


EFFECT OF FINANCIAL INDEPENDENCE ON REDUCING RISK OF FINANCIAL FRAGILITY

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 24 March 2023</p> <p>Accepted 20 May 2023</p>	<p>Purpose: This research aims to know and measure the impact of financial independence on financial fragility and to provide an applied knowledge framework that shows the relationship between these variables.</p>
<p>Keywords:</p> <p>Financial Independence; Risks of Financial; Financial Fragility.</p> <div data-bbox="172 954 480 1200" style="text-align: center;">  </div>	<p>Theoretical framework: and the research problem was represented in several questions, such as can financial independence reduce the financial fragility of the research sample companies?; and what is the level of financial independence and financial fragility of these companies?.</p> <p>Design/methodology/approach: Financial and statistical methods were relied on using the (SPSS) and (Excel) software. To answer these questions, test hypotheses and analyze the relationship between independent and dependent variables , several conclusions were reached, the most important of which is financial independence when companies reduce their dependence on debt and increase their dependence on internal resources as a main source of financing. Based on the conclusions, a set of recommendations was reached. The most important of which is the attention to restructuring the sources of financing for companies with high financial fragility, which contributes to increasing financial stability and reducing financial risks to a minimum.</p> <p>Findings: The research was based on a sample consisting of (6) industrial companies listed in the Iraqi Stock Exchange for the period from (2011-2020).</p> <p>Research, Practical & Social implications: The importance of the research lies in the fact that it has exploited the concepts of financial independence as it leads to reducing risks and assisting companies in reducing financial risks and reaching the required levels of performance, growth and continuity in a highly complex, unstable and limited environment, as well as contributing to urging companies to reconsider financial resources, and ways to benefit from it, which contributes to reducing costs and risks and increasing profitability.</p> <p>Originality/value: The importance of the current research is highlighted by delving into very important topics for industrial companies, as the concepts of financial fragility and financial independence are of increasing importance in the current era, especially in light of the competitive environment, high costs and difficulty in obtaining financial resources.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i6.1916</p>

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EFEITO DA INDEPENDÊNCIA FINANCEIRA NA REDUÇÃO DO RISCO DE FRAGILIDADE FINANCEIRA

RESUMO

Objetivo: Esta pesquisa tem como objetivo conhecer e medir o impacto da independência financeira na fragilidade financeira e fornecer uma estrutura de conhecimento aplicado que mostre a relação entre essas variáveis.

Estrutura teórica: o problema da pesquisa foi representado em várias questões, como: a independência financeira pode reduzir a fragilidade financeira das empresas da amostra da pesquisa? e qual é o nível de independência financeira e a fragilidade financeira dessas empresas?

Projeto/metodologia/abordagem: Os métodos financeiros e estatísticos foram baseados no uso dos softwares (SPSS) e (Excel). Para responder a essas perguntas, testar hipóteses e analisar a relação entre as variáveis independentes e dependentes, chegou-se a várias conclusões, a mais importante das quais é que a independência financeira ocorre quando as empresas reduzem sua dependência de dívidas e aumentam sua dependência de recursos internos como principal fonte de financiamento. Com base nas conclusões, chegou-se a um conjunto de recomendações. A mais importante delas é a atenção à reestruturação das fontes de financiamento para empresas com alta fragilidade financeira, o que contribui para aumentar a estabilidade financeira e reduzir ao mínimo os riscos financeiros.

Conclusões: A pesquisa foi baseada em uma amostra composta por (6) empresas industriais listadas na Bolsa de Valores do Iraque para o período de (2011-2020).

Implicações para a pesquisa, práticas e sociais: A importância da pesquisa reside no fato de que ela explorou os conceitos de independência financeira, pois leva à redução de riscos e auxilia as empresas a reduzir os riscos financeiros e a atingir os níveis necessários de desempenho, crescimento e continuidade em um ambiente altamente complexo, instável e limitado, além de contribuir para incentivar as empresas a reconsiderar os recursos financeiros e as formas de se beneficiar deles, o que contribui para reduzir custos e riscos e aumentar a lucratividade.

Originalidade/valor: A importância da presente pesquisa é destacada pelo fato de abordar tópicos muito importantes para as empresas industriais, uma vez que os conceitos de fragilidade financeira e independência financeira são cada vez mais importantes na era atual, especialmente em função do ambiente competitivo, dos altos custos e da dificuldade de obtenção de recursos financeiros.

Palavras-chave: Independência Financeira, Riscos Financeiros, Fragilidade Financeira.

EL EFECTO DE LA INDEPENDENCIA FINANCIERA EN LA REDUCCIÓN DEL RIESGO DE FRAGILIDAD FINANCIERA

RESUMEN

Objetivo: Esta investigación pretende conocer y medir el impacto de la independencia financiera en la fragilidad financiera y proporcionar un marco de conocimiento aplicado que muestre la relación entre estas variables.

Marco teórico: el problema de investigación se representó en varias preguntas, tales como: ¿puede la independencia financiera reducir la fragilidad financiera de las empresas de la muestra de investigación? y ¿cuál es el nivel de independencia financiera y fragilidad financiera de estas empresas?

Diseño/metodología/enfoque: Los métodos financieros y estadísticos se basaron en el uso de los programas informáticos (SPSS) y (Excel). Para responder a estas preguntas, comprobar las hipótesis y analizar la relación entre las variables independientes y dependientes, se llegó a varias conclusiones, la más importante de las cuales es que la independencia financiera se produce cuando las empresas reducen su dependencia de la deuda y aumentan su dependencia de los recursos internos como principal fuente de financiación. A partir de las conclusiones, se llegó a una serie de recomendaciones. La más importante de ellas es prestar atención a la reestructuración de las fuentes de financiación de las empresas con alta fragilidad financiera, lo que contribuye a aumentar la estabilidad financiera y a minimizar los riesgos financieros.

Conclusiones: La investigación se basó en una muestra compuesta por (6) empresas industriales que cotizan en la Bolsa de Valores de Irak para el período de (2011-2020).

Investigación, implicaciones prácticas y sociales: La importancia de la investigación radica en el hecho de que exploró los conceptos de independencia financiera, ya que conduce a la reducción de riesgos y ayuda a las empresas a reducir los riesgos financieros y alcanzar los niveles requeridos de rendimiento, crecimiento y continuidad en un entorno altamente complejo, inestable y restringido, y también ayuda a alentar a las empresas a reconsiderar los recursos financieros y las formas de beneficiarse de ellos, lo que contribuye a reducir los costes y riesgos y aumentar la rentabilidad.

Originalidad/valor: La importancia de esta investigación se destaca por el hecho de que aborda temas muy importantes para las empresas industriales, ya que los conceptos de fragilidad financiera e independencia

financiera son cada vez más importantes en la época actual, especialmente debido al entorno competitivo, los altos costes y la dificultad para obtener recursos financieros.

Palabras clave: Independencia Financiera, Riesgos Financieros, Fragilidad Financiera.

INTRODUCTION

The importance of the current research is highlighted by delving into very important topics for industrial companies, as the concepts of financial fragility and financial independence are of increasing importance in the current era, especially in light of the competitive environment, high costs and difficulty in obtaining financial resources. Reducing financial fragility and the state of financial instability is one of the most important Objectives that companies strive to achieve. As financial independence is a measure of the level of financial Safety of the company, and companies that wish to achieve financial Safety often prefer to choose investments that achieve financial stability in order to reach safety and self-stability, and whenever the level of financial Safety is high, financial independence will also rise, and this means that The company has the ability to achieve its objectives and carry out its work, activities and duties on its own and rely on its available resources without the need for any external party, while financial fragility is the financial instability that is characterized by a high probability of the company's failure to pay its obligations and a decrease in its profitability, and this means that there is weakness or insolvency the company suffers from financial losses as a result of the weakness in its liquidity and the weakness in its ability to repay the debt, so it has been relying on financial independence to eliminate the risks of financial fragility and then financial stability. The state of financial weakness in the company can be confront by applying the concept of financial independence.

And one of the solutions available to confront financial fragility is the application of the concept of financial independence, which leads to companies relying on their own or internal resources that greatly reduce risks and costs and increase the degree of freedom of the company, which is positively reflected on its performance and productivity to face shocks and financial fragmentation, which is presented. Above, this research highlights the role of financial independence in reducing financial fragility in the research sample.

LITERATURE REVIEW

First: Financial Independence: its Concept and Nature: Financial independence measures the company's financial safety level. Companies that want to achieve financial Safety

often prefer to choose investments that achieve financial stability to reach Safety and self-stability. And whenever the level of financial Safety is high, financial independence will also rise (Nguyen & Pham , 2017). Financial independence means that the company can achieve its goals, carry out its work, activities and duties independently and rely on its available resources without needing any external party. On the other hand, you can use financial resources through growth without borrowing. In other words, the company relies on self-financing without resorting to others (Hall, 2012) .

And that financial independence is the state in which arrives a company wishing to cover its daily and basic needs and plan for the future, relying on its own resources, to face external threats, As the focus has been on the company's planning with the aim of reaching a state of financial independence to ensure the requirements of growth and achieve Safety, which is its main goal, and that the company achieve income capable of covering its expenses and achieving returns that exceed its cost and the possibility of covering growth requirements without relying on financing from external sources, And that the principle of achieving financial independence in making financial decisions related to the company's operations and activities in order to achieve the desired results, and that financial independence gives the company the ability to work and the aim of it is to manage resources independently and to stay away as much as possible from external financing to preserve the company's freedom to make its financial decisions and do its own business and activities (Barry & Mark, 2006) , The researcher believes that financial independence: is the company's ability to rely on its own resources (Self-financing) and not resort to external financing as much as possible to achieve financial Safety, Companies should plan to save their money so that they can remain in the market as a strong competitor based on self-financing and be free to make their financial decisions, business and activities without any outside party interference in their management affairs to face the threats that may expose them to the risks of financial straits and then bankruptcy.

Second : Importance of financial independence :Financial independence is of increasing importance, especially the high cost of financing and the difficulty of obtaining it, in addition to the intensity of competition between companies, (El-Toby, B , Kareem , & Abd, 2022) so the goal of applying the concept of financial independence is to achieve an integrated and harmonious financial policy that enables the company to achieve its goals and financial policies and take its financial decisions in order to reach the allocation of resources and achieve its short and long-term goals, this is within the extent of its available financial capabilities, and objective of financial policy is to achieve the optimum level of cash flow, profitability achieves,

reduce costs to the minimum possible, and try to finance of investment projects without wasting and the company's dependence on its resources. Self-financing (internal) expresses saving profits As retained earnings with reserves, representing the profits of previous years, which are at the company's disposal. As for the reserves, they consist of two types, legal (compulsory) and optional, and the reliance on self-financing through retained earnings, which represents surplus profits and which the company does not distribute to its shareholders, as internal financing achieves many advantages, including reducing costs and increasing the company's freedom in making financial decisions (Moqari & Barber, 2013) . Therefore, the motive behind self-financing is to achieve two main goals: to ensure the company's survival and continuity as a strong competitor in the markets and the purpose of the company's growth and expansion of its business in the future. Therefore, the importance of financial independence of companies includes the following: (Abbas R. A., 2022) .

- a) Financial independence gives the company greater freedom to act and carry out its business and activities away from the pressures of external parties.
- b) It gives the company greater flexibility in obtaining its financial resources, planning and making its own financial decisions.
- c) Financial independence contributes to developing a company's capabilities and optimizing financial resources to reduce costs and increase financial performance efficiency.
- d) Financial independence contributes to facing unexpected external interference.
- e) Financial independence helps achieve returns during economic downturns.
- f) Financial independence frees the company from financial pressures and debt reduction.
- g) Financial independence helps in increasing the financial Safety of the company.
- h) Financial independence enables the company to carry out programs and plans and achieve long-term development.

Third :influential Factors on Financial Independence: Some factors affect financial independence, that is, the more these factors are available in the company, the greater its financial independence, which is (financial Safety - solvency - financial stability - financial sufficiency or abundance - self - independence): (Hemmesaker & Nelfelt, 2018):

- a) **Financial Safety:** The company's ability to achieve continuous profits means that it's business and activities achieve returns that exceed its sufficiency. In other words, financial Safety is achieved when the revenues achieved by the company are higher than

its expenses; that is, the company can achieve profitable cash flows and pay its liabilities without affecting its other business.

b) Financial Stability :Refers to the stability of the main institutions and markets that tend to form the financial system. Financial stability requires (a) the stability of the main institutions in the financial system, meaning that there is a high degree of confidence that they will continue to fulfill their contractual obligations without interruption or external assistance, (b) The stability of the main markets, as the participants can deal in them with confidence and at prices that reflect the basic forces and that do not change significantly within a short period if there are no fundamental changes (Bracons, et al., 2006) .

c) Solvency: The company can meet its financial obligations in the short and long term, meaning that solvency is the ability to pay all the debts of the company (Isa & Mahardika, 2021) . In general, solvency refers to the ability, efficiency, or competence to fully meet the company's obligations on the due date, meaning that the company has sufficient money for meeting its expected obligations (Haddad, et al, 2019) .

d) Self-independence :Means that the company is financially independent, i.e. able to carry out its activities and business without direct interference from any external party; it can take its decisions independently, and its cash flows are a guarantee of its continuation and growth.

e) Financial sufficiency: Financial abundance is a state of balance and the possession of sufficient resources and capabilities, which ensures the continuity of business and activities carried out by the company; that is, the company obtains sufficient cash flows and self-financial resources to capture more available investments without wasting time and effort.

Fourthly :Financial Fragility, its concept and nature: Schroeder pointed out that financial fragility is the financial instability that is characterized by a high probability of a company defaulting on its obligations and low profitability, this is an interesting development in the concept of the relationship between financial fragility and financial instability, and from this standpoint, it is preferable to identify the term "financial fragility" in the context of the Hyman Minsky financial instability hypothesis, which appeared more than 40 years ago (Minsky, 1975); (Schroeder, 2009) ;(Haldane et al., 2004) provided an information-based definition, as financial fragility occurs when shocks to the financial system interfere with the

flow of information so that the financial system is no longer able to do its job of directing money to those who have productive investment opportunities.

(Bracons, et al., 2006) Considering the concept of financial fragility as a combination of the possibility of default and low profitability, the possibility of a company defaulting on its obligations is a major concept of financial fragility. Although often the measures of onset and duration of financial crises depend to a large extent on the events of default, researchers do not believe that the possibility of default for companies, whether individual or the entire industrial sector, is completely sufficient, although the possibility of default in the financial system is certainly a key element in its fragility and stability, the main reason for the possibility of default may not be the result of accidental events or external shocks but a large part of it is determined internally by the risk preferences and strategies of agents involved. Hence, default and profits are not signs of increased fragility but indicate a shift in behavioural patterns.

Financial fragility is defined as the situation that the company's balance sheet is going through so that it is exposed to the risks of its inability to keep pace with the demand for financial resources; this means that there is a weakness or financial straits that the company suffers from as a result of weakness in its liquidity and weakness in its ability to repay the debt (Brunetti et al., 2012), This definition indicated that companies need to maintain liquidity permanently to meet daily obligations and face any liquidity deficit that creates a threat to the continuity of the company and its financial stability, From the point of view of (Chletsos , & Andreas , 2021), they mentioned that financial fragility at the macro level reflects the risks of financial instability, while at the micro level it reflects the failure to fulfill the company's obligations towards others and its dependence on refinancing with debt, (Abd & Kazem, 2022)

Fifth :Causes of Financial Fragility: There are many reasons for the occurrence of financial fragility. emphasized some of these reasons through his evidence of the occurrence of financial fragility that government interventions can either lead to stability or not. That government policy must consider the consequences of financial destabilization through its policies towards the financial system, taxes, credit support, and monetary control. These are considered among the most important reasons the knowledge of financial factors that act as a source or spreader of shocks is not usually translated into effective options to eliminate the causes of destabilizing financial stability, indicating that financial fragility is an inevitable result in the economy, whose main sources cannot be eliminated (Calomiris, 1995) . On the other hand, between (Al-Atwi, 2018) that one of most factors that make the financial system fragile are the external factors, including government legislation. Determining and evaluating their

strengths and weaknesses mitigates the impact of financial fragility on those companies. It was also made clear that the strength of competition has a major role in increasing financial fragility among institutions, institutions of small size and weak competitiveness are exposed to greater risk. Therefore the financial systems cannot compete, so they are more vulnerable to the risks of financial fragility due to their weak capabilities. Financially fragile companies are companies with high indebtedness and whose net worth is very low, which leads to a high risk of their inability to pay their obligations. There is a certain level of debt that may bring the company to a state of bankruptcy when its net value is negative, with a decrease in the right of ownership and a reduction in the level of credit, which leads to an increase in the interest rate and debt service payments (Agliari ,et al 2006); (Gatti, DI Guilmi, Gaffeo, Giulioni, Gallegati, & Palestrini, 2005) .

Sixthly :Stages of Financial Fragility: Financial fragility does not occur suddenly or at once, but rather passes gradually in several stages to reach the stage of financial fragility, and then it is necessary to know the occurrence of those stages to follow up on fragility in its early stages and eliminate it before it becomes in the final critical stages, which may be difficult to solve, therefore, ignoring the symptoms and manifestations of financial fragility on the part of concerned authorities leads to the difficulty and seriousness of results and the impossibility of treatment, the stages that lead to the occurrence of fragility in the financial systems can be identified as follows: (Al-Jubouri, 2017) .

a) *First stage: lack of cash liquidity*: this stage begins when the company enters into investments for certain assets that may be slow in movement or enter unplanned commitments to finance investments that do not achieve quick returns or have low returns, which causes an additional burden on the company, and in this situation does not require suspending the institution from carrying out its activities as long as it can pay some of its obligations (Rihan, 2007) , then sudden problems appear at this stage, which requires uncalculated spending that drains the company's liquidity, or other obligations may be generated that may devour a large part of the cash surplus or as a result of largest customers being exposed to bankruptcy, which is reflected on the company's ability to collect its debt (Al-Sultan, 2021) .

b) *Second stage: working capital deficit*: drawing a sound working capital policy is very important. Determining the main components of working capital that companies will retain will affect future returns and risks (Kalash , 2010) . The indicators of this stage begin with a decline in the company's ability to achieve commensurate returns

with the volume of invested funds. Where there is a decrease in the revenue power of those funds, with an increase in reliance on loans as a source to support cash balances and provide financial liquidity, and this stage is linked to the company's deficit and its inability to meet its current obligations and is in dire need of cash.

c) *Third stage: temporary financial straits*: This stage arises when companies are going through a severe liquidity crisis related to the generation of positive cash flows from their activities (Al-Zubaidi & Al-Jazrawi, 1998) , it is considered one of the negative indicators that is one of the signs of the last stage, "the stage of financial fragility." The most characteristic of this stage is the company's inability to use its approved policies to obtain the cash necessary to use it in the face of its obligations on their due date and the inability to convert part of its assets into cash to pay the obligations that are due. As a result, pay it at the appropriate time or implement the required growth rates, and as planned, the company's financing structure begins to falter.

d) *Fourth stage: Financial fragility*: This stage is characterized when the market value for the company's assets becomes less than its total liabilities, and the company enters the stage of deficit and inability to pay its due short and long-term obligations on time, this leads in most cases to the company's bankruptcy, and accordingly, the financial fragility results in the current and long-term liabilities being higher than the total assets, which results in large cumulative losses from the total funds invested in the company.

seventh :Risks of Financial Fragility: The potential risks of financial fragility arise from a group of internal factors in the financial system or a group of external factors in the macro economy, and it consists of two types (Schinasi, 2005) :

a) *Internal risks*: These potential risks arise from one of the three basic elements of the financial system, which are *institutions* (including credit and operational risks), *financial markets* (including counterparty risks) and *infrastructure* (including legal, regulatory, accounting and control aspects).

b) *External risks*: The risks of financial fragility may arise with problems from outside the financial system .Financial stability is sensitive to political and economic fluctuations, such as natural disasters, political developments, and fluctuations in oil prices, sudden shifts in dealers' market trends, suspension of sovereign debt payments, or the collapse of major international companies. It leads to the destabilization of

confidence in the markets. The other external source of financial fragility is economic turmoil which may generate an imbalance that affects the entire financial system.

Eighth :Indicators or Measures of Financial Fragility: The Minsky fragility index was relied upon as an indicator to measure the level of financial fragility, according to the first person who invented this measure, Hyman Minsky, an American economist, The level of financial fragility of any company within this indicator can be classified into three measures (1) *hedging financing* (2) *speculative financing* (3) *Ponzi financing* to measure the level of financial fragility of companies (Hussain, et al .,2020) as follows:

- a) Hedge financing: hedge financing means that the company is expected to be able to pay its obligations through the net cash flow generated from its operations and activities, even if the company's indebtedness is high, and this is the best measure.
- b) Speculative financing: in speculative financing, the sources of net cash flows and cash reserves in the company are expected to be low, so the company resorts to borrowing from others or selling some of its less liquid assets to pay off its obligations.
- c) Ponzi financing: in Ponzi financing, the company is not expected to generate sufficient net cash flows from its operations and activities and does not have sufficient cash reserves to meet the needs of its capital or existing financial investments, that is, Ponzi financing involves an increasing and expected need to refinance the company's operations due to its unpaid liabilities or an expected liquidation of its assets at high prices, and companies dependent on this type of financing are severely exposed to their inability to debt.

MATERIALS AND METHODOLOGY

Through the foregoing, the research problem can be formulated with the following questions: Can financial independence limit the risks of financial fragility in the industrial companies listed in the Iraq Stock Exchange, and the main objective is to highlight the role that financial independence plays in reducing the risks of financial fragility for the research sample companies. The research methodology is the main condition for scientific research, and it is a coherent and sequential process with systematic steps as follows:

1. Research Problem: Industrial companies listed in the Iraqi Stock Exchange are affected by environmental changes, whether economic, political or social changes, which cast a shadow on the activities of these companies and their sustainability and continuity in work. In addition, these companies suffer from internal problems, from the

difficulty of competing with international companies or the difficulty of obtaining financial resources. All of this led to the weakness and financial instability of these companies. Based on all these data, it became clear that companies should focus on a set of decisions, visions and strategic goals which enable them to face challenges and crises to confront financial fragility and financial instability. Financial fragility is one of the most important challenges facing companies at present. The state of financial weakness and financial fragmentation in the company can be faced by applying the concept of financial independence. One of the solutions available to confront financial fragility is the application of the concept of Financial independence, which leads companies to rely on their own or internal resources, which greatly reduces risks and costs and increases The degree of freedom of the company, which reflects positively on its performance and productivity to face shocks and financial fragmentation. The above confirms this research shedding light on the role of financial independence in reducing financial fragility in the research sample and through the previous, the research problem can be formulated with the following questions:

- a) Can financial independence reduce the risks of financial fragility in industrial companies listed on the Iraqi Stock Exchange?
- b) What is the level of financial fragility in the research sample companies?
- c) What is the level of financial independence in the researched companies?

2. Importance of Research: Highlighted the importance of the current research by delving into very important topics for industrial companies, as the concepts of financial fragility and financial independence are of increasing importance in the current era, especially in light of the competitive environment, high costs and difficulty in obtaining financial resources. Reducing financial fragility and instability is one of the most important. The goals that companies strive to achieve. The importance of the research includes the following:

- a) The current research dealt with recent variables that have positively impacted industrial companies' problems and are considered one of the first studies that measure the impact of financial independence on financial fragility.
- b) The current research seeks a theoretical framework around these variables, which helps companies benefit from the concepts of financial independence and financial fragility and solve the problems they suffer in the long run.

- c) The importance of scientific research is highlighted by trying to find some relationship between financial independence and financial fragility.
- d) The research contributes to advancing the reality of companies, whether financial or non-financial and achieving effective and efficient investment of financial resources. Furthermore, it shows the increasing importance of financial independence and its role in reducing financial fragility in companies.
- e) The importance of the research lies in the fact that it has exploited the concepts of financial independence as it leads to reducing risks and assisting companies in reducing financial risks and reaching the required levels of performance, growth and continuity in a highly complex, unstable and limited environment, as well as contributing to urging companies to reconsider financial resources, and ways to benefit from it, which contributes to reducing costs and risks and increasing profitability.
- f) The current research contributes through its scientific attempt to analyze the level of financial fragility and find out the reasons and ways to reduce it, determine the level of financial independence, and indicate its impact on the researched companies.

3. Research Objectives:

- a) Putting an intellectual, theoretical framework for the research variables, which are both financial independence and financial fragility, by relying on the recent financial literature related to this field.
- b) The empirical test is whether there is an effect of financial independence on the financial fragility of the research sample companies.
- c) Highlight the role financial independence plays in reducing the risks of financial fragility for the research sample companies.
- d) Statement of analysis and measurement of the financial independence and fragility level in the research sample companies.

4. The Hypothetical Scheme: Based on the financial literature related to the variables of financial independence and financial fragility that were viewed, a hypothetical scheme can be developed for the current research, as this scheme represents the relationship between the independent variable (financial independence), which is measured through the debt to total assets indicator and the permanent financing indicator (Madume, et al, 2018) equity to total liabilities indicator (Barrena, 2019) ,equity to total assets indicator (Nguyen & Nguyen, 2019)and the dependent variable (financial

fragility) measured by the Minsky fragility indicator which includes (hedge financing, speculation financing, Ponzi financing) (Hussein,et al., 2020)

5. Research hypotheses: Based on the questions of the research problem and its objectives, the following hypotheses were formulated: The main hypothesis is that financial independence indicators have a statistically significant effect on financial fragility. It is subdivided into:

- The first sub-hypothesis: There is a statistically significant effect of the indicator of total debt on total assets in financial fragility.
- Second sub-hypothesis: There is a statistically significant effect of the total indicator ownership on total assets in financial fragility.
- The third sub-hypothesis: There is a statistically significant effect of the indicator of total equity on total liabilities in financial fragility.
- Fourth sub-hypothesis: There is a statistically significant effect of the indicator of permanent financing on financial fragility.

6. The Financial and Statistical Methods Used: In order to test the research hypotheses and achieve its objectives, use several statistical and financial methods, the most important of which are the arithmetic mean and multiple linear regression analysis, as well as the tests of Significance through the use of the EXCEL and SPSS programs (Al-Janabi, 2019). Among the financial methods used in calculating financial independence, are the following indicators:

a) Indicator of Total Debt to Total Assets: This indicator is obtained by dividing the total debt by the total assets, as shown in equation (1) (Madume,et al, 2018):

$$\text{Indicator of Total Debt to Total Assets} = \frac{\text{Total Debt}}{\text{Total Assets}} \dots\dots\dots (1)$$

His indicator represents the extent of the company's ability to pay its obligations, as it shows the level of coverage of its assets with its external funds. Where the smaller this indicator, the creditors' funds, the safer and the result should be equal to or less than (0.50).

b) Indicator of Total Equity to Total Assets: This indicator is obtained by dividing the total ownership right on the total assets, as shown in equation (2):

$$\text{Indicator of Total Equity to Total Assets} = \frac{\text{Total Equity}}{\text{Total Assets}} \dots\dots\dots (2)$$

When this indicator is equal to (0.50) or less, the company is characterized by high financial leverage, meaning the lower this indicator means that the company depends on debt as a source of financing. Then it will be less effective and have higher financial risks. Still, if this indicator is higher than (0.50), it uses most of its funding sources by right of ownership. Therefore its effectiveness is greater, its financial independence is good, and its financial risks are less (Nguyen & Nguyen, 2019).

c) Indicator of Total Equity to Total Liabilities: This indicator can be obtained by dividing the total equity by the total liabilities as shown in equation (3):

$$\text{Indicator of Total Equity to Total Liabilities} = \frac{\text{Total Equity}}{\text{Total Liabilities}} \dots\dots\dots (3)$$

It is said that the company enjoys financial independence when more than half of its assets are from its own money, and this indicator should fall between (0.70-1.50); and this value is considered the most common and it is the optimal value, and this shows the extent to which the company depends on financing itself with its resources, and this indicator is Acceptable with a value of (0.50) or more (Barrena, 2019).

d) Indicator of Perpetual Financing: This indicator can be obtained by dividing the fixed resources on the fixed assets. This indicator is acceptable or positive for the company when its value is equal to or greater than (1), as shown in equation (4).

$$\text{Indicator of Perpetual Financing} = \frac{\text{fixed resources}}{\text{fixed assets}} \dots\dots\dots (4)$$

e) Interest Coverage Indicator: This indicator is considered one of the measures of financial fragility. The Minsky Fragility measure was selected, an indicator that measures the level of financial fragility of companies due to its suitability as a measurement tool in the Iraqi industrial environment for the accuracy of its results. It is an indicator of interest coverage: This indicator is obtained by dividing net income and interest expenses on interest expenses as shown in equation (5) (Filho, et al., 2017).

$$\text{IC} = \frac{\text{Net Income} + \text{Interest Expense}}{\text{Interest Expense}} \dots\dots\dots (5)$$

Table (1): Interest Coverage Indicator

IC= Interest Coverage Indicator	If it is greater than or equal to 4	hedge financing
IC= Interest Coverage Indicator	If it is between 0 to 4	speculative financing
IC= Interest Coverage Indicator	If it is less than 0	Ponzi financing

Source: Prepared by the authors (2023).

7. Community and Research Sample: The research sample consists of (6) industrial companies from a community consisting of (25) industrial companies listed in the Iraqi Stock Exchange for the period from (2011) to (2020). Among the justifications for choosing this sample depending on the size of the market value, companies with a market value above the average were selected as a sample for the research and the continuous availability of their data without interruption during the period of the time series. Table (2) shows some information about industrial companies, the research sample:

Table (2) Industrial companies research sample

NO	Company Name	Code	Market Value	Listing date
1	Baghdad for soft drinks	IBSD	735,933,333,332	2004
2	National Chemical and Plastic Industries	INCP	32,501,250,000	2004
3	Iraqi Dates Manufacturing	IIDP	20,700,000,000	2004
4	Ready-to-wear production	IRMC	18,928,404,000	2004
5	Bicycle Metal Industries	IMIB	12,850,000,000	2004
6	Canadian Vaccines and Veterinary Medicines	IKLV	8,137,800,000	2004

Source: Prepared by the authors (2023).

8. Research Limits: research limits include three types:

- a) Cognitive limits: include financial independence and financial fragility as research variables.
- b) Spatial limits :Includes industrial companies registered in the Iraq Stock Exchange.
- c) Time limits include a 10-year time series from the year (2011-2020).

RESULTS AND DISCUSSION

Financial Analysis for Indicators of Financial Independence and Financial Fragility:

First: Financial Analysis for Indicators of Financial Independence:

1. Indicator of Total Debt to Total Assets :Table (3) shows the financial analysis of the industrial companies' total debt to total assets in the research sample. We can calculate this indicator by dividing the total debt by the total assets according to equation

(1). This indicator shows the extent of the company's ability to cover the external debt, i.e. repayment of what obligations they owe. The lower this indicator, the better the Safety for creditors, and the acceptable indicator for companies to cover the debt is 50%. The industry standard for this indicator is 45% (Al-Amiri, 2001) . The Table shows that the general average of the companies for this indicator is (0.265), that the bicycle industry company achieved the highest average of (0.545). The companies that achieved the highest average from the general average are the National Company for Chemical and Plastic Industries, the production of ready-made clothes and the metal industries for bicycles, which reached (0.333, 0.545, and 0.432) respectively. The lowest average is for Al-Kindi Vaccines Company, as it reached (0.053), which means that the companies close to the industrial standard and the safest are the Ready-made Garments Production Company and the Metal Industries Company for bicycles. At the same time, the rest firms have lower leverage than the industry standard. We also note that the highest average duration is in the year 2020 (0.318), and the lowest average period is in 2017, which amounted to (0.212).

Table (3) Total debt to total assets indicator for industrial companies, research sample

No	Company Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
1	IBSD	0.022	0.038	0.068	0.040	0.045	0.099	0.048	0.049	0.092	0.108	0.061
2	INCP	0.293	0.248	0.251	0.275	0.395	0.439	0.446	0.432	0.297	0.253	0.333
3	IIDP	0.140	0.137	0.106	0.097	0.149	0.186	0.232	0.200	0.214	0.197	0.166
4	IRMC	0.464	0.420	0.500	0.346	0.354	0.177	0.196	0.409	0.735	0.715	0.432
5	IMIB	0.400	0.403	0.494	0.613	0.909	0.685	0.326	0.569	0.464	0.585	0.545
6	IKLV	0.090	0.079	0.057	0.041	0.022	0.022	0.025	0.096	0.048	0.049	0.053
Average of period		0.235	0.221	0.246	0.235	0.312	0.268	0.212	0.292	0.308	0.318	0.265

Source: Prepared by the authors (2023).

2. Indicator of Total Equity to Total Assets :Table (4) shows the financial analysis of the indicator of the total equity to the total assets of the industrial companies in the research sample. This indicator measures the amount of equity owned by the company compared to its total assets. This indicator can be obtained by dividing the total equity by the total assets according to equation(2) . This indicator is used to determine the quality of the company's management of its debt and the financing of its assets requirements. If this indicator is reduced or equal to 50%, it means that the company uses more debt to obtain its assets, and this means that the company has high financial leverage. Then there are significant financial risks that the company may be exposed to.

Conversely, when this indicator is higher than 50%, the company finances its assets with a low debt index and depends on the right of ownership. Then its risks are less, meaning the company depends on debt to finance its assets whenever this indicator is low. Then Its effectiveness is less, its risks are higher, and vice versa (Nguyen & Nguyen, 2019) .

Table (4) shows that the general average of companies for this indicator is (0.782). Al-Kindi Company achieved the highest average, reaching (0.947). The companies that achieved a higher average than the general average are the Baghdad Company for Soft Drinks, the Iraqi Company for the Manufacturing of Dates, and the Company Al-Kindi, as it reached (0.939, 0.834, 0.947), and the lowest average is for the ready-made garments production company, which amounted to (0.568). It means that all companies rely on the right of ownership to finance their assets and do not depend on debt because they have achieved a rate higher than 50%, meaning that all companies are safer (less risky) and more effective. We also note that the highest average for the duration is in 2019, reaching (0.932), and the lowest average for the period is in 2015, which amounted to (0.673).

Table (4) Indicator of total equity to total assets of the research sample companies

No	Company Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
1	IBSD	0.978	0.963	0.932	0.960	0.955	0.900	0.952	0.951	0.907	0.892	0.939
2	INCP	0.707	0.752	0.749	0.725	0.521	0.460	0.554	0.568	1.307	0.371	0.671
3	IIDP	0.860	0.863	0.893	0.903	0.850	0.813	0.767	0.800	0.786	0.803	0.834
4	IRMC	0.536	0.580	0.498	0.655	0.645	0.823	0.805	0.591	0.264	0.285	0.568
5	IMIB	0.599	0.597	0.505	0.387	0.091	0.315	0.674	1.143	1.377	1.658	0.735
6	IKLV	0.910	0.921	0.944	0.958	0.978	0.979	0.975	0.905	0.952	0.951	0.947
Average of period		0.765	0.779	0.754	0.765	0.673	0.715	0.788	0.826	0.932	0.827	0.782

Source: Prepared by the authors (2023).

3. Indicator of Total Equity to Total Liabilities: Table (5) shows the financial analysis for the indicator of the industrial companies' total equity to total liabilities in the research sample. This indicator can be obtained by dividing the equity by total liabilities as in equation (3), and the acceptable ratio for this indicator is equal to or greater than (0.50).), as this indicator shows the extent of the company's dependence on its financial resources in the financing process, and represents the right of ownership as the right of the company's owners (shareholders) in its assets, as the right of ownership can be obtained by subtracting the total liabilities from the company's total assets, so the total liabilities represents the debt owed The company, when this indicator increases, it means that the percentage of financing is less dependent on the borrowed money. It means that

the company has financial independence (depends on its capital). This is the case when this indicator more than half of the assets out of its funds. If this indicator falls between (0.70-1.50) is the most common value (Barrena, 2019) .

Table (5) Indicators of total equity to total liabilities of the research sample companies

No	Company Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
1	IBSD	45.842	25.649	13.706	24.072	21.187	9.072	19.698	19.393	9.804	8.237	19.666
2	INCP	2.409	3.032	2.987	2.635	1.318	1.048	1.244	1.317	4.409	1.467	2.187
3	IIDP	6.125	6.269	8.390	9.305	5.692	4.370	3.313	3.989	3.666	4.079	5.522
4	IRMC	1.157	1.379	0.994	1.895	1.822	4.654	4.114	1.445	0.358	0.398	1.822
5	IMIB	1.495	1.481	1.022	0.631	0.101	0.460	2.070	2.007	2.966	2.835	1.507
6	IKLV	10.116	11.706	16.640	22.770	44.512	46.013	39.197	9.447	19.792	19.725	23.992
Average of period		11.191	8.253	7.290	10.218	12.439	10.936	11.606	6.266	6.833	6.124	9.116

Source: Prepared by the authors (2023).

Table (5) shows that the general average of companies for this indicator is (9.116). Al-Kindi Company achieved the highest average, reaching (23.992) and the companies that achieved an average higher than the general average are both Baghdad Company for Soft Drinks and Al-Kindi Company, which reached respectively (19.666 and 23.992), while the lowest average is for the bicycle company, as it reached (1.507). Thus, all companies rely on the right of ownership to finance their assets and do not depend on debt. Therefore, all companies are safer (less risky) and more effective. But on the other hand, the cost of owned funds will increase, leading to a decrease in returns. We also note that the highest average period is in 2015 (12,439), and the lowest average period is in 2020(6.124) .

4. Indicator of Perpetual Financing : Table (6) shows the financial analysis for the permanent financing indicator, as this indicator reflects the extent to which permanent funds or fixed resources cover companies' fixed assets. Permanent resources are those resources that cover the needs of fixed assets, and fixed assets are long-term assets that the company uses for several years to generate profits, and this percentage can be obtained by dividing the permanent funds on the fixed assets as in equation (4), so this indicator is acceptable or positive for the company when Its value is equal to or greater than (1) at least (Boalem, 1997) . We note from Table (6) that the general average of companies for this indicator is (3.787), and the bicycle company achieved the highest

average as it reached (6.492), and the companies that achieved an average higher than the general average are the Iraqi Company for the manufacture of dates, and the bicycle company, as it reached respectively (4.868 and 6.492), and the lowest average is for Baghdad Soft Drinks Company, as it reached (1.711), which means that all companies have an index higher than (1), meaning that all companies have the ability to finance their fixed assets with permanent resources, as well as We note that the highest average period is in 2012, which amounted to (5.546) and the lowest average period is in 2016 (2.074).

Table (6) Analysis of the Perpetual financing index for industrial companies' research sample

No	Company Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
1	IBSD	1.800	1.898	2.033	1.970	1.988	1.293	1.350	1.441	1.530	1.797	1.711
2	INCP	3.959	5.406	4.685	3.926	2.217	1.946	2.150	2.156	1.315	1.405	2.916
3	IIDP	9.186	7.956	7.994	5.745	3.593	2.401	2.261	2.956	3.112	3.471	4.868
4	IRMC	10.712	11.750	1.438	1.157	1.147	1.157	1.251	1.344	1.470	1.535	3.297
5	IMIB	2.257	3.231	3.438	2.550	0.560	2.039	4.704	10.752	15.130	20.263	6.492
6	IKLV	2.865	3.035	3.604	3.321	3.385	3.605	4.045	3.604	3.360	3.570	3.440
Average of period		5.130	5.546	3.865	3.112	2.148	2.074	2.627	3.709	4.320	5.340	3.787

Source: Prepared by the authors (2023).

Second: Financial Analysis for Indicators of Financial Fragility: Table (7) shows the financial analysis for indicators of financial fragility. There are three indicators to measure the level of financial fragility for any company. The World (Minsky) divided indicators of financial fragility into three levels: hedging financing, speculative financing, or Ponzi financing. This division can be applied to all types of Companies, whether financial or non-financial. Companies that are at the level of hedge financing are companies that can pay their obligations on their due date. Companies at the level of speculation financing are companies that cannot generate sufficient revenues to meet all their obligations on their specified date. As for companies at the level of Ponzi financing, it is somewhat similar to speculative financing, as it is unable to pay all its obligations on its specified date, we note from Table (7) that the general average of companies for this indicator is (14,657), and the Iraqi Company for Dates Manufacturing achieved the highest average, reaching (123.931), and the companies that achieved a higher average than the general average are the Baghdad Company for Soft Drinks and the Iraqi Company for Manufacturing Dates, which amounted respectively (44.937 and 123,931), , and the lowest average is for the bicycle company, as it reached (-92.871), and the companies that achieved the first level (hedge financing) are each of the Baghdad Company for

Soft Drinks, the Iraqi Company for the Manufacturing of Dates, and the Canadi Company because these companies It achieved good net profits, which reflects the low financial fragility of these companies, the companies that achieved the second level (speculative financing) are the ready-made garment production company because the company achieved a low net income, as for the companies that achieved the third level (Ponzi financing) they are all of the National Company For the chemical and plastic industries and the Bicycle Industry Company, which was reflected in the high financial fragility of these companies as a result of the losses they had achieved,we also note that the highest average period is in the year 2011, which amounted to (115,840) as a result of the improvement in the economic situation of the country and the rise in oil prices, and the lowest average period in 2015 was (-41.737) as a result of the deteriorating economic situation of the country and the war against ISIS, and most companies stopped working, which led to great losses.

Table (7) financial fragility analysis for industrial companies, research sample

No	Company Code	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
1	IBSD	7.210	63.194	52.965	41.956	32.170	56.735	40.683	40.755	41.715	71.984	44.937
												Hedge financing
2	INCP	-8.594	-9.699	-2.867	-10.277	-10.317	-4.719	-1.091	3.193	8.912	7.331	-2.813
												Ponzi financing
3	IIDP	673.372	710.265	-8.383	3.100	-24.	-50.449	-22.500	-44.338	1.497	1.020	123.931
												Hedge financing
4	IRMC	1.895	1.121	1.029	-0.097	0.034	1.028	1.573	1.423	1.650	1.238	1.089
												Speculative financing
5	IMIB	-4.039	-141.203	-267.069	-198.905	-250.647	-31.215	-12.119	-13.747	-6.801	-2.963	-92.871
												Ponzi financing
6	IKLV	25.201	29.201	46.883	-3.466	2.336	1.935	8.547	2.673	21.679	1.715	13.670
												Hedge financing
Average of period		115.840	108.813	-29.574	-27.948	-41.737	-4.448	2.516	-1.647	11.442	13.388	14.657

Source: Prepared by the authors (2023)

Testing Research Hypotheses with statistical analysis :The research hypotheses will be tested, as the effect relationships between the research variables are tested, which assumed the first main hypothesis of the existence of a statistically significant effect of indicators of financial independence in financial fragility. Four sub-hypotheses were branched from this main hypothesis. Multiple linear regression analysis was used to test the hypotheses based on the statistics programs (Excel-25) and (SPSS-V.26) through ready-made models for these programs. The research variables will be encoded as follows:

- Total Debt to Total Assets Index = X1
- Index of Total Equity to Total Assets = X2
- Indicators of Total Equity to Total Liabilities = X3
- Perpetual Funding Index = X4
- Financial Fragility Index = Y

Test the Main Hypothesis: (there is a statistically significant effect of indicators of financial independence on financial fragility). Multiple regression was used to test this hypothesis, which means that financial fragility is a function of indicators of financial independence, as shown in the equation below:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$$

To test this hypothesis, four sub-hypotheses have been assumed and will be tested: as the indicators of financial independence are (the indicator of total debt to total assets, the indicator of total equity to total assets, the indicator of total equity to total liabilities and indicator of permanent financing), while indicators of financial fragility They are (hedge financing, speculative financing, Ponzi financing), the (Beta) coefficient was relied on to know the effect on the dependent variable, and the interpretation coefficient (R^2), (T-Test) and (F-Test), and the researcher assumed a level of Significance (0.05) and a confidence level of (95%). , as it is compared to the level of calculated Significance. When the level of calculated Significance is smaller than the level of Significance assumed by the researcher, there is an effect with Significance. Then the alternative hypothesis is accepted, and in the event of the opposite, we reject the alternative hypothesis and accept the null hypothesis. According to the results of multiple linear regression based on the statistical program (SPSSV.26) through the ready-made models for this program as shown in Table (8).

Table (8) results of the multiple linear regression analysis for the research hypotheses

independent variables	dependent variable	Coefficient Beta	Std. (Error)	t-) (Statistic	(Sig)	Make decision
X1	Y	-0.695	127.368	-3.570	0.001	accept of hypothesis
X2	Y	-0.273	103.925	-1.366	0.178	reject of hypothesis
X3	Y	-0.192	1.904	-1.219	0.228	reject of hypothesis
X4	Y	0.440	6.451	2.659	0.010	accept of hypothesis
Constant(C)	202.332	Method: Pooled Least Squares				
R^2	0.251					

F-Statistic	4.598	$Y=202.32 - 0.695X1 - 0.273X2-0.192X3+ 0.440X4$
(Sig)-F	0.003	

Source: Prepared by the authors (2023).

1. *The first sub-hypothesis:* This hypothesis states that (there is a statistically significant effect for the indicator of total debt to total assets in financial fragility), and according to the results of the multiple linear regression analysis, as we note from Table (7) that there is an inverse significant effect, as the value of the effect coefficient for the independent variable reached (-0.695) in the dependent variable for the companies of research sample, when the index of total debt to total assets (X1) increases by one unit, financial fragility will decrease by (-0.695), meaning that the lower the financial fragility, the greater the financial stability, and the standard error reached (127.368), And the calculated t-value amounted to (-3.570) with a significant level of (0.001) which is less than the approved level of Significance (5%), and thus we accept the alternative hypothesis that is consistent with what is expected from the research and reject the null hypothesis (the null hypothesis).

2. *Second sub-hypothesis:* This hypothesis states that (there is a statistically significant effect of the index of total equity to total assets in financial fragility), according to the results of the multiple linear regression analysis, as we note from Table (7) that there is an inverse effect, but it is not significant, as the value of the influence coefficient for the independent variable is (-0.273) independent variable for the companies fo the research sample, when the index of total equity increases to total assets (X2) by one unit , the financial fragility will decrease by (-0.273), meaning that the lower the financial fragility, the greater the financial stability, the standard error reached (103.925), and the calculated t-value amounted to (-1.366) with a significant level of (0.178), which is greater than the approved level (5 %) and thus reject the alternative hypothesis that does not correspond to what is expected from the research and accept the null hypothesis (the null hypothesis).

3. *The third sub-hypothesis:* This hypothesis states that (there is a statistically significant effect of the index of total equity to total liabilities in financial fragility), and according to the results of the multiple linear regression analysis, as we note from Table (7) that there is an insignificant reverse effect, as the value of effect coefficient reached for the independent variable (-0.192) on the dependent variable for the research sample companies. When the index increases of total equity to total liabilities (X3) by one unit, financial fragility will decrease by (-0.192), meaning the lower the financial fragility,

the greater the financial stability, and the standard error is (1.904), and that the calculated t-value amounted to (-1.219) with a significant level of (0.228), which is greater than the approved level of Significance (5%), so we reject the hypothesis that is not consistent with what is expected. We accept the null hypothesis (the null hypothesis).

4. *Fourth sub-hypothesis:* This hypothesis states (there is a statistically significant effect of the permanent financing indicator on financial fragility). According to the results of the multiple linear regression analysis, as we note from Table (8), there is a significant direct effect, as the value of the influence coefficient for the independent variable reached (0.440) in the dependent variable on the research sample companies. Therefore, when the permanent financing index (X4) increases by one unit, financial fragility will increase by (0.440), meaning that the greater the financial fragility, the lower the financial stability, and the standard error reaches (6.451). The calculated t-value amounted to (2.659) with a level of Significance of (0.010), which is less than the approved level of Significance (5%). Thus we accept the alternative hypothesis that corresponds to What is expected from the research, and we reject the null hypothesis (the null hypothesis).

It is clear to us from Table (8). The multiple linear regression equation that the fixed limit coefficient amounted to (202.332), which means that there is a financial fragility index of (202.332) when the indicators of financial independence are equal to (zero), and the coefficient of determination (R^2) was interpreted) Its value is (0.251) of the effects that occur in (financial fragility). These effects are due to the independent variable (financial independence), while the other effects (0.749) are due to other variables that were not included in this model. Therefore, it is considered acceptable when comparing the value of (F) calculated amounting to (4.598) with a tabular value (F) of (2.540), and at a significant level of (0.003) which is less than the assumed significance level (0.05), and then in light of these results accept the main hypothesis that is consistent with the expectations of the research.

CONCLUSIONS

Financial independence is achieved when companies reduce their dependence on debt and increase their dependence on internal resources. The research showed a great variation in the percentages of financial fragility in the research sample companies. Some companies depend on their resources (financially independent) and do not have financial fragility, while

others have high financial fragility. The results showed a significant effect of financial independence on financial fragility. The results showed an inverse effect of the indicator of total debt to total assets on financial fragility. The results showed an inverse effect of the indicator of total equity to total assets on financial fragility. The results showed an inverse effect of the indicator of total equity to total liabilities on financial fragility. The results showed a direct effect of the permanent financing indicator on financial fragility. The researcher recommends that companies rely on their resources (debt reduction), which reduces financial fragility and the risks and threats that companies may face. The researcher recommends that interest companies restructure the sources of financing for companies with high financial fragility to increase financial stability and reduce financial risks to a minimum. The necessity of the research sample companies, in particular, and the industrial sector, in general, is to enhance and increase the interest coverage ratio because of its important role in reducing the risks of financial fragility. The need for industrial companies to maintain high ratios of equity to liabilities and within the ratios that guarantee the enhancement of self-financial resources and reduce dependence on debt, which contributes to enhancing the level of financial independence and reducing financial risks. The surveyed companies should maintain high levels of permanent financing ratios to control their activities, enhancing financial independence and reducing financial fragility. The necessity of allocating other studies concerned with these variables and applying them to other sectors listed in the Iraqi Stock Exchange to obtain broader and clearer results.

REFERENCES

- Abbas, F. H., Abd, W. H., & Kareem, A. D. (2020). The role of the internal auditor in clearing the debit and credit balances of the financial statements to improve performance An analytical study in the Directorate of Agriculture of AlMuthanna from (2016-2020). *PalArch's Journals*, pp. 19(3), 2838-2849.
- Abbas, R. A. (2022). *The Impact of Financial Efficiency in Reducing Financial Fragility" MA Thesis, College of Administration and Economics, University of Kufa*. Iraq: University of Kufa.
- Abd, w. H., Kareem , A. H., & Dakheel, A. k. (2019). Audit Program Proposal for Local Accounts Auditors: Applied Research on a Group of International Auditing Standards. *International Journal of Innovation, Creativity and Change*, pp. Volume 7, Issue 8, pp: 201–221.
- Abd, W. H., & Kazem, D. A. (2022). THE RELATIONSHIP BETWEEN THE BALANCED SCORECARD AND THE COBIT-5 CRITERION IN IMPROVING BANKING PERFORMANCE, AN APPLIED RESEARCH IN A SAMPLE OF COMMERCIAL BANKS

LISTED IN THE IRAQI STOCK EXCHANGE. *World Economics and Finance Bulletin*, pp. 13, 82-91.

Agliari , A., Gatti , D. D., Gallegati M , M., & Lenc. (2006).). *The complex dynamics of financially constrained heterogeneous firms. Journal of Economic Behavior&Organization*, 61(4).

Al-Amiri, M. A. (2001)., "*Financial Management*", *College of Administration and Economics, University of Baghdad*. (1 ed.). IRAQ.

Al-Atwi, M. H. (2018). Using indicators of financing sustainable growth in reducing financial fragility, a comparative study between Iraqi and UAE insurance companies. *Al-Muthanna Journal of Administrative and Economic Sciences*, 8(2), 167 -182.

Ali, R. H., Abd , W. H., & Kareem, A. D. (2022). The role of the Federal Office of Financial Supervision in auditing industrial activity to achieve sustainable development. *World Economics & Finance Bulletin*, pp. 11, 38-48.

Al-Janabi, S. M. (2019). The effect of diversifying the investment portfolio in reducing financial risks, an analytical study in a sample of Iraqi industrial companies. *Al-Muthanna Journal of Administrative and Economic Sciences*, 9(1), 26- 42.

Al-Hassani, W. H., & Al-Jabri, A. J. (2021). A proposed model and program for evaluating banking performance according to the international auditing standard (520) analytical procedures/applied research on a sample of commercial banks listed in the Iraqi Stock Exchange. *Tikrit Journal of Administration and Economics Sciences*, pp. Volume 17, Issue 55 part 2, Pages 60-80.

Al-Jubouri, H. J. (2017). *Using financial flexibility to reduce the fragility of banks, an analytical study in several commercial banks listed in the Iraq Stock Exchange*", a doctoral thesis, *College of Administration and Economics*. University of Kufa.

Al-Sultan, Q. S. (2021). *The extent of the response of working capital management to non-performing assets and its impact on banking fragility, an analytical study of a sample of banks listed in the Iraq Stock Exchange*", his doctoral thesis, *College of Administration and Economic*. University of Al-Qadisiyah.

Al-Zubaidi , H. M., & Al-Jazrawi, I. (1998). *Modern Financial Management* (1 ed.). Amman: Safaa Publishing and Distribution House.

Asogwa, I. E. (2005). Traditional Budgeting in Today's Business Environment. *Journal of Applied Finance & Banking*, pp. 110-120.

Badara, M. (2013). Impact of the Effective internal Control System on the Internal Audit Effectiveness at Local Government Level. *Journal of Social and Development Sciences*, pp. 4(1), 16-23.

Badarna, M. S. (2013). Impact of the Effective internal Control System on the Internal Audit Effectiveness at Local Government Level. . *Journal of Social and Development Sciences*, pp. 16-23.

- Barrena, B. A. (2019). *AYCO'S Financial development through its liquidity, solvency and profitability ratios* (10 ed.). Spain: CUNEF.
- Barry, M., & Mark, M. (2006). *Barry, McNulty & Mark, McNulty, (2006), the Canadian small business owners guide to financial independence, A comprehensive retirement and succession planning guide form professionals and small business owners*. USA: Insomniac Press.
- Bracons, O. A., Goodhart, C. A., Tsomocos, D. P., & Zicchino, L. (2006). *Towards a Measure of Financial Fragility*. Discussion Paper 554.
- Bracons, O. A., Goodhart, C. A., Tsomocos, D. P., & Zicchino, L. (2006). *Towards a Measure of Financial Fragility", DISCUSSION PAP Towards a Measure of Financial Fragility", DISCUSSION PAPER 554*. Discussion Paper.
- Braiotta, L. (2010). *The Audit Committee, Handbook, Fifth edition* , . Library of Congress Cataloging.
- Brunetti , M., Giarda , E., & Torricelli, C. (2012). *Is financial fragility a matter of illiquidity. An appraisal for Italian households"*, *Working Papers No, 242*.
- Calomiris, C. W. (1995). Financial Fragility: Issues and Policy Implications. *Journal of Financial Services Research*, 9, 241-257.
- Chletsos , M., & Andreas , S. (2021). "The effect of financial fragility on employment", Elsevier B.V. *ELSEVIER*, 94, 104- 120.
- Daujotaitė, D., & Mačerinskienė, I. (2008, 5 16-17). DEVELOPMENT OF PERFORMANCE AUDIT IN PUBLIC SECTOR. FINANCE ENGINEERING. *5th International Scientific Conference Business and Management, May 16-17, 2008.*, (pp. 177-185). Vilnius: Technika,.
- Diamond, J. (2002, 5 1). The Role of Internal Audit in Government Financial Management. *International Monetary FWld* , pp. WPI02/94,1-35.
- Donelson, D. C., Ege, M., & McInnis, J. M. (2017, 8 1). Internal control weaknesses and financial reporting fraud. Auditing. *Journal of Practice & Theory*, pp. 36 (3): 45–69.
- Ebrahim, A. (2014). IFRS compliance and audit quality in developing countries: The case of income tax accounting in Egypt. *Journal of International Business Research*, pp. 13(2), 19.
- El-Toby, B , H. M., Kareem , A. D., & Abd, W. H. (2022). The possibility of applying international accounting standards in the public sector (IPSAS) in the Iraqi government accounting system: exploratory research for the opinions of accountants at theUniversity of Al-Muthanna. *International Journal of Professional Business Review*, pp. 7(2), e0461-e0461.
- Filho, E. T., Martins, N. M., & Miaguti, C. Y. (2017). *Minsky's Financial Fragility: An Empirical Analysis of Electricity Distribution Companies in Brazil (2007–15), Workpapar No. 896*. Levy Economics Institute.
- Gatti, D. D., DI Guilmi, C., Gaffeo, E., Giulioni, G., Gallegati, M., & Palestrini, A. (2005). A new approach to business fluctuations: heterogeneous interacting agents, scaling laws and financial fragility. 56 (4).. *Journal of Economic behavior & organization*, 56(4), 489-512.

Guia, L. D., & Dantas, J. A. (2019). Value Relevance Of Tax Assets In The Brazilian Banking Industry" , Revista Contabilidade & Financas ,SciELO Brasil,. *the XVII USP International Conference in Accounting, São Paulo, SP, Brazil, July 2017* (pp. 1-17). Brazilian: 3rd version approved on 12.03.2018.

Haddad, A., Ei Ammari, A., & Bouri, A. (219). "Are Islamic banks really more solvent than conventional banks in a financially stable period?". *Asian Journal of Empirical Research. Asian Journal of Empirical Research*, 9(11), 346-366.

Haldane, A., Saporta, V., Hall , S., & Tanaka, M. (2004). *Financial stability and macroeconomic models. Bank of England Financial Stability Review*, 16.

Hall, G. (2012). , *achieving financial independence, Clark college career services*. RD: Clark college.

Harrington , C., Smith , W., & Trippeer, D. (2012). Deferred tax assets and liabilities: tax benefits, obligations and corporate debt policy". *Journal of Finance and Accountancy*, pp. Vol. 11, p.1–18. .

Hay, D., Knechel, W. R., & Ling, H. (2008). Evidence on the Impact of Internal Control and Corporate Governance on Audit Fees. *International Journal of Auditing*, pp. 12(1), 9-24.

Hayes, R. (2005). *Principles of Auditing*. British: Library Catalog-in-Publication.

Hemmesaker, E., & Nelfelt, V. (2018). *catch the dream of financial independence, a study about how you can impact your retirement saving and reach your future financial goal ,MA Thesis,School of Economics and Management*. Lund University.

Hussein, A. I., AI-saqa, Z. H., & Mahmud, S. M. (2020). Enhancing financial efficiency under IFRS standards to reduce financial fragility: An empirical study of the reality of crises in Iraq using data envelope analysis.". *Tikrit Journal of Administrative and Economic Sciences*, 16(1), 17-48.

Isa, W., & Mahardika, M. C. (2021). "Effect of Solvency and Liquidity on The Profitability of Property Companies Listed on The Sharia Stock Index 2018-2020. *EKONOMIKA SYARIAH: Journal of Economic Studies*, 5(2), 140 - 152.

Kalash , I. A. (2010). *Working Capital Management and its effect on Profitability of the Firm "An Analytical Study of Industrial Firms, Thesis Master, Department of Business Administration*. University of Aleppo.

Kareem, A. D., Jabr, A., & Abd, w. H. (2022, 9 19). The transfer of powers and its role in unifying the products of accounting systems and their impact on the quality of accounting information Applied research "in the province of Al- Muthanna. *International Journal of Professional Business Review*, pp. Vol. 7 No. 2 , 1-27.

kieso Weygandt, D. j. (2016). *Intermediate Accounting* .

Madume, J. V., Samuel, D., & Ebiware, A. (2018). Effects of Total Debts to Total Assets on Return on Assets of Deposit Money Banks in Nigeria. *international journal of business, economics and law*, 18(5), 224- 234.

Mohamed El-Toby, B. H., Abd, w. H., & Kareem, A. D. (2022, 11 25). ACTIVATING THE ROLE OF JUDICIAL OVERSIGHT IN IRAQ TO REDUCE THE PHENOMENON OF TAX EVASION: FIELD RESEARCH IN THE FEDERAL OFFICE OF FINANCIAL SUPERVISION. *International Journal of Professional Business Review*, pp. Vol. 7 No. 5, 1-14.

Moqari , H., & Barber, F. (2013). *Sources of Funding in the Economic Organization, Case Study of the National Paint Organization (ENAP), a memorandum submitted within the requirements of obtaining a license (LMD), Faculty of Economics, Commercial a. Algeria: Akli Mohannad University or Al-Hajj.*

Nguyen, C. V., & Nguyen, L. N. (2019). (2019), factors affecting the level of financial independence of listed manufacturing companies: evidence from Vietnam. *international journal of business, economics and law*, 18(5), 167- 178.

Nguyen, T., & Pham , D. (2017). *tax book of financial statement analysis led, national economics university.*

Rihan, S. (2007). Financial stumbling, stages, causes, methods and treatment procedures. *Journal of Social and Human Sciences*, 8(16).

Schinasi, G. (2005). "Maintaining Financial Stability, Economic Issues", No. 36, *International Monetary Fund*, www.imf.org/external/pubs.

Schroeder, S. (2009). (Defining and detecting financial fragility: New Zealand's experience. *International Journal of Social Economics*, 36(3), 287 -307.

Simunic, D. A., Ye, M., & Zhang, P. (2017). The joint effects of multiple legal system characteristics on auditing standards and auditor behavior. . *Contemporary accounting research*,, pp. 34(1), 7-38.

Zavalko, N. A., Panina, o. v., & Kovalev, V. A. (2017). Improving financial control over the government system. .*Espacios*, , pp. 38(29), 15-22.

Zulfa R., R. H. (2019). The Effect Of Tax Planning And Deferred Tax Liabilities On Earns Management". *Economic and Accounting Journal*, Vol.2, No.2, .