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## The impact of financial flexibility on financial behavior indicators An applied study in Iraqi industrial companies

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financial flexibility, financial behavior, industrial firms.

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### Abstract:

The research aims to identify the impact of financial flexibility on financial behavior indicators, as It was used A number of indicators for the independent variable financial flexibility (liquidity, net cash flow and indebtedness), and indicators of the financial behavior of the dependent variable (return on equity and owned capital) (The research was applied to Iraqi industrial companies, numbering (25) companies, which are listed in the Securities Commission. (7) companies were chosen as a sample for the research for the period from 2015 - 2021, using a set of methods and programs, including the EXCEL program)) for financial analysis and program(panel data)To test relationship Impact, and after analyzing the research data and testing its hypotheses, a set of results was reached, the most prominent of which is (the existence of a relationship The impact of financial flexibility and financial behavior indicators), as the results of the impact relationship test showed that some hypotheses had a significant impact with financial behavior indicators and others had an impact but it was not significant, as well as the possession of industrial companies of sufficient financial flexibility that enables them to exploit the available opportunities, and based on the results reached by the researcher that I have presented a number. Among the most prominent recommendations is for industrial companies to provide support and attention to financial flexibility indicators, given their importance in strengthening a company's financial position. They should also ensure that liquidity ratios are maintained and kept within acceptable levels, given their importance in enhancing a company's financial flexibility.

## تأثير المرونة المالية في مؤشرات السلوك المالي دراسة تطبيقية في الشركات الصناعية العراقية

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### المستخلص

يهدف البحث إلى تعرّف تأثير المرونة المالية في مؤشرات السلوك المالي، إذ تم استخدام عدد من المؤشرات الخاصة بالمتغير المستقل المرونة المالية وهي (السيولة وصافي التدفق النقدي والمديونية)، ومؤشرات السلوك المالي المتغير التابع (العائد على السهم ورأس المال الممتلك)، وطُبّق البحث على الشركات الصناعية العراقية البالغة (25) شركة وهي مدرجة في هيئة الأوراق المالية إذ تم اختيار (7) شركات كعينة للبحث للمدة من 2015 – 2021، باستعمال مجموعة من الطرائق والبرامج منها برنامج ((EXCEL)) للتحليل المالي وبرنامج (panel data) لاختبار علاقة التأثير، وبعد تحليل بيانات البحث واختبار فرضياته تم الوصول إلى مجموعة من النتائج أبرزها (وجود علاقة تأثير بين المرونة المالية ومؤشرات السلوك المالي)، إذ أوضحت نتائج اختبار علاقة التأثير أنّ بعض الفرضيات كان لها تأثير معنوي مع مؤشرات السلوك المالي وبعضها الآخر كان له تأثير لكنه غير معنوي، وكذلك امتلاك الشركات الصناعية المرونة المالية الكافية التي تمكنها من استغلال الفرص المتاحة، وبالاستناد إلى النتائج التي توصل إليها الباحثان قُدمت عدداً من التوصيات أبرزها قيام الشركات الصناعية بتقديم الدعم والاهتمام لمؤشرات المرونة المالية لما لها من أهمية في تعزيز موقف الشركة المالي، والحرص على الاحتفاظ بنسب سيولة جيدة والعمل على جعلها ضمن المستوى المقبول لما لذلك من أهمية في تعزيز مرونة الشركة المالية.

**الكلمات المفتاحية:** المرونة المالية، السلوك المالي، الشركات الصناعية.

### Introduction:

It is considered Financial flexibility is the degree to which a company can mobilize financial resources towards interactive activities to maximize its value. It allows business units to take advantage of unexpected opportunities and can continue their activities and survive during times when cash flows from operations are low and possibly negative. On the other hand, investors always operate based on the information contained in financial statements, market conditions, and the degree of risk to which their investments are exposed. Because of these risks, they shape the expected return. Therefore, the financial behavior they follow is linked to the degree of flexibility they possess, which enables them to confront unexpected events. The quest to understand what drives financial behavior is of utmost importance, especially in light of the emergence of financial crises and the many challenges they face. The research was divided into four axes. The first axis included the research methodology, while the second axis included the theoretical framework for the research variables. The third axis included the

analytical aspect of the research variables, while the fourth axis included the conclusions and recommendations.

### **Research Problem**

Many Iraqi industrial companies face many difficulties that affect their financial behavior in one way or another., Perhaps the most important of these difficulties is the variation in the annual profit rate and the difficulty of obtaining the financial resources that achieve it, and this is what the financial statements showed. In the face of this turbulent and unstable situation, companies that wish to survive within this environment must be more flexible in their organizational and financial structure. To face challenges, seize opportunities when they arise and avoid any financial distress, From here The main research problem can be formulated as (What is the impact of financial flexibility on the financial behavior indicators of Iraqi industrial companies for the period 2015-2021) And several sub-questions branch out from it, which are:

1. What is the level of financial flexibility in the industrial companies studied?
2. Is there a relationship between financial flexibility and financial behavior indicators in the industrial companies studied?
3. Does financial flexibility have an impact on financial behavior indicators in the industrial companies studied?

### **Objectives:**

1. To identify the level of flexibility enjoyed by the industrial companies studied.
2. Testing the relationship between financial flexibility and financial behavior indicators in the industrial companies studied.
3. To know the extent to which financial flexibility affects financial behavior indicators.
4. Enriching the theoretical aspect of the research variables, namely financial flexibility and financial behavior.

The importance of research.

1. The importance of the research variables, as it focused on modern variables in the field of financial management, namely financial flexibility and financial behavior, in order to employ them in the study of Iraqi industrial companies.
2. Highlighting the impact of financial flexibility in enhancing the financial behavior of the companies studied.
3. Clarifying the relationship between financial flexibility and financial behavior indicators of the companies studied.

## Hypotheses

The research is based on a main hypothesis, which states: “There is a significant influence relationship between financial flexibility and financial behavior indicators.” Several sub-hypotheses branch out from this, as follows:

- 1- There is a significant relationship between liquidity and return on equity.
- 2- There is a significant relationship between liquidity and equity capital.
- 3- There is a significant relationship between net cash flow and return on equity.
- 4- There is a significant relationship between net cash flow and equity capital.
- 5- There is a significant influence relationship between indebtedness and the return on equity.
- 6- There is a significant relationship between debt and equity capital.

## Research Limits

: The research focuses on financial flexibility as an independent variable and financial behavior as a dependent variable. The spatial boundaries of the research included Iraqi joint-stock companies. The current research relied on analyzing the data available on industrial companies listed in the Securities Commission and on the website. <https://www.isc.gov.iq> The time frame was limited to the period from 2015 to 2021.

## Research Sample:

The research community is represented by Iraqi industrial companies listed on the Securities Commission. The number of companies amounted to (25), as the research sample included (7) industrial companies.

## Literature Review

### Financial Flexibility

Financial flexibility is a contemporary concept that has attracted the attention of many researchers. The growing literature on financial flexibility has begun to explore the impact of cash and debt leverage on various corporate activities. In particular, the recent global financial crisis has created an opportunity for researchers to explore the impact of financial flexibility on various aspects of corporate performance. (Yaris & Alabassi, 2020: 159), Financial flexibility is primarily related to the factors that affect

capital structure decisions. Financial flexibility is the ability of commercial companies to benefit from or address unexpected things in order to access their financing and restructure at low costs to avoid financial distress when facing negative shocks and allows them to finance investment projects and obtain profitable opportunities that will maximize the value of their projects (Al-Shammari & Alyahya, 2021: 3364), and to learn more about financial flexibility, we will review a set of definitions as shown in Table (1) below.

Table (1) Definition of financial flexibility.

Definition of financial flexibility	Researcher's name and year	T
The ease with which a company can finance a cash flow shortfall.	( Fahlenbrach et al., 2021:1)	1
The company's ability to respond effectively to unexpected shocks to its cash flows or investment opportunities.	(Tenget et al., 2021:2)	2

## Financial Flexibility Indicators

Financial flexibility has become an important element in the work of all companies and banks, but measuring it is not easy due to the differences in managers' assessment of expected future growth options. There are a number of indicators that can be used to measure financial flexibility, including:

**Liquidity:** It is the ability to provide cash to meet daily needs as they arise. Therefore, the organization must be able to generate sufficient funds to cover short-term liabilities to become a liquid organization. Liquidity ratios are a set of ratios used to calculate the liquidity position of an entity. These ratios help determine whether the entity will be able to meet financial obligations in the short term. ((dahiyat, 2016:35, In our current research, we will use the current ratio to measure the company's cash flexibility:

**Current Ratio:** It is the liquidity ratio that measures the company's ability to pay its short-term liabilities or those due within one year. (Jihadi et al., 2021:425) It is measured by the following equation:

Current Ratio = Current Assets / Current Liabilities....(1)

Current Ratio = Current Assets / Current Liabilities

**Net cash flow:** Net cash flow is cash that a company does not have to retain or reinvest to generate future cash flows. Net cash flow is generated from operations and other sources such as interest income and asset sales. In other words, cash available to be paid to shareholders. (Yasir & Alabassi, 2020: 1590) It is measured by the following equation:

net cash flow = cash flow / total assets....(2)

Net cash flow = Cash flow / Total assets

**Debt ratio:** It is a percentage of cash that is financed by creditors., It indicates a rise A Company debt to rise The possibility of the company's

inability to fulfill its obligations(Zareet al., 2013:33),The debt index is measured by the following equation:

$$\text{debt ratio} = \text{total liabilities} / \text{total assets}....(3)$$

Debt ratio = Total liabilities / Total assets

### Financial Behavior:

Financial behavior can play a central role in terms of the well-being of individuals, including families and society. From a broader perspective, financial behavior includes broad concepts, including short-term and long-term investment behavior, saving behavior, use of credit, spending behavior, etc.(Rahman et al., 2021:3),This apparent behavior is primarily influenced by an individual's identity, desires, knowledge, and performance. Individuals who demonstrate financial knowledge can carry out financial activity. Seeking to understand what drives financial behavior is crucial, especially given the emergence of financial crises, which generally negatively impact the well-being of individuals.(Mudzingiri et al., 2018:3),To learn more about financial behavior, we will review a set of definitions, as shown in Table (2) below.

Table (2) Definition of financial behavior

Definition of financial behavior	Researcher's name and year	T
Provides a somewhat practical justification for return volatility and explains and predicts sudden market shocks..	(Sharma&Kumar ,2020:10)	1
Behavior tends to be efficient in its use of money, such as budgeting, saving money, controlling spending, investing, and paying obligations on time..	Dwiastanti, 2015:103))	2

### Financial behavior indicators:

**Financial behavior depends on the financial attitude, which is the mental** state towards financial resources, which is reflected in the person's background and environment. There are a number of indicators that can be used to measure financial behavior, including:

1- Investor preferences: This index is measured by a number of sub-indicators, and profitability was chosen as one of the sub-indicators to measure investors' preferences. It is well known that corporate profitability is one of the main concerns of management experts, investors and researchers. Profitability is the most important and reliable indicator of corporate growth, as it provides a broad indication of the companies' ability to raise their income level.(Diohaet al., 2018:16)Profitability can be measured by the following indicator:

A. Earnings per share: It is considered Return onarrowGenerally the most important factor in determining the stock price and the value of the

company (Khanet al., 2014:97)The return on equity can be measured using the following equation:

**Earnings per share = Net profit / Number of common shares**

**Earnings per share = Net profit / number of ordinary shares**

**Investor Behavioral Trends**

**This index is measured by a number of sub-indices. Owned financing was chosen as one of the sub-indices to measure the behavioral trends of investors:**

**A.Owned financing:** Paid-up capital is the amount of money a company receives from its shareholders.andIt is generally used for long-term financing and has a significant impact on the business.The company (Padgaonkar&Gunjal,2021:153), andThis can be measured.ratioBy the following equation:

**Equity ratio = Equity / Total assets**

**Owned capital ratio = owned capital / total assets**

## Results and Discussion:

Financial analysis is one of the main tools that enable the company to identify and determine the areas of deficiency in its financial performance and to carry out correction in a timely manner. There are many situations in which action can only be taken by conducting a financial analysis, which varies from one case to another, to obtain the correct information that enables appropriate decisions to be made. The practical framework will address the analysis and measurement of the impact of...flexibility Finance in indicators Financial behavior, by applying it to a sample consisting of (7) Companies Industrial Listed on the Securities Commission, selected based on the availability of its data Annual For a period of (7) years from the year (2015- 2021).

## Analysis of financial flexibility indicators:

### Analysis of the turnover ratio of industrial companies

Table(1)lineage Trading to For companies Industrial sample Search

S D	A V	M A X	M IN	Bagh dad For packa ging	Canadia n Pharmac eutical	Iraqi For manufac turing dates	Iraq i For car pets	Al- Mansour Pharmac eutical	sewi ng Mod ern	Inva ding Bagh dad	ye ars
23. 32	19. 78	67. 48	3.3 8	67.48	32.36	5.11	3.38	14.85	3.96	11:35	201 5
11. 41	9.2 9	34. 25	2.8 4	7.35	34.25	3.55	3.07	10.93	2.84	3.06	201 6
12. 25	10. 22	37. 16	2.8 5	5.9	37.16	2.85	2.94	11.88	4.7	6.13	201 7
6.8 0	7.0 1	21. 73	2.5 2	21.73	7.82	3.64	3.09	2.52	3.35	6.93	201 8



5.6 3	6.7 2	14. 89	1.5 7	14.77	14.89	3.49	3.08	1.57	4.84	4.4	201 9
5.5 0	7.0 8	15. 2	2.9 4	15	15.2	3.9	2.94	3.4	4.52	4.65	202 0
7.2 0	7.3 1	20. 82	0.5 9	13.63	20.82	3.7	3.5	0.59	5.04	3.92	202 1
5.5 0	6.7 2	14. 89	0.5 9	5.9	7.82	2.85	2.94	0.59	2.84	3.06	MI N
18. 59	30. 21	67. 48	3.3 8	67.48	37.16	5.11	3.5	14.85	5.04	11:35	M AX
4.6 6	9.6 3	19. 78	2.3 8	20.83	23.21	3.74	3.14	6.35	4.17	5.77	AV
6.3 3	10: 30	23. 32	0.9 6	21.22	11.37	0.68	0.21	5.81	0.82	2.78	SD

**Source:** Prepared by the researcher that Based on the financial reports available for companies

Trading rates in the year 2015 For all companies as follows: Baghdad Gas Company(11.35)Al-Khayat Company (3.96), Al-Mansour Pharmaceutical Company (14.85), Iraqi Carpets (3.38), Iraqi Dates Manufacturing Company (5.11), Al-Kindi Pharmaceutical Company (32.36), and Baghdad Packaging Company (67.48).While the trading ratios in the year2021For all companies, it was reported as follows: Baghdad Gas Company(3.92)And the sewing company (045) Al-Mansour Pharmaceutical Company.59.0) and Iraqi Carpets (3.5), Iraqi Dates Manufacturing (3.7), Al-Kindi Pharmaceuticals (20.82), and Baghdad Packaging (13.63).The average turnover rateFor all companiesSo it was (9.63)With a standard deviation of (4.66),It turns out that there isTrading rates for all companies increased significantly in the first years, then began to decline.gradually over the yearsThe latter may be attributed to companies' reluctance to invest their money significantly due to the circumstances and conditions that Iraq went through during the period from 2015 onwards, but trading rates returned to normal levels in the last years of 2018. With the rise in the security situation in Iraq, companies are increasingly willing to invest their capital and not hold large amounts of cash. In general, all companies have sufficient liquidity to meet unforeseen circumstances and meet their obligations.

### Analysis Net Cash Flow for Companies Industrial Sample Search



Table (2) net cash flow For companies Industrial sample Search

S D	A V	M A X	M I N	Baghdad For packaging	Canadian Pharmaceutical	Iraqi For manufacturing dates	Iraqi For carpets	Al- Mansour Pharmaceutical	sewing Modern	Inva ding Baghdad	years
18.70	-9.14	11.57	-46.25	-15.91	-0.75	-12.6	-46.25	-0.06	-0.01	11.57	2015
9.38	-6.87	2.94	-24.1	-6	-4.96	-24.1	-1.57	-0.07	2.94	-14.37	2016
10.58	8.30	27.32	-1.4	-0.62	13.69	-1.4	13.78	5.39	27.32	-0.001	2017
13.24	2.65	28.52	-16.12	1.22	-1.62	1.35	0.4	-16.12	28.52	4.83	2018
21.29	-3.18	16.27	-49.72	0.22	4.58	-0.04	-49.72	0.58	5.83	16.27	2019
6.51	4.59	15.06	-3.53	1.34	-3.53	-0.01	8.64	1.44	9.2	15.06	2020
7.98	0.11	16.11	-8.22	1.08	0.17	-0.15	-7.33	-0.84	16.11	-8.22	2021
6.51	-9.14	2.94	-49.72	-15.91	-4.96	-24.1	-49.72	-16.12	-0.01	-14.37	MIN
21.29	8.30	28.52	-1.4	1.34	13.69	1.35	13.78	5.39	28.52	16.27	MAX
12.53	-0.50	16.82	-21.33	-2.66	1.08	-5.27	-11.72	-1.38	12.84	3.59	AV
5.56	6.27	8.86	19.78	6.37	6.33	9.55	25.72	6.81	11.48	11.77	SD

**Source:** Prepared by the researcher that Based on the financial reports available for companies

The percentage reached And net cash flow In the year 2015 For all companies as follows: Baghdad Gas Company (11.57) And the Sewing Company (-0.01), Al-Mansour Pharmaceutical Company (-0.06), the Iraqi Carpet Company (-46.25), the Iraqi Dates Manufacturing Company (-12.6), the Canadian Pharmaceutical Company (-0.75), and Baghdad Packaging Company (-15.91). While the proportions And net cash flow In the year 2021 For all companies, it was reported as follows: Baghdad Gas Company (-8.22) And the sewing company (16.11) and the Mansour Pharmaceutical Company (84.0-) and Iraqi Carpets (-7.33), Iraqi Dates Manufacturing (-0.15), Al-Kindi Pharmaceutical (0.17), and Baghdad

Packaging (1.08).The average rate of the percentage net cash flow For all companies So it was (0.50-)With a standard deviation of (12.53),It is clear that Cash flow ratios were negative for most companies in the early years and then started to rise .gradually over the years The latter may be attributed to the security and economic conditions that Iraq went through during the period from 2015 onwards, but the flow rates have risen again in recent years since 2018. This is due to the security stability in Iraq, and in general, most companies have sufficient cash flows to face unexpected circumstances and meet their obligations.

### Analysis rate indebtedness for companies Industrial Sample Search

Table (3) lineage indebtedness For companies Industrial sample Search

S D	A V	MA X	MI N	Baghd ad For packag ing	Canadian Pharmace utical	Iraqi For manufact uring dates	Iraqi For carp ets	Al- Mansour Pharmace utical	sewin g Mod ern	Invad ing Bagh dad	yea rs
10. 57	10. 84	28.6 6	0.00 5	0.005	2.2	15.02	28.66	5.71	19.72	4.61	2015
11. 65	14. 39	31.4 9	2.13	3.54	2.13	18.7	31.49	7.57	27.43	9.93	2016
11. 82	13. 01	33.1 5	2.03	4.61	2.03	23.26	33.15	5.88	17.34	4.83	2017
11. 29	16. 15	31.6 2	1.15	1.15	9.57	20.04	31.62	19.44	26.39	4.9	2018
10. 63	15. 42	31.7 7	1.68	1.68	4.81	21.4	31.77	20.69	18.33	9.26	2019
10. 73	13. 88	33.2 7	1.61	1.61	4.83	19.69	33.27	9.04	17.94	10.82	2020
9.3 4	12. 32	27.9 7	1.74	1.74	3.61	20.5	27.97	7.99	13.97	10.5	2021
9.3 4	10. 84	27.9 7	0.00 5	0.005	2.03	15.02	27.97	5.71	13.97	4.61	MIN
11. 82	16. 15	33.2 7	2.13	4.61	9.57	23.26	33.27	20.69	27.43	10.82	MA X
10. 86	13. 72	31.1 3	1.47	2.04	4.16	19.80	31.13	10.90	20.16	7.83	AV
0.8 3	10. 86	2.06	0.72	1.53	2.67	2.55	2.06	6.37	4.93	2.90	SD

**Source:** Prepared by the researcherthatBased on the financial reports available for companies

The percentage reached And indebtedness In the year2015For all companies as follows: Baghdad Gas Company(4.61)And the sewing company (19.72) and the Mansour Pharmaceutical Company (71.5) Iraqi Carpets (28.66), Iraqi Dates Manufacturing (15.02), Al-Kindi Pharmaceuticals (2.2), and Baghdad Packaging (0.005).While the proportions And indebtedness In the year2021For all companies, it was reported as follows: Baghdad Gas Company(10.5)And the sewing company (9713) Al-Mansour Pharmaceutical Company.99.7) Iraqi Carpets (27.97), Iraqi Dates Manufacturing (20.5), Al-Kindi Pharmaceuticals (3.61), and Baghdad Packaging (1.74).The average rate of the percentage indebtedness For all companies So it was (13.72)With a standard deviation of (10.86),It is clear that Debt ratios are not high for most companies in the early years and then they start to rise. Gradually over the years The latter may be attributed to companies' reluctance to borrow significantly due to the security and

economic conditions that Iraq experienced during the period from 2015 onwards, but debt ratios have risen again in recent years since 2018. And the rise and desire of companies to expand their activities as a result of the security stability that Iraq is witnessing, and in general the debt ratios of all companies are within the normal level and the companies do not depend Dheavily on debt to finance its activities.

### Analysis Of Financial Behavior Indicators:

#### Analysis an average Return on arrow For companies Industrial

table(4)an average Return on arrow For companies Industrial sample

Search

S D	A V	M A X	M IN	Bagh dad For pack aging	Canadia n Pharma ceutical	Iraqi For manufa cturing dates	Ira qi For car pets	Al- Mansou r Pharma ceutical	sewi ng Mo der n	Inva ding Bag hda d	ye ar s
13. 09	7.4 7	27. 9	- 7.8 1	-7.81	0.81	-5.52	9.83	7	27.9	20.1	201 5
11. 71	5.1 6	25. 2	- 11. 55	0.4	0.74	-11.55	9.32	-0.34	12.4	25.2	201 6
15. 38	9.7	36. 4	- 10. 53	0.2	5.3	-10.53	12.9 3	2.6	36.4	21	201 7
22. 02	10. 94	50. 3	- 18. 55	1.6	1.15	-18.55	16.3 9	1.2	50.3	24.5	201 8
22. 61	11. 08	33. 2	- 30. 31	1.7	14.15	0.46	29.7 8	-30.31	33.2	28.6	201 9
18. 26	13. 22	38. 69	- 4.4 3	0.64	0.33	0.04	22.8	-4.43	38.69	34.49	202 0
13. 13	9.0 3	27. 39	- 3.8 8	0.77	0.25	0.03	27.3 9	-3.88	12.6	26.11	202 1
11. 71	5.1 6	25. 2	- 30. 31	-7.81	0.25	-18.55	9.32	-30.31	12.4	20.1	MI N
22. 61	13. 22	50. 3	- 3.8 8	1.7	14.15	0.46	29.7 8	7	50.3	34.49	M AX
16. 60	9.5 1	34. 15	- 12. 43	-0.35	3.24	-6.51	18.3 4	-4.02	30.21	25.71	AV
4.4 3	2.6 3	8.6 8	9:3 0	3.33	5.11	7.32	8.36	12.22	13.87	4.84	SD

**Source:** Prepared by the researcherthatBased on the financial reports available for companies

He reached an average Earnings per shareIn the year2015For all companies as follows: Baghdad Gas Company(20.1)Sewing Company (27.9), Al-

Mansour Pharmaceutical Company (7), Iraqi Carpets (9.83), Iraqi Dates Manufacturing Company (-5.52), Al-Kindi Pharmaceutical Company (0.81), and Baghdad Packaging Company (-7.81). While an average Earnings per share in the year 2021 for all companies, please report as follows: Baghdad Gas Company (26.11) and the sewing company (612) Al-Mansour Pharmaceutical Company (88.3). Iraqi Carpets (27.39), Iraqi Dates Manufacturing (0.03), Al-Kindi Pharmaceuticals (0.25), and Baghdad Packaging (0.77). As for the average rate Earnings per share for all companies so it was (9.51) with a standard deviation of (16.60). It is clear that the return on equity for most companies is positive, indicating that the companies are achieving good profitability rates. This positively impacts investors' psychology, making them feel reassured and preferring to invest in these companies.

**Analysis Equity capital ratio For companies Industrial sample Search:**  
 table(5) rate Owned capital For companies Industrial sample Search

SD	AV	MA X	MI N	Baghd ad For packag ing	Canadian Pharmaceu tical	Iraqi For manufac turing dates	Iraqi For carp ets	Al- Mansour Pharmaceu tical	sewi ng Mod ern	Invadi ng Bagh dad	yea rs
10. 49	89. 09	99. 47	71. 34	99.47	97.8	84.98	71.3 4	94.29	80.28	95.49	201 5
11. 65	85. 60	97. 87	68. 51	96.46	97.87	81.3	68.5 1	92.43	72.57	90.07	201 6
11. 84	87. 01	97. 96	66. 85	95.59	97.96	76.74	66.8 5	94.12	82.66	95.17	201 7
11. 28	83. 85	98. 85	68. 38	98.85	90.43	79.96	68.3 8	80.66	73.61	95.09	201 8
10. 63	84. 57	98. 32	68. 23	98.32	95.19	78.59	68.2 3	79.3	81.63	90.74	201 9
10. 59	85. 78	98. 38	66. 72	98.38	95.17	80.31	66.7 2	88.69	82.05	89.17	202 0
9.5 1	87. 51	98. 25	72. 03	98.25	96.38	78.39	72.0 3	92.01	86.02	89.5	202 1
9.5 1	83. 85	97. 87	66. 72	95.59	90.43	76.74	66.7 2	79.3	72.57	89.17	MI N
11. 84	89. 09	99. 47	71. 34	99.47	97.96	84.98	71.3 4	94.29	82.66	95.49	MA X
11. 18	86. 02	98. 49	68. 66	97.73	95.85	80.31	68.6 6	88.16	78.15	93.31	AV
0.5 9	2.0 8	0.6 6	1.6 3	1.64	3.24	3.10	1.63	7.51	4.70	2.66	SD

**Source:** Prepared by the researcher that Based on the financial reports available for companies

The percentage reached And Owned capital In the year 2015 For all companies as follows: Baghdad Gas Company (95.49) and the sewing company (80.28) and Al-Mansour Pharmaceutical Company (94.29), Iraqi Carpets (71.34), Iraqi Dates Manufacturing Company (84.98), Al-Kindi Pharmaceutical Company (97.8), and Baghdad Packaging Company

(99.47). While the proportions And Owned capital In the year 2021 For all companies, it was reported as follows: Baghdad Gas Company (89.5) And the sewing company (86.02) and Al-Mansour Pharmaceutical Company (92.01) and Iraqi Carpets (72.03) and the Iraqi Dates Manufacturing Company (78.39) and Canadian Pharmaceuticals (96.38) and Baghdad Packaging (98.25). The average rate of the percentage Owned capital For all companies So it was (86.02) With a standard deviation of (11.18). It is clear that Most companies use their equity capital to finance their total assets and are able to provide adequate protection for their investors and manage financial resources against potential risks and losses. This is a positive indicator of investors' perceptions of the importance of equity capital.

### Statistical Analysis:

#### The first model Y1 Earnings per share

##### A- General model estimation results

Dependent Variable: Y1  
 Method: Panel Least Squares  
 Date: 09/21/23 Time: 09:46  
 Sample: 2015 2021  
 Periods included: 7  
 Cross-sections included: 7  
 Total panel (balanced) observations: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.049074	0.147515	0.332673	0.7409
X2	0.387247	0.158804	2.438516	0.0187
X3	0.610073	0.132063	4.619548	0.0000
R-squared	0.147326	Mean dependent var		9.519796
Adjusted R-squared	0.110253	S.D. dependent var		16.18759
S.E. of regression	15.26917	Akaike info criterion		8.348819
Sum squared resid	10724.79	Schwarz criterion		8.464645
Log likelihood	-201.5461	Hannan-Quinn criter.		8.392763
Durbin-Watson stat	0.860203			

The results of the general model estimation show the following:

- 1- presence impact My expulsion of the variable X1 (Liquidity) On the variable Y1 (Earnings per share) D An increase Increasing X1 by 1 leads to increasing the variable Y1 by 0.04, but This is it Impact Not statistically significant at the 0.05 level.
- 2- There is impact My expulsion of the variable X2 (Net cash flow) On the variable Y1 (Earnings per share) ED An increase Increasing X2 by 1 leads to an increase in the variable Y1 by 0.38, as This is it Impact Statistically significant at a level less than 0.05.
- 3- There is impact My expulsion of the variable X3 (indebtedness) On the variable Y1 (Earnings per share) D An increase Increasing X3 by 1 leads to

an increase in the variable Y1 by 0.61, as A This is it Impact Statistically significant at a level less than 0.05.

## B- Results of estimating the fixed effects model

Dependent Variable: Y1  
 Method: Panel EGLS (Period weights)  
 Date: 09/21/23 Time: 09:52  
 Sample: 2015 2021  
 Periods included: 7  
 Cross-sections included: 7  
 Total panel (balanced) observations: 49  
 Linear estimation after one-step weighting matrix  
 White cross-section (period cluster) standard errors & covariance (d.f. corrected)  
 WARNING: estimated coefficient covariance matrix is of reduced rank  
 Standard error and t-statistic probabilities adjusted for clustering

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.857165	3.650710	1.878310	0.1094
X1	-0.207050	0.064988	-3.185970	0.0189
X2	0.427552	0.135009	3.166845	0.0194
X3	0.355133	0.220719	1.608981	0.1587
Effects Specification				
Period fixed (dummy variables)				
Weighted Statistics				
R-squared	0.282114	Mean dependent var	10.42826	
Adjusted R-squared	0.116448	S.D. dependent var	17.16429	
S.E. of regression	16.18598	Sum squared resid	10217.46	
F-statistic	1.702910	Durbin-Watson stat	0.739031	
Prob(F-statistic)	0.121285			

Estimation results appear Fixed effects model the following:

1- presence impact Inverse of the variableX1(Liquidity)On the variableY1(Return on Equity) D An increase A decrease in X1 by 1 leads to a decrease in the variable Y1 by 0.20, and this also Impact Statistically significant at the 0.05 level.

2- There is impact My expulsion of the variableX2(Net cash flow) On the variableY1(Earnings per share) That's an increase Increasing X2 by 1 leads to an increase in the variable Y1 by 0.42, and this also Impact Statistically significant at a level less than 0.05.

3- There is impact My expulsion of the variableX3(indebtedness)On the variableY1(Earnings per share) D an increase Increasing X3 by 1 leads to increasing the variable Y1 by 0.35, but A This is it Impact Not statistically significant at the 0.05 level.

C- Results of the comparison test between the general model and the fixed effects model

#### Redundant Fixed Effects Tests

Equation: Untitled

Test period fixed effects

Effects Test	Statistic	d.f.	Prob.
Period F	0.333501	(6,39)	0.9151

Show resultsFANhIt is preferable to adopt the general model forAThe test is not significant at the 0.05 level.

#### The modelthe second Y2Owned capital:

##### A- General model estimation results

Dependent Variable: Y2

Method: Panel EGLS (Period weights)

Date: 09/21/23 Time: 09:56

Sample: 2015 2021

Periods included: 7

Cross-sections included: 7

Total panel (balanced) observations: 49

Linear estimation after one-step weighting matrix

Period weights (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	100.0618	0.023223	4308.706	0.0000
X1	-0.003957	0.001241	-3.187311	0.0026
X2	-0.000197	0.000459	-0.428817	0.6701
X3	-1.002166	0.000974	-1029.005	0.0000

#### Weighted Statistics

R-squared	0.999947	Mean dependent var	251.6587
Adjusted R-squared	0.999944	S.D. dependent var	154.5869
S.E. of regression	0.270483	Sum squared resid	3.292257
F-statistic	284544.3	Durbin-Watson stat	1.511090
Prob(F-statistic)	0.000000		

#### Unweighted Statistics

R-squared	0.998689	Mean dependent var	86.20408
Sum squared resid	6.703020	Durbin-Watson stat	1.990308

#### The results of the general model estimation show the following:

1- presence impact Inverse of the variableX1(Liquidity)On the variableY2(owned capital) D An increase X1 by 1 leads EI have a low variableY2 by 0.0039, as A This is it Impact Statistically significant at the 0.05 level.

2- There is impact Inverse of the variableX2(Net cash flow) On the variableY2(owned capital) ED An increase Increasing X2 by 1 leads to increasing the variable Y2 by 0.00019, but A This is it Impact Not statistically significant at the 0.05 level.



3- There is impact Inverse of the variableX3(indebtedness)On the variableY2(owned capital) D An increaseX3 by 1 leads E To increase the variableY2 by 1.00, as AThis is it Impact Statistically significant at a level less than 0.05.

for- Fixed effects model results

Dependent Variable: Y2

Method: Panel EGLS (Cross-section weights)

Date: 09/21/23 Time: 09:57

Sample: 2015 2021

Periods included: 7

Cross-sections included: 7

Total panel (balanced) observations: 49

Linear estimation after one-step weighting matrix

Period weights (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	99.99063	0.036428	2744.889	0.0000
X1	-0.004800	0.001657	-2.897287	0.0061
X2	9.41E-05	0.000301	0.312781	0.7561
X3	-1.001380	0.001881	-532.2503	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.999988	Mean dependent var	474.3264	
Adjusted R-squared	0.999985	S.D. dependent var	355.8298	
S.E. of regression	0.300243	Sum squared resid	3.515682	
F-statistic	349063.7	Durbin-Watson stat	1.645569	
Prob(F-statistic)	0.000000			

Estimation results appear Fixed effects model the following :

1- presence impact Inverse of the variableX1(Liquidity)On the variableY2(owned capital) D An increaseX1 by 1 leads EI have a low variableY2 by 0.0048, as A This is it Impact Statistically significant at the 0.05 level.

2- There is impact Inverse of the variableX2(Net cash flow) On the variableY2(owned capital) ED An increase Increasing X2 by 1 leads to increasing the variable Y2 by 0.000094, but A This is it Impact Not statistically significant at the 0.05 level.

3- There is impact Inverse of the variableX3(indebtedness)On the variableY2(owned capital) D An increaseX3 increasing by 1 leads to an increase in the variable Y2 by 1.00, as A This is it Impact Statistically significant at a level less than 0.05.

C- Results of the comparison test between the general model and the fixed effects model

**Redundant Fixed Effects Tests**  
 Equation: Untitled  
 Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.513753	(6,39)	0.1993

The test shows A It is preferable to adopt the results of the general model for A The test is not meaningful and at a significance level of 0.05.

### Conclusions:

- 1- presence relationship impact Significant Moral between Liquidity and owned capital This Matches with hypothesis Sub-branch Second, while there is no significant impact relationship with the return on the stock, this does not match the first sub-hypothesis.
- 2- There is a significant relationship between net cash flow and return on equity, which is consistent with the third sub-hypothesis, while there is no significant relationship with equity capital, which is not consistent with the fourth sub-hypothesis.
- 3- There is a significant relationship between debt and return on equity, which is consistent with the fifth sub-hypothesis. There is also a significant relationship with equity capital, which is consistent with the sixth sub-hypothesis.
- 4- All companies rely heavily on equity capital to finance their assets, which indicates that companies are less dependent on external debt to conduct their operations.
- 5- Industrial companies have sufficient financial flexibility to enable them to exploit available opportunities.As well as fulfilling its financial obligations.

### Recommendations:

- 1- It is necessary to Industrial companies provide support and attention to financial flexibility indicators due to their importance in strengthening the company's financial position.
- 2- Ensure that liquidity ratios are maintained at acceptable levels, as this is important in enhancing the company's financial flexibility.And fulfill its obligations.
- 3- It is necessary to continuously work on strengthening the company's capital, given its importance in financing the company's activities, as this prompts it to not resort to debt except when necessary.

- 4- The return on equity and equity capital ratios are important indicators of the company's profitability and ownership levels. They are also indicators of investor preferences and trends, as they reflect the company's activity.

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