Exploring the nexus between banking stability and market value: Evidence from the Iraqi banking sector

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Abstract: *Purpose*: This study aims to investigate the relationship between banking stability and market value in the Iraqi banking sector, exploring how the stability of banks impacts their market capitalization. *Methodology*: The study employs a quantitative approach, utilizing financial ratios such as return on assets, equity/assets, and the z-score index to quantify banking stability. Market value is measured using banks' share prices and outstanding shares. A sample of 17 Iraqi banks is analyzed over a four-year period, employing statistical analysis to examine the relationship between banking stability and market value. *Results*: The findings reveal a positive relationship between banking stability and market value. Banks with strong risk management practices, adequate capital buffers, and effective regulatory oversight inspire greater confidence among depositors and investors, translating into higher market valuations. Conversely, banks facing poor governance, high non-performing loans, and thin capital cushions struggle to achieve stability, eroding their market value. *Theoretical Contribution*: The study contributes to the existing literature by providing empirical evidence on the crucial role of banking stability in shaping market valuations. It highlights the importance of sound banking practices, regulatory frameworks, and risk management in enhancing investor confidence and, ultimately, the market value of banks. *Practical Implications*: The findings offer insights for policymakers, regulators, and financial institutions in Iraq and other regions. Promoting banking stability through enhanced prudential oversight, governance practices, risk management capabilities, and financial inclusion can favorably impact the market valuation and development of the banking system.

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1. Introduction

The banking sector's stability plays a pivotal role in shaping the market value of banks, which has a profound impact on financial markets and the broader economy. This complex relationship between banking stability and market value is the subject of great interest and scrutiny among economists, policymakers, and financial analysts. This article explores the multifaceted dynamics involved in understanding the role of banking stability in enhancing the market value of banks. Banking stability refers to the ability of a financial institution to withstand shocks and disturbances, thus ensuring the smooth functioning of the financial system. Achieving and maintaining stability is critical for banks because it enhances depositor confidence, facilitates efficient capital allocation, and supports economic growth. In the context of market capitalization, banking stability becomes a critical factor that investors consider when evaluating the attractiveness of bank stocks (Akkawi & Ali, 2022).

One of the main mechanisms through which banking stability affects market value is risk management. Stable banks are better equipped to identify, assess, and manage risks effectively. This ability reduces the possibility of financial crises, which can seriously affect market values. Investors are inherently risk averse, give higher ratings to banks with strong risk management practices, and view them as safer and more flexible investments (Beltratti & Stulz, 2012; Al-Jubouri, 2018).

Moreover, banking stability is intricately linked to regulatory and supervisory frameworks. Strict and effective regulatory oversight contributes to stability by enforcing prudential standards and ensuring compliance. Financial markets often react positively to banks operating in environments characterized by robust regulatory frameworks. The perception of a well-regulated banking sector enhances investor confidence, leading to a rise in the market value of banks within these systems (Al-Joaani& Ismail, 2022; Al-Masoudi et al., 2020).

In addition, the role of banking stability in market capitalization is evident through the transmission of monetary policy. Stable banks are better positioned to perform their role in the monetary system and facilitate the implementation of economic policies. Central banks rely on stable financial institutions to transmit policy signals to the broader economy. Confidence in the banking sector's stability positively impacts market values, as investors view these banks as effective channels of monetary policy.

In conclusion, the relationship between banking stability and market capitalization is complex and pivotal in shaping the overall health of financial systems. Stability enhances investor confidence, reduces risk perceptions, and improves efficient monetary policy transmission. Policymakers, regulators, and market participants recognize these factors' symbiotic nature, underscoring the importance of enhancing banking stability to continuously enhance market values in the banking sector. Conventional wisdom suggests that a stable banking sector forms the cornerstone of a sound financial system, contributing to economic stability and investor confidence. This is reflected in regulatory frameworks emphasizing capital adequacy, liquidity and risk management as essential to banking stability. However, in this quest for stability, an intellectual dilemma arises when considering the relationship between banking stability and the market value of individual banks.

Adopting incorrect economic policies that are not based on extensive studies leads to banking instability, and incorrect prediction of banking stability indicators may lead to adopting wrong policies that harm economic conditions and create cases of financial instability for the banking sector, and this is reflected in the decline in the market value of the Bank (Askar et al., 2023). Therefore, the problem of our study will be to determine the extent to which banking stability is available for many Iraqi banks and whether stable banks will have a better market value than their unstable counterparts.

While regulatory measures and financial indicators aim to promote stability, there appears to be a paradox when assessing their impact on the market value of individual banks. Are stringent stability requirements inadvertently constraining banks' ability to maximize shareholder value in the short term? Does overemphasizing stability lead to a trade-off in pursuing higher investor returns?

One of the most important objectives of the current study is：

1. Identify and understand the main factors that contribute to banking stability．
2. Study how regulatory frameworks and policies affect banking stability and, thus, market value.

3. Understand the dynamic relationship between banking stability and market capitalization and explore any reactions.
4. Investigate how market participants perceive and react to information related to banking stability.
5. Evaluate whether the relationship between banking stability and market value varies under different economic and financial conditions.
6. Objective: Distinguish between the effects of banking stability on market value in the short and long term, including shareholders, depositors, and regulatory authorities.
7. Provide practical policy recommendations to regulators, policymakers, and financial institutions to enhance banking stability and, thus, market value.
8. Make a meaningful contribution to the academic literature on the relationship between banking stability and market value.

2. Theoretical side

2.1. Banking stability

Financial stability is defined as the state in which the system, i.e., the financial markets, the banking system, and the infrastructure, is resistant to shocks and able to perform its essential functions of financial intermediation, facilitating economic operations, and risk management. Financial stability, in this sense, is the work to ensure the strength and soundness of the work of all components of the financial system. Financial stability leads to reducing tensions in the banking system and its stability, which reflects positively on economic stability, despite the Central Bank of Iraq recently issuing annual reports on the financial stability of the banking system since 2010 by relying on the analysis of relative imaginary rates of change. However, the Central Bank of Iraq did not intend to build a cumulative index to measure financial stability in Iraq (Khalaf & Hassan, 2018a). Banking stability is defined as the state in which the banking sector and infrastructure represented by legal and regulatory frameworks can withstand local or global crises (i.e., possess sufficient liquidity) (Meteab & Makttoof, 2022), mitigate their severity, and perform its primary function of financial intermediation at the highest level. Efficiency limits its transfer to the real economy and achieves economic stability. It appears to us that there is a relationship between internal debt and banking stability through the state following an expansionary financial policy, which increases the size of the government's fiscal deficit, which results in an accumulation of the size of government debt. When the state finances the deficit through internal borrowing and may increase its expansion of borrowing, this will negatively affect the performance of economic activity in general and the performance of the banking sector in particular, and this is reflected in the lack of banking stability (Al-Sharaa & Zaid, 2023).

The banking stability index plays a vital role in enhancing the security and reputation of the banking system. Banking stability is "the absence of banking crises, achieved through the stability of all banks in the banking system or banking sector (Faris & Ibrahim, 2022). Banking stability can be described as "The stability of banks linked to each other either directly through the interbank deposit market and participation in loans, Or indirectly through lending to joint sectors and proprietary trading. The determinants of banking stability and its impact on the financial system's stability vary from country to country, and the banking stability index can be considered an early warning system in the banking industry (Ibrahim & Faris, 2023). Banking stability is the state in which the banking system works well and can confront banking shocks and possesses the components of efficient banking work, i.e., its ability to face liquidity demands and achieve reasonable profits, its ability to manage risks and reduce them to the minimum possible, and then limit the emergence of banking imbalances. Dealing with it before the problem arises enhances the efficient performance of its essential functions (Mahmood et al., 2023).

Although the concepts of banking stability and financial stability are used interchangeably, there is a difference between them, and this is due to the absence of consensus on a unified definition for each concept, as well as the overlap between the two concepts. Banking stability includes stability related to the banking system and banking systems, and it is part of financial stability and one of its components. The fundamental latter is a broader concept than banking stability and includes various aspects of the financial system, infrastructure, institutions, financial markets, and financial procedures for the financial system. It is the smooth functioning of the essential elements that make up the financial system and means that the financial system is vital in the face of disturbances in the economy without giving The field of cumulative operations, efficiently allocating savings to investment opportunities, diversifying risks, processing payments in the economy, and financial

stability are primarily related to banking stability. Monetary stability is stability in the general level of prices or the absence of inflation or deflation. Financial safety is a focused evaluation process of banking activities through monitoring risks. Banking instability is characterized by three characteristics, which are significant volatility in financial assets, reduction in granting credit, a result of the increase in non-performing loans, there is an imbalance in the economy, such that the volume of total spending is not proportional to the economy's ability to produce (Zubair, 2021). Banking instability may be due to political instability. Ambiguity and instability are the main features of Arab political systems, and instability prevails over stability. Banking instability leaves a negative impact on the profitability of banks, and banking instability limits the ability of banks to invest and finance for fear of not achieving the required return on investment; on the other hand, it affects the confidence of customers in banks because the activities of banks depend on trust, and this hinders development and re-emergence in those countries (Taj-Addin, 2020).

Banking stability is affected by two groups of factors. The first group relates to the banking sector, including ill-considered economic openness, government intervention in the banking sector through financial and monetary policy, and the failure to grant the central bank independence in its financial decisions. The second group is the financial and economic system's weakness and failure to reform it, the continuous and sudden fluctuations in growth, inflation, and interest rates, and the ineffectiveness of banking supervision and control devices, printing of more currency and pumping it into the market, and the instability of the exchange rate of the local currency compared to foreign currencies in terms of sudden and unexpected rise (Demirgüç-Kunt & Huizinga, 2013; Awad et al., 2023).

Al-Shammari & Hassan (2019) Indicated that many factors contribute to banking stability and also address the weakness to which most banks are exposed, as well as their effects on risk management, including:

1. The bank's ownership structure is considered a complex issue with different dimensions. It refers to the problem of shareholders' non-compliance and also the issues of increasing debt ratios. A good structure is a good incentive for borrowers so they are willing to enter into high-risk projects. The role of ownership structure in risky behaviour is well established in empirical work. The results proved a positive relationship between risk-taking and the gradual change in the structure of banks, and with a rise in their shares, management is more risk-averse than other banks.
2. Sources of bank income: They are among the critical factors that affect the stability of banks and financial systems, as in the past two decades, there has been a change and diversification in sources of income to contribute to achieving stability. The source of fees is relied upon as income, but it can expose banks to risk.
3. Macroeconomic indicators: There is a group of economic indicators that affect the stability of banks, and these indicators include the gross domestic product, which affects the business cycle because of its impact on the quality of the portfolio, brokerage activities, and the decrease in interest income as a result of low growth, which leads to an effect on each individual's share of the gross domestic product, which leads to economic fluctuations.

Jawad & Shaker (2020) set some banking stability objectives, which are:

1. The lower or more stable inflation is, the greater the banking system's stability.
2. Stability of financial institutions and markets.
3. Stability of interest rates.
4. Stability of exchange rates.
5. Real and stable growth in the economy is achieved.

The financial system is considered stable as long as it does not suffer from any risks and shocks that hinder the process of financial intermediation. Financial stability focuses on the phenomena of financial crises and systemic risks. These phenomena are known for their negative effects on operating interests and the lack of trust and uncertainty that dominate the banking system (Khalaf & Hassan, 2018b). Instead, the financial system is characterized by weakness, fluctuations, and imbalance. Therefore, banking stability is defined as the situation in which the market value of the assets owned by the banking sector is greater than the value of the total debts, and the banking sector is weak if the market value is insufficient to cover the total debts. In this case, Total assets are less than total debts; therefore, banking stability is represented by the bank's ability to confront the imbalances or disturbances that occur in the bank's external environment and to be able to mediate between deficit units and financial surplus units and appropriately distribute risks. Banking stability is one of the main goals that central banks must achieve and maintain, along with the stability of prices and exchange rates, to ensure the adequate performance of all economic units towards sustainable economic development because of the large number of disturbances prompted central

banks in the world to give greater importance to ensuring the safety and stability of their banking systems (Abdul-Asadi & Al-Waeli, 2023).

Therefore, the concept of banking stability is part of financial stability and is considered its basic foundation for carrying out its functions of accepting deposits and granting credit (Mohsen, 2016). The banking system is the mainstay of the financial sector, and thus, shaking confidence in this sector results in a state of fear and panic in the components of the financial industry in general and then a state of collapse in the financial markets and companies. A more precise definition of banking stability can be given as the state in which the banking system can face fluctuations and banking shocks and possesses the components of banking work in a way that enables it to perform its essential functions with high efficiency. Therefore, the concept of banking stability is limited to the banking system and its systems, which is part of financial stability that includes aspects of the financial system in terms of infrastructure, its institutions, and its financial markets. Banking stability plays a vital role in the economy through its contribution to enhancing financial intermediation and providing the financial liquidity necessary to sustain the investment process in the economy, improving economic growth (Battal et al., 2022).

The banking system plays a vital role in the economy by performing the process of financial intermediation and facilitating the flow of funds between borrowers and savers to ensure the efficient allocation of financial resources that enhance economic growth. Therefore, the banking system's stability is essential in its primary macroeconomic function, as it transfers money from savers to borrowers by accepting deposits and providing loans, whether to individuals or companies. The bulk of these loans go to the investment side. Therefore, its inability to absorb shocks will hinder this function, leading to a decline in economic growth, a state of contraction, and a rise in unemployment rates. In addition, banking stability interferes with monetary stability in the long run. An economy facing instability in the banking system could slip into a deflationary spiral. The banking sector provides essential inputs and services to various companies and industries and, therefore, has great importance in developing the economy and the gross domestic product (Distinguin et al., 2013; Ali & Abdulhassan Abbas, 2015; Al-Khazraji & Al-aaraji, 2020).

Stability, in general, means stability in the management of the main financial institutions, most notably the financial markets, banks, and banks, as the stability of these markets and financial institutions guarantees sufficient capital to absorb normal and abnormal losses, as well as providing enough liquidity to manage the various operations and normal fluctuations in these sectors. After 2003 and the political changes that Iraq witnessed, it entered a new phase of openness to the global market following the market economy mechanism established by the new constitution of 2005. The banking sector in Iraq inherited many problems due to pre-2003 policies that were and still represent an obstacle to advancing the reality of banking work and keeping pace with banking systems, whether global or Arab, For various administrative, legal, financial, and planning reasons. Based on the above, several researchers and scholars define banking stability as the situation in which the market value of the assets owned by the banking sector is greater than the value of the total debts. The banking sector is in a state of distress if the market value of its assets is insufficient to repay the total debts. This means the assets' size is smaller than the total debts (Halub & Al-Haidari, 2023).

In addition to the fact that most Iraqi banks do not have experience in the field of international work, and as a result of the sudden change since 2003, Iraqi banks are still facing crises and have not been able to reach a stage of banking stability or achieve banking continuity in their work, as they have not developed their work throughout those previous years. Its investments are not at an acceptable level compared to neighbouring countries, whose banks play a vital role in achieving monetary stability despite the limited financial resources of those countries compared to Iraq, which is considered one of the major oil exporters and whose market is witnessing a continuous movement.

2.2. Market value

The market value of shares is an essential measure of a company's performance quality and effectively affects investors' decisions (Abdel Sahib, 2020). The instability of the market top of shares affects users' decisions and investors' confidence, and the market value also helps determine the value of banks in the stock market. It gives an idea of the bank's prospects and is considered one of the most essential values from investors' points of view. It also reflects the economic value of shareholders' rights. Market value is significant because it serves as a mirror that reflects information, elements, and other variables that affect stock prices. Investors in the stock market prefer that stocks' market value be higher than their book value and that the stock sold be higher than its value. The book value indicates that the company is facing financial difficulties, and the market value is an excellent measure of the efficiency of the financial performance of banks in

general. The market value affects the performance of banks through investors owning the capital, which is represented by stock prices as its main component. The greater the profit, the more positive the stock price will be. Banks appear to have good performance because they have succeeded in adding value to capital (Khalf et al., 2023). It is the price at which transactions are made in financial markets, and this value is characterized by instability and constant change from time to time due to the many factors affecting it (Adu et al., 2023).

The more profitable the company is, the more the market value exceeds the book value, and the lower the profitability, the lower the market value exceeds the book value. Maximizing the market value of shares is the primary goal of every decision in financial management. Therefore, any financial decision, whether an investment or financing decision, must preserve at least the current value of the company's shares (Abbas & Jawad, 2023). Other factors affecting the market peak are economic factors, whether international or local, and financial and monetary policies, as well as the conditions of the industry in which the facility operates and the facility's circumstances, directly and indirectly, affect the rate of return from risk, which the investor in turn monitors as well as other factors that may affect this rate, such as inflation indicators (consumer price indices and producer price indices), and government borrowing indicators (budget deficit, volume of borrowed funds), Hence the rate of return required by investors. Whenever these indicators indicate an expectation of a rise in interest rates, there is upward pressure on the rate of return required by investors and downward pressure on the value of shares. In addition, the general economic situation affects the estimation of expected future cash flows (Abdul Sahib & Mahmood, 2020; Abbas Al-Mashhadani & Abbas Al-Fatlawi, 2021). The market value expresses the total value of the company's shares in the financial market, and the market value changes continuously with the trading of traders in the financial market whose decisions regarding the share price are affected depending on developments in the company's performance and trends in the economic sector (Mohammed, 2019). Six main factors affect market value: liquidity, dividend policy, risks, interest rates, required rate of return, and earnings per common share. The market value expresses the price at which private shares are traded in the stock market, resulting from the interaction of the forces of supply and demand in this market. This is the reason for its continuous change. Other factors that affect price change are traders' expectations of the future economic unit's profitability and the element of speculation. Thus, these factors affect the market value (Kadhim & Mahmood, 2022).

International valuation standards have defined market value as the estimated amount at which property must be exchanged on the valuation date between a willing buyer and a willing seller in a commercial transaction on an equal commercial basis after appropriate marketing where both parties act knowledgeably, wisely, and without coercion. He identified the most critical factors affecting market value: Capital structure, bank size, economic growth, dividend distribution, supply and demand, exchange rate, interest rate, and inflation (Abd Al-Abbass et al., 2022; Abbas et al., 2018). It is the value based on which the stock is traded in the financial market, and it may be greater or less than the nominal or book value. This value is determined based on information related to the company (financial position, company performance (Abbas et al., 2019), economic and political conditions, etc. In addition to annual dividends, this value is affected by supply and demand for shares; that is, it represents the value of the balance between supply and demand in the financial market (Abbas et al., 2021). Hence, it means the market consensus on the value of the stock. Generally, the market value is often higher than the book value. However, the investor becomes more hesitant to buy shares, especially if their market value is exaggerated because the closest to the capital in the financial market and the safest for the investor is the book value (al-Imam & al-Hmailah, 2022). Hadi & Ahmed (2020) indicated that the factors that affect market value are internal factors and include (future expectations of earnings per share, expected profits per share, degree of risk and probability of achieving expected profits, financing structure, dividend policy, nature of the company's activity, level of technology used) And that there are external factors that are difficult to control, which are (the economic conditions prevailing in the stock market, legislation related to companies, legislation about environmental protection, legislation related to labour law, monetary policy, the state's financial policies, and the level of economic activity in the country). Maximizing value represents the strategic goal linked to maximizing shareholder wealth. This is achieved by optimizing the value of a market share, and maximizing the value of the market share is achieved by maximizing earnings per share because earnings per share will affect the price of shares in the market because investor's view profits by numbering shares. Constantly, it occurs by reducing costs and increasing revenues, and the earnings per share are reflected in the market price, and the earnings per share are increased by increasing profits (Yaseen & Mohammed, 2022; Gyimesi & Kehl, 2023). Market value is often used as a number in analysts' financial reports, press releases, and investor circulars when mentioning the company's value compared to the book value, which expresses the value of the company's assets after deducting its obligations to others or taxes. The effect of market value is most pronounced on the price an investor or shareholder must pay to own

part of a company's shares, regardless of the book value mentioned. The difference between the two values depends on various factors such as the company's industry, the nature of the company's assets and liabilities, the company's ability to achieve profits, company growth, company size, and the ability to generate cash (Alsaayigh et al., 2023).

3. Methodology

3.1. Metrics

Through reviewing many studies, many measures were reached that are appropriate for our current study:

Variable type	Equations	Sources
independent variable: banking stability	$z - Score = \dfrac{ROA + (\frac{Equity}{Asset})}{\sigma(ROA)}$	(Almousawi, 2022)
Dependent variable: Market value	*MV= The share price * Number of Shares*	(Abd AlAbbass et al., 2022)

Table 1: Metrics

The following is an explanation of all the elements used in each agency scale:

The (equity / total asset): The ratio of equity to total assets is a financial metric that measures the amount of financial leverage a company uses. It refers to the relationship between a company's total assets and the portion shareholders own (aka owner's equity). A lower equity-to-total assets ratio means the company primarily used debt to acquire assets, widely viewed as an indicator of greater financial risk. Conversely, a high equity ratio to total assets can indicate a strong company that does not need debt or an overly conservative company that foolishly forces business opportunities. The importance and value of the equity ratio to a company's total assets depends on the industry, the company's assets and sales, and current economic conditions.

Return on assets (ROA)= net income/total assets: Return on Assets (ROA) is a financial ratio that measures a company's profitability concerning its total assets. It indicates how efficiently a company's management generates profit from its assets. The ROA is calculated by dividing the net income by the total assets and is commonly expressed as a percentage. A higher ROA implies that a company is more efficient at using its assets to generate profit. It is a useful metric for evaluating a company's financial health and performance, and it is best used when comparing similar companies within the same industry. ROA is one of the elements used in financial analysis using the Du Pont Identity. An ROA over 5% is generally considered good.

$\sigma(ROA)$: it is the standard deviation of the return on assets calculated in a specific period. Next, we choose the ratio of capital to total assets (capital) to measure the soundness of banks. A high level of capitalization is associated with a high level of banking stability.

We can interpret this result as the number of standard deviations below the average by which returns must decrease before the capital (property equity) in banks falls if the profitability of banks is average and the profitability of banks is typically distributed; therefore, the inverse Z-Score can be considered the probability of a bank default, in other words, high returns and capitalization will increase, but volatile returns will reduce the stability of banks. It can also be measured by estimating the ratio of non-performing loans to total loans. However, these measures only reflect the credit risks of banks.

Most theories predict that capital enhances a bank's probability of survival and enhances capital's role as an absorber of earnings shocks. It indicates that the best-performing banks maintain a high level of equity compared to their assets, so a higher ratio can indicate higher stability for banks (lower insolvency risk for banks). This index suffers from several limitations, as it uses the financial stress index developed by the International Monetary Fund for thirteen industrial economies and deals with the stability of banks by proxy using the natural logarithm (Z-Score). The Z-Score index provides a measure of the health of banks because it indicates the number of standard deviations that show That the returns for banks' equity decrease. A higher Z-Score indicates a higher degree of solvency and, therefore, gives a direct measure of banks' stability, so probabilistic methods typically require an initial assessment of the level of market risk or pre-determined acceptable portfolio risk. However, Z-Score does not require prior assumptions and is based on organizations' financial statements. An additional advantage of the Z-Score indicator is the ability to calculate and interpret it at the individual bank level, as well as for groups of banks and the banking system as a whole, as the results of the study show that the stability of banks is affected by an increase in their size, smaller

banks become less stable than large banks, and they are also less stable in the future (Almousawi, 2022).

Market value of shareholders' equity: the total dollar value of a company's equity, which represents the ownership interest of shareholders. It is calculated by multiplying the current stock price by the total outstanding shares. The market value of equity is also known as market capitalization and is used to measure a company's size and value. It is a valuable metric for investors to evaluate a company's worth and compare it to other companies in the same industry. However, it may not always reflect the actual value of a company due to factors such as illiquid markets, control premiums, and other investor groups such as debt and preferred stock

3.2. Study sample

A sample of 17 banks in Iraq was selected for four years. There are more than 43 banks, but most do not have their data on the Iraq Stock Exchange. There is also a shortage in the number of years in which complete data is available, and one of the biggest problems we suffer from in Iraq is the difficulty of obtaining data. Therefore, we review the selected banks, mentioning the capital owned by each bank, as in Table 2.

Table 2: Capital owned		
Banks	**Symbol**	**Owned capital**
Commercial Bank of Iraq	BCOI	150000000
Bank of Baghdad	BBOB	100000000
Iraqi Islamic Bank	BIIB	126400000
Middle East Investment Bank	BIME	400000000
Investment Bank of Iraq	BIBI	100000000
National Bank of Iraqi	BNOI	400000000
Sumer Commercial bank	BSUC	400000000
Babylon bank	BBAY	500000000
Gulf commercial bank	BGUC	600000000
Mosul Bank for investment	BMFI	1000000000
Ashur international bank	BASH	25000000000
Al-Mansour Bank for investment	BMNS	55000000000
United Bank for investment	BUND	1000000000
Elaaf Islamic bank	BELF	2000000000
National Islamic bank	BNAL	25000000000
Cihan Islamic bank	BCIH	25000000000
Trans Iraq Bank for investment	BTRI	56500000000

3.3. Study hypotheses

First main hypothesis: *There is a significant influence relationship between banking stability and market value.*

The first primary hypothesis will be applied to all banks within the current study sample.

The practical side
Return on assets (ROA)
Table 3 shows that some banks used their assets well to achieve profit and maintained good earnings for four years. There are some banks whose results are shaded in red. We find that they have faced default in some years, which indicates the lack of a clear policy for these banks on generating profits and their inability to manage their assets well.

This weakness in the return to assets ratio is due to the weak quality of assets. Some banks may hold toxic assets, the impact of which is reflected in the achieved return. As well as the ambiguous economic conditions that significantly affect banks that do not have financial experts capable of making decisions to confront these economic conditions properly, the rise in interest rates and geopolitical uncertainty is a significant reason as Iraq is going through a state of instability and extreme fluctuation from time to time. Banks are affected by these changes because the central bank does not have robust mechanisms to control the market quickly. Another reason is the decline in the financial performance of banks. The global stress test conducted by the International Monetary Fund also warns that reserves may not be sufficient for some banks in the event of severe changes in the country's financial and economic conditions. The instability of exchange rates in Iraq creates a state of stagnation occasionally. High interest rates can increase the cost of liabilities, such as deposits and loans, which may negatively affect the rate of return on assets. High interest rates can lead to a decline in the value of investment securities, resulting in unrealized losses in the bank's investment portfolio.

These unrealized losses can negatively affect liquidity, profits, and capital, ultimately leading to a weak return on assets ratio. Rising interest rates can also lead to direct changes in a bank's loan portfolio, as banks may adjust their lending practices to accommodate the new interest rate environment. This may have positive and negative effects on the return on assets ratio.

Table 3: Ratio of return to total assets					
Symbol	2018	2019	2020	2021	2022
BCOI	2.447	1.457	5.747	2.539	2.204
BBOB	0.372	0.644	1.423	1.947	3.082
BIIB	0.998	1.525	1.888	0.723	1.658
BIME	-0.409	0.414	0.174	-0.005	0.356
BIBI	0.055	0.003	0.817	0.141	1.016
BNOI	-1.504	1.448	2.226	1.434	1.139
BSUC	0.222	0.287	0.320	0.313	0.315
BBAY	1.005	0.309	-2.677	-1.062	0.783
BGUC	0.102	-0.715	-0.000	-0.935	-0.927
BMFI	0.630	0.833	0.365	0.480	0.690
BASH	1.012	1.119	3.128	1.242	1.653
BMNS	1.351	0.566	0.544	1.163	1.716
BUND	-3.258	-0.340	0.064	0.239	0.015
BELF	0.162	0.276	1.182	0.180	0.436
BNAI	1.300	0.480	0.336	0.127	0.153
BCIH	0.655	0.079	0.469	0.663	0.697
BTRI	1.978	0.381	0.872	-0.577	-1.929

The ratio of equity to total assets

From Table 4, we notice that most of the banks had a high percentage, and there are a few whose percentage decreased significantly from the rest for several reasons. A higher proportion of a bank's debt-financed assets can result in a lower equity ratio to total assets. This can happen when a bank takes on more debt to finance its operations or investments. Losses, dividend payments, or stock repurchases can cause a decrease in the equity-to-total assets ratio. When the value of a bank's assets declines, the ratio of equity to total assets may decrease. This can occur due to market fluctuations, economic downturns, or changes in the bank's asset mix. Changes in accounting standards, such as the application of new accounting rules or changes in depreciation methods, can cause a decrease in the ratio of equity to total assets. It is necessary to analyze the trend of the equity to total assets ratio over time to assess whether a bank's financial risk profile is improving or deteriorating. A downward trend in the ratio of equity to total assets may indicate that a bank is taking on more debt or experiencing a decline in asset values, which may affect its financial stability and performance in the long term.

Table 4: Ratio of equity to total assets					
Symbol	2018	2019	2020	2021	2022
BCOI	63.962	60.550	49.883	61.396	61.638
BBOB	20.362	24.157	19.614	20.075	14.477
BIIB	52.046	34.793	35.925	29.745	21.640
BIME	34.318	37.755	37.931	38.540	29.046
BIBI	46.632	49.190	46.418	40.423	37.801
BNOI	49.043	40.556	34.395	17.342	13.793
BSUC	65.543	76.905	78.917	70.900	80.879
BBAY	72.522	63.910	60.039	59.015	59.722
BGUC	54.375	55.852	60.135	56.514	55.806
BMFI	64.864	65.451	67.829	35.128	34.943
BASH	57.416	62.184	57.7194	45.865	31.989
BMNS	18.979	19.135	22.258	40.131	38.414
BUND	58.915	50.217	43.429	36.960	38.580
BELF	61.923	74.307	86.620	65.982	69.956
BNAI	45.989	53.571	55.979	56.425	48.177
BCIH	44.106	46.088	39.173	22.610	60.795
BTRI	83.531	77.006	78.735	70.440	61.930

Banking stability

We divided the z value for the banks in the study sample into six levels, as shown in Table 5, where we notice a large discrepancy in the numbers between the banks in the study sample for the four years within the study period. Some of these banks had low values, and their cells were shaded red. A portion of the cells have been shaded in orange, which is also considered an ungood condition

for banks going through this stage, especially if they have been continuing for two or more consecutive years. Also, some cells have been shaded in yellow, and these banks are going through a state of instability. Then, some cells in white are for banks at the midpoint, which is acceptable. Still, the banks operating in Iraq should not remain within this level because, in the future, when any economic crisis occurs, they will be quickly affected and move into a state of instability. We then find the cells shaded in green, which relate to banks that are in a state of complete stability as a result of the strength of their financial position, with which they can face any economic crises occurring in Iraq or any changes in currency exchange rates, and are also able to confront and keep up with current inflation. We note that only four banks could remain in the stability stage continuously over four years, as shown in Table (5). Especially the (BSUC) Bank, which has reached a very significant stage of stability, surpassing the rest of the banks, as we find that the value of z has gone thousands over four continuous years, meaning that this bank is working excellently compared to the rest of the banks in Iraq. This bank provides diverse services, meaning it seeks to exploit any opportunity to save money. For the purpose of reviewing the services provided by the bank, visit the following link (https://sumerbank.iq/index.php?lang=en). There are other banks shaded in green, but not for all years, indicating that these banks are trying to reach the highest stage of stability.

Table 5: Bank stability account						
Banks	symbol	z-score 2018	z-score 2019	z-score 2020	z-score 2021	z-score 2022
Commercial Bank of Iraq	BCOI	38.591	36.524	30.135	37.045	37.187
Bank of Baghdad	BBOB	18.761	22.260	18.083	18.513	13.367
Iraqi Islamic Bank	BIIB	107.895	72.137	74.488	61.666	44.873
Middle East Investment Bank	BIME	103.330	113.689	114.215	116.047	87.463
Investment Bank of Iraq	BIBI	98.501	103.903	98.056	85.385	79.856
National Bank of Iraqi	BNOI	34.288	28.381	24.080	12.144	9.659
Sumer Commercial Bank	BSUC	1614.630	1894.530	1944.092	1746.590	1992.421
Babylon Bank	BBAY	47.125	41.523	38.979	38.329	38.807
Gulf Commercial Bank	BGUC	107.059	109.958	118.400	111.261	109.866
Mosul Bank for Investment	BMFI	355.735	358.959	371.997	192.658	191.645
Ashur International Bank	BASH	65.896	71.368	66.265	52.643	36.724
Al-Mansour Bank for Investment	BMNS	37.298	37.597	43.731	78.849	75.483
United Bank for Investment	BUND	40.046	34.158	29.544	25.146	26.245
Elaaf Islamic Bank	BELF	145.769	174.921	203.915	155.324	164.680
National Islamic Bank	BNAI	95.661	111.421	116.428	117.353	100.200
Cihan Islamic Bank	BCIH	170.898	178.572	151.782	87.609	235.558
Trans Iraq Bank for Investment	BTRI	56.421	52.000	53.172	47.556	41.797

From zero to 10, the color is red
From 20 to greater than 10, orange color
From 30 to greater than 20, yellow color
From 40 to greater than 30, the grey color
From 100 to greater than 40, the white color
From 1992 to over 100 green colors

Many banks are characterized by high banking stability despite Iraq's changing and unstable economic conditions. This is due to the sound financial system of those banks, which can absorb any sudden changes in the economy, whether good or bad. The financial system of these banks is capable of Allocate resources efficiently and can develop strategic plans to manage financial risks; the flexibility of the financial systems of stable banks and their ability to face economic pressures, and the more banks continue to maintain their stability and ability to manage risks, this will be reflected in the rush of depositors to deposit their money in those banks due to their ability to confront hyperinflation and any collapse that occurs in the market due to a sudden change in exchange rates. The reason for the instability of the rest of the banks is their loss of efficient management to confront risks as a result of political conflicts and political instability, as well as the presence of solid competition for banks from offices that practice many banking activities and provide services better than banks, and also the weakness of the role of the Central Bank in achieving banking stability, as it did not He makes decisions that are effectively capable of confronting any financial crisis facing the Iraqi economy.

Market value

From Table 6, we find the three best banks shaded in green for the year 2018, and the reason for their higher market value than the rest of the banks is the high share price. Although other banks had more shares, their market value was small.

Table 6: Market value of banks for the year 2018				
Banks	symbol	Number of shares	Share price	Market value (MV)
Commercial Bank of Iraq	BCOI	250,000,000	0.47	117,500,000
Bank of Baghdad	BBOB	250,000,000	0.29	72,500,000
Iraqi Islamic Bank	BIIB	250,000,000	0.4	100,000,000
Middle East Investment Bank	BIME	250,000,000	0.13	32,500,000
Investment Bank of Iraq	BIBI	250,000,000	0.28	70,000,000
National Bank of Iraqi	BNOI	250,000,000	0.34	85,000,000
Sumer Commercial Bank	BSUC	250,000,000	0.9	225,000,000
Babylon Bank	BBAY	250,000,000	0.19	47,500,000
Gulf Commercial Bank	BGUC	300,000,000	0.19	57,000,000
Mosul Bank for Investment	BMFI	252,500,000	0.16	40,400,000
Ashur International Bank	BASH	250000000	0.23	57,500,000
Al-Mansour Bank for Investment	BMNS	250,000,000	0.63	157,500,000
United Bank for Investment	BUND	300,000,000	0.09	27,000,000
Elaaf Islamic Bank	BELF	250,000,000	0.22	55,000,000
National Islamic Bank	BNAI	251,000,000	0.9	225,900,000
Cihan Islamic Bank	BCIH	255,000,000	2.65	675,750,000
Trans Iraq Bank for Investment	BTRI	264,000,000	0.7	184,800,000

We find in Table 7 the highest market value for three banks for the year 2019, which were shaded in green, and the reason for the increase in the market value of these banks is the increase in the share price, although other banks own a more significant number of shares, but their market value was small.

Table 7: Market value of banks for the year 2019				
Banks	symbol	Number of shares	Share price	Market value (MV)
Commercial Bank of Iraq	BCOI	250,000,000	0.46	115,000,000
Bank of Baghdad	BBOB	250,000,000	0.3	75,000,000
Iraqi Islamic Bank	BIIB	250,000,000	0.4	100,000,000
Middle East Investment Bank	BIME	250,000,000	0.1	25,000,000
Investment Bank of Iraq	BIBI	250,000,000	0.27	67,500,000
National Bank of Iraqi	BNOI	250,000,000	0.61	152,500,000
Sumer Commercial Bank	BSUC	250,000,000	0.51	127,500,000
Babylon Bank	BBAY	250,000,000	0.11	27,500,000
Gulf Commercial Bank	BGUC	300,000,000	0.14	42,000,000
Mosul Bank for Investment	BMFI	252,500,000	0.16	40,400,000
Ashur International Bank	BASH	250,000,000	0.24	60,000,000
Al-Mansour Bank for Investment	BMNS	250,000,000	0.67	167,500,000
United Bank for Investment	BUND	300,000,000	0.07	21,000,000
Elaaf Islamic Bank	BELF	250,000,000	0.18	45,000,000
National Islamic Bank	BNAI	251,000,000	1	251,000,000
Cihan Islamic Bank	BCIH	255,000,000	2.52	642,600,000
Trans Iraq Bank for Investment	BTRI	264,000,000	0.7	184,800,000

Table 8 shows that the rise in the share price has a significant role in raising the bank's market value. The three best banks for 2020 have been identified and shaded in green. This confirms that these banks achieved high returns during that period.

Table 8: Market value of banks for the year 2020				
Banks	symbol	Number of shares	Share price	Market value (MV)
Commercial Bank of Iraq	BCOI	250,000,000	0.44	110,000,000
Bank of Baghdad	BBOB	250,000,000	0.41	102,500,000
Iraqi Islamic Bank	BIIB	250,000,000	0.38	95,000,000
Middle East Investment Bank	BIME	250,000,000	0.12	30,000,000
Investment Bank of Iraq	BIBI	250,000,000	0.23	57,500,000
National Bank of Iraqi	BNOI	250,000,000	0.92	230,000,000
Sumer Commercial Bank	BSUC	250,000,000	0.4	100,000,000
Babylon Bank	BBAY	250,000,000	0.07	17,500,000
Gulf Commercial Bank	BGUC	300,000,000	0.14	42,000,000
Mosul Bank for Investment	BMFI	252,500,000	0.13	32,825,000
Ashur International Bank	BASH	250,000,000	0.28	70,000,000
Al-Mansour Bank for Investment	BMNS	250,000,000	0.57	142,500,000
United Bank for Investment	BUND	300,000,000	0.08	24,000,000
Elaaf Islamic Bank	BELF	250,000,000	0.3	75,000,000
National Islamic Bank	BNAI	251,000,000	0.8	200,800,000
Cihan Islamic Bank	BCIH	255,000,000	2.29	583,950,000
Trans Iraq Bank for Investment	BTRI	264,000,000	0.7	184,800,000

We note from Table 9 an increase in the market value of the best three banks for the year 2021, which were shaded in green, and that the reasons for the increase are due to the increase in the share price in the market as a result of the annual profits achieved by these shares.

Table 9: Market value of banks for the year 2021				
Banks	symbol	Number of shares	Share price	Market value (MV)
Commercial Bank of Iraq	BCOI	250,000,000	0.62	155,000,000
Bank of Baghdad	BBOB	250,000,000	1.03	257,500,000
Iraqi Islamic Bank	BIIB	250,000,000	0.5	125,000,000
Middle East Investment Bank	BIME	250,000,000	0.2	50,000,000
Investment Bank of Iraq	BIBI	250,000,000	0.3	75,000,000
National Bank of Iraqi	BNOI	250,000,000	1.23	307,500,000
Sumer Commercial Bank	BSUC	250,000,000	0.38	95,000,000
Babylon Bank	BBAY	250,000,000	0.1	25,000,000
Gulf Commercial Bank	BGUC	300,000,000	0.15	45,000,000
Mosul Bank for Investment	BMFI	252,500,000	0.15	37,875,000
Ashur International Bank	BASH	250,000,000	0.44	110,000,000
Al-Mansour Bank for Investment	BMNS	300,000,000	0.51	153,000,000
United Bank for Investment	BUND	250,000,000	0.11	27,500,000
Elaaf Islamic Bank	BELF	250,000,000	0.44	110,000,000
National Islamic Bank	BNAI	251,000,000	1	251,000,000
Cihan Islamic Bank	BCIH	255,000,000	2.29	583,950,000
Trans Iraq Bank for Investment	BTRI	264,000,000	1	264,000,000

Table 10 shows the increase in the market value of the best three banks for 2022. The increase is mainly due to the rise in the share price of these banks as a result of the high profits achieved by these banks this year.

Table 10: Market value of banks for the year 2022				
Banks	symbol	NUMBER OF SHARES	SHARE PRICE	MARKET VALUE (MV)
Commercial Bank of Iraq	BCOI	250,000,000	0.5	125,000,000
Bank of Baghdad	BBOB	250,000,000	1.37	342,500,000
Iraqi Islamic Bank	BIIB	250,000,000	0.45	112,500,000
Middle East Investment Bank	BIME	250,000,000	0.14	35,000,000
Investment Bank of Iraq	BIBI	250,000,000	0.28	70,000,000
National Bank of Iraqi	BNOI	270,000,000	1.1	297,000,000
Sumer Commercial Bank	BSUC	250,000,000	0.19	47,500,000
Babylon Bank	BBAY	250,000,000	0.07	17,500,000
Gulf Commercial Bank	BGUC	300,000,000	0.16	48,000,000
Mosul Bank for Investment	BMFI	252,500,000	0.21	53,025,000
Ashur International Bank	BASH	250,000,000	0.4	100,000,000
Al-Mansour Bank for Investment	BMNS	250,000,000	0.62	155,000,000
United Bank for Investment	BUND	300,000,000	0.06	18,000,000
Elaaf Islamic Bank	BELF	250,000,000	0.53	132,500,000
National Islamic Bank	BNAI	251,000,000	1.08	271,080,000
Cihan Islamic Bank	BCIH	255,000,000	2.29	583,950,000
Trans Iraq Bank for Investment	BTRI	264,000,000	1.34	353,760,000

It is noted from Tables 6-10 that the market value of banks is affected by expected growth rates, potential profits, cost of capital, price-to-earnings ratio, price-to-book value ratio, and regulatory risks. Among the most important reasons that lead to a rise in the market cap are:

1. Banks that achieve high profits on an ongoing basis attract investors and depositors, and this is reflected in their high market value, in addition to their high net income, fees, commissions, trading activities, and investment gains.
2. Banks that benefit from providing loans and managing them well will achieve high profits and demand for the financial services they provide, in addition to the rise in interest rates, helping to enhance the banks' net interest margins.
3. When banks succeed in expanding their loan portfolios and attracting creditworthy borrowers, the bank will receive interest and profits shortly, leading to an increase in market value. The more diversified the financial portfolios are, the lower the risks.
4. Efficient management contributes to enhancing profitability, as sound management practices contribute to reducing credit risks.
5. Mergers and acquisitions increase the market value of banks, which is missing in Iraqi banks. Markets respond more to mergers and acquisition deals that are well implemented.
6. Regarding the feelings of investors and the banking culture of people, we find in Iraq a lack of trust towards banks and the absence of any banking culture among most people. Therefore, we find that they prefer to deal in cash and do not prefer to deposit their money in banks. They also prefer to save their money by buying real estate, gold, or dollars instead. By depositing money in banks, this led to a significant increase in real estate prices.

4. Statistical analysis

4.1. Data analysis

The analysis of this article was done using SPSS v.29. This paper covers the analysis of fixed effects panel data using the general linear model framework. Longitudinal data modelling is approached as a regression issue, with fixed parameters representing heterogeneity and nonrandom quantities known as fixed effects (Pallant, 2020).

1. Descriptive statistics
Table 11 shows the descriptive statistics for financial stability and market value for each bank, including the mean for the average score and standard deviation (SD) for the variation within each bank. The bubbles plot in Figure 1 reveals the scatter representation of the relationship between financial stability and market value according to each bank marked with a different color.

Bank	Notation	Financial Stability		Market Value	
		Mean	SD	Mean	SD
Ashur International Bank	BASH	58.58	14.04	18.16	0.30
Babylon Bank	BBAY	40.95	3.67	17.04	0.41
Bank of Baghdad	BBOB	18.20	3.17	18.74	0.72
Cihan Islamic Bank	BCIH	164.88	53.29	20.23	0.07
Commercial Bank of Iraq	BCOI	35.90	3.31	18.63	0.13
Elaaf Islamic Bank	BELF	168.92	22.36	18.16	0.45
Gulf commercial bank	BGUC	111.31	4.25	17.65	0.13
Investment Bank Of Iraq	BIBI	93.14	10.07	18.03	0.10
Iraqi Islamic Bank	BIIB	72.21	23.11	18.48	0.11
Middle East Investment Bank	BIME	106.95	11.98	17.33	0.26
Mosul Bank for Investment	BMFI	294.20	93.36	17.51	0.17
Al-Mansour Bank for Investment	BMNS	54.59	20.80	18.86	0.06
National Islamic Bank	BNAI	108.21	9.79	19.29	0.12
National Bank of Iraqi	BNOI	21.71	10.55	19.08	0.54
Sumer Commercial Bank	BSUC	1838.45	155.36	18.47	0.56
Trans Iraq Bank for Investment	BTRI	50.19	5.67	19.24	0.29
United Bank for Investment	BUND	31.03	6.14	16.96	0.18

Figure 1: Bubble plot for the relationship between financial stability and market value
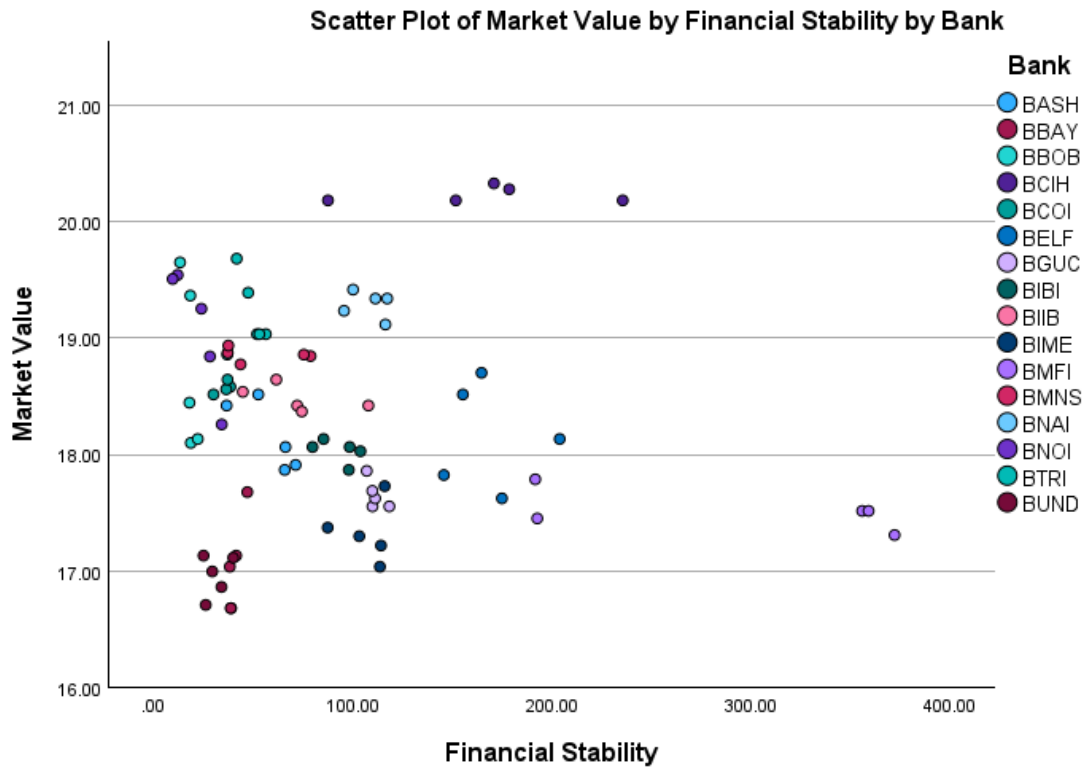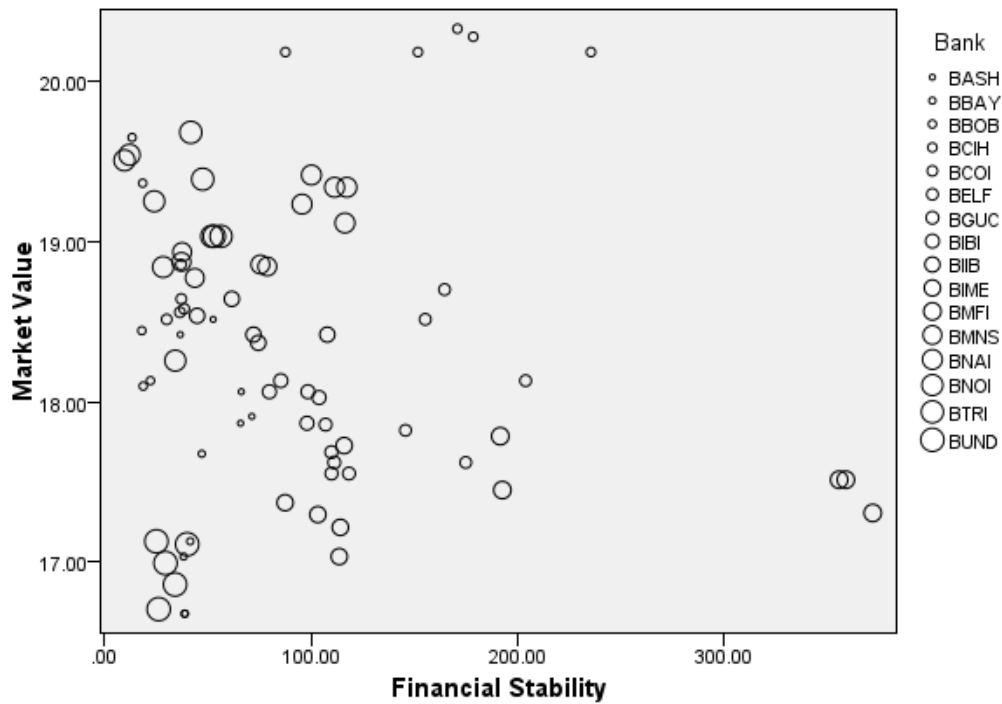
2. Hypothesis testing

Table 12: Tests of between-subjects effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	62.512[a]	17	3.677	37.126	0.000	0.904
Intercept	1384.887	1	1384.887	13982.31	0.000	0.995
Financial stability	0.895	1	0.895	9.041	0.004	0.119
Bank	62.498	16	3.906	39.438	0.000	0.904
Error	6.636	67	0.099			
Total	28675.132	85				
Corrected Total	69.148	84				

The results in Table 12 show that all sources of variation were significant at a 5% level with the dependent variable "Market Value" after taking the logarithmic value of market value (LogMV). The results indicated that there is a significant main effect on financial stability $F(1, 67) = 9.041, P < 0.01, \eta^2 = 0.119$. Furthermore, there is a marginally significant main effect for banks: Results show that all banks were higher in market value $F(16, 67) = 39.438, P < 0.001, \eta^2 = 0.904$ compared to United Bank for investment, which was taken as a reference category (George & Mallery, 2019).

Figure 2: Partial correlation between financial stability and market value
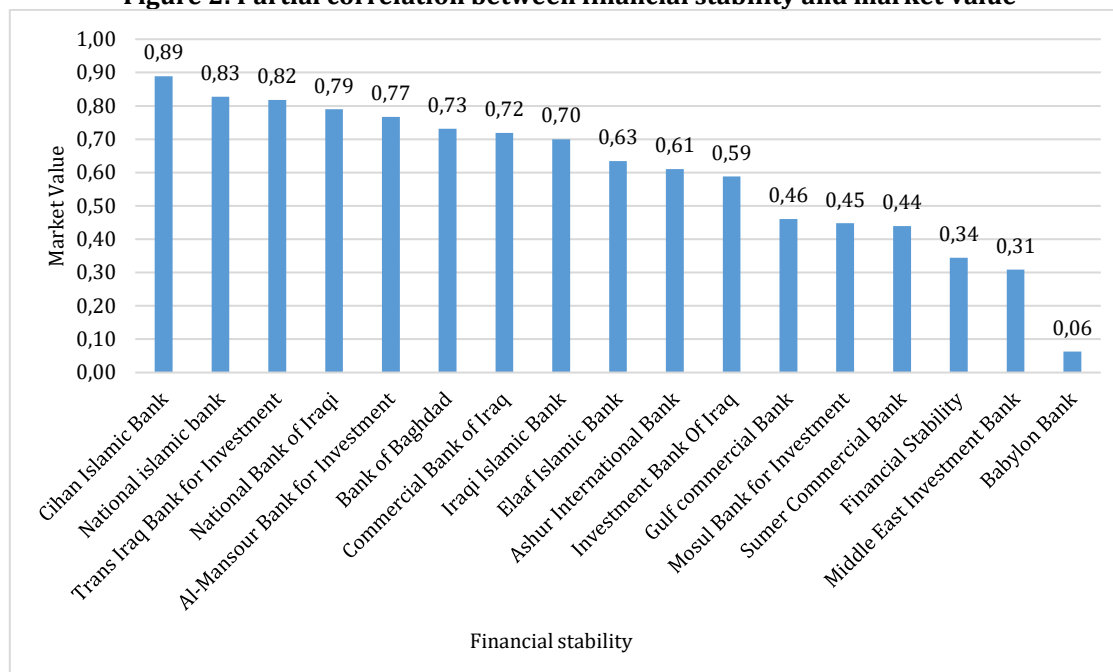
Table 13: Parameter estimates

Parameter	B	t	P-value	95% CI		Partial Correlation	Partial Eta Squared
				LB	UB		
Intercept	17.04	119.2	0.000	16.75	17.32	-	0.995
Financial stability	0.002	3.007	0.004	0.004	0.001	0.345	0.119
Ashur International Bank	1.262	6.303	0.000	0.863	1.662	0.610	0.372
Babylon Bank	0.103	0.518	0.606	-0.294	0.501	0.063	0.004
Bank of Baghdad	1.748	8.770	0.000	1.350	2.146	0.731	0.534
Cihan Islamic Bank	3.599	15.89	0.000	3.147	4.051	0.889	0.790
Commercial Bank of Iraq	1.684	8.459	0.000	1.287	2.081	0.719	0.516
Elaaf Islamic Bank	1.534	6.726	0.000	1.079	1.989	0.635	0.403
Gulf commercial Bank	0.890	4.250	0.000	0.472	1.308	0.461	0.212
Investment Bank of Iraq	1.222	5.953	0.000	0.812	1.632	0.588	0.346
Iraqi Islamic Bank	1.619	8.020	0.000	1.216	2.021	0.700	0.490
Middle East Investment Bank	0.554	2.658	0.010	0.138	0.969	0.309	0.095
Mosul Bank for Investment	1.194	4.098	0.000	0.612	1.775	0.448	0.200
Al-Mansour Bank for Investment	1.955	9.779	0.000	1.556	2.354	0.767	0.588
National Islamic Bank	2.518	12.072	0.000	2.102	2.934	0.828	0.685
National Bank of Iraqi	2.099	10.54	0.000	1.701	2.496	0.790	0.624
Sumer Commercial Bank	5.903	4.005	0.000	2.961	8.845	0.440	0.193
Trans Iraq Bank for Investment	2.322	11.633	0.000	1.924	2.721	0.818	0.669
United Bank for Investment	0ᵃ					-	

ᵃ This bank was taken as a reference category

Results were after taking the logarithmic function of market value.

The partial correlation coefficient in Table 13 and Figure (2) suggests a moderate to strong positive relationship between all variables with the dependent variable "Market value". The financial stability of Cihan Islamic Bank has the highest relationship with market value, while the Financial stability of Middle East Investment Bank has the lowest (but moderate) relationship with market value. On the other hand, the financial stability of Babylon Bank has no relationship with market value. All the regression coefficients were positive, suggesting a positive effect on the market value. These coefficients were significant at a 5% significance level, except for the financial stability of Babylon Bank.

3. Model Fit

Some to measure the quality and goodness of our model Firstly, the F-test shows the significance of our model since the P-value is less than 0.05 as $(F(17,67) = 37.17, P < 0.001)$.

Table 14: Model summary

Test / Index	Test Statistic	df	P-value
F-Test	37.17	17,67	0
Modified Breusch-Pagan Test for Heteroskedasticity (Chi-Squared Test)	0.155	1	0.694
Kolmogorov-Smirnov for Standardized Residual	0.080	85	0.2
R		0.951	
R-Square		0.904	
Adjusted R Squared		0.88	

Figure 3: Normality curve for the standardized residual
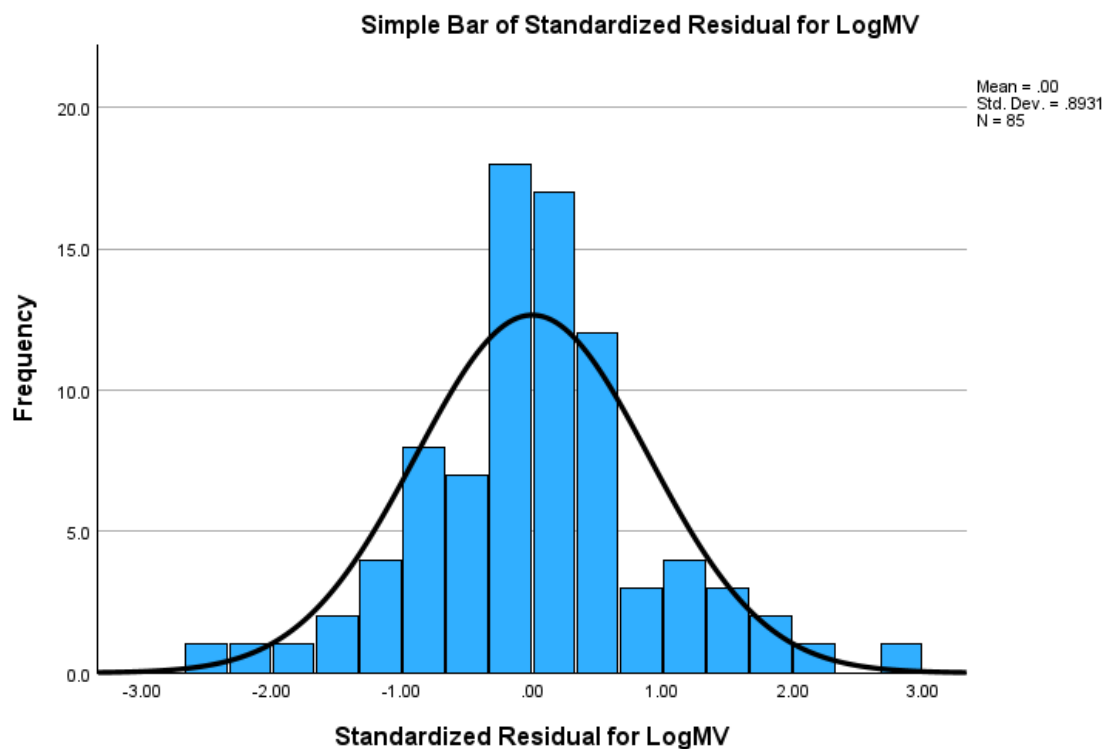
The Modified Breusch-Pagan Test was conducted to test for the Heteroskedasticity problem (Gujarati, 2022); the results revealed that the Heteroskedasticity problem does not affect our model since the P-value was above the threshold of 0.05 as $(\chi^2 = 0.155, df = 1, P = 0.694)$. The one sample Kolmogorov-Smirnov test for Standardized Residual was conducted to test for normality (Greene, 2014); the results revealed that the Standardized Residual were normally distributed since the P-value was above the threshold of 0.05 as $(KS = 0.080, df = 85, P = 0.2)$. The multiple correlation coefficient suggests a strong positive linear relationship between the independent variables and the logarithmic value of market value. The results of the adjusted R-squared value show that the variation in the independent variables explained 88% of the variation in the logarithmic value of market value.

5. Conclusion

The findings of this study contribute to our understanding of the crucial relationship between banking stability and market value in the Iraqi banking sector. By examining various financial ratios and employing statistical analysis, the research provides empirical evidence supporting the positive influence of banking stability on market capitalization.

From a practical perspective, the results underscore the importance of robust risk management practices, adequate capital buffers, and effective regulatory oversight in enhancing investor confidence and, consequently, the market value of banks. Iraqi financial institutions can

leverage these insights to strengthen their stability, which can translate into higher valuations and attract more investment.

Furthermore, the study highlights the challenges faced by the Iraqi banking sector, such as political instability, security concerns, economic dependence on oil, weak supervision, and dollarization risks. Addressing these challenges through comprehensive reforms, enhanced governance practices, and improved financial inclusion can contribute to a more stable and resilient banking system, favorably impacting market valuations and overall economic development.

From a scientific standpoint, the research contributes to the existing literature by providing empirical evidence from the Iraqi context, which has been relatively unexplored in this domain. The findings reinforce the theoretical underpinnings of the relationship between banking stability and market value, offering a foundation for further research and exploration in other regional or global contexts.

Future research could address the limitations of this study, such as considering additional macroeconomic and industry-specific factors that may influence banking stability and market value. Additionally, longitudinal studies or cross-country comparisons could provide deeper insights into the dynamics of this relationship across different economic and regulatory environments.

Overall, this study highlights the pivotal role of banking stability in shaping market valuations and underscores the need for policymakers, regulators, and financial institutions to prioritize measures that enhance stability, transparency, and investor confidence within the banking sector.

Among the most important recommendations: The government must work to diversify the Iraqi economy, support the private and governmental industrial sectors, and work to support the private and governmental industries sector, which contribute to generating revenues for the budget and not rely on oil only because any decline in oil prices will greatly affect government revenues and the loss of banking stability. It is necessary to have a specialized department in all banks to analyze economic environmental variables and determine the extent of their impact on banking stability. The government must work to build investment funds, exploit surplus cash, and invest in stocks and bonds of reputable foreign companies. The central bank must also develop indicators to predict the event of a loss of banking stability. The necessity of working to raise the capabilities and efficiency of work in banks, exploiting modern technologies, and developing more advanced systems to evaluate the financial performance of the banking sector. The necessity of developing banking systems that support the developmental process required by economic development to achieve high growth rates. Disclosure and transparency in the financial statements of banks, especially related to the indicators included in the calculation of the aggregate index, are important tools for identifying banking problems. Banks must adhere to the procedures and ratios set by the Central Bank and the Basel Committee and include in the aggregate index of banking stability, as well as diversifying deposits, managing market, and liquidity risks, and reducing because they contribute to enhancing banking stability, the necessity of focusing on price levels and reducing inflation because of its negative impact on the movement of bank deposits and its negative impact on the banking sector, and the necessity of increasing the cash reserve of gold at the central bank. Finally, work on developing a mechanism to benefit from the US Treasury bonds owned by the Central Bank of Iraq, which exceed forty billion dollars, to achieve banking stability.

6. Problems and challenges

One of the most critical problems facing studies in the Iraqi environment is the ongoing dynamism of markets, as the factors affecting market value can change rapidly. External shocks, market sentiment, and global economic conditions may create fluctuations that are difficult to consider. Another problem is accurately measuring investors' behaviour, perceptions, and feelings. Behavioural factors can play an important role in market dynamics but are often complex to model. Also, the study may not adequately control the macroeconomic factors affecting banking stability and market value. Economic conditions, interest rates, and inflation are macroeconomic variables that may need careful consideration. One of the problems and challenges facing researchers in Iraq is that there is a tendency to increase the likelihood of publishing studies with positive or statistically significant results, which leads to potential publication bias. This could distort the overall body of literature on the topic. To address these issues, researchers must be transparent about their methodologies, acknowledge limitations, and consider alternative explanations for their findings. Conducting sensitivity analyses and power checks can help enhance the reliability of the study. Through reviewing many theses and messages, I found bias in presenting positive results and not showing flaws despite the financial and banking crises that Iraq is suffering from.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Availability of data and material

The data are available on request.

Competing interests

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