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Research Paper

**The Role of Financial Structure Balance in Ensuring the Iraqi Bank Financial Health (An Analytical Study of A Sample of Banks Listed in Isx-Iq For the Period: 2015-2020)**

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**Abstract**

**Purpose-**The research aims to find the role of the financial structure balance in ensuring the financial health of Iraqi banks.

**Design/ methodology/ approach-** The current study is an analytical study; it uses different indicators (metrics) for the financing structure, represented by financing with ordinary shares (equity), financing with retained earnings, financing with debts, and financing with deposits. Moreover, measures of net current assets, accumulated profits employment, real production capacity, and the value of expected bankruptcy were used as measures of financial health. Data were collected from 20 banks listed on the Iraq Stock Exchange as a sample for the study out of 44 banks for the period from 2015 to 2020; the study also adopted two financial hypotheses: the first financial hypothesis was that the banks of the study sample depend in their operational actions on balanced financing structures, and the second hypothesis states that the banks in the study sample enjoy financial health systems that make the avoid various financial problems in the future. The statistical hypothesis, states that there is a significant influence relationship between the budget of the financial structure and ensuring financial health.

**Findings** -The study concluded that all Iraqi banks do not have financial health systems.

**Recommendations** -The banks that do not have Financial health (Gulf Commercial Bank, Al-Atta Bank, Al-Mansour Bank, Baghdad Bank, International Development Bank, and Region Trade Bank) must rely on a balanced financing mixture that depends basically on financing with ordinary shares (equity) to improve their financial health.

**Keywords**

**Financial Structure, Financial Health, Balanced Financing Mixture, Expected Bankruptcy.**

# دور موازنة هيكل التمويل في ضمان الصحة المالية للمصرف الواقية- دراسة تحليلية لعينة من المصارف المدرجة في سوق الوراق لأوراق المالية للمدة (٢٠١٥-٢٠٢٠)

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### المستخلص

**الغرض:** يهدف البحث إلى معرفة دور موازنة هيكل التمويل في ضمان الصحة المالية للمصرف الواقية.  
**التصميم / المنهجية / المدخل -**الدراسة الحالية عبارة عن دراسة تحليلية، وتستخدم الورقة مؤشرات (مقاييس)  
مختلفة لهيكل التمويل، تتمثل في التمويل بالأسهم العادية، والتمويل بالأرباح المحتخزة، والتمويل بالديون،  
والتمويل بالودائع. كما تم استخدام مقاييس صافي الموجودات المتداولة ، وتوظيف الأرباح المتراكمة ، والقوة  
الإنتاجية الحقيقية وقيمة الإفلاس المتوقعة كمقاييس للصحة المالية وتم جمع البيانات من ٢٠ مصرفاً مدرجاً  
في سوق الوراق لأوراق المالية كعينة للدراسة من أصل ٤٤ مصرفاً للقوة من ٢٠١٥ إلى ٢٠٢٠ ، كما  
اعتمدت الدراسة فرضيات مالية تمثلت الفرضية المالية الأولى (( بان المصرف عينة الدراسة تعتمد في  
عملياتها التشغيلية على هيكل تمويلية متوازنة)) اما الفرضية الثانية تنص على أن ((المصرف عينة  
الدراسة تتمتع بأنظمة صحة مالية تجنبها المشاكل المالية المختلفة في المستقبل))، اما الفرضية الاحصائية  
تنص على انه (( توجد علاقة تأثير ذات دلالة معنوية بين الموازنة لهيكل التمويل وضمان الصحة المالية))  
**الاستنتاجات-**توصلت الدراسة إلى أنه ليست جميع المصارف الواقية لديها أنظمة مالية صحية.  
**التوصيات-**أوصت الدراسة بأن تعتمد المصارف التي لا تتمتع بصحة مالية والمتمثلة ب (مصرف الخليج،  
ومصرف العطاء، ومصرف المنصور، ومصرف بغداد، ومصرف التنمية النولي، ومصرف الاقليم التجري)  
على مزيج تمويلي متوازن يعتمد بشكل أساسي على التمويل بالأسهم العادية من أجل تحسين صحتهم المالية.

### الكلمات المفتاحية

هيكل التمويل، الصحة المالية، مزيج تمويلي متوازن، الافلاس المتوقع.



## 1. INTRODUCTION:

Represents the topic of financing structure is of the topics that occupy the interest of a great deal of the researchers as it is an important source of financing the activities of the banking sector. This interest has increased recently because it is a double-edged sword as it can be a factor in the success or failure of the bank. The financial structure in the financial statements is represented on the left side of the balance sheet as it includes ownership rights (internal financing) and short and long-term liabilities (external financing).

In the modern trends to manage and reduce financial risks, banks seek to achieve a balance between internal and external sources and reach the optimal level of financing that helps to make the right decisions to achieve the maximum amount of profits in return for the minimum amount of risks and thus enhance the bank performance, which has become what is known as the financial health. Hence, working on balancing the financial structure and reaching the optimum level of it avoids falling into risks, avoiding exposure to any financial crisis, and maintaining financial health.

The term (financial health) refers to the bank's financial situation, which helps it to overcome crises because achieving financial balance is necessary in times of crisis, yet, it needs more effort and work to overcome feelings of anxiety and deal with the financial situation in a rational manner.

The current study is very important as it helps to identify the sources of financing that affect the financial health of the investigated Iraqi banks and to determine the risks that these banks may be exposed to.

The problem of the current study is one of the important problems to be tackled because the financial structure has an important role in making critical decisions for any financial institution. Which exposes it to financial deterioration or even bankruptcy (regulatory death), so this study came to know the ability of the study sample banks to generate profits and reduce cases of collapse because of financial risks. )) and several sub-questions emerge from it, represented by the size of the impact that balancing the financial structure plays in supporting and promoting the financial health of the study sample banks. Do the study sample banks enjoy a financially healthy situation? Do the banks of the study sample adopt periodic reviews to examine their financial health system? Therefore, this study came for providing some appropriate solutions to avoid such risks and to confront financial imbalances and problems by balancing the sources of funding, which represent a mixture of owned financial and borrowed financing, to reach the optimal combination that helps to achieve financial health.

## 2. LITERATURE REVIEW:

Before addressing the concept of the financial structure, it is necessary to clarify the concept of the capital structure, which represents a part of it; (Mubeen, et al., 2020, p. 5) described it as an external source of funding through which the institution can obtain more money. (Fauziah & Rafiqoh, 2021, p. 17) Shared the same opinion as he



described it as the financial ratio of the institution, which is between long-term debt and capital. Based on the above, the researchers define the capital structure as being the total of long-term debt and ownership rights, it is considered as the permanent financing that is used to finance the assets of the institution, as the capital structure is used to finance long-term assets only, which is what distinguishes it from the financial structure that (Hui, et al., 2017, p. 399) defined as a mixture of capital and debt, but in different proportions. While (Zakaria & Salawa, 2020, p. 1) added to the above by saying that the financing structure is nothing but a mixture of debt and equity that is used by the institution to finance its activities and investments. Thus, it is clear to us that the financial structure is represented on the left side of the balance sheet, through which the assets of the institution are financed, meaning that it includes the total short and long-term liabilities and property rights that are used to finance the activities and projects of the institution. (Bertuah & Budiati, 2020, p. 13), has indicated that the optimal financial structure is the ratio between the value of debt and ownership that can contribute to increasing the institution's share price. The researchers believe that balancing the financial structure of any financial institution can only be done by adopting that harmonious mixture of financial sources in which the cost of financing is at its lowest, and, in return, the value of the institution is at its highest because of its profitable operations.

Many theories dealt with the structure of finance, the most important of these theories is the theory of Modigliani and Miller, when (Brigham & Houston, 2017, p. 474) pointed out that this theory began when (Modigliani & Miller) published their article, which was considered one of the most influential financial articles, and based on some assumptions, such as the absence of taxes or bankruptcy costs. As for the barter theory, (Fabozzi & Peterson, 2003, pp. 617-618) indicated that this theory explained some differences in the financing structure, as it indicated that companies that have a larger percentage of fixed assets tend to have a small percentage of debt in financing their assets, meaning that they do not prefer to bear any debts. While (Setiono, et al., 2017, p. 134) described this theory as a set of debt and ownership rights through which a balance can be achieved between tax benefits on debt and costs in the case of using debt that will be chosen by the management of the institution. The signal theory (Ehrhardt & Brigham, 2011, p. 602) referred to a theory that managers have more information that enables them to predict the free cash flow of the company, compared to investors, this disparity in information between managers and investors is called information asymmetry. As for the agency theory (Bodie, et al., 2013, p. 8) believe that this theory arises due to a conflict of interest between shareholders and managers who have been appointed as their agents and who pursue their interests and goals at the expense of the interests of shareholders. The researchers see that many theories dealt with the structure of financing, each based on assumptions such as the theory of Modigliani and Miller, which assumed the absence of taxes or bankruptcy costs,



indicating the necessity for financing to begin from the most preferred on, that is to say from the internal financing, it also stressed the need to resolve conflicts between owners and managers.

Financial health is one of the modern and important topics in the field of financial management and it is necessary to delve into it to assess the financial situation enjoyed by institutions by identifying the most important concepts related to financial health, as some different definitions and concepts dealt with this topic and occupied the interest of many writers and researchers. (Stefko, et al., 2019, p. 153) Believe that financial aspects are one of the main factors in the process of developing the institution, and knowledge related to financial health can help it thrive in a highly competitive market, while the decline in profits indicates that the institution loses its ability to compete. (Kliestik, et al., 2020, pp. 74-87) indicated that financial health is one of the best indicators of the ability of the institution to grow in the long term and its success in the competitive market, as institutions that have good financial strategies can enjoy a competitive advantage and can help to assess its future development and avoid financial risks. While (Weida, et al., 2020, p. 1) exhibit that financial health is an expression of the institution's ability to manage expenses, prepare for, and recover from financial shocks. (Popa, et al., 2020, p. 2) Expressed it as a term used to describe the economic and financial situation of the institution through its use of modern technologies and mechanisms that would contribute to the development of its services and thus maximize its profitability. (Risley, 2020, p. 298) Believes that achieving effective and advanced budgets is the cornerstone that the institution lays to achieve good financial health for it by developing plans and programs through which employees can know how they can contribute to ensuring the financial health of the institution. referred to financial health that it means the ability of the institution to balance the changing conditions in the environment and all participants in the business, as it reflects its health in financial aspects, including profitability, liquidity, and financial, and that the main source of financial health information is the financial statements of the institution and can be determined using the ratio Solvency (Fachrudin, 2021, p. 24). Based on the foregoing, it can be said that financial health is necessary for any financial institution, as it represents the basis that shows the extent to which the institution can use its resources efficiently, as well as its ability to generate profits with minimal risks.

### 3. Relationship of balancing the financial structure to financial health

The researchers believe that the financial structure is one of the important decisions in the field of financial management, and it has a major role in influencing the level of the institution's performance and the consequent status of its financial health, as it is possible to compare between short-term sources of financing and long-term sources of financing and access to the optimal level of financing that would maximize the wealth



of Shareholders and raise the level of the institution for the better and maintain its sustainability for the longest possible period. That balancing the financing structure has a major role in achieving and ensuring the financial health of the institution, which can only be achieved through the optimal combination that achieves the highest return with the lowest level of risks, as well as through optimal financing that can be Predicting the cases of bankruptcy that the institution may face in the future and knowing the risks (financial health setback) that it may encounter and work to avoid them and avoid slipping in them. Therefore, hypothetically that financial health can be reached by making an optimal synthesis of the financing structure of any institution.

#### 4. DATA AND METHODOLOGY:

The measures tools shown in table (1) will be used for the independent variable (financing structure):

**Table (1) Financing Structure Balance measures**

The measure	Mathematical equation	Reliable sources for determining the measure
Ordinary stocks finance(equity)	$\frac{\text{paid Capital}}{\text{total assets}}$	(Ezeoha, 2011)& (AbuTawahina, 2015) & (Brigham & Houston, 2020)
Retained earnings finance	$\frac{\text{Retained earnings}}{\text{total assets}}$	
Debt finance	$\frac{\text{total liabilities}}{\text{total assets}}$	
Deposit finance	$\frac{\text{deposit}}{\text{Total Liabilities and Equity}}$	

**Source:** Prepared by the researchers based on the sources mentioned therein.

As for the measurement tools used in measuring the dependent variable (financial health), they are clarified in Table (2):

**Table (2) Measures of Financial Health**

The scale	Mathematical equation	Reliable sources for determining the scale
Current Assets Net	$\frac{\text{net working capital}}{\text{total assets}}$	(Bezhanishvili & Henderson, 2009)& (Saunders & Cornett, 2014)& (Sinku & Kumar, 2014) & (Karim, et al., 2021)
Employing the accumulated profits	$\frac{\text{accumulated profits}}{\text{total assets}}$	
Real productive capacity	$\frac{\text{Earnings before interest and tax}}{\text{total assets}}$	



The scale	Mathematical equation	Reliable sources for determining the scale
Expected bankruptcy value	$\frac{\text{equityBook value}}{\text{total liabilities}}$	

**Source:** Prepared by the researchers based on the sources mentioned therein.

It should be noted that the final value of the financial health variable resulting from the above four measures can be reached through the following equation:

$$\text{financial health} = 6.56_A + 3.26_B + 6.72_C + 1.05_D$$

The results of this variable depend on the following standard values:

- 1) If the index value is less than (1.23), it is an indication of the lack of financial health in the institution.
- 2) If the index value is between (1.23) and (2.9), it is an indication of the financial health of the institution, but it is weak and it may be exposed to bankruptcy in the next two years if it is not addressed.
- 3) If the value of the index is greater than (2.9), it is an indication of the existence of financial health in the institution and that it does not suffer from financial problems at present.

##### 5. RESULTS AND DISCUSSION:

This paragraph discusses the financial analysis of the study sample. As it is clear from Table (3), most of the surveyed banks prefer to rely on finances with ordinary shares (equities) to finance their assets, while others prefer to rely on debts. For example, (Trans Iraq) bank achieved the highest percentage of financing by equity (73.65%) compared to the rest of the other sources of financial structure, followed by Sumer bank, which achieved (68.49%), then Elaf bank (65.24%), Al-Mosul Bank (63.19%), as well as the banks of Ashur, Commercial Bank, The United and Al-Credit banks who depend on ordinary shares(equity) to finance their assets, while others preferred to rely on debt finance and deposit finance, for example, the Bank of Baghdad achieved the highest percentage of debt finance, which amounted to approximately (77.60%) compared to other finance structure indicators.



Table (3) Financial Structure indexes

n.	Bank of Name	Ordinary stocks finance	retained earnings finance	debt finance	Deposit finance	Average
1	Ashur BANK	59.93%	1.52%	37.58%	28.64%	31.92%
2	AL-Atta Islamic Bank	44.38%	0.60%	55.50%	27.31%	31.95%
3	Bank of Baghdad	20.47%	1.12%	77.60%	68.51%	41.93%
4	Commercial Bank of Iraq	54.96%	4.20%	37.58%	31.35%	32.02%
5	Credit Bank of Iraq	47.91%	6.59%	41.54%	34.11%	32.54%
6	Elaf Islamic Bank	65.24%	0.83%	32.23%	18.26%	29.14%
7	Gulf Commercial Bank	48.31%	1.61%	49.59%	42.66%	35.54%
8	International development Bank	33.64%	2.01%	63.53%	52.18%	37.84%
9	Investment Bank of Iraq	44.07%	2.08%	51.24%	43.11%	35.13%
10	Iraqi Islamic Bank	45.81%	1.90%	50.65%	31.09%	32.36%
11	Kurdistan International Islamic Bank	35.18%	5.34%	48.85%	36.25%	31.41%
12	AL-Mansour Bank For Investment	19.56%	0.42%	77.45%	74.45%	42.97%
13	Iraqi Middle East Investment Bank	36.71%	19.76%	60.73%	44.88%	40.52%
14	Mosul Bank for Development & Investment	63.19%	0.92%	33.19%	25.08%	30.60%
15	National Bank of Iraq	40.30%	1.81%	55.72%	37.29%	33.78%
16	National Islamic Bank	41.34%	2.00%	53.66%	23.66%	30.17%
17	Region Trade Bank for Investment and Finance	37.87%	2.87%	58.89%	0.45%	25.02%
18	Sumer Commercial Bank	68.49%	2.25%	27.01%	19.90%	29.41%
19	Trans Iraq Bank For Investment	73.65%	0.43%	23.88%	17.60%	28.89%
20	The United Bank	52.83%	0.27%	45.61%	23.98%	30.67%
	Average	46.69%	2.93%	49.10%	34.04%	33.19%

**Source:** Prepared by the researchers based on the annual reports of banks.

Table (4) shows us the percentage of the ownership structure of the banks in the study sample. We note that most of the banks preferred to rely mainly on financing with ordinary shares and then rely on Financial with debts and then deposits and finally relying on self-financing; these banks are (Trans Iraq, Ashur, Commercial Bank, Al-Credit, Elaf, Sumer and The United). The second section of banks preferred relying on



debt finance, then financing with ordinary shares (equity), finance with deposits, and self-financing such as( National, Iraqi Islamic, Al- Investment, Al-Atta, Al-Gulf Commercial, and Al- National Islamic). Some other banks prefer to rely on debt finance and then rely on self-finance, and the last source is relying on deposit finance .Based on the foregoing results of the financial structures financial analysis adopted by the banks within the current study sample, the first main hypothesis which states (that the banks of the study sample depend in their operational actions on balanced financial structures ), is rejected due to their reliance on different combinations of financial structures according to its investment plans and financial policies.

**Table (4) Ownership Structure Rat**

n.	Bank of Name	Ordinary stocks finance	retained earnings finance	debt finance	Deposit finance	total percentage
1	Ashur BANK	46.94%	1.19%	29.44%	22.43%	100%
2	AL-Atta Islamic Bank	34.73%	0.47%	43.43%	21.37%	100%
3	Bank of Baghdad	12.20%	0.67%	46.28%	40.85%	100%
4	Commercial Bank of Iraq	42.91%	3.28%	29.34%	24.48%	100%
5	Credit Bank of Iraq	36.81%	5.06%	31.92%	26.21%	100%
6	Elaf Islamic Bank	55.97%	0.72%	27.65%	15.67%	100%
7	Gulf Commercial Bank	33.98%	1.13%	34.88%	30.01%	100%
8	International development Bank	22.23%	1.33%	41.98%	34.47%	100%
9	Investment Bank of Iraq	31.37%	1.48%	36.47%	30.68%	100%
10	Iraqi Islamic Bank	35.39%	1.47%	39.13%	24.02%	100%
11	Kurdistan International Islamic Bank	28.00%	4.25%	38.89%	28.86%	100%
12	AL-Mansour Bank For Investment	11.38%	0.24%	45.06%	43.31%	100%
13	Iraqi Middle East Investment Bank	22.65%	12.19%	37.47%	27.69%	100%
14	Mosul Bank for Development & Investment	51.63%	0.75%	27.12%	20.50%	100%
15	National Bank of Iraq	29.83%	1.34%	41.24%	27.60%	100%
16	National Islamic Bank	34.26%	1.66%	44.47%	19.61%	100%
17	Region Trade Bank for Investment and Finance	37.84%	2.87%	58.84%	0.45%	100%



n.	Bank of Name	Ordinary stocks finance	retained earnings finance	debt finance	Deposit finance	total percentage
18	Sumer Commercial Bank	58.22%	1.92%	22.96%	16.91%	100%
19	Trans Iraq Bank For Investment	63.73%	0.37%	20.66%	15.23%	100%
20	The United Bank	43.06%	0.22%	37.18%	19.55%	100%
	Average	36.66%	2.13%	36.72%	24.49%	100%

**Source:** Prepared by the researchers based on the annual reports of banks.

Through what was shown by the results of Table (5), the researchers discuss the indicators of the financial health of the sample of the study that was mentioned previously, which is the net current assets, the employment of accumulated profits, the real production capacity, and the expected bankruptcy value. We noticed that most banks (Trans Iraq, Ashur, Commercial Bank, Al- Credit, Elaf, Kurdistan, Al-Mosul, Al- National Islamic, Sumer, and The United) when comparing the results they achieved with the general average of the net assets index of (41.2%), meaning that these banks did not suffer from financial problems about this indicator. With the general rate of employment of accumulated profits of (2.93), it is good in terms of its dependence on this indicator. As for the real productive capacity indicator, we see that each of (Trans Iraq, Al- National, Ashur, Commercial Bank, Region Trade, Al- Iraqi

Islamic, Al- International development, Al- Credit, Elaf, Kurdistan, Kurdistan, and Al- National Islamic) achieved good results in terms of its reliance on this indicator when compared with the general average of the real productive capacity index of (1.53%), as well as the expected bankruptcy value indicator, we found that, (Trans Iraq, Ashur, Al- Credit, Commercial Bank, Elaf and Al-Mosul) when compared with the general average of the expected bankruptcy value Indicator of (1.31%) is good in terms of its dependence on this indicator.



Table (5) Financial Health indexes

n.	Bank of Name	Current Assets Net	Employing the accumulated profits	Real productive capacity	Expected bankruptcy value	Average
1	Ashur BANK	62.11%	1.52%	3.40%	1.72	59.76%
2	AL-Atta Islamic Bank	6.97%	0.60%	0.00%	0.80	21.89%
3	Bank of Baghdad	19.77%	1.12%	1.22%	0.29	12.78%
4	Commercial Bank of Iraq	67.14%	4.20%	2.87%	1.73	61.80%
5	Credit Bank of Iraq	63.71%	6.59%	1.09%	1.45	54.10%
6	Elaf Islamic Bank	56.87%	0.83%	0.65%	2.71	82.34%
7	Gulf Commercial Bank	0.31%	1.61%	0.59%	1.07	27.38%
8	International development Bank	25.57%	2.01%	1.91%	0.58	21.87%
9	Investment Bank of Iraq	38.56%	2.08%	1.29%	0.95	34.23%
10	Iraqi Islamic Bank	40.49%	1.90%	1.85%	1.05	37.31%
11	Kurdistan International Islamic Bank	47.54%	5.34%	2.86%	1.07	40.69%
12	AL-Mansour Bank For Investment	21.48%	0.42%	1.33%	0.29	13.06%
13	Iraqi Middle East Investment Bank	25.72%	19.76%	0.45%	0.65	27.73%
14	Mosul Bank for Development & Investment	47.05%	0.92%	0.76%	2.03	62.93%
15	National Bank of Iraq	37.52%	1.81%	1.84%	0.81	30.54%
16	National Islamic Bank	43.88%	2.00%	2.61%	0.89	34.37%
17	Region Trade Bank for Investment and Finance	29.28%	2.87%	1.86%	0.74	27.00%
18	Sumer Commercial Bank	65.94%	2.25%	0.59%	2.82	87.70%
19	Trans Iraq Bank For Investment	78.09%	0.43%	2.76%	3.40	105.32%
20	The United Bank	42.43%	0.27%	0.71%	1.23	41.60%
	Average	41.02%	2.93%	1.53%	1.31	44.22%

Source: Prepared by the researchers based on the annual reports of banks.



Through what was shown by the results of Table (6), which shows us the level of the financial health of the study sample, we find that most banks have achieved good financial health indicators when compared with the financial health index of (2.9), we find that Trans Iraq bank achieved the highest financial health, which amounted to (8.89). Followed by Sumer Bank, which achieved a financial health index of (7.40), then Elaf Bank, which achieved (6.64), then Commercial Bank, which achieved (6.55), then Ashur Bank, which achieved a financial health index of (6.15), and so on for the rest of the banks except for each of (Al- Gulf Commercial, Al-Mansour, Al International development, Baghdad, Al-Atta and Al-Region Trade) banks. These banks did not achieve financial health because they suffer from financial problems that must be addressed to improve the reality of banking work. Based on the foregoing, the second main hypothesis which states (that the banks in the study sample enjoy financial health systems that avoid various financial problems in the future) is rejected, because some of these five banks were previously mentioned out of the total number of (20) did not achieve the financial health due to financial problems that it suffers from, according to the indicators of financial health. Therefore, it is necessary to pay attention quickly to these indicators and address their weaknesses, and this can be clarified in Figure (1)

**Table (6) Financial Health**

n.	Bank of Name	2015	2016	2017	2018	2019	2020	Average
1	Ashur BANK	5.97	6.73	7.25	5.12	5.83	6.02	6.15
2	AL-Atta Islamic Bank	0.94	0.84	0.98	2.48	1.29	1.38	1.32
3	Bank of Baghdad	2.28	1.71	1.81	1.82	1.13	1.56	1.72
4	Commercial Bank of Iraq	7.72	6.97	6.72	6.63	6.03	5.24	6.55
5	Credit Bank of Iraq	6.14	6.06	6.89	6.40	5.34	5.11	5.99
6	Elaf Islamic Bank	4.37	5.97	6.86	5.18	7.19	10.28	6.64
7	Gulf Commercial Bank	0.86	0.83	1.35	1.32	1.39	1.65	1.23
8	International development Bank	2.66	3.17	2.82	2.54	2.09	1.65	2.49
9	Investment Bank of Iraq	4.52	4.45	4.18	1.10	4.02	3.84	3.69
10	Iraqi Islamic Bank	4.90	5.21	5.04	4.03	2.19	2.30	3.94
11	Kurdistan International Islamic Bank	4.51	5.50	5.35	4.22	4.26	3.79	4.60



n.	Bank of Name	2015	2016	2017	2018	2019	2020	Average
12	AL-Mansour Bank For Investment	2.39	2.10	1.77	1.50	1.42	1.74	1.82
13	Iraqi Middle East Investment Bank	2.67	2.65	2.61	1.88	2.45	6.02	3.05
14	Mosul Bank for Development & Investment	6.46	5.48	5.78	4.76	4.54	4.79	5.30
15	National Bank of Iraq	3.41	3.81	3.63	4.00	3.19	2.92	3.49
16	National Islamic Bank	4.50	4.21	3.25	3.97	4.17	4.23	4.06
17	Region Trade Bank for Investment and Finance	6.63	6.73	1.57	0.63	0.68	1.23	2.91
18	Sumer Commercial Bank	6.99	8.00	6.54	6.08	8.24	8.52	7.40
19	Trans Iraq Bank For Investment	7.55	6.82	9.88	11.11	8.79	9.22	8.89
20	The United Bank	4.56	4.99	4.47	4.69	3.78	2.28	4.13
	Average	4.50	4.61	4.44	3.97	3.90	4.19	4.27

Source: Prepared by the researchers based on the annual reports of banks.

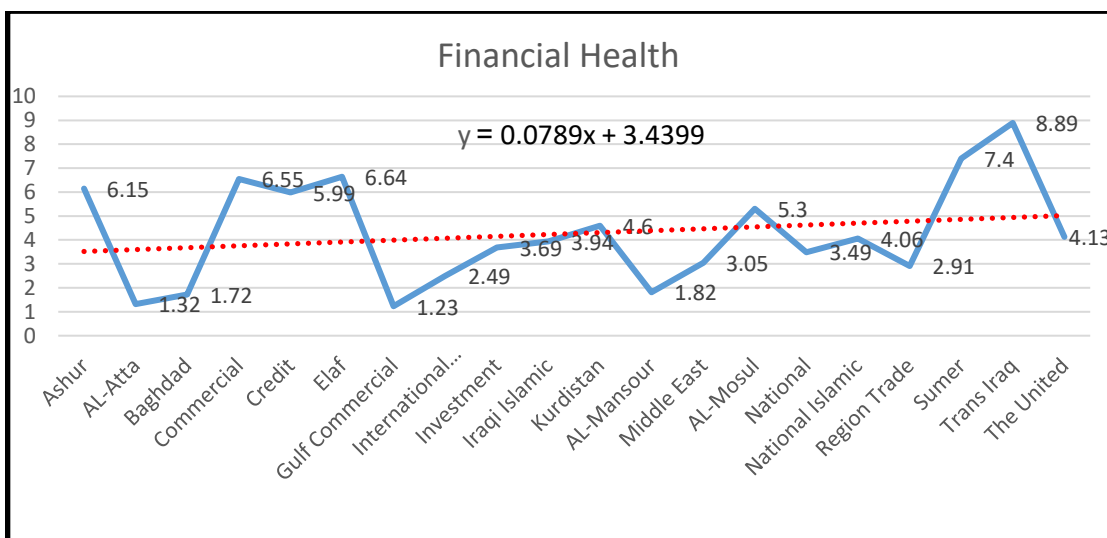


Figure (1) Regression diagram of the average financial health of banks

Preparing the researchers based on the outputs of the Excel program



In the last paragraph of this topic, the statistical hypothesis must be tested and a final decision was taken in light of the results that will appear for the analysis of the data on the sample banks and based on the text of the statistical hypothesis, which indicates the existence of a significant impact related to balance the financial structure on the financial health. For the study sample banks, it is clear to us from Table (7) that the size of the correlation between the independent variable (balancing the financial structure) and the dependent variable (financial health) is (90%), and this is an indication that the correlation is very good between both variables as it is a positive correlation. That is, the more banks rely on balanced financial structures in terms of the exchange between return and risk, the more positively this is reflected in the financial health. In the same table, we note that the coefficient of the determination reached (0.810), meaning that the percentage of interpretation of the budget structure of financing for financial health was (81%) and the remaining percentage is due to other variables not included in the current study.

**Table (7) Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900 <sup>a</sup>	.810	.803	.12767
a. Predictors: (Constant), DE, E, D, S				

**Source:** Prepared by the researchers based on the outputs of the (SPSS) program.

The data of the study was tested through the statistical tool, analysis of variance, and through what was shown in Table (8), the third main hypothesis is accepted, because the value of (Sig > 0.05), that is, there is a significant effect of balancing the financial structure on the financial health of the sample banks. The study and the results of the aforementioned table indicated the significance of the influence relationship resulting from the independent variable represented by balancing the financial structure on the dependent variable represented by financial health.

**Table (8) Analysis of Variance**

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.996	4	1.999	122.625	.000 <sup>b</sup>
	Residual	1.875	115	.016		
	Total	9.870	119			
a. Dependent Variable: Y						
b. Predictors: (Constant), DE, E, D, S						

**Source:** Prepared by the researchers based on the outputs of the (SPSS) program.



The regression line equation for the effect of the independent variable (balancing the financial structure) on the dependent variable (financial health) based on the results of the analysis of the transactions shown in Table (9), written as follows:

$$Y = 0.968 + 0.302X_1 + 0.193X_2 - 1.490X_3 + 0.175X_4 + e$$

**Table (9) Analysis of Transactions**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.968	.297		3.255	.001
	S	.302	.314	.163	.961	.338
	E	.193	.114	.069	1.689	.094
	D	-1.490-	.309	-.812-	-4.826	.000
	DE	.175	.091	.108	1.930	.056

a. Dependent Variable: Y

**Source:** Prepared by the researchers based on the outputs of the (SPSS) program.

## 6. CONCLUSIONS:

Through what was shown by the results of the financial analysis of the study sample, the researcher note the discrepancy in the adoption of the financing method for each bank, which results in a difference in the indicators of financial health, as Trans Iraq bank achieved the highest indicator of financial health compared to other banks, due to its reliance on an optimal financing structure compared to others. From that, we conclude that relying on approved financing structures, financing with ordinary shares (equity), with more than 50%, can reduce banking risks and ensure high financial health. The results of the financial analysis of the study sample showed that some banks from a decline in their financial health, and this is due to the weakness of the supervisory role, which would contribute to the deterioration of the financial situation of banks, which increases the possibility of their exposure to risks. and the results of the statistical analysis showed that the banks of the study sample accepted the third main hypothesis, so we conclude from this that balancing the financing structure resulting from the difference in the combinations of the four sources of financing approved in the current study has a major role in achieving and improving the financial health of the study sample banks.



## 7. RECOMMENDATIONS:

The study recommends the banks that suffer from weakness in their financial health, namely (Al- Gulf Commercial, Al-Atta, Al-Mansour and Baghdad, Al- Region Trade) to depend on a combination of financing structure that depends on financing with ordinary shares (equity) almost completely, and then financing with debts and then deposits and finally financing with retained earnings, due to the ability of this combination to achieve financial health. Banks that are witnessing a state of financial decline must conduct continuous periodic examinations to monitor the progress of their work, as this helps them to address the financial problems they face and thus improve their performance for the better and ensure their financial health. The current study recommends that the health-regressing banks mentioned above should rely on balanced financing structures in financing their assets to increase their financial health and increase their ability to overcome crises that may be exposed to them.

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The author has no conflicts of interest to declare that are relevant to the content of this article

### Availability of data and materials

The datasets generated and/or analyzed during the current study are available in the Figshare repository, <http://www.isx-iq.net/isxportal/portal/uploadedFilesList.html?currLanguage=en>

## References

- AbuTawahina, M. S., 2015. Capital Structure and Firms Financial Performance: Evidence from Palestine, s.l.: s.n.
- Bertuah, E. & Budiati, A., 2020. The Testing Of Empirical Trad Off Theory in Determining Value Of The Firm in Manufacturing Industries Indonesia. International Journal Of Science and Management Studies (IJSMS), 3(3).
- Bezhanishvili , T. & Henderson, S., 2009. Firm's Financial Health And Its Impact On SEO Announcement effects, s.l.: s.n.
- Bodie, Z., Kane, A. & Marcus, A. J., 2013. Essentials Of Investment. 9e ed. s.l.:McGraw-Hill/Lrwin.
- Brigham, E. F. & Houston, J. F., 2017. Fundamentals Of Financial Management. 9e ed. Boston: Cengage Learning.



- Brigham, E. F. & Houston, J. F., 2020. *Fundamentals Of Financial Management*. 10th ed. Bostan: Cengage.
- Ehrhardt, M. c. & Brigham, E. f., 2011. *Financial Management: Theory and Practice*. 13th ed. Mason: South- Western Cengage Learning.
- Ezeoha, A. E., 2011. Firm versus industry financing structures in Nigeria. *African Journal of Economic and Management Studies*, 2(1), pp. 42 - 55.
- Fabozzi, F. J. & Peterson, P. P., 2003. *Financial Management & Analysis*. 2e ed. Canada: John Wiley & Sons.
- Fachrudin, K. A., 2021. Insolvency and financial health prediction model for the listed companies on the Indonesia Stock Exchange. *Indonesian Journal of Accounting and Auditing*, 25(1).
- Fauziah, F. & Rafiqoh, R., 2021. The Role of Profitability, Company Size, Capital Structure, and Liquidity Risk on Firm Value of Indonesian Banks. *Scientific Journal of Management and Accounting*, 4(1), pp. 14-27.
- Hui, X., Li, B. & Li, M., 2017. Entrepreneurial Management Equity Allocation and Financing Structure Optimization of Technology- based Entrepreneurial Firm. *Nankai Business Review International*.
- Karim, R., Shetu, S. A. & Razia, S., 2021. COVID-19, liquidity and financial health: empirical evidence from South Asian economy. *Asian Journal of Economics and Banking*.
- Kliestik, T. et al., 2020. Remaining Financially Healthy And Competitive: The Role Of Financial Predictors. *Journal of Competitiveness*, 12(1), p. 74–92.
- Mubeen, R., Han, D., Abbas, J. & Hussain, I., 2020. The Effects of Market Competition, Capital Structure, and CEO Duality on Firm Performance: A Mediation Analysis by Incorporating The GMM Model Technique. *Sustainability*, 12(3480).
- Popa, C. D. S., Simut, R., Droj, L. & Bente, C. C., 2020. Analyzing Financial Health of the SMES Listed in the AERO Market of Bucharest Stock Exchange Using Principal Component Analysis. *Sustainability*, 12(3726).
- Risley, K., 2020. Strengthening Financial Health Through Professional Development. 26(3).
- Saunders, A. & Cornett, M. M., 2014. *Financial Institutions Management-A Risk Management Approach*. 9e ed. s.l.:s.n.
- Setiono, L., Siregar, H. & Anggraeni, L., 2017. Capital Structure And Working Capital Of PT XYZ And Their Effect On Company Performance. *Journal Of Business And Management Applications*, 3(1).
- Sinku, S. & Kumar, P., 2014. Analysis of Financial Health of Steel Authority of India Limited. *Industrial Engineering Letters*, 4(12).



- Stefko, R., Jencova, S., Vasanicova, P. & Litavcova, E., 2019. An Evaluation Of Financial Health In The Electrical Engineering Industry. Journal of Competitiveness, 11(4), p. 144–160..
- Weida, E. B., Phojanakong, P., Patel, F. & Chilton, M., 2020. Financial health as a measurable social determinant of health. PLoS ONE, 15(5).
- Zakaria, F. & Salawa, D., 2020. Hierarchical Financing And Reality of the Financial Structure of Moroccan Listed Companies. Journal of Modelling in Management.