregate regression, fixed effects, random effects) the fixed effects model was chosen for its suitability to the research data, and the table (2) below shows the results of the effect of the independent variable (X1,X2). ,X3,X4) in the dependent variable (Y1):

variables	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob*
C	-0.059337	0.069078	-0.858989	*0.3918*
Liquidity X1	0.001322	0.000593	2.230451	*0.0273*
net cash flow X2	0.060389	0.032757	1.843526	*0.0674*
debt ratio X3	0.103624	0.065774	1.575454	*0.1174*
Equity Ratio X4	0.071886	0.071905	0.999732	*0.3192*
Effects Specification				
Period fixed (dummy variables)				
Root MSE	0.037633	R-squared	*0.390659*	
Mean dependent var	0.031556	Adjusted R-squared	*0.220914*	
S.D. dependent var	0.048345	S.E. of regression	*0.042672*	
Akaike info criterion	-3.277415	Sum squared resid	*0.254927*	
Schwarz criterion	-2.567869	Log likelihood	*334.9674*	
Hannan-Quinn criter.	-2.989725	F-statistic	*2.301448*	
Durbin-Watson stat	1.104889	Prob(F-statistic)	*0.000211*	

Source: Prepared by the researchers based on the outputs of the program (EviewsV.12)

The results of the fixed effects model are shown in the above table as follows:

It is noted that the solvency index (liquidity/trading ratio) showed a significant ((T-statistic) value of it, where the value of (t-statistic) was (2.23) at the level of significance (0.0273) which is less than the level of significance (0.05), and this indicates a direct relationship Between the two variables, meaning the higher the liquidity ratio, the return on assets will increase, and this means that if X1 increases by one unit, then Y1 will increase by 0.001), and this is consistent with sub-hypothesis No. (1) that there is a significant effect relationship between the liquidity index/ratio Trading and Return on Assets Index.

It also shows that the solvency index (net cash flow) showed a significant value ((T-statistic) where the value of (t-statistic) was (1.84) at a level of significance (0.06), which is less than the level of significance (0.10), and this indicates a direct relationship Between the two variables, meaning that the higher the ratio of net cash flow, the return on assets will increase, and this indicates that companies employ cash flow to finance their assets and this is reflected positively in the return on assets, and this means that the increase of X2 by one unit, then Y1 will increase by 0.06)), and this agrees With sub-hypothesis No. (2), which states that there is a significant impact relationship between the net cash flow index and the return on assets index.

It was also noted that the solvency index (debt ratio) showed a value ((T-statistic) is not significant for it, where the value of (t-statistic) was (1.57) at the level of significance (0.11) which is greater than the level of significance (0.10), and this indicates a direct relationship Between the two variables, meaning that the higher the debt ratio, the return on assets will increase. This means that the increase of X3 by one unit, Y1 will increase by (0.10), but this effect is not significant, and this does not agree with the sub-hypothesis No. (3), which says that there is a relevant influence relationship Significant significance between the debt ratio indicator and the return on assets indicator.

The results also showed that the solvency index (ownership percentage) showed a non-significant T value, as the t-statistic value

was (0.99) at the level of significance (0.31), which is greater than the level of morality (0.10), and this indicates a relationship direct between the two variables, meaning that the higher the percentage of ownership, the return on assets will increase, and this means that the increase of X4 by one unit, then Y1 will increase by (0.07), but this effect is not significant, and this does not agree with the sub-hypothesis (4), which says that there is a relevant influence relationship Significance between the property index and the return on assets index.

The coefficient of determination (R-squared) shows that the independent variables explained about 39% of the variables in the dependent variable, and the F-test shows that the model is significant as a whole at a level less than (0.05).

Conclusions and Recommendations

A- Conclusions: A set of conclusions was reached:

1- The results of the standard analysis showed that there is a significant influence relationship for the liquidity index (the trading ratio) on the rate of return on assets, and thus the acceptance of the hypothesis No. (1) which states that there is a significant effect relationship for the liquidity index (the trading ratio) on the rate of return on assets. Iraqi insurance companies.

2- The results of the standard analysis showed that there is a significant impact relationship of the net cash flow index on the rate of return on assets, and thus the acceptance of hypothesis No. (2) which states that there is a significant impact relationship of the net cash flow index on the rate of return on assets for Iraqi insurance companies.

3- The results of the standard analysis showed that there is no significant influence relationship for the indebtedness indicator on the rate of return on assets, and therefore hypothesis No. (3) is not accepted, which says that there is a significant effect of the indebtedness ratio indicator on the rate of return on assets for Iraqi insurance companies.

4- The results of the standard analysis showed that there is no significant influence relationship of the ownership percentage indicator on the rate of return on assets, and therefore hypothesis No. (4) is not accepted, which says that there is a significant effect of the ownership percentage indicator on the rate of return on assets for Iraqi insurance companies.

B- Recommendations: **Based on what was concluded, a set of recommendations were presented:**

1- Insurance companies provide support and attention to indicators of financial solvency because of their importance in strengthening the company's financial position, as well as giving a safety indicator to creditors of the companies' ability to meet their short and long-term financial liabilities.

2- Dedicating carefulness to maintain good liquidity ratios and work to increase them because of the importance of this in enhancing the company's solvency and its ability to meet its short-term liabilities, and this reflects positively in achieving a return on assets

3- Insurance companies should enhance their internal sources of financing and reduce dependence on external debts because of the importance of achieving financial solvency and companies' ability to repay debts when needed.

4- Companies’ use of solvency indicators, especially (liquidity, net cash flow, debt ratio, ownership ratio) because of the importance of these indicators to spare companies from bankruptcy and fulfilling financial obligations.

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