

Impact of Financial Structure on The Financial Stability: An Empirical Study in A Sample of Iraqi Companies

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Abstract

The current study aims to reveal the impact of the sources of the financial structure that consists of (the right of ownership in book value to total assets and total short-term debt to total assets and the market value of shares to total assets and retained earnings to total assets) as independent variables, in financial stability as a dependent variable. In order to achieve the aims of the study and answer its questions, the study tested a sample of the industrial companies contributing, using that data published on the website of the Iraq Stock Exchange for the period (2010-2018). The sample includes (11) industrial companies listed on the Iraq Stock Exchange. The most important finding of the results is that financing the right of ownership in the book value to the total assets has a role in achieving financial stability for the industrial sample companies. In other words, the high percentage of financing the right to ownership in the book value to the total assets can increase the financial stability of companies through its impact on the cost of financing in general. The research concludes that it is necessary to keep the ownership rights high because that enables companies to obtain the necessary financing at the lowest costs, and reduce dependence on debt financing, which leads to financial stability.

Keywords: Financial Structure, Financial Stability, Financial Sources, joint-stock companies

1. INTRODUCTION

The financial management function has evolved from a job related to procedures and measures for providing the funds needed for companies' businesses to the decision-making function of financing using the tools and techniques needed in making these decisions. The main objective of these decisions is to stay and continue in the market in the long run, and for this the joint-stock companies need to know their financial position. Several factors can affect companies' tendency to financial stability. The study of the impact of sources of financial structure of joint-stock companies on financial stability has an impact on the behavior of industrial companies contributing to the search for sources of financing with low cost and risk, which could affect the survival of industrial companies in the market. Situational determinants are feedback in evaluating performance in successfully managing investments. Financial stability is considered as a feedback to the industrial companies contributing to the fact that the sources of financing approved by the companies are appropriate to the nature of the current activities of the companies. The industrial sector represents the main pillar in the development of the gross domestic product of different countries of the year, through the production of various commodities to meet the different local needs of a country. Industrial companies in Iraq face major challenges through their economic activities, which are building society, or maximizing the wealth of shareholders and the company's goals. After the year (2014), the Iraqi economy began to deteriorate, as a result of the decline in oil prices and the entry of ISIS, and the state's dependence on oil revenues, which made the state take austerity policies as a result of the deteriorating economy, which negatively affected all sectors in general and companies in the industrial sector in particular. Consequently, the

effect of the volume of liquidity and the decrease in the market value of shares, which was reflected in the companies' search for sources of financing, which leads to achieving financial stability for companies in order to finance their investment activities in the long term. Due to the lack of many studies related to our research. This research aims to identify the sources of the financial structure and its impact on the financial stability of companies listed on the Iraq Stock Exchange.

2. LITERATURE REVIEW

2.1. Financial Structure

The financial structure is tied to the left side of any company's balance sheet, be it small or large. The financial structure gives a detailed description of the sources of financing, whether they are long-term financing sources such as common stocks, preferred shares, bonds, long-term loans from banks and insurance companies, short-term financing sources such as creditors, payment papers and interest due, as well as the financial structure that includes property rights such as capital, reserves and retained earnings (Naceur & Goaid, 2002). The lack of an optimal financial structure for companies in relation to debt and equity, which often impedes the growth of commercial companies. Companies always strive to find a combination of debt and equity in a way that maximizes shareholder wealth (Yinusa, 2015). As the financial structure of companies reflects or reflects the diversity of sources of financing obtained by companies. In this way the financial structure of the companies can be determined, the financial structure is defined as "a certain mixture of long-term debt and equity that companies use to finance their operations" (Dennis & Mullineaux, 1999). Allen, Bartiloro, Gu, and Kowalewski (2018) defined it "as a structure of sources of financing, whether it is ownership or borrowing or the side of liabilities and equity, in the balance sheet statement." As Broyles (2007) stated, the financial structure is "a form of debt and equity that constitutes the company's total capital." The financial structure of the company was also known as "a mixture of debt and equity securities used to finance investments" (Myers, 2000). Also known as "financing the total assets or investments of the company. This represents on the left side of the balance sheet, i.e. liabilities and shareholders' equity, which clarifies all financing methods used by the company, which means that the financial structure represents all forms and types of financing, whether they are ownership or borrowing and from short-term or long-term sources (Liu & Zhang, 2018) it is also known as "the image that reflects the sources of financing for the various assets, and the cost of financing differs from one source to another according to its nature" (Fischer & Krauss, 2018). Also known as "a long-term permanent mix of financing represented by debt, preferred stock and common stock" (Sivadasan, Efstathiou, Calinescu, & Huatuco, 2006). The financial structure has a major impact on the value of the company, and thus the decisions of the financial structure become important variables in the pursuit of the goal of maximizing shareholder wealth (Altman & Ratios, 1968; Thurair, 2014). The ideal financial structure that provides sufficient capital for effective and profitable investments, a high rate of return and lower risk (Acharya, Davydenko, & Strebulaev, 2012). So, the financial structure is a specific mix of debt and long-term stocks that the company uses to fund its activities, as its composition directly affects business risk and value. So, the CFO must decide how much money to borrow and the best mix of debt and equity to get it. He must also find the company's least-cost financing sources (Atrill & McLaney, 2009). In general, the joint-stock companies always rely on two types of decisions that contribute significantly to the equation of the financial strategy, which is embodied in the disclosure of the financial position of the joint-stock companies. The first type of these decisions relates to asset formation, i.e. an investment decision. The second decision concerns the formation of liabilities and equity, i.e. the financial mix used in financing investment (assets) from both borrowed financing and ownership, and this financial structure is called (Bradley & Jarrell, 2008). Brigham and Houston (2009) state that there is a relationship between the financial structure and the strategic decisions of the company, as the company can fail to obtain the required financial return, because it cannot obtain new debts and this is due to incorrect strategic decisions to manage the company. The financial structure is of great importance in investment and financing decisions, because of its impact on profitability and the degree of risk faced by companies because of their heavy dependence on debt, and it also helps companies deal with their

competitive environment (Brigham & Houston, 2012). The following are the main indicators of financial structure analysis in the financial markets:

(1.) Equity at Book Value to Total Assets

It indicates the extent to which industrial companies are able to finance their assets with self-financing, and their rise is a positive indicator. When this indicator decreases, it shows the difficulty of companies' capabilities in self-financing their investments and is calculated according to the equation below (Ross, Westerfield, & Jordan, 2008):

$$EBVTA = \frac{EBV}{A} \quad (2)$$

(2.) Total Short-Term Debt to Total Assets Index

This indicator measures the degree of debt contribution in financing the assets of companies, and the higher this indicator indicates that companies rely on debt and borrowing to finance their assets, which limits the company's ability to obtain credit in the future and is calculated according to the following equation (Ross et al., 2008):

$$DTA = \frac{D}{A} \quad (3)$$

(3.) Market Value of Equity to Total Assets

This indicator shows the extent of the company's ability to fulfill its obligations, and the higher this indicator, the more the company is able to meet its obligations, and therefore, it reduces the risk of the company being exposed to financial failure and vice versa in the case of a decrease in this indicator and is calculated according to the following equation (Altman & Ratios, 1968):

$$MVETA = \frac{MVE}{A} \quad (4)$$

(4.) Retained Earnings to Total Assets

It measures the degree to which shareholding companies rely on financing their assets using part of their resources, which is the retained earnings. The rise in this indicator indicates the company relying on its own resources to finance its assets, but if this indicator is low. This indicates the company's increased reliance on external sources to finance the company's financial structure (Altman & Ratios, 1968). It is calculated according to the following equation:

$$RETTA = \frac{RE}{A} \quad (5)$$

2.2. Financial Stability

Concept of Financial Stability

The financial stability of any company is an essential prerequisite for facing financial crises and implementing the companies' development strategy. It also generates sustainability for investments that provide financial security for companies. As the company is financially stable when two conditions are met, which are the first condition: the company's solvency is the description of the company's financial condition, through which payment is made in a timely manner. To ensure solvency, cash flow must be effectively guaranteed. The second condition: to achieve financial stability is the availability of

financial resources to develop the company and finance investments in the long term (Lassoued, 2018). Financial stability is a broad concept that deals with various aspects of the financial system, infrastructure and companies. The term includes both the financial system and operations of the monetary system, and given the functions of the financial system, it can be said that it is stable, when companies are able to allocate resources and measure, evaluate, and manage financial risks effectively, because maintaining financial stability requires proactively identifying sources of risk (Brigham & Houston, 2015). If financial stability is not maintained, companies face bankruptcy. The phenomenon of corporate bankruptcy is a serious phenomenon, which leads to great risks that many companies may be exposed to, due to a combination of factors, some of which are internal and some are external. To reduce this phenomenon, it is necessary to predict the strength or weakness of the company and to predict the possibility of its failure that has become necessary to avoid companies falling into financial problems that may lead to their liquidation (Sacadura & Barreto, 2018). Therefore, the research relied on the (Kida's Z score) model in studying the financial stability of joint stock companies.

Model (Kida's Z score) (1980)

The Kida's Z score model is one of the quantitative models used to predict the financial stability of companies, and it was the model that Kida arrived in (1980). Whereas, this model relied on five separate financial ratios, to predict the financial stability of companies, and its accuracy reached 90%, as it was applied to (20) successful companies and (20) failed companies for a period of (1974-1975). This is represented by the following equation (Alkhatib & Al Bzour, 2011):

$$FS = 1.042 \times \frac{NI}{A} + 0.42 \times \frac{EBV}{A} + 0.461 \times \frac{C}{CL} + 0.463 \times \frac{S}{A} + 0.271 \times \frac{C}{A} \quad (6)$$

The following is a review of the variables of this model:

NI/A = Net Profit / Total Assets

It measures the net profit rate achieved by the company for every dinar invested in assets after paying income and interest taxes, if this indicator is high, the position of the company is considered good in terms of the company's ability to provide liquidity, and vice versa if This indicator was low (Alkhatib & Al Bzour, 2011).

EBV/A = Total Equity / Total Liabilities,

It is an indication of the adequacy of property rights in covering the financial obligations owed by the company, and that the rise of this indicator is an indication of the company's ability to pay its debts and thus, reduces the company's risk of financial failure. If this indicator is low, it is considered evidence of the company's inability to fulfill its obligations, which leads to the possibility of the company being exposed to financial failure (Alkhatib & Al Bzour, 2011).

C/CL = Cash / Current Liabilities,

This indicator measures the company's ability to meet its short-term financial obligations, through its group of cash and cash equivalents, and the higher this indicator, the more it indicates the company's ability to meet its short-term financial obligations, and the more if this decreases the indicator. This means that the company is unable to fulfill these obligations, which makes the company vulnerable to bankruptcy (Alkhatib & Al Bzour, 2011).

S/A = Sales / Total Assets,

It measures the efficiency of the company's management in exploiting its assets to generate revenue. This is mentioned in the Altman model (Alkhatib & Al Bzour, 2011).

C/A = Cash / Total Assets,

This indicator measures the cash available to a company, compared to its total investment in assets. The higher this indicator, the more evidence that the company has the necessary liquidity to meet its financial obligations. As a result, the company is not subject to bankruptcy, but if this indicator falls, it indicates a lack of liquidity with the company, which leads to the company's inability to pay its debts, which leads to the possibility of the company going bankrupt. In addition, (FS) is the financial stability, and transactions (1.042, 0.42, 0.461, 0.463, 0.271) represent the weights of the function variables and express the relative importance. The Kida model shows that companies with a value of (Z) greater than (0.38) are financially stable, and companies that show a value of (Z) less than (0.38) are a failed or bankrupt company. This model is approved because it has reached an accuracy of (90%) and for this reason it has been adopted as an indicator to measure the financial stability of companies.

Alkhatib and Al Bzour (2011) discussed an influence relationship between the right of ownership in the book value to total assets and financial stability. The rise of this indicator by increasing the paid-up capital, this leads to achieving financial stability for companies, through the ability of companies to fulfill their obligations, and thus are financially stable companies. The results show that there is a positive impact relationship between the right of ownership in the book value to total assets and the financial stability of companies. As for the study Elton, Gruber, Agrawal, and Mann (2001), it examined the effect of the financial structure on financial stability, as the results concluded that there is a positive impact relationship between financing the right to property in the book value to the total assets and financial stability of the company. Preve, Love, and Sarria-Allende (2005) show that leverage has an impact on the company's financial stability. The results show that the short-term debt to total assets, which is used as a measure of leverage, has a negative impact on the financial stability of companies. On the other hand, a study Royer (2017) found the effect of the capital structure on the financial stability of companies, the results revealed that the company's financial leverage has nothing to do with financial stability. Altman and Ratios (1968) deals with retained earnings and how it affects corporate financial stability. The retained earnings index to total assets is one of the indicators that measures the degree of companies' reliance on financing their assets by withholding part of their profits. The rise in the index positively affects the ability of companies to rely on internal financing, which helps in achieving financial stability for companies, and the study also indicated that the market value of shares to total assets, positively affects the financial stability of companies.

3. METHODOLOGY

The study adopts a quantitative method using data collected from a sample of companies registered in the Iraq Stock Exchange for the period from (2010) to the year (2018). Then the data was measured and analyzed to reach results. The independent variable was measured by researchers (Ross et al., 2008) through measures of financial structure analysis. The variable dependent on financial stability was measured by Alkhatib and Al Bzour (2011). Figure 1 indicates the research model and the relationships between its variables.

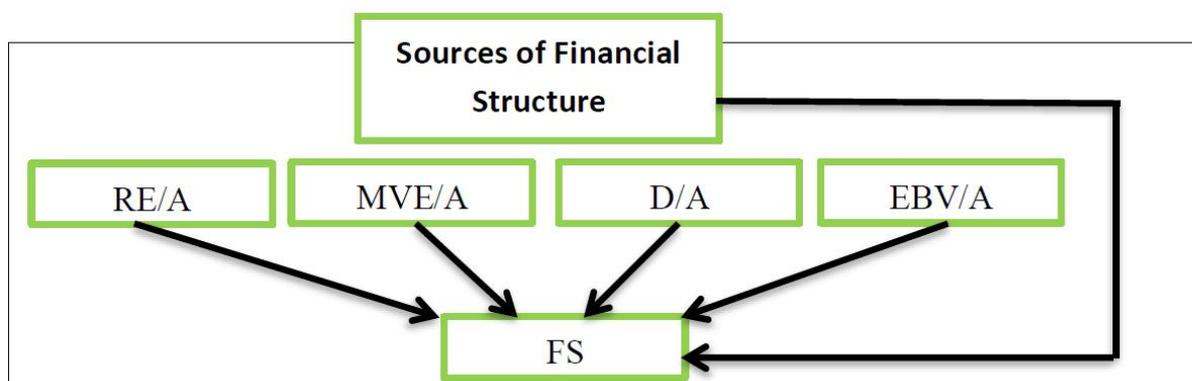


Figure 1. Research Model

According to the financial literature indicating the relationship between the sources of the financial structure and financial stability, the research is based on the following hypothesis: (There is an effect relationship with statistically significant significance for the sources of the financial structure in financial stability). Four sub-hypotheses are branched from this hypothesis, namely the right of ownership in the book value to total assets, short-term debt to total assets, the market value of shares to total assets and retained earnings to total assets. Therefore, the research assumes the following:

- There is a significant positive correlation of the right of ownership with the book value to the total assets in the financial stability of the sample companies.
- There is an inverse moral effect relationship for short-term debt to total assets in the financial stability of the research sample companies.
- There is a significant positive correlation of the market value of shares to total assets in the financial stability of the sample companies.
- There is a positive effect correlation of retained earnings to total assets in the financial stability of the research sample companies.

The relationship between the sources of financial structure and financial stability can be represented by using the least squares cross-sectional method:

$$FS = C + \beta_1 EBVTA - \beta_2 DTA + \beta_3 MVETA + \beta_4 RETTA \quad (1)$$

Where:

FS: Financial stability.

C: represents the constant value of the function variable.

β : The slope coefficient represents the relationship between funding sources and financial stability.

EBVTA: equity in book value to total assets.

DTA: short-term debt to total assets.

MVETA: The market value of stocks to total assets.

RETTA: Withheld earnings to total assets.

The industrial sector companies were chosen on the Iraq Stock Exchange, which numbered (25) listed companies. A selection of (11) companies was chosen from the industrial companies listed on the Iraq Stock Exchange, whose financial data are available for the period from (2010) to (2018). Table (1) shows the industrial companies according to the name of the company, the date of its establishment, the date of its listing on the Iraq Stock Exchange, the amount of the company's capital and the address of the company.

Table 1. the sample companies

#	The Company's name	Date of Establishment	Listing date	Current capital	Company Address
1	Baghdad Company for Industry packaging materials	1962	2004	1,080,000,000	Baghdad / Al-Zafaraniyah
2	Baghdad Company for soft	1989	2004	177,333,333,333	Baghdad / Al-

	drinks				Zafaraniyah
3	Iraqi company for manufacturing and marketing of dates	1989	2004	17,250,000,000	Baghdad / Al-Shaljeh
4	Iraqi Company for Carpets and Furniture	1989	2004	500,000,000	Baghdad / Al-Dawoodi
5	The Canadian Veterinary Vaccine Production Company	1990	2004	5,940,000,000	Baghdad / Abu Ghraib
6	Al-Mansour Company for Pharmaceutical Industries	1989	2004	6,469,267,350	Baghdad / Abu Ghraib
7	Modern chemical industrial company	1946	2004	180,000,000	Baghdad / Babel district
8	Metal and Bicycle Industries Company	1964	2004	5,000,000,000	Baghdad / Mahmudiyah
9	Modern sewing company	1988	2004	1,000,000,000	Baghdad / Ministerial
10	National Chemical Industries Company	1962	2004	15,187,500,000	Baghdad / Al-Zafaraniyah
11	Ready Made Clothes Company	1976	2004	1,593,000,000	Baghdad / Mahmudiyah

4. RESULTS

4.1. Financial Analysis

This section focuses on the results of the financial analysis of the industrial companies' sector contributing the research sample, which is listed on the Iraq Stock Exchange. These results depend on the indicators of analyzing the financial structure of companies, which is the right of ownership in the book value to total assets, total short-term debt to total assets, the market value of stocks to total assets and retained earnings to total assets. The (Kida's Z score) model (1980) will be approved by (Alkhatib & Al Bzour, 2011). In the study of financial stability, the Kida model shows that companies with a value of Z greater than (0.38) are a financially stable company, and companies that show a value of (Z) less than (0.38) are a failed or bankrupt company.

(1.) Financial Analysis of Equity at Book Value to Total Assets

Table (2) shows that the general industrial average of the right of ownership in the book value to total assets has reached (1.118) and a standard deviation of (0.489). The companies that achieved higher rates than the public sector is (the Metal and Bicycle Industries Company (2.242) and the National Chemical and Plastic Industries Company (1.873)). As for (Baghdad company for soft drinks (1.115), the company for ready-made clothes production (1.070), Baghdad company for packaging materials (0.962), the Iraqi company for manufacturing and marketing of dates (0.946), the Canadian company for the production of veterinary vaccines (0.935), Al-Mansour Company for Pharmaceutical Industries) (0.894), the modern sewing company (0.808), the modern chemical industrial company (0.797) and finally the Iraqi Company for Carpets and Furniture (0.651) achieved lower rates than the public sector average. The results indicate the financial analysis of the right of ownership in the book value to the total assets that the industrial sample companies prefer to finance the right of ownership to the total assets in the first place as shown in Figure 2.

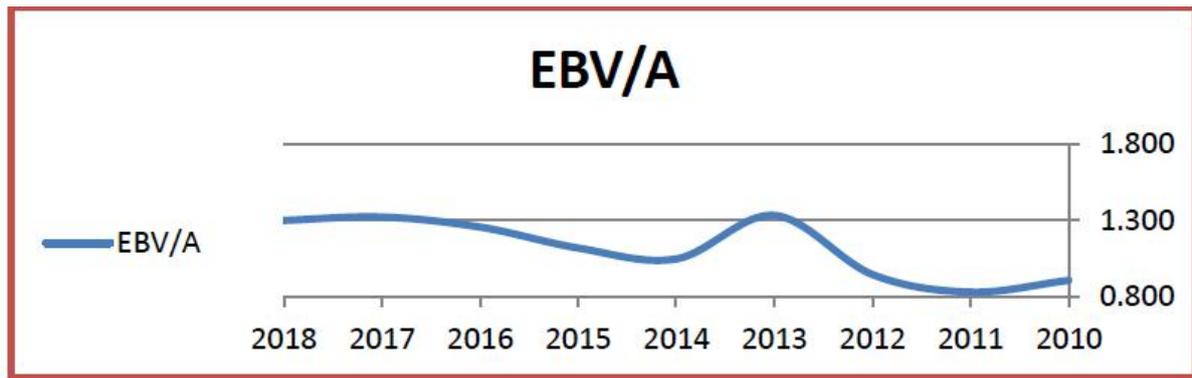


Figure 2. The market rate of the ownership interest in the book value to total assets

Table 3 shows results according to the Jarque-Bera test, which is used to find out whether the study sample data is distributed naturally or not. If the results are greater than (0.05), then the data is distributed naturally, as we note that all the data of the study sample companies are distributed naturally because it is greater than (0.05), the results of the (Jarque-Bera) test ranged between (10.316) and (0.276).

#	The Company's name	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company rate	Probability	Jarque-Bera
1	Baghdad for the manufacture of packaging materials	0.830	0.957	0.990	0.995	0.983	0.995	0.965	0.956	0.989	0.962	0.604	1.008
2	Baghdad for soft drinks	2.443	0.978	0.962	0.932	0.960	0.955	0.901	0.952	0.951	1.115	0.534	1.257
3	Iraqi for manufacturing and marketing of dates	0.873	0.939	0.881	0.930	0.937	0.892	0.953	1.006	1.105	0.946	0.006	10.316
4	Iraqi carpets and furnishings	0.655	0.598	0.634	0.577	0.650	0.713	0.685	0.668	0.684	0.651	0.735	0.614
5	Canadian Veterinary Vaccine Production	0.921	0.718	1.065	0.810	1.083	0.929	1.000	0.970	0.922	0.935	0.569	1.129
6	Al Mansour Pharmaceutical Industries	0.918	0.915	0.763	0.943	0.891	0.943	0.924	0.941	0.807	0.894	0.526	1.284
7	Modern chemical crafts	0.238	0.799	0.987	0.991	0.668	0.534	0.982	0.985	0.984	0.797	0.335	2.186
8	Metal and bicycle industries	0.945	1.078	1.215	1.491	1.902	2.584	3.259	3.684	4.021	2.242	0.622	0.950
9	Modern sewing	0.689	0.862	0.866	0.873	0.890	0.802	0.726	0.827	0.736	0.808	0.724	0.645
10	National chemical and plastic industries	1.204	0.802	1.397	1.460	1.876	2.263	2.566	2.763	2.531	1.873	0.871	0.276
11	Production of ready-made clothes	0.258	0.484	0.639	4.654	0.682	0.696	0.857	0.793	0.570	1.070	0.517	1.321
	Market rate	0.907	0.830	0.945	1.332	1.047	1.119	1.256	1.322	1.300	1.118		
	standard deviation	0.586	0.175	0.230	1.133	0.439	0.664	0.840	0.967	1.044	0.489		

Table 2. Equity at Book Value to Total Assets

(2.) Financial Analysis of Total Short-Term Debt to Total Assets Index

Table 3 shows that the general industrial average of short-term debt to total assets has reached (0.257) and a standard deviation of (0.255). The companies that achieved higher rates than the public sector are (the Metal and Bicycle Industries Company (0.918), the ready-made garment production company (0.413), the National Chemical and Plastic Industries Company (0.351) and the Iraqi Company for Carpets and Furniture (0.349)). Whereas, the modern chemical industrial company (0.203), the modern sewing company (0.192), the Iraqi company for manufacturing and marketing of dates (0.152), the

Mansour Company for Pharmaceutical Industries (0.106), the Canadian company for the production of veterinary vaccines (0.056), Baghdad Company for soft drinks (0.052) and Baghdad Packaging Material Manufacturing Company (0.031) achieved lower rates than the public sector average. It is evident that there is stability in the use of short-term debt to total assets as a source of financing for industrial companies, as shown in Figure 3.

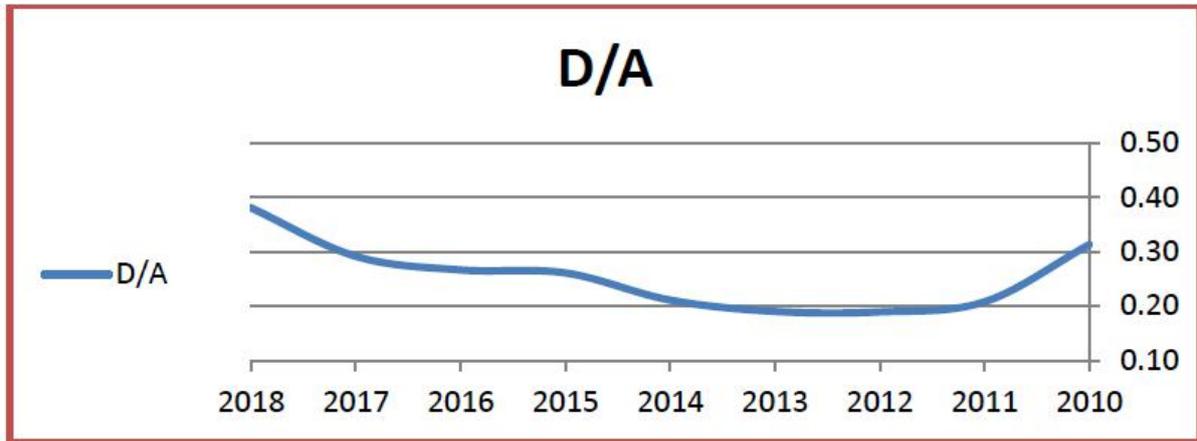


Figure 3. The market rate of total short-term debt to total assets

Table 3 shows the results according to the (Jarque-Bera) test, which is used to find out whether the study sample data is distributed naturally or not. If the results are greater than (0.05), the data will be naturally distributed. We note that all data of the research sample companies are distributed naturally because they are greater than (0.05), as the results of the (Jarque-Bera) test ranged between (4.793) and (0.676).

Table 3. Total Short-Term Debt to Total Assets Index

#	The Company's name	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company rate	Probability	Jarque-Bera
1	Baghdad for the manufacture of packaging materials	0.113	0.043	0.010	0.005	0.017	0.005	0.035	0.044	0.011	0.031	0.091	4.793
2	Baghdad for soft drinks	0.058	0.022	0.038	0.068	0.040	0.045	0.099	0.048	0.049	0.052	0.448	1.604
3	Iraqi for manufacturing and marketing of dates	0.112	0.148	0.137	0.107	0.097	0.149	0.186	0.232	0.200	0.152	0.713	0.676
4	Iraqi carpets and furnishings	0.345	0.402	0.366	0.423	0.350	0.287	0.315	0.332	0.316	0.349	0.780	0.497
5	Canadian Veterinary Vaccine Production	0.079	0.090	0.079	0.057	0.042	0.022	0.021	0.020	0.096	0.056	0.608	0.995
6	Al Mansour Pharmaceutical Industries	0.082	0.085	0.237	0.057	0.109	0.057	0.076	0.059	0.193	0.106	0.329	2.224
7	Modern chemical crafts	0.762	0.201	0.013	0.009	0.332	0.466	0.018	0.015	0.016	0.203	0.404	1.813
8	Metal and bicycle industries	0.354	0.399	0.400	0.488	0.603	0.891	1.289	1.640	2.198	0.918	0.504	1.370
9	Modern sewing	0.311	0.138	0.134	0.127	0.110	0.197	0.274	0.173	0.264	0.192	0.611	0.985
10	National chemical and plastic industries	0.380	0.293	0.248	0.251	0.275	0.395	0.439	0.446	0.432	0.351	0.570	1.124
11	Production of ready-made clothes	0.847	0.464	0.420	0.502	0.345	0.354	0.177	0.196	0.409	0.413	0.397	1.846
	Market rate	0.313	0.208	0.189	0.190	0.211	0.261	0.266	0.291	0.380	0.257		
	standard deviation	0.273	0.157	0.155	0.193	0.184	0.263	0.365	0.469	0.621	0.255		

(3.) Financial Analysis of Market Value of Equity to Total Assets

Table (4) shows that the general industrial average for the market value of shares to total assets has reached (2.720) and a standard deviation of (3.443). This indicates an increase in the market value of all industrial companies surveyed. The companies that achieved higher rates than the public sector are (Modern Sewing Company (12.639), The Ready-made Clothing Company (4.153) and Baghdad Packaging Material Manufacturing Company (3,148)). As for (Baghdad Soft Drinks Company (1.622), Modern Chemical Industries Company (1.497), Metal Industries and Bicycles Company (1.410), National Chemical and Plastic Industries Company (1.381), Canadian Veterinary Vaccine Production Company (1.323), Al Mansour Pharmaceutical Industries (0.976)), The Iraqi Company for Manufacturing and Marketing of Dates (0.895) and the Iraqi Company for Carpet and Furniture (0.878) achieved lower rates than the public sector average. It is evident that there is a decrease in the market value to the total assets of industrial companies, the study sample, as shown in Figure 4.

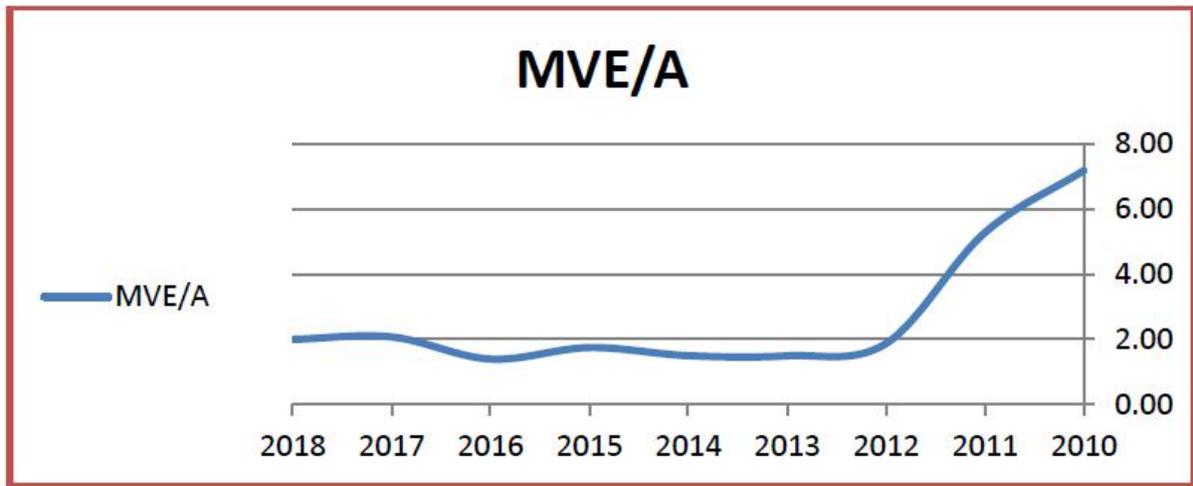


Figure 4. The market rate of the market value of shares to total assets

Table (4) shows the results according to the Jarque-Bera test, which is used to find out whether the study sample data is distributed naturally or not. If the results are greater than (0.05), the data will be naturally distributed. We note that all data of the companies in the research sample are distributed naturally because they are greater than (0.05). The results of the Jarque-Bera test ranged between (9.365) and (0.668).

Table 4. Market Value of Equity to Total Assets

#	The Company's name	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company rate	Probability	Jarque-Bera
1	Baghdad for the manufacture of packaging materials	6.714	6.554	4.085	2.588	1.661	2.067	1.904	1.411	1.351	3.148	0.468	1.518
2	Baghdad for soft drinks	2.292	1.254	1.141	2.109	1.524	1.723	1.261	1.475	1.818	1.622	0.704	0.703
3	Iraqi for manufacturing and marketing of dates	0.605	0.639	0.873	0.930	0.983	0.989	1.355	0.761	0.921	0.895	0.716	0.668
4	Iraqi carpets and furnishings	0.833	0.793	0.753	0.597	0.670	0.767	0.930	1.291	1.269	0.878	0.540	1.233
5	Canadian Veterinary Vaccine Production	1.682	2.043	2.275	1.662	1.084	1.049	0.741	0.682	0.687	1.323	0.644	0.880
6	Al Mansour Pharmaceutical Industries	2.131	2.343	0.767	0.743	0.666	0.614	0.532	0.555	0.436	0.976	0.289	2.485
7	Modern chemical crafts	3.161	0.748	1.099	1.060	0.138	0.140	2.561	2.227	2.339	1.497	0.686	0.753
8	Metal and bicycle industries	1.558	1.377	0.917	0.774	0.689	1.020	0.924	1.476	3.951	1.410	0.009	9.365
9	Modern sewing	58.869	38.013	3.487	2.407	2.708	1.707	2.528	2.606	1.426	12.639	0.152	3.768
10	National chemical and plastic industries	0.876	2.531	1.220	1.030	1.365	1.065	1.459	1.433	1.452	1.381	0.080	5.064
11	Production of ready-made clothes	0.218	1.683	3.900	2.465	4.919	8.007	1.084	8.830	6.273	4.153	0.694	0.729
	Market rate	7.176	5.271	1.865	1.488	1.491	1.741	1.389	2.068	1.993	2.720		
	standard deviation	17.237	10.983	1.331	0.774	1.324	2.149	0.681	2.326	1.707	3.443		

(4.) Financial Analysis of Retained Earnings to Total Assets

Table (5) shows that the general industrial average of retained earnings to total assets has reached (0.323) and a standard deviation of (0.296). The companies that achieved higher rates than the public sector are (the Metal Industries and Bicycles Company (0.959), the Modern Chemical Industries Company (0.767) and the Iraqi Company for Carpets and Furniture (0.488)). As for (Baghdad company for soft drinks (0.316), the National Company for Chemical and Plastic Industries (0.239), the Iraqi company for manufacturing and marketing of dates (0.183), the Canadian company for the production of veterinary vaccines (0.183), the modern sewing company (0.160), the Mansour Company for Pharmaceutical Industries (0.123), The ready-made garment production company (0.094) and the Baghdad Packaging Material Manufacturing Company (0.039) achieved lower rates than the public sector average. It is evident that there is an increase in the retained earnings to the total assets of the industrial companies of the study sample. This means that companies prefer self-financing as one of the sources of financing as shown in Figure 5.

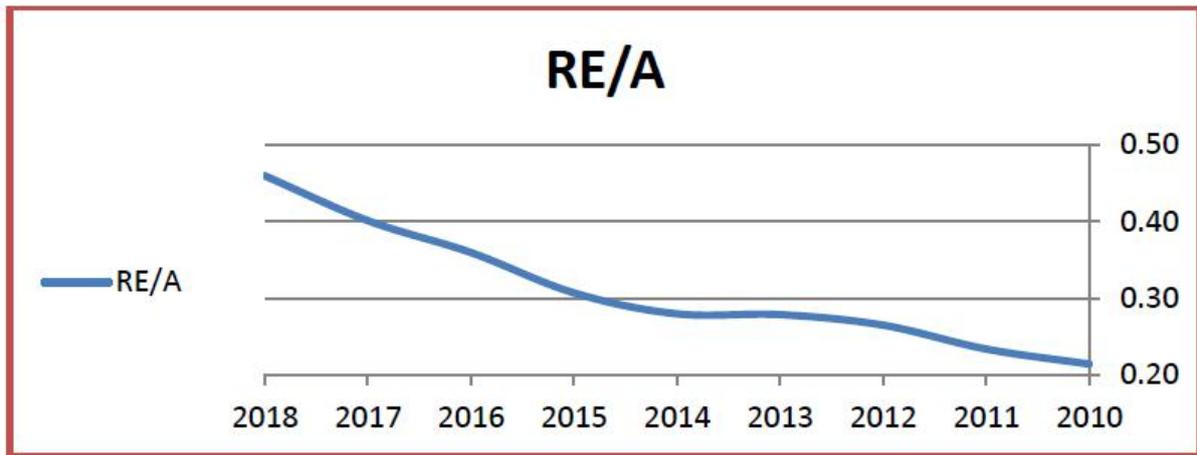


Figure 5. The market rate of retained earnings to total assets

Table 5 shows the results according to (Jarque-Bera) test, which is used to find out whether the study sample data is distributed naturally or not. If the results are greater than (0.05), the data will be naturally distributed. We note that all data of the study sample companies are distributed naturally because they are greater than (0.05). The results of the Jarque-Bera test ranged between (10.316) and (0.276).

Table 5. Retained Earnings to Total Assets

#	The Company's name	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company rate	Probability	Jarque-Bera
1	Baghdad for the manufacture of packaging materials	0.012	0.007	0.017	0.044	0.007	0.076	0.070	0.067	0.051	0.039	0.517	1.321
2	Baghdad for soft drinks	0.359	0.164	0.197	0.227	0.286	0.369	0.396	0.401	0.445	0.316	0.871	0.276
3	Iraqi for manufacturing and marketing of dates	0.156	0.182	0.199	0.107	0.163	0.126	0.132	0.141	0.442	0.183	0.724	0.645
4	Iraqi carpets and furnishings	0.481	0.439	0.470	0.433	0.492	0.534	0.505	0.509	0.525	0.488	0.622	0.950
5	Canadian Veterinary Vaccine Production	0.339	0.257	0.345	0.279	0.152	0.070	0.062	0.072	0.071	0.183	0.335	2.186
6	Al Mansour Pharmaceutical Industries	0.146	0.084	0.129	0.118	0.098	0.135	0.130	0.138	0.126	0.123	0.526	1.284
7	Modern chemical crafts	0.181	0.787	0.969	0.965	0.645	0.516	0.946	0.948	0.945	0.767	0.569	1.129
8	Metal and bicycle industries	0.368	0.425	0.509	0.631	0.808	1.107	1.412	1.605	1.763	0.959	0.735	0.614
9	Modern sewing	0.106	0.117	0.110	0.014	0.116	0.193	0.115	0.295	0.379	0.160	0.006	10.316
10	National chemical and plastic industries	0.327	0.193	0.138	0.234	0.206	0.292	0.214	0.249	0.297	0.239	0.648	0.867
11	Production of ready-made clothes	0.089	0.147	0.047	0.011	0.100	0.108	0.111	0.119	0.110	0.094	0.604	1.008
	Market rate	0.233	0.255	0.285	0.278	0.279	0.321	0.372	0.413	0.468	0.323		
	standard deviation	0.148	0.220	0.278	0.296	0.257	0.310	0.435	0.472	0.502	0.296		

(5.) Financial Analysis of Financial Stability

Table (6) shows that the overall rate of financial stability has reached (1.640) and a standard deviation of (2.068). The companies that achieved higher rates than the public sector rate are (Baghdad Company for the manufacture of packaging materials and the Baghdad Company for soft drinks) which are respectively (7.684) and (2.243) either (the Iraqi company for manufacturing and marketing of dates, the Iraqi company for carpets and furniture, the Canadian company for the production of veterinary vaccines , Al-Mansour Company for Pharmaceutical Industries, Modern Chemical Industries Company, Metal Industries and Bicycles Company, Modern Sewing Company, National Chemical and Plastic Industries Company and Ready-made Garment Company) achieved lower rates than the public sector rate. All industrial companies are considered financially stable because of the high market value of industrial companies. There is also a fluctuation in the level of financial stability of industrial companies, the sample of the study, as shown in Figure 6.

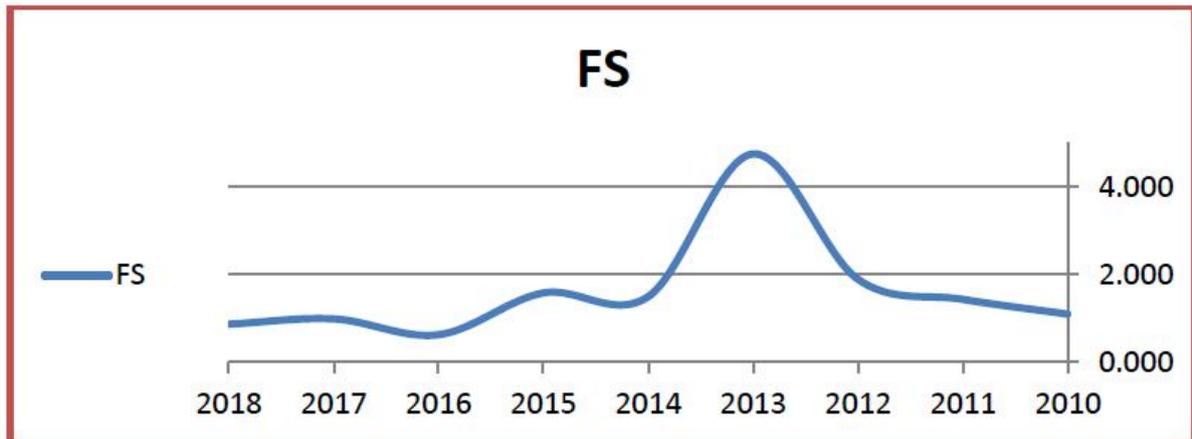


Figure 6. The market rate of financial stability (FS) for industrial companies

Table (3-5) shows the results according to the Jarque-Bera test, which is used to find out whether the study sample data is distributed naturally or not. If the results are greater than (0.05), the data will be naturally distributed. We note that all data for the study sample companies are distributed naturally because they are greater than (0.05). The results of the Jarque-Bera test ranged between (3.817) and (0.256).

Table 6. Financial Stability (2010-2018)

#	The Company's name	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company rate	Probability	Jarque-Bera
1	Baghdad for the manufacture of packaging materials	0.409	4.748	8.589	41.492	6.086	6.698	0.194	0.103	0.834	7.684	0.148	3.817
2	Baghdad for soft drinks	2.771	1.834	2.810	1.626	2.913	3.684	1.216	1.443	1.885	2.243	0.768	0.528
3	Iraqi for manufacturing and marketing of dates	2.949	2.735	2.504	0.350	2.105	0.925	0.135	0.072	0.130	1.323	0.591	1.052
4	Iraqi carpets and furnishings	0.507	0.468	0.510	0.759	1.156	0.587	1.805	1.767	1.859	1.046	0.590	1.056
5	Canadian Veterinary Vaccine Production	1.053	1.121	1.195	1.390	0.195	0.174	0.185	0.778	0.153	0.694	0.532	1.260
6	Al Mansour Pharmaceutical Industries	0.455	1.015	0.473	2.522	1.436	1.928	1.100	1.795	0.176	1.211	0.810	0.422
7	Modern chemical crafts	0.811	0.427	2.250	0.986	0.563	0.623	0.488	0.515	0.500	0.796	0.725	0.643
8	Metal and bicycle industries	0.295	0.264	0.458	1.000	0.429	0.152	0.263	0.429	0.447	0.415	0.709	0.689
9	Modern sewing	0.339	0.221	0.803	1.126	1.021	0.727	0.585	1.716	1.645	0.909	0.741	0.601
10	National chemical and plastic industries	0.331	0.318	0.337	0.852	0.435	0.109	0.279	0.460	0.740	0.429	0.680	0.770
11	Production of ready-made clothes	2.176	2.655	0.948	0.252	0.149	1.807	0.661	1.815	1.193	1.295	0.880	0.256
	Market rate	1.100	1.437	1.898	4.760	1.499	1.583	0.628	0.990	0.869	1.640		
	standard deviation	1.026	1.436	2.391	12.199	1.745	2.001	0.535	0.718	0.677	2.068		

4.2. Statistical Analysis

This section discusses the results of testing and analyzing impact relationships between study variables. Multiple regression analysis was used in tests to identify the influence of the independent variable (sources of the financial structure. This analysis consists of the following independent financial indicators: Equity to Total Assets (EBVTA), Total Short-Term Debt to Total Assets (DTA), Stock Market Value To the total assets (MVETA) and retained earnings to the total assets (RETTA) in the dependent variable index, which is financial stability (FS). Independent variable the determining factor (R2) to identify the ability of the model to explain the relationship between the independent variable and the dependent variable. The comparison between the impact strength of each of the independent variables was measured by (t-test), which indicates the significance of the results. Also, the F test was used.) To identify the significance of the multiple regression model. The researcher relied on the level of significance (0.05) to judge the extent of the influence of significance. Significance and vice versa. The main hypothesis: The current study assumes that there is a significant effect relationship of the sources of the financial structure on financial stability. According to the results of the (Eviews-9) program, which showed the results of multiple regression analysis in Table (7), which shows the results of testing the effect of relationship between variables of sources of the financial structure in financial stability according to determining the results of multiple regression, assuming there is a significant relationship between the real value of the variables of the sources of structure Financial and financial stability (FS) can be expressed by the following formula:

$$fs = \beta_0 + \beta_1 EBVTA + \beta_2 DTA + \beta_3 MVETA + \beta_4 RETTA$$

This equation shows that financial stability is a function of the real value of the variables of the sources of the financial structure. Therefore, the estimates of this equation and its statistical indicators have been calculated at the level of the time series extending from (2010) to (2018). The equation for multiple regression was the relationship between the variables of the sources of financial structure and financial stability, as follows:

$$fs = (0.386) + (0.197)EBVTA - (-0.166)DTA + (0.120)MVETA + (0.022)RETTA$$

Table 7. Impact test results for sources of financing the financial structure

Independent indicators	Dependent indicator	Coefficient	Std. Error	(t) value t-Statistic	Prob.	the decision
EBVTA	FS	0.196534	0.051082	3.84745	0.0002	Accepted
DTA	FS	-0.16569	0.042832	-3.86824	0.0002	Accepted
MVETA	FS	0.120085	0.129424	0.927845	0.3564	Rejected
RETTA	FS	0.021827	0.435188	0.050156	0.9601	Rejected
(C)	0.386451	Method: Pooled Least Squares $fs = (0.386) + (0.197)EBVTA - (-0.166)DTA + (0.120)MVETA + (0.022)RETTA$				
(R ²)	0.570756					
(F)	4.593434					
F-statistic						
(F) Sig.	0.000					
Fixed Effects (Cross)			Fixed Effects (Period)			
(Cross)	Coefficient	The order	(Period)	Coefficient	The order	
IBPM—C	0.129545	1	2010--C	-0.08137	4	
IBSD—C	-0.03152	9	2011--C	-0.1977	9	
IIDP—C	-0.0209	8	2012--C	0.143841	2	
IITC—C	-0.06213	10	2013--C	0.665672	1	
IKLV—C	0.019561	4	2014--C	-0.18425	7	
IMAP—C	-0.01052	5	2015--C	0.063889	3	
IMCL—C	0.038095	2	2016--C	-0.12322	6	
IMIB—C	-0.06833	11	2017--C	-0.09447	5	
IMOS—C	-0.01219	6	2018--C	-0.19239	8	
INCP—C	-0.01676	7				
IRMC—C	0.025679	3				

Table (7) shows that the constant (C = 0.368). This means that there is a financial stability presence of (0.368) when the value of the sources of the financial structure is equal to zero. The results of Table (7) indicate that the value of the determination factor (R²) is a factor of (0.571), which means that the sources of the financial structure explain (0.571) of the variance in the financial stability. (0.429) of unexplained variance is due to variables that did not enter the regression model, which is an acceptable indicator when comparing the calculated value (F) of (4.593) which is greater than the tabular value of (2.21) and according to the results of the level of significance of the value of (F), which reached (0.000), less than the level of significance determined by the researcher (0.05). Through these results, the first major hypothesis is accepted.

1.1 The first sub hypothesis:

The study assumes that there is a positive moral effect relationship for the ownership right in the book value to the total assets in the financial stability. According to the results of the (Eviews-9) program, which showed the results of the multiple regression analysis in Table (7), as it was found that the value of the marginal slope of the right of ownership in the book value to the total assets reached ($\beta_1 = 0.197$) and accompanying (EBVTA), it indicates that a change in its amount One unit of the right of ownership in book value to total assets (EBVTA) will lead to a positive change of (0.197) in financial stability. The calculated value of (t) has reached (3.847) which is greater than its tabular value of

(1.658), and according to the results of the level of significance of the value of (t), which amounted to (0.0002), which is less than the level of significance determined by the researcher (0.05). From these results, the first sub-hypothesis is accepted.

1.2 2.1 The second sub-hypothesis:

The study assumes that there is an inverse moral effect relationship for short-term debt to total assets in financial stability. According to the results of the (Eviews-9) program, which showed the results of multiple regression analysis in Table (7), as it was found that the marginal slope value of short-term debt to total assets reached ($\beta_2 = 0.166$) and accompanying (DTA). It indicates that a change of one unit in short-term debt to total assets (DTA) will result in a negative change of 0.166 in financial stability. The calculated value of (t) is (3.868) and it is greater than its tabular value of (1.658). According to the results of the level of significance of the value of (t), which amounted to (0.0002), which is less than the level of significance determined by the researcher (0.05). Through these results, the second sub-hypothesis is accepted.

1.3 3.1 The third sub-hypothesis:

The study assumes that there is a positive moral effect relationship for the market value of the stock to the total assets in the financial stability. According to the results of the program (Eviews-9), which showed the results of the multiple regression analysis in Table (7), as it was found that the value of the marginal slope of the market value of the stock to the total assets amounted to ($\beta_3 = 0.120$) and that accompanying (MVETA). It indicates that a change of one unit in the market value of shares to total assets (MVETA) will lead to a positive change of 0.120 in financial stability. The calculated value of (t) is (0.928), which is less than its tabular value of (1.658). According to the results of the level of significance of the value of (t), which amounted to (0.356), which is greater than the level of significance determined by the researcher (0.05). Through these results, the third sub-hypothesis is rejected.

1.4 4.1 The fourth sub-hypothesis:

The study assumes that there is a positive significant effect of retained earnings on total assets in financial stability. According to the results of the (Eviews-9) program, which showed the results of multiple regression analysis in Table (7), it was found that the value of the marginal slope of retained earnings to total assets reached ($\beta_4 = 0.022$) and the accompanying of (RETTA), as it indicates that a change of one unit in Retained earnings to total assets (RETTA) will result in a positive change of (0.022) in financial stability. The calculated value of (t) has reached (0.050) which is less than its tabular value of (1.658), and according to the results of the level of significance of the value of (t), which amounted to (0.960) any greater than the level of significance determined by the researcher (0.05). Through these results, the fourth hypothesis is rejected.

To reveal the degree of differentiation according to the effect on the level of companies, the study sample between the variables of the sources of the financial structure and financial stability. The results of Table (7) refer to Baghdad Industrial Company for the First Packaging Materials in terms of the degree of differentiation according to the effect between the variables of the sources of the financial structure and the financial stability. The results indicate that the change in funding sources by one unit will lead to a positive change of (0.130) in financial stability. As for the second company in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability, it is the modern chemical industries company. The results indicate that a change in funding sources by one unit will lead to a positive change of 0.038 in financial stability. The third company in terms of degree of differentiation according to the impact between the variables of the financial structure and financial stability is the garment production company. The results indicate that a change in funding sources by one unit will lead to a positive change of 0.026 in financial stability.

Whereas, the company was the ninth in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability is Baghdad Soft Drinks Company. The results indicate that a change in funding sources by one unit will lead to a reverse change of (0.032) in financial stability. As for the tenth company in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability, it is the Iraqi Company for Carpets and Furniture. The results indicate that a change in funding sources by one unit will lead to a reverse change of 0.062 in financial stability. As for the company that was in the last ranking in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability, it is the Metal Industries and Bicycles Company. The results indicate that a change in funding sources by one unit will lead to a reverse change of 0.068 in financial stability.

As for the degree of differentiation according to the effect on the level of years between the variables of the sources of the financial structure and financial stability, the results of Table (7) indicate the year (2013) is the first in terms of the degree of differentiation according to the effect between the variables of the sources of the financial structure and financial stability, as the results indicate that the change in Funding sources by one unit will lead to a positive change of 0.666 in financial stability. As for the second arrangement in terms of the degree of differentiation according to the effect between the variables of the financial structure and financial stability, it is the year (2012). The results indicate that the change in funding sources by one unit will lead to a positive change of 0.144 in financial stability. Whereas, the third ranking in terms of degree of differentiation according to the effect between the variables of the financial structure and the financial stability was the year (2015). The results indicate that a change in funding sources by one unit will lead to a positive change of 0.064 in financial stability. As for the seventh ranking in terms of the degree of differentiation according to the effect between the variables of the financial structure and financial stability, it is the year (2014). The results indicate that a change in funding sources by one unit will lead to a reverse change of 0.184 in financial stability. Whereas, the eighth ranking in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability was the year (2018). The results indicate that a change in funding sources by one unit will lead to a reverse change of (0.192) in financial stability. As for the last year in terms of the degree of differentiation according to the impact between the variables of the financial structure and financial stability, it was (2014). The results indicate that a change in funding sources by one unit will lead to a reverse change of 0.198 in financial stability.

5. CONCLUSIONS

The results indicate that financing the right of ownership in the book value to the total assets has a role in achieving financial stability for industrial companies, the sample of the research. In other words, the increase in the ratio of financing the right to ownership in the book value to the total assets can increase the financial stability of companies through its impact on the cost of financing in total. In addition, the results of the research indicate a decrease in the short-term debt index to total assets, meaning that companies do not rely on short-term debt to total assets in financing investments compared to financing right to property in the book value to total assets, as the decline of this indicator is considered a safety factor For industrial companies to increase financial stability by relying on self-financing. There is a decrease in the market value of shares to total assets compared to the ownership right index in the book value to total assets, and this indicates that the company is less than its cost, meaning that the market value of shares falls to total assets is that the market values this company with less than the amount of money that I invested in them through the issuance of shares, which is the reason for the decrease in returns for most of the industrial sample companies. The results also indicate an increase in the retained earnings index to total assets, which indicates a low percentage distribution of profits to shareholders, as companies depend on financing investments from retained earnings as they include within the property rights that do not require complicated transactions or guarantees. In

addition, there is a positive relationship of significant moral significance between financing the right of ownership by the book value to the total assets and the financial stability of the industrial companies for the research sample, that is, increasing the ratio of the ownership of the property by the book value to the total assets by one unit, this leads to an increase in the level of financial stability By (0.197). Finally, there is an inverse relationship of significant influence between short-term debt financing to total assets and financial stability of the industrial sample companies. Meaning that the increase in the ratio of short-term debt to total assets by one unit leads to a decrease in the level of financial stability of companies by (0.166). It is imperative that industrial companies work to keep equity rights high because this enables companies to obtain the necessary financing at the lowest costs, and reduces dependence on debt financing, which leads to financial stability. Companies must identify financing sources that are characterized by low cost and risk, which lead to maximizing the value of the company and achieving a high return, and thus achieving financial stability for companies. Necessary and comparison of sources of financing in terms of cost and benefit. In order to achieve financial stability, it is necessary for industrial companies to continue increasing the proportion of retained earnings because it is considered a low-cost source of financing for investment financing. It is necessary to pay attention to diversifying the sources of financing and avoid traditional behavior by relying on one source over another, in addition to following a strategic vision to build a financing structure that helps in achieving financial stability for companies. The supervisory authorities should also conduct financial analyzes of the companies 'closing statements at an early date in order to be able to make decisions about providing the necessary financing for companies when needed.

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