TECHNIUM
SOCIAL SCIENCES JOURNAL

www.techniumscience.com

Vol. 75/2025

A New Decade for Social Changes

PLUS COMMUNICATION
International Communication & PR

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Analysis of the relationship between systematic and unsystematic risks for a sample of companies and banks listed on the Iraq Stock Exchange for the period (2016-2024)

Alaa Mohsin Muttlaq Al-Daamy[1], Ali Faisal Kazim Al-Daamy[2], SafaaYassin Shaker[3]

[1]Karbala University - Faculty of Management and Economics - Department of Finance and Banking, [2 3]Middle Euphrates Technical University/Karbala Technical Institute - Department of Banking and Financial Technologies

alaa.mohsin@uokerbala.edu.iq, ali.kadhom.ikr41@atu.edu.iq, safa.shaker.ikr25@atu.edu.iq

Abstract. Therefore, this study aimed to analyze the relationship between systemic risk and non-systemic risk for a sample of selected companies and banks listed on the Iraq Stock Exchange for the period 2016 to 2023. The systemic risk was measured through Beta The research sample included four banks and one industrial company for a period of ten years (Mosul Bank, Baghdad Soft Drinks, United Bank, Baghdad Bank, Middle East Bank), as the financial statements of the banks were obtained through the annual reports published in the Iraq Stock Exchange. Simple panel data regression was used through the statistical program (EViews v.12) according to the models (regression, variance, beta), and the research reached a set of results, the most important of which is the existence of a statistically significant effect of systemic and non-systemic market risks on the continuity of banks. In light of this, the research came up with a number of recommendations, the most important of which are that commercial banks should pay more attention to measuring systemic risks and the importance of diversification in foreign investment to get rid of systemic risks, and also pay attention to measuring non-systemic risks through the Value at Risk (VaR) method to identify and address weaknesses and deficiencies, as well as identify and increase strengths**.**

Keywords. systematic risk, unsystematic risk, Iraq Stock Exchange, panel data regression, commercial banks

Introduction

Financial markets are one of the most important economic pillars in the countries of the world, as financial investment is a stand-alone process that has its own goals and means and requires the use of strategies and a great ability to read future trends, as it has become one of the topics that occupy an important and essential place in the priorities of economic, financial, banking, administrative and other disciplines, due to its great importance due to the developments it has witnessed in several aspects, as some studies have appeared interested in how to deal with risks when choosing appropriate investments and investors find themselves in great hesitation in choosing the field of investment that As it is known that the investor seeks

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

to achieve the highest return with the lowest possible level of risk, and in order to achieve this, the investor must study and analyze his investment decision very carefully, and because most of the securities available for investment have uncertain returns and therefore are considered risky returns, the investor's problem is to identify the securities that he seeks to include in his investments in order to get rid of the risk by diversifying his investments between different sectors and between the same sector, so this study seeks to try to stop the sale of the relationship between risk and return. The investor's issue is to identify the securities that he seeks to include in his investments in order to get rid of the risky by diversifying his investments between different sectors and between the same sector and therefore this study seeks to try to stop the sale of the relationship between systemic and non-systemic risk for a sample of companies listed on the Iraqi Stock Exchange, as well as estimating the risk through its coefficient, which is Alberta The nature of the relationship between formal and informal risk-taking in the same sector and with different sectors, and the realization of this requires dividing the study into four sections, the first section deals with the theoretical aspect, the second section deals with the methodology of the study, while the third section deals with the applied aspect of the study, and finally the fourth section deals with the conclusions and recommendations.

Research I : Theoretical aspect

The concept of risk :

The financial and business world nowadays is characterized by the expansion of the scope of risk and the multiplicity of its types and areas, and all investors and decision makers bear a great risk when they make any investment operation in exchange for the expectation of obtaining a return, so risk is an important element that must be taken care of by investors when making any investment decision, Thus, their focus is on knowing and reducing the risk of their decision, and risk usually arises when there is a possibility of more than one outcome and the final outcome is unknown, and all institutions face certain risks, but financial institutions face special risks due to the nature of the activities they carry out and the offer from financial institutions to maximize profit through risk management and focus on the trade-off between return and risk. Risk can be generally defined as “unobservable events” as well as a series of events within a specific period of time that negatively affect the achievement of the goals of the investor or any financial institution in case of uncertainty about future results and events, and risk also means the uncertainty of obtaining future cash flows and is defined as the difference between the expected return and the actual return or the uncertainty facing the investor (Brigham et al., 1999:160). Risk can be defined from multiple perspectives because there are several approaches to understanding what risk is, as the concept varies according to the entrance, for example, we find that risk has been defined according to its relationship to the return or its relationship to the legal aspect or the financial aspect or the cash flow. There are definitions of risk that focus on the return, including these definitions: It is the probability of achieving a lower return than the expected return, the higher the probability of achieving a lower or negative return (loss), the higher it is. It is also defined as the probability of not achieving the expected gains, profit or return (Gangadhar & Babu, 2003), i.e. the risk of not achieving the expected gains, profit or return (Gangadhar & Babu, 2003: 3), that is, the actual returns from the investment are lower than the expected returns, and the greater the variance or dispersion in the expected returns, the greater the risk. Either (Damodaran, 2004,151) There are definitions of risk that focus on cash flow, where risk is defined as the potential volatility of future cash flows (Scott et al., 2001:257). It is defined as the uncertainty about cash flows. It can also be seen as a relative measure of the volatility of the return (cash flows) that will be obtained in the

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

future. Among the definitions that focus on the financial aspect, risk is defined as the possibility of financial loss or volatility in the returns associated with assets (Gitman, 2006:196).

Companies generally face many types of risks and new types of risks appear every day, which add burdens on the bank as it will suffer from their effects first and last, directly or indirectly, and banking risks have multiplied and diversified according to the different views of writers and researchers and according to their specialization and divided into:

Unsystematic risk: This type of risk results from certain events that may affect the returns of a specific stock and the investor can protect himself from these risks by diversifying investments. Unsystematic risk is a risk that affects a specific company, a specific industry or a specific security and does not affect the market system as a whole and this risk is independent of the factors affecting the economic activity as a whole, as there is no correlation between the changes in the stock return of an enterprise attributable to the unsystematic risk, and the changes caused by the unsystematic risk to the stock return of another enterprise due to the different circumstances of each of them. Unsystematic risk is the risk that affects the company alone because this risk is unique to the company Jordan & Miller, 2009:383. A company's risk reflects its characteristics: Weak management, lack of marketing ability, lack of opportunities, and the possibility of losing some deals (Al-Shamaa, 1992,: 429). This is why it is sometimes called Unique risk, Non-market risk, Unmarket risk or risk that can be avoided by diversification risks (Gangadhar & Babu, 2003: 25)

The degree of unsystematic risk for a particular company is usually affected either by the nature of the commodity it produces, or by the change in the nature or components of the assets of this company, or the degree of its use of borrowing as a source of financing, as well as the increase in competition in its field of activity, or a fundamental change in management (Reinganum, 1982: 27)

The second measure (CV) is a relative measure of risk, as it measures the percentage of risk to which each common stock is exposed, and its use is useful when comparing the returns of two different stocks (Weston & Brigham, 1987: 181). Sources of Unsystematic Risk

Unsystematic risk has many sources, including

Management risk

It is possible that management errors in a particular company may cause the actual rate of return to differ from the expected rate of return on investment despite the strength of the company's financial position and the quality of its products, so the risk resulting from management errors is included in the unsystematic risk because it may cause a decrease in the rate of return for that company even in cases of economic prosperity.

Common management errors include misconduct and failure to take appropriate measures in emergency incidents such as energy crises, labor strikes, loss of a factory or equipment due to lack of insurance, or due to failure to provide the necessary security, loss of sales or loss of essential financiers of the company with no others to replace them, and this type of management errors are often associated with the low ability of management to manage crises (Moussa et al., 2012, 52).

Industry risk

It is a risk resulting from factors that affect a specific industrial sector in a clear and tangible way without having a significant impact outside this sector. Industry risk may stem from many factors, including: Lack of availability of raw materials. In World War II, there were

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

huge losses for companies producing tires due to the unavailability of natural rubber until synthetic rubber was manufactured.

The emergence of laws affecting certain industries, such as environmental protection laws from pollution, which had an impact on paper-producing companies, oil refineries, steel mills and other industries that produce large quantities of waste or waste polluting the environment. As well as changing consumer tastes, or stopping using a particular product due to the emergence of a particular product as a result of the emergence of newer inventions Foreign competition also affects local industries, such as the competition of the Japanese automobile and electronics industries with those in the United States (Matar, 2009: 65-66).

Business Cycle Risk

It means business cycles whose impact is limited to a specific enterprise or industry, and occurs at irregular times and for reasons outside the conditions of the financial market, so it is difficult to predict its occurrence (Abu Rahma, 2009, 46 .(

Methods of measuring unsystematic risk

Standard deviation : It is used to measure the dispersion around the expected value of the return and measures the standard deviation by adopting historical data or adopting the probability of realizing the return and is calculated by the following formula in the case of probabilistic data (Al-Amiri: 2013, 64):

$$\boldsymbol{Rj = \sqrt{\sum(Rj - \overline{Rj})^2}\ \text{pi}} \quad \textbf{(1)}$$

In the case of historical data (Al Ameri, 2013: 64)

$$\boldsymbol{\sigma Rm = \sqrt{\frac{\sum_{(Rm-\overline{Rm})}\mathbf{2}}{n}}}$$

Coefficient of variation : It is defined as the quotient of the standard deviation divided by the expected value of the return, that is, it indicates the risk per unit of return, which leads to a meaningful comparison, when the expected returns from investment alternatives are not equal, and is measured according to the following equation:

$$= \frac{\sigma}{\bar{R}}\ \textbf{C.VRj}$$

Factors affecting unsystematic risk taking

Capital adequacy risk: It means the inability of the bank to pay its final obligations, as the bank when its capital is threatened and its assets become equal to or less than its liabilities is in front of the risk of capital adequacy, and therefore the lower the ratio of capital to the bank's high-risk assets in front of the full face of the risk of capital adequacy and the goal of capital is to form a protective line to absorb losses and mitigate the liquidity crisis through the confidence it adds to the financial position and also to mitigate the losses of depositors with the bank in the event of failure and non-payment. (Al-Mawla, 2004: 35).

Investment risk : For example, in bonds, there is a strong relationship between interest rate changes and market price changes, unlike the absence of this relationship between ownership or assets and the interest rate, as well as banks often do not tend to invest in stocks for fear of investment risk and change in value. (Gemayel, 2002: 204-205).

Operational risk: The most important types of operation are embodied in inadequate internal control and weak control of the board of directors, which leads to financial losses resulting from error, fraud, failure to implement decisions in a timely manner, or improper

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

completion of banking work, such as credit officers exceeding the credit authorities authorized by them, and operational risks may result from errors in information technology systems or accidents such as large fires or other disasters. (Al-Farra, 2007: 31).

Credit risk : It refers to the inability of the other party to fulfill its agreed obligations or when the borrower fails to pay the amount of the loan on the specified date, and this risk is considered one of the most important and oldest types of risks despite the emergence of many types of risks, With the presentation that the Basel Committee for Banking Supervision has required banks to maintain an appropriate capital adequacy rate (solvency) not less than 8% and was determined in Iraq 12% in order to cover credit risk, i.e. the failure of the borrower to fulfill the amount of the loan and the interest due on it on the due date and the possibility of loss as a result must reduce the degree of credit risk and thus reduce the margin of loss resulting from it. (Alashmari, 2008: 31).

Liquidity risk : This type of risk is represented by the inability to obtain funds when needed due to the mismatch in the cash flow that appears as a result of exchange operations, cash market operations and conditions, liquidity risk increases whenever the currencies taken are difficult to market, which makes it difficult to sell them to obtain other required currencies, which requires borrowing such funds from the cash market, which is sometimes not available. (Momani et al., 2008: 156)

Systematic Risk

Those interested in financial studies define systematic risk as “the share of all assets (occurrence) in the market due to common factors affecting the economic system as a whole (Al-Amiri, 2013:49).

Systemic risk is defined as the risk with a general characteristic that leads to the fluctuation of the expected return of all existing or proposed investments in all sectors, which are risks resulting from natural conditions and cannot be avoided or controlled, but rather living with them or minimizing their negative effects and preparing contingency plans to face them, as they are related to the environment in which the bank or commercial financial institutions operate, and this risk cannot be eliminated through portfolio diversification, but it can be minimized

Perhaps the most important motives that make the regulatory authorities interested in risk management is the unique characteristic of the banking sector, which is systemic risk, i.e. when a bank collapses, it may lead to a banking crisis that includes the banking sector as a whole (Arab Banks, 2005: 43) and systemic risk is called several names, including market risk or non-diversifiable risk, resulting from economic and political conditions in general that cannot be avoided by diversification because they cannot be controlled, and market risk includes exchange rate risk, purchasing power risk and interest rate risk (Mayo, 2000: 211).

Systemic risk is characterized by the following characteristics (Al-Zubaidi, 2004: 536)I).

- It arises due to common factors that encompass the entire economic system.
- It affects all operating companies, so it affects all investments, including investment in securities.
- They cannot be avoided by diversification but their severity can be minimized by the expected return.
- It can be measured by the beta coefficient.

Accordingly, systemic risk is the risk arising from fluctuations in general economic conditions that affect the entire banking industry.

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Systematic risk is the risk that affects a large number of assets because systematic risk has broad market effects (Jordan & Miller, 2009, p. 383). Systematic risk is the proportion of risk attributable to market movement relative to the total risk, and changes in the economic, political and social environment that affect the securities markets are a source of this risk, and although all investment instruments are affected by environmental and economic conditions, they may have more or less impact on certain instruments than on others, In other words, this risk affects all sectors of the market, but to varying degrees (Moussa and Salam, 2011, 219) (Krush, 2012, 27). Systemic risk involves two types of risk:

business systemic risk and financial systemic risk, so measuring systemic risk requires measuring that part of it that is caused by business systemic risk and the other part that is caused by financial risk.

Systemic business risk is associated with proprietary financing, so an entity financed with wholly proprietary financing, called a non-leveraged entity (or one that does not use leverage in the financial structure), is exposed to systemic business risk only, in which case its systemic risk is equal to the systemic business risk. Although all companies are affected by systemic risk, its impact is not equal in all companies, there are companies characterized by high systemic risk to their stock returns, such as companies that produce basic commodities such as equipment production companies, construction companies, companies producing luxury goods, companies whose financial structure is characterized by a high percentage of borrowing, while their sales are seasonal, such as airlines, as well as companies that produce goods that are likely to be subject to rapid obsolescence, such as computer production companies. In such companies, sales, profits and stock prices are in line with the general level of economic activity, unlike other companies such as water and electricity companies and perhaps food and pharmaceutical companies, in such enterprises there is a weak correlation between the level of economic activity and the volume of sales, profits and stock prices of these enterprises (Hendi, 2004, 52).

Sources of systemic risk

Systemic risk is influenced by many factors, some of which are detailed by my agencies:

Purchasing Power Risk (Inflation)(

Inflation is defined as the continuous rise in the general level of prices, which causes a decline in the purchasing power of a unit of money, resulting in what is called purchasing power risk (Alhasanko, 2004, 45). Thus, inflation is the change in the purchasing power of the currency, so if the inflation rate is high, this indicates a decrease in the purchasing power of the currency, and this results in changing the expected returns as a result of high inflation rates, as the purchasing power of the money with which an investment was purchased today differs from the purchasing power of the same amount of money after one or two years if inflation rates rise. Usually, fixed-income investments such as bonds are more affected by the decline in the purchasing power of money than other investments, so if inflation rates rise, the real value of investment returns in the bond decreases, which leads to a lower real rate of return on investment than the nominal rate of return (Alwan, 2009, 64).

Interest rate risk:

It is the risk that a bank assumes by making a loan at a prevailing interest rate because it is covered by financing obtained at a known interest rate and then having to refinance it at a higher interest rate during the term of the loan. If the interest rate charged by the bank on the

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

loan is fixed, and the refinancing rate rises, the net return realized by the bank will decrease because the timing of the provision of loans does not coincide with the timing of the bank's chances of obtaining deposits and thus the bank is exposed to a degree of fluctuations in its profits due to interest rate fluctuations. (Abdullah and Altrad, 2006: 113). Interest rate risk is due to the change in the level of interest rates in the market in general, so it is categorized as a systemic risk. That is, it is a risk that affects all investments regardless of the nature and circumstances of the investment itself, and as a general rule, the higher the interest rates in the market, the lower the market value of traded securities, meaning that the fluctuation in the market interest rate affects the expected return on investment, and thus the market value of securities (Hindi, 2004, 49).

Market risk:

Banks face the risk of losing part of their assets as a result of price movements in the market despite the existing accounting standards that provide transparency and identification of these risks in various banking activities. This risk increases when banks adopt open positions for their currencies during periods of exchange rate instability (Zeidan, 2011: 27). The possibility of a decrease in the value of the investment as a result of general market conditions resulting from fluctuations in interest rates and exchange rates (Said, 2013: 125).

These risks are mainly related to unexpected fluctuations in the prices of derivative contracts, but may also result from the lack of liquidity, which in turn leads to a deterioration in the prices of certain assets, and the inability to enter into derivative contracts to hedge against the possibility of further deterioration. In addition, there is settlement risk, as the contracted assets may reach their minimum value on the settlement day, which is subject to sharp fluctuations, affecting the value at which they are settled. The likelihood of exposure to market risk increases when there is a monopoly of market makers, where they buy and sell on a large scale. (Mohammed and Samira, 2009). Market risk arises as a result of the change in the prices of securities in the financial market as a result of economic, political or social reasons, and the instability or variation carries with it a specific risk caused by uncertainty regarding the level to which prices will fall in the future, The market may be exposed to periods of falling or rising prices that may last for short or long periods, and the price of the stock is usually determined by the strength of supply and demand for the stock in the market, as this price depends on the highest price that the investor is willing to pay for the stock and the lowest price that sellers are willing to accept for this stock (Mousa et al., 2012, 42).

-Exchange rate volatility risk:

Exchange rate risk arises from movements in the exchange rate and such movements can be significant, as evidenced by the events of the fall of 1992 in Europe. Capital requirements in the face of foreign exchange risk provide certain incentives to avoid that exchange losses do not jeopardize the bank's ability to meet its obligations. (Rashid, 2007: 244).

Methods of measuring systemic risk:

There are many ways to measure risk, but according to the Capital Asset Pricing Model (CAPM), systemic risk is measured through the Beta Coefficient, which refers to the coefficient Therefore, risk is measured by extracting the values of the relevant statistical indicators, which are as follow

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Beta Coefficient: It is used to estimate risk and is defined as:

The covariance between the return on the security (stock) and the market return (Matten, 2001: 288). of variation in the return of securities in the market (Al-Zubaidi, 2004: 548).

The beta coefficient (B) is defined as a statistical measure of systematic risk, which is the risk common to all securities in the market (Al-Zubaidi, 2000: 84), meaning that the beta coefficient is a measure of the consistency of the movement of a particular return with the return of a group of securities in the market that constitute the market portfolio (Al-Zubaidi, 2000: 84).

The beta coefficient is measured according to the following equation (Al-Zubaidi, 2004: 56)

B=COV (Ri, Rm)/ s² Rm(4)

)B) = Beta coefficient.

COV (Ri, Rm) = the covariance between the bank's return and the market return.

s² Rm = the variance of the market portfolio return.

The beta coefficient is the fundamental variable of the Capital Asset Pricing Model (CAPM), a measure of systematic risk (Gitman, 2000:256), and the beta coefficient is a measure of a stock's sensitivity to market return fluctuations (Madura, 2000:475), that is, it shows the fluctuations in stock returns with the change in the rate of return of the market portfolio (Al-Araji, 2003:138).

The values of the market portfolio beta coefficient are equal to (one) integer, and all other beta values are considered by comparing them to this value, and the beta of assets (stocks) can be positive or negative values and the majority of beta coefficients fall between (0.5) and (2) integer (Gitman, 2000:245).

Beta coefficients table and interpretations

Expression	Comment	Beta coefficient (B(
Poor market response	Movement towards the market itself	**2.0**
Same market response		**1.0**
Half the market response		**0.5**
Unaffected by market movement	No movement in the market	**0**
Half the market response	Moving against the direction of the market	**-0.5**
Same market response		**-1.0**
Double the market response		**-2.0**

(Al-Mansour, Heba Allah Mustafa, The feasibility of international diversification in light of the financial crisis, PhD thesis, Karbala University, 2018, 30)

As for systemic risk and its coefficient beta, which is a measure of the sensitivity of the local market to market movements (Shapiro 2014, 511). beta values are either positive or negative, and the positive is predominant and is confined to beta values for investments are categorized into three classes in terms of the risk to which the portfolio is exposed, which are as follows: (Jones 2000, 179)

Offensive: If 1.0 < B

Defensive if 1.0 > B

Neutral if 1.0 = B

The beta coefficient is nothing more than the slope of the regression line between the market return and the investment return, if this slope is equal to (one) integer, the investment

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

return changes in proportion to the market return, that is, the investment risk is equal to the market risk "So these stocks are considered neutral (Neutral Stock) and the returns of these stocks are as volatile as the returns of the market portfolio" (Al-Zubaidi, 2004: 550).

If the slope is greater than one, it means that the investment risk is more risky than the market risk, so it is called Aggressive Investment, as the investment risk is very sensitive to market changes.

If the slope is less than (one) integer, the investment proposal involves less risk than the risk of the market as a whole, and is called Defensive Investment. In other words, the investment proposal is less sensitive to market movement (Salam, 2004: 98-100).

The beta coefficient is calculated through the covariance between stock returns and market returns, divided by the variance of the market return. According to equation (4), the covariance is a statistical measure that measures the relationship between stock return volatility and market portfolio return, when the product is positive, it means that stock prices and the market move in one direction, and when the product is negative, it means that stock prices and the market move in the opposite direction (Levy & Sarant, 1988: 186).

The beta coefficient for investing in common stocks can be calculated according to the following formula

)288 (Matten,2001:

Pim σi σm

)5 ——————— / (B(i)=

That is, when:

Pim = the correlation coefficient between stock return and market portfolio return.

si = standard deviation of stock return (i)

sm = the standard deviation of the market portfolio return.

Covariance can be expressed using the concept of Correlation Coefficient, which is another statistical concept that shows the extent to which two random variables move together in the same direction, and the correlation coefficient takes values between one and minus one (Al-Maidani, 2004: 411).

Despite its importance, the beta coefficient is criticized by a group of specialists who doubt the credibility of this criterion, due to the weak correlation between returns and risks due to the nature of returns that cannot be accurately estimated (Al-Husseini and Al-Douri, 2000: 175)

The beta coefficient can also be calculated by using the regression equation and adopting historical data "since the beta coefficient is calculated for a previous period of time and assuming that this coefficient remains constant during the period of analysis, then the beta will reflect the expected relative volatility of future returns of the common stock (Brigham & Alexander, 1990: 245).

Systematic risk and beta coefficient

Conclusion that systemic risk is divided into systemic risk, which means that it cannot be avoided by diversification and non-systematic risk, which can be avoided by diversification. Since total risk is equal to systematic risk plus non-systematic risk, if we succeed in measuring the size of one type, we will find the size of the other .In this regard, financial management researchers agree that covariance can be an acceptable measure of the amount of systemic risk to which the market value of a particular security is exposed. Covariance means (the extent of correlation between the movement or behavior of two variables), in terms of direction and value.

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Since systemic risk is attributable to general variables related to the economic situation, which has a direct impact on price levels in the stock market, the difference between the return of a stock and the return of the stock market, i.e. the price of the security and the general economic situation, can be considered a determinant of the size of systemic risk.Translated with DeepL.com (free version)

In terms of variance, it can be said that the systematic risk to which a stock's return is exposed. (Gitman2009:252) is the correlation of the change in stock price (stock return) with the general change in the price movement in the market (market return)

Ameri also stated that the statistical measure of systematic risk is (Beta coefficient), the systematic risk is equal to the product of the square of the beta coefficient in the variance of the rate of return of the market portfolio, and is calculated as follows:- (Ameri , 2013: 65)

Systematic Risk = β^2 $\sigma^2 R_M$ .....

Beta values are generally estimated from a line of stock characteristics by running a linear regression between the past returns on the stock in question and the past returns on the market index. We define betas calculated in this way as historical betas. It should be noted that several different data sets can be used to calculate historical betas, and different data sets produce different results, and some points to note are as follows (Brighim & Ehrhardt, 2007:311)

1-Beta values can be based on historical periods of different lengths. For example, you can use data for the last one year, two years, three years, and so on. Most people who use beta now use five years, but this choice is random, and different lengths of time usually cause the calculated beta to change significantly for a given company

2-Returns can be calculated for historical periods of different lengths - day, week, month, quarter, year, and so on. For example, if you decide to analyze data on NYSE stocks over a five-year period, you can get weekly returns of 5*52=260 on each stock and the market index. We could also use monthly returns of 60 = 5*12, or annualized returns of 5 = 5*1. The category of returns on each stock, regardless of the length of the period, can be regressed on the corresponding market returns to obtain the stock's beta. In statistical analysis, it is generally described as better to have more observations because using more observations generally leads to greater statistical confidence. This suggests using weekly returns, five-year data for a sample size of 260, or even daily data for a larger sample size. However, a shorter measurement period increases the likelihood that the data will be subject to more noise, and the more years of data, the more likely it is that the underlying risk attitude of the company may have changed.

3-The value used to represent (the market) is also an important factor as the index used can have a significant impact on the calculated beta, and many analysts now use the NYSE Composite Index (based on more than 2000 common stocks, weighted by the value of each company), but others use the S&P 500 Index (theoretically, the wider the index, the better the beta). Theoretically, the broader the index, the better the beta. In fact, the index should include actual returns on all stocks, bonds, rentals, private businesses, and even human capital. But as a special case we can't get accurate return data on most other types of assets, so measurement issues hinder us significantly from stock indices

The relationship between financial indicators and systemic risk (Beta)

In this part of the research, the relationship between financial indicators and systemic risk will be addressed by clarifying the relationship between systemic risk and each of the profitability ratios, leverage ratios, liquidity ratios, activity ratios and market ratios as follows:

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

First: The relationship between profitability and systemic risk Beta

Profitability ratios reflect the overall performance of the company, it examines the company's ability to generate profits from sales, assets and equity. Profits are the measure of the effectiveness of the company's investment, financing and operating policies, and the decisions taken related to these policies (Al-Amiri, 2013: 87-88).(

It is known in practice that while the desire of management to achieve greater profits increases, the degree of risk increases, according to the direct correlation between profit and risk, and that management aims to maximize the market value of its shares. Since the market value is affected by the relationship between these two variables, so the efficiency of management in achieving this goal will be achieved by achieving greater profits with less risk, and this can only be achieved through the effectiveness of financial decisions (investment decisions and financing decisions), as these decisions affect the value of the stock or the wealth of owners through their impact on both the expected profits and the degree of risk (Abad, 2004: 17)

II: The relationship between leverage ratios and systemic risk Beta

Leverage means the use of third-party funds with financial fixed costs, and third-party funds may be (loans or preferred shares), as both have a financial fixed cost and the company must commit to paying it, in other words, leverage is related to the company's financing structure, the greater the reliance on external sources of financing, the greater the degree of leverage, Leverage becomes effective if the company can invest borrowed funds at a rate of return that exceeds the cost of borrowed funds, and if the company does not succeed in this, it will be exposed to greater risk and achieve a greater loss, which means losing the advantage of using leverage in the company's financing structure (Ramazani et al., 2013)

The increase in the financial management's reliance on loans will increase the risk to which it is exposed, due to the financial risk, which arises due to multiple factors, which causes a decline in earnings per share, which means that the amount of profits per share is affected by the amount of financing the business company, and therefore the risk will reduce the earnings per share, and will have a negative and direct impact on maximizing the market value of the stock, Therefore, the risks in general and the financial risk in particular associated with the goal of maximizing EPS or maximizing profits greatly weaken the strategic focus of financial management decisions, as the increased reliance on loans for the purpose of financing investment expansions will lead to an increase in expected profits, but in return it will increase the degree of risk to which the financial management is exposed due to borrowing (Abad, 2004, 15-18)

III: The relationship between liquidity ratios and systemic risk Beta

Liquidity ratios measure a company's solvency in the short term, i.e. the company's ability to pay short-term financial obligations, thus showing the extent to which current liabilities are covered by assets that can be converted into cash in a period of time approximately equal to the maturity of current liabilities. Since these liabilities are paid from cash or near cash, the organization must maintain sufficient amounts of these assets (which are easily converted to cash) in excess of the amount of current liabilities

One of the studies that test the relationship between liquidity ratios expressed by the quick liquidity ratio and systemic risk is the study of Alaghi (2013), as this study was conducted on companies listed on the Tehran Stock Exchange. This study included the variables of liquidity expressed as quick liquidity ratio, leverage ratios expressed as gearing ratio,

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

operational efficiency expressed as asset turnover ratio, profitability expressed as return on assets, and firm size expressed as total assets. The results of this study indicated that there is a negative statistically significant relationship between liquidity ratios and systemic risk, that is, companies that have enough cash and receivables to cover financial obligations, and that increasing liquidity will lead to a decrease in systemic risk

(Ramazani et al, 2013) which tests the relationship between the liquidity ratio represented by the trading ratio and systemic risk, as this study was conducted on companies listed on the Tehran Stock Exchange. This study included the variables of trading ratio, leverage, firm size, earnings variance, earnings growth and dividend per share. The results of this study indicate that there is a negative significant relationship between trading ratio and systemic risk, i.e. companies that have more liquidity will have low systemic risk, as well as a positive statistically significant relationship between leverage, company size and earnings volatility with market risk

The relationship between activity ratios and systemic risk Beta

The activity ratios are concerned with evaluating the efficiency of performance in the enterprise on various operational levels, such as inventory management, receivables and fixed assets, and the follower of these ratios can monitor the important relationship between current and fixed assets on the one hand and sales on the other. The enterprise's utilization of these assets and their good and effective management must enhance the volume of sales and raise their rates, which will inevitably reflect on the profitability of the enterprise and its liquidity (Khanfar and Matarinah, 2009, 154.(

Activity ratios are indicators of the efficiency of the company's activity, as it shows the ability of each invested dinar to achieve one dinar of net sales, so we find that the sales figure is attributed to each element of the assets, so the appropriate measure is the turnover rate, which can be used as an indicator of risk (Alaghi, 2013)**.(**

One of the studies that test the relationship between asset turnover and systemic risk is a study) This study included operational efficiency variables expressed in terms of asset turnover and liquidity, expressed in terms of quick liquidity and leverage ratios, expressed in terms of leverage and profitability, expressed in terms of return on assets and company size, and expressed in terms of total assets. The results of this study indicate that there is an inverse relationship between operational efficiency expressed by asset turnover and systemic risk, that is, the greater the operational efficiency will lead to a reduction in systemic risk.

Diversification and systematic risk: It has been shown that unsystematic risk can be eliminated by diversification. What about systematic risk? Can it also be eliminated by diversification? The answer is no. By definition, systematic risk affects almost all assets to some degree. Therefore, for obvious reasons, the terms systematic risk and non-diversifiable risk are used interchangeably. The total risk of an investment (as measured by the standard deviation of the rate of return) is:

Total risk = systematic risk + non-systematic risk .

Systematic risk is also called market risk or non-diversifiable risk. Non-systematic risk is also called diversifiable risk, individual risk or asset-specific risk. For a well-diversified portfolio, non-systematic risk is negligible and for such a portfolio all risks are essentially systematic (Ramazani et al, 2013)

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Second article: Methodology of the study

Study Problem- :

One of the main and important assumptions is that the investor wants to maximize the return on investment at the lowest possible level of risk, and the rate of efficiency of investing in securities with a higher return will involve a greater risk that can lead to the loss of all the wealth according to the investor's plans. Hence, the study's main research question can be formulated as follows:

- Does the relationship between systematic and non-systematic risk-taking of the sample companies listed on the Iraq Stock Exchange differ during the study period?

Several sub-questions arise from this issue?-

How is systematic risk estimated? -

- Does the relationship between systematic and non-systematic risk differ for the sample of listed companies within the same sector?

- Does the relationship between systemic and non-systemic risk for the sample of listed companies differ between sectors?

Hypotheses of the study

In light of the questions posed by the study questions, a set of hypotheses can be identified

The hypotheses that we will seek to test are as follows:-

-The relationship between systematic and non-systematic risk-taking for a sample of companies listed on the Iraq Stock Exchange does not differ during the study period

-Several sub-hypotheses branch off from this hypothesis

Systematic risk is estimated through the beta coefficient-

-The relationship between systematic and non-systematic risk does not differ for the sample of listed companies within the same sector.

The relationship between systemic and non-systemic risk does not differ between sectors-

The importance of the study

The importance of the study lies in the following

Highlighting risk in general and systemic risk in particular, because of its great importance related to investment decision-making . Measuring systemic risk, by one of the available means that ensures minimizing it to the lowest possible level at an acceptable rate of return . Identify what systemic risk is and highlight the extent of the benefit of diversification in minimizing systemic risk. Introduce a theoretical concept of systemic and non-systemic risk, its types and how to measure it

Objectives of the study:-

This study seeks to achieve the following objectives:-

Identify the nature of the relationship between systemic and non-systemic risk for a sample of companies listed on the Iraq Stock Exchange, Estimating systematic risk through the beta coefficient, Identify the relationship between systemic and non-systemic risk between companies within the same sector.Identify the relationship between systemic and non-systemic risk between sectors

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Study population and sample:

Scientific studies emphasize the need to conduct the study with an accurate characterization and definition of the original community in preparation for the establishment of sampling criteria, including the selection of the study sample representative of this community. The study population includes the Iraqi Securities Market, while the study sample was represented by companies from specific sectors, and the latter were selected for several criteria, including not interrupting the shares of the selected companies during the study period, as well as the highest market value .

Study data and duration: The study data included a sample of companies traded on the Iraqi Stock Exchange, namely (Bank of Mosul, Baghdad Soft Drinks, United Bank ,Baghdad Bank, Middle East Bank). The duration of the study included 9 years from 2016 to 2024 and the study data was monthly data

Research III: Empirical aspect: Systematic risk variation of common stocks for a sample of companies listed on the Iraqi Stock Exchange.

Calculating and analyzing the monthly rates of return and risk for the sample stocks :

Based on the study data described in the study methodology and using a formula, the monthly composite risk rates were calculated continuously for Baghdad Bank, United Bank, Mosul Bank, Middle East Bank, and Baghdad Soft Drinks Company, as well as the risk over a certain period

Table (3) Actual annual risk ratios for all stocks in the study sample

Year	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
2016	0.073533	0.108778	0.168578	0.125711	0.096538	**SD**
	0.005407	0.011833	0.028419	0.015803	0.00932	**VARIANCE**
	0.721469	1.685287	1.085711	2.018459	1.560944	**BETA**
	0.003797	0.008871	0.034315	0.010624	0.008216	**Systematic Risk**

On the other hand, in terms of systematic risk, Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.073533) and a variance of (0.005407), followed by Baghdad Bank with a standard deviation of (0.096538) and a variance of (0.00932), followed by United Bank with a standard deviation of (0.108778) and a variance of (0.011833)., then Middle East Bank with a standard deviation of (0.125711) and variance (0.015803), and finally, Mosul Investment Bank achieved the highest risk with a standard deviation of (0.168578) and variance (0.028419)

Table (4) Actual annual risk ratios for all stocks in the study sample

Year	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
2017	0.072633	0.106677	0.160577	0.1207710	0.094437	**SD**
	0.005205	0.011531	0.026417	0.015402	0.00901	**VARIANCE**
	0.711368	1.665277	1.083710	2.017359	1.540843	**BETA**
	0.003594	0.008369	0.032216	0.09821	0.008014	**Systematic Risk**

On the other hand, in terms of systematic risk, Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.072633) and a variance of (0.005205), followed by Baghdad Bank with a standard deviation of (0.094437) and a variance of (901 0.00). 00), then United

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

Bank with a standard deviation of (0.106677) and variance (0.011531), then Middle East Bank with a standard deviation of (0.120771) and variance (0.015403), and finally, Mosul Investment Bank achieved the largest risk with a standard deviation of (0.160572) and variance (0.026417)

Table (5) Actual annual risk ratios for all stocks in the study sample

Year	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
2018	0.069532	0.102576	0.157476	0.1015761	0.090336	**SD**
	0.005002	0.010529	0.024412	0.014901	0.00877	**VARIANCE**
	0.701347	1.645174	1.080705	2.015355	1.510839	**BETA**
	0.003392	0.008067	0.030210	0.09619	0.007912	**Systematic Risk**

On the other hand, in terms of systematic risk, the share of Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.069532) and a variance of (0.005205), followed by Baghdad Bank with a standard deviation of (0.090336) and a variance of (0.00877), followed by United Bank with a standard deviation of (0.102576) and a variance of (0.005002), then Middle East Bank with a standard deviation of (0.1015761) and variance (0.014901), and finally, Mosul Investment Bank achieved the largest risk with a standard deviation of (0.157476) and variance (0.024412)

Table (6) Actual annual risk ratios for all stocks in the study sample

Year	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
2019	0.074634	0.111978	0.170580	0.130715	0.098538	**SD**
	0.006407	0.012833	0.029519	0.016803	0.00935	**VARIANCE**
	0.741469	1.695387	1.095712	2.019559	1.580987	**BETA**
	0.003997	0.008971	0.045315	0.011024	0.008416	**Systematic Risk**

On the other hand, in terms of systematic risk, the share of Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.074634) and a variance of (0.006407), followed by Baghdad Bank with a standard deviation of (0.098538) and a variance of (0.00935), then United Bank with a standard deviation of (0.111978) and a variance of (0.012833), then Middle East Bank with a standard deviation of (0.130715) and variance (0.016803), and finally Mosul Investment Bank achieved the highest risk with a standard deviation of (0.170580) and variance of (0.029519),

Table (7) Actual annual risk ratios for all stocks in the study sample

Year 2020	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
	0.075640	0.0 130985	0.0 175581	0.134720	0.5 9954	**SD**
	0.0066907	0.0133235	0.029619	0.017104	0.00956	**VARIANCE**
	0.741473	1.705387	1.085911	2.019561	1.590947	**BETA**
	0.004297	0.009271	0.046120	0.011424	0.008516	**Systematic Risk**

In contrast, in terms of systemic risk, United Bank achieved the lowest risk with a standard deviation of (0.0 130985) and a variance of (0.0133235), followed by Mosul Investment Bank with a standard deviation of (0.0 175581) and a variance of (0.0 29619), then Baghdad Bank

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

with a standard deviation of (0.5 9954)and a variance of (0.00956), then Baghdad Soft Drinks Company with a standard deviation of (0.075640) Finally, Middle East Bank achieved the highest risk with a standard deviation of (0.134720) and variance of (0.017104).

Table (8) Actual annual risk ratios for all stocks in the study sample

Year 2021	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
	0.076660	0.1359988	0.1825682	0.136725	0.099750	**SD**
	0.0067910	0.0143236	0.0296220	0.017108	0.00967	**VARIANCE**
	0.75871	1.715389	1.086920	2.020462	1.600949	**BETA**
	0.0043998	0.008375	0.047125	0.012430	0.008618	**Systematic Risk**

On the other hand, in terms of systematic risk, Baghdad Soft Drinks Company achieved the lowest risk with a standard deviation of (0.076660) and variance (0.0067910), followed by Baghdad Bank with a standard deviation of (0.099750) and variance (0.00967), then United Bank with a standard deviation of (0.1359988) and variance (0.0143236) then Middle East Bank with a standard deviation of (0.136725.) and variance (0.017108) and finally Mosul Investment Bank achieved the highest risk with a standard deviation of (0.1825682) and variance (0.0296220)

Table (9) Actual annual risk ratios for all stocks in the study sample

Year 2022	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
	0.077675	0.136990	0.1835782	0.137720	0.098765	**SD**
	0.0067920	0.0145240	0.0297221	0.017509	0.00975	**VARIANCE**
	0.76875	1.726399	1.097920	2.020668	1.61149	**BETA**
	0.0044999	0.008577	0.057126	0.012832	0.008719	**Systematic Risk**

In contrast, in terms of systematic risk, Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.077675) and a variance of (0.0067920), followed by Baghdad Bank with a standard deviation of (0.098765) and a variance of (0.00975), followed by United Bank with a standard deviation of (0.136990) and a variance of (0.0145240, then Middle East Bank with a standard deviation of (0.137720) and variance (0.017509), and finally, Mosul Investment Bank achieved the highest risk with a standard deviation of (0.1835782) and variance (0.0297221), and the largest risk with a standard deviation of (0.1835782) and variance (0.0297221)

Table (10) Actual annual risk ratios for all stocks in the study sample

Year 2023	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
	0.078776	0.137992	0.1856883	0.138725	0.099770	**SD**
	0.0068922	0.0147341	0.0308221	0.017610	0.00986	**VARIANCE**
	0.771579	1.732287	1.098311	2.021070	1.62155	**BETA**
	0.00451005	0.008680	0.058130	0.012983	0.008822	**Systematic Risk**

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

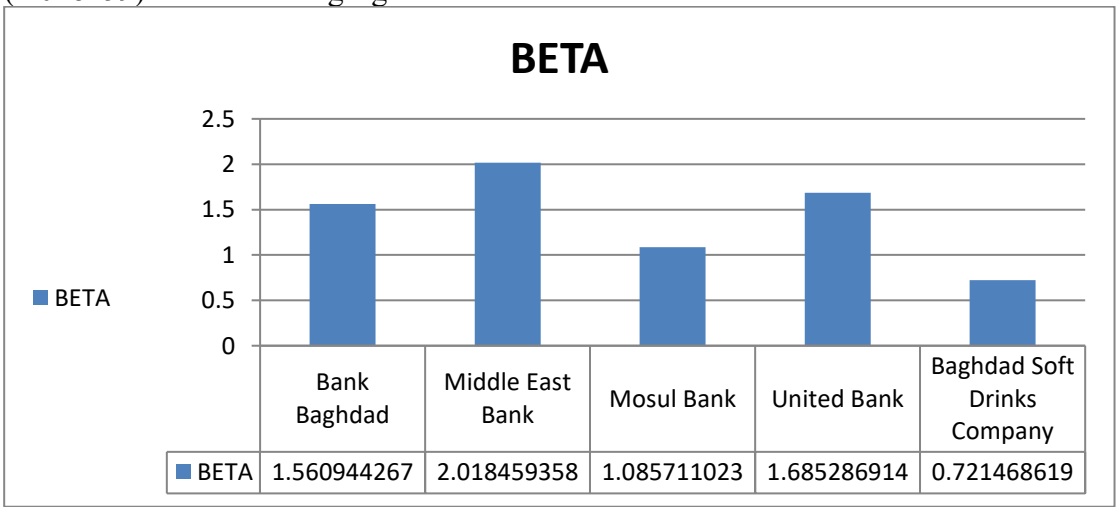
In contrast, in terms of systematic risk, Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.078776) and a variance of (0.0068922), followed by Baghdad Bank with a standard deviation of (0.099770) and a variance of (0.00986), followed by United Bank with a standard deviation of (0.137992) and a variance of (0.0147341). then Middle East Bank with a standard deviation of (0.138725) and variance (0.017610), and finally, Mosul Investment Bank achieved the highest risk with a standard deviation of (0.1856883) and variance (0.0308221), and finally, Mosul Investment Bank achieved the highest risk with a standard deviation of (0.1856883) and variance (0.0308221)

Table (11) Actual annual risk ratios for all stocks in the study sample

Year 2024	Baghdad Soft Drinks	United Bank	Mosul Bank	Middle East Bank	Bank Of Baghdad	Indicators
	0.079533	0.140112	0.19657884	0.1397301	0.098538	**SD**
	0.0069924	0.0149342	0.0311022	0.017812	0.00998	**VARIANCE**
	0.782580	1.743288	1.099211	2.022078	1.63165	**BETA**
	0.004610	0.008785	0.059140	0.013040	0.008925	**Systematic Risk**

In contrast, in terms of systematic risk, Baghdad Soft Drinks achieved the lowest risk with a standard deviation of (0.079533) and a variance of (0.0069924), followed by Baghdad Bank with a standard deviation of (0.098538) and a variance of (0.00998), then Middle East Bank with a standard deviation of (0.1397301) and a variance of (0.017812)., then United Bank with a standard deviation of (0.140112) and variance (0.0149342), and finally, Mosul Investment Bank achieved the largest risk with a standard deviation of (0.19657884) and variance (0.0311022.(

On the other hand, at the level of systematic risk, and looking at both Table (8) and Figure (1), it is noted that each company's stock has its own specificity in terms of return and risk. Regarding the beta coefficients, which is a measure of a stock's sensitivity to the movements of the market index. For example, it was found that the beta coefficient for Baghdad Soft Drinks stock was the lowest beta coefficient (0.721469), followed by Mosul Investment Bank (1.085711), followed by Baghdad Bank (1.560944), followed by United Bank (1.685287), followed by Middle East Bank, which achieved the largest beta coefficient if it amounted to (2.018459). The following figure shows this



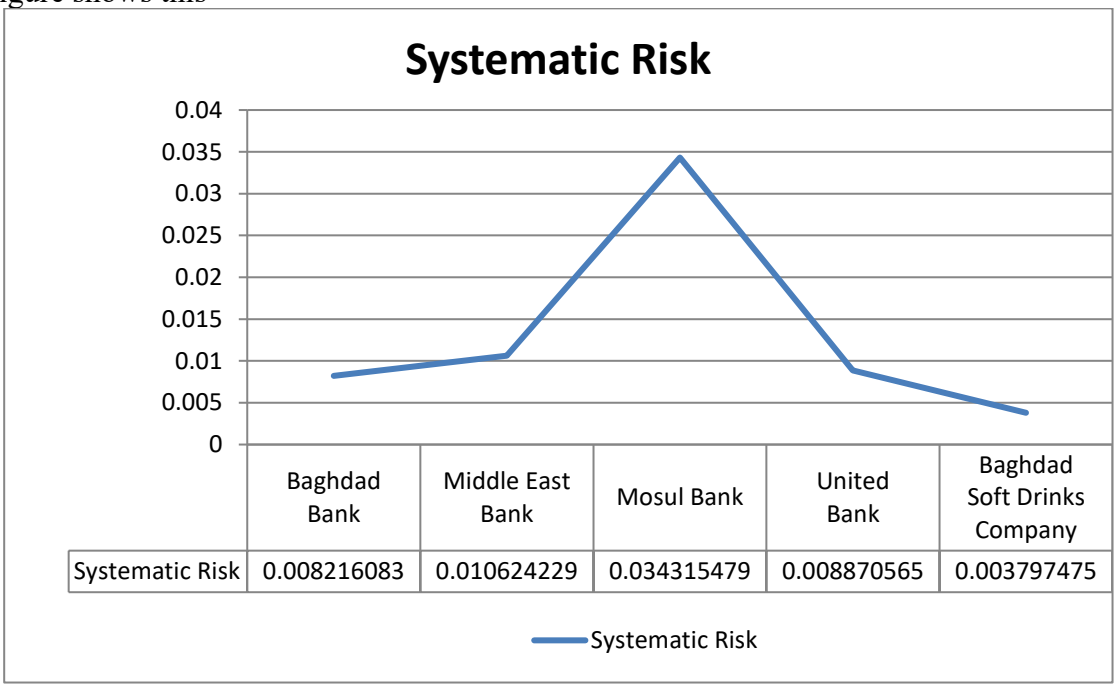
The figure shows the beta coefficients for the sample stocks

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

This means that Middle East Bank is more sensitive to the movements of the market index, while Mosul Investment Bank proved the opposite because it was considered the least sensitive to the movements of the market index, and the rest of the beta coefficients of the local indices are between the two .

At the aggregate level, it is observed that (4 stocks) were offensive (meaning that the beta value is greater than the correct one), while the remaining (1) was defensive. This calls for the acceptance of the first sub-hypothesis of the study, which indicates that systemic risk is estimated through the beta coefficient

As for the systematic risk, it is the square of the beta coefficient multiplied by the rate of return of the market portfolio, and with reference to each of Table (8), it is noted that each company's stock has its own specificity in terms of return and risk. For example, it was found that the systematic risk of Baghdad Soft Drinks stock was the lowest (0.003797), followed by Baghdad Bank (0.008216), followed by United Bank (0.008871), followed by Middle East (0.010624), while the largest systematic risk was for Mosul Investment Bank (0.034315), and the following figure shows this



The figure shows the systematic riskiness of the sample stocks

When comparing the above portfolios and choosing from them based on the return as a measure of performance evaluation, the comparison is useless because the investments differ in their degree of risk. When looking at Table (8), the choice will be based on the non-systemic risk, as Mosul Investment Bank has achieved the highest non-systemic risk compared to banks from the same sector or with another sector. Figure (2) above illustrates the magnitude of the large disparity in systemic risk. As for the disparity between systemic risk and non-systemic risk, Figure (3) shows the amount of disparity between them

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

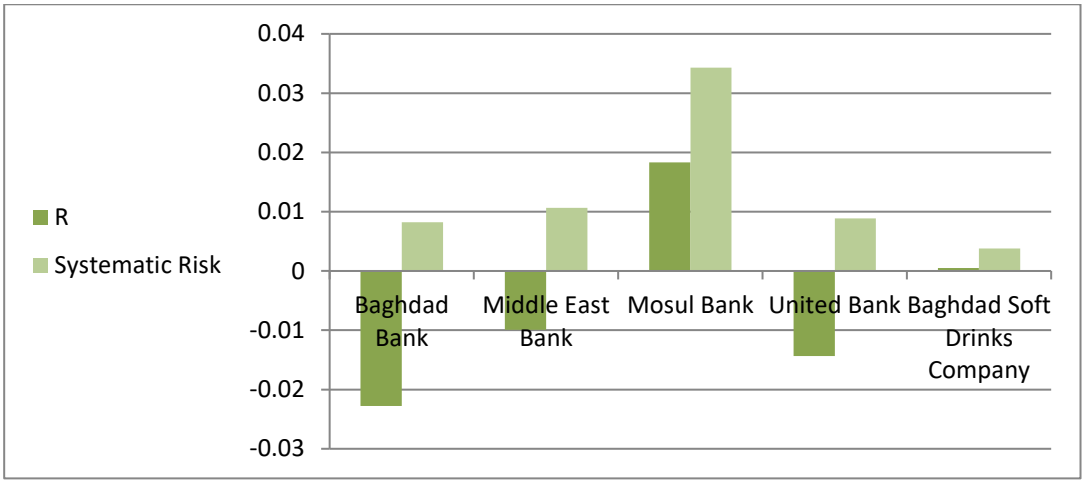


Figure (3) Relationship between systemic risk and non-systemic risk for the sample stocks

It is clear from the figure that the Bank of Mosul achieved the highest rate of unsystematic risk, while it achieved the largest systematic risk compared to the remaining stocks, and this calls for the rejection of the second sub-hypothesis of the study, which indicates that the measures of systematic risk and unsystematic risk are not different for the sample of listed companies within the same sector. While Baghdad Soft Drinks achieved a relatively low risk, it had a lower systemic risk than the banking sector, which calls for the rejection of the third sub-hypothesis of the study, which indicated that the relationship between systemic risk and non-systemic risk for the sample of listed companies does not differ between sectors.

More importantly, our study showed that the relationship between systemic risk and non-systemic risk for a sample of companies listed on the Iraq Stock Exchange during the study period is different, which calls for the rejection of the main hypothesis of the study

Section IV:-
Conclusions & Recommendations

The study proved that alpha is a criterion for judging the riskiness of corporate stocks, and that a higher alpha leads to an increase in the riskiness of stocks. The study proved that alpha is a linear measure that shows the contribution of stocks to the riskiness of the market index. The study showed that alpha is different between investments, for example, the beta of Middle East Bank was offensive, while the beta of Baghdad Soft Drinks Bank was defensive, and the beta of Baghdad Soft Drinks Bank was defensive. The study found that there is a difference between systematic risk and non-systematic risk for the sample of listed companies within the same sector. The study proved that there is a difference between the systemic risk and non-systemic risk of the sample of listed companies between sectors. The study proved that each company's stock has its own specificity in terms of systemic and non-systemic risk

Recommendations

The investor should diversify his investments among different local sectors, and he should also move to international investments to get rid of systemic risk . In light of the information that the investor can obtain since beta is an important measure of the risk factor, it is necessary to differentiate between stocks whose returns are very sensitive to changes in the market index and choose stocks with sensitivity consistent with the investor's risk preferences . The adoption of financial instruments by the company in order to identify the risks it may face in the future . Adopting the principle of diversification in the company's investment operations

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

in order to minimize systemic risk . Conscious and extensive use of systematic risk measurement models and knowledge of financial market trends in order to maximize the company's returns . The company's reliance on the careful selection of specialists in monitoring what happens in the financial markets and their adoption of modern methods in measuring risk .Increasing the awareness of the company's employees of the importance of systemic risk and how it affects the company's returns

Sources:-

1- Al-Ameri, Mohammed Ali Ibrahim, Modern Financial Management, first edition, Wael Publishing House, Amman, Jordan, 2013.
2- Al-Khasawneh, Uhud Abdul Hafeez Ali, Principles of Financial Management, FirstEdition, Dar Al-Hamid Publishing, Amman, Jordan, 2010.
3- Al-Shamaa, Khalil Muhammad Hassan, Financial Management, Fourth Edition,University of Baghdad, 1992.
4- Haddad, Fayez Selim, Financial Management, Third Edition, Dar Al-Hamid for Publishing and Distribution, Amman, Jordan, 2010.
5- Schroeder, Richard, Clark, Martellocathy, Jacques, Accounting Theory, Dar Al-Marrikh Publishing House, Riyadh, Saudi Arabia, 2006.
6- Abdulkarim, Abdulaziziz Mustafa, Feasibility study and project evaluation, first edition, Dar Al-Hamid Publishing House, Riyadh, Saudi Arabia, Amman, Jordan, 2004.
7- Moussa, Shaqiri Nouri and Salam Osama Azmi, 2011, Economic feasibility study and evaluation of investment projects, second edition, Dar Al Masirah Publishing, Amman, Jordan.
8- Hindi, Mounir Ibrahim, Modern Thought on Investment, second edition, Manshaat Al Maarif, Alexandria, Egypt, 2004.
9- Al-Dabbagh, Diaa Hamed and Al-Hamdani, Rafaa Ibrahim, the impact of customers on the risk and profitability of business organizations, Journal of Rafidain Development, Volume 30, Issue 91, 2008.
10- Dr. Al Ali, Reda Sahib Abu Hamad - Banking Management, a contemporary quantitative analytical approach, first edition, Dar Al-Fikr for Printing, Publishing and Distribution, 2002.
11-Damodaran,AswathCorporate Finance, Second Edition, John Wiley and Sons , Inc.U.S.A (2004) .
12- Gangadhar V. , Babu, RameshInvestment Management, First Edition, Anmol Publications Pvt .New Delhi(2003) .
13- Brigham ,Eugene F. , Gapenski, Louis C, EhrhardtFinancial Management, Ninth Edition, The Dryden Press , U.S.A (1992).
14- Elliott ,Euel W. , Dholakia , Kruti , Lehenbauer()Decision Making , Risk, and Uncertainty : an Analysis of Climate Change Policy, Cato Journal, vol.32 ,No.3 ,PP. 539- 556(2012)
15- Holton ,Glyn A)Defining Risk, Financial Analysts Journal , vol. 60, No. 6 ,PP. 19-25(200)
Theses and dissertations:
16-Zaida Duaa Mohammed, 2006, Non-performing credit facilities in the Palestinian banking system, Master's thesis submitted to the Faculty of Commerce, Islamic University - Gaza.
17-Al-Ameri, Muhammad Ali, The effect of financial structure on risk and return under the framework of portfolio theory Unpublished doctoral dissertation, submitted to the Board of the Faculty of Management and Economics, University of Baghdad, 1990.
18- Al-Nuaimi, Janan Musa, The use of financial ratios in the evaluation of banking investment, Higher diploma research, equivalent to a master's degree, submitted to the Board of the Higher Institute for Accounting and Financial Studies - University of Baghdad, 2005.

Technium Social Sciences Journal
Vol. 75, 148-168, September, 2025
ISSN: 2668-7798
www.techniumscience.com

19- Al-Qaisi, Dania Tariq, Analyzing the relationship between return and risk in the formation of an investment portfolio, Master's thesis, unpublished, submitted to the Board of the Faculty of Management and Economics - Al-Mustansiriyah University, 2004.
20- Al-Zubaidi, Shatha Abdul Hussein, The use of some market indicators in investing in common stocks, Master's thesis, unpublished, submitted to the Council of the Faculty of Management and Economics - Al-Mustansiriyah University, 2002..
21- Al-Mansour, Heba Allah Mustafa, The feasibility of international diversification in light of the financial crisis, PhD thesis, Karbala University, 2018.