

The Impact of Capital Risks on Financial Flexibility: A Study of a Sample of Banks Listed on the Iraq Stock Exchange for the Period 2018-2023

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Abstract: The study aimed to analyze capital risks and financial flexibility, as well as to assess the impact of capital risks on the financial flexibility of the banks in the sample of the study. The study population represented the Iraq Stock Exchange, while the sample consisted of (8) banks listed on the Iraq Stock Exchange, with the objective of measuring the impact of banking risks on the financial flexibility adopted in the research for the banks in the sample for the period (2018-2023). Capital risk was defined as the likelihood of a bank experiencing unplanned or unforeseen losses, leading to fluctuations in cash flows, returns, and market value. This represents a deviation from planned opportunities, which reflects on the bank's financial indicators. Financial flexibility is considered the key indicator in the capital structure of the bank, indicating the bank's ability to generate financial resources in response to future events. Financial flexibility refers to unused or underutilized debt, meaning that a bank with an optimal long-term leverage ratio can utilize these resources when investment opportunities arise. Regarding the role of banking risks in financial flexibility, the study found that as capital risks increase, financial flexibility decreases. This means liquidity declines, and the bank's ability to meet financial obligations and undertake expansions and investment growth decreases. To analyze and test the hypothesis of the study, the (SPSS 24) and (R-program) software were used, utilizing quarterly data for the period (2018-2023). The study concluded several findings, including a strong inverse correlation between capital risks and financial flexibility. A statistically significant relationship was found between capital risks and the financial flexibility of the banks in the sample, reflecting the relationship between the level of risks faced by the banks and their ability to adapt and respond to financial shocks, including economic crises and the ability to meet obligations without default. The study recommended tightening supervision by the Central Bank of Iraq on banks to ensure their compliance with risk management and the establishment of clear emergency plans to address financial crises. Furthermore, the study suggested developing early warning systems in Iraqi banks to monitor potential risks, such as capital risks, to enhance the financial flexibility of Iraqi banks.

Keywords: Capital Risks, Financial Flexibility

Introduction: The banking sector is one of the most important sectors, as it serves as a crucial link in the growth and development of the financial system in any country. It acts as the intermediary between surplus units and deficit units, which require financing for their activities. The banking sector contributes to the development of various economic sectors by managing funds efficiently and effectively.

As a result, banks face a variety of risks, which vary in severity from one bank to another depending on the nature and level of banking activity. With the development of financial globalization, which is akin to the interconnected, expanding, and rapid web of a spider's threads among countries, the banking world has become increasingly intertwined. As these risks increase, it has become essential for bank management to innovate financial strategies and methods for managing, analyzing, and evaluating the expected risks to minimize their impacts and ensure their continuity in the banking market, while achieving the desired returns with reduced risks. Hence, it is necessary to consider the issue of "capital risks" in the Iraqi banking sector to implement effective management practices that help mitigate these risks and achieve financial flexibility, enabling banks to make sound investment decisions.

Financial flexibility represents a bank's ability to manage its financial needs in a manner that responds to its own requirements and unexpected opportunities. Banks with a high degree of financial flexibility are more capable of overcoming financial crises and seizing profitable investment opportunities. Financial flexibility is part of the risk management strategy in financial institutions. It can benefit banks by helping them avoid many direct and indirect costs associated with financial oversight, and by providing them with the ability to access a secondary source of resources

needed for investment. Therefore, financial flexibility helps banks avoid alternative opportunities in times of financial distress. The higher the financial flexibility, the better a bank can grow, expand, and compete with other banks.

Section One\ Research Methodology

First: Importance of the Research:

This study is of considerable importance, as it helps financial institutions in general and the banking sector in particular to identify the capital risks that the study sample may face in the future, and how these risks can be addressed and transformed into positive situations. The importance of the study is as follows:

- 1- Highlighting the relationship between capital risk and financial resilience, which supports strategic decision-making.
- 2- Clarifying the most important capital risks faced by the banking sector, as well as clarifying the concept and importance of financial resilience in banks.
- 3- Analyzing some capital risks that affect the operations of the banks in the study sample during the study period, represented by (capital risks), in addition to analyzing the financial resilience of the banks in the study sample during the study period.
- 4- Identifying the effect of capital risks on the financial resilience of the banks in the study sample.
- 5- Analyzing capital risks that affect the operations of the banks in the study sample during the study period.
- 6- Analyzing the financial resilience of the banks in the study sample during the study period.

Second: Research Problem:

The challenges facing banks—especially Iraqi banks—have increased within an unstable financial environment, which necessitates enhancing their financial resilience. Capital risks are among the most prominent factors that may affect a bank's ability to maintain its financial balance. Accordingly, the research problem is represented by the following question:

((Is there an effect of capital risks on the financial resilience of the sample banks during the period 2018–2023?))

Third: Research Objective:

The research aims to clarify the following points:

- 1 -Analyzing capital risks for the study sample for the period 2018–2023.
- 2 -Analyzing the financial resilience of the sample banks for the period 2018–2023.
- 3- Measuring the effect of (capital risks) on the financial resilience of the sample banks for the period 2018–2023.

Fourth: Research Hypotheses:

Based on the research problem, the research hypothesis is formulated as follows:

There is no statistically significant effect of capital risks on the financial resilience of the sample banks for the period (2018–2023).

Fifth: Research Limits:

Spatial limits of the research: These limits are represented by a sample of banks listed on the Iraq Stock Exchange.

Temporal limits of the research: Represented by the period (2018–2023).

Sixth: Research Population and Sample:

The research population was selected from the banking sector traded on the Iraq Stock Exchange. The current research sample consists of (8) banks listed on the Iraq Stock Exchange, based on the availability of the data required for the financial and statistical analysis of the banks in the study sample during the study period.

– Some Previous Studies on Capital Risks and Financial Resilience

First: Studies related to capital risks are presented as follows in Table (1).

1- (Dagher, 2024)	
Study Title:	The Effect of Capital Structure and Banking Risks on Bank Profitability: An Applied Study of a Sample of Iraqi Private Banks Listed on the Iraq Stock Exchange for the Period (2010–2021).
Study Objective	The study aimed to shed light on developing a better understanding of capital structure and its association with bank performance in developing economies such as Iraq. This study is considered unique in its type by identifying the optimal structure for Iraqi banks and arriving at scientific evidence regarding measuring the relationship between capital structure and banking risks and their impact on profitability in commercial banks.
Study Population and Sample	The impact of capital—measured by the ratio of long-term financing—on the profitability of commercial banks was examined, where profitability was measured by the return on assets

	and return on equity. The study was applied to a sample of ten Iraqi banks listed on the Iraq Stock Exchange for the period (2010–2021) that met the conditions of the study sample test.
Study Method	Three models were used to analyze the relationship among the study variables. The first model aimed to measure the effect of capital structure on banking risks. The second model aimed to measure the effect of capital structure on profitability. The third model aimed to measure the effect of banking risks on bank profitability.
Key Findings	The results indicated a statistically significant negative correlation between capital structure and bank profitability. They also indicated a statistically significant positive correlation between bank profitability and banking risks. The results further showed a statistically significant negative relationship between banking risks and profitability, and confirmed a statistically significant relationship between capital structure and banking risks.
Area of Benefit	Strengthening the theoretical aspect and relying on indicators related to capital structure and banking risks in bank profitability for banks listed on the Iraq Stock Exchange.
2- Study (Al-Amin, Al-Siddiq, 2022)	
Study Title	Capital Risks and Their Effect on the Profitability of Commercial Banks: An Applied Study on Libyan Commercial Banks.
Study Objective	The study aimed to test the effect of capital risks on the profitability of Libyan commercial banks. The study sample consisted of Wahda Bank and Commerce and Development Bank for the period (2008–2018).
Study Population and Sample	The independent variables were represented by ratios (indicators) of capital risk, namely: capital to total assets, capital to total deposits, capital to total loans, and capital to risky assets. The dependent variable (profitability) was represented by return on assets, return on equity, and return on deposits.
Study Method	The standard multiple regression model was used through the statistical software (SPSS). The study results showed that there is no statistically significant effect at the significance level (5%) of capital risks on the return on assets, return on equity, and return on deposits. The study recommended that Libyan commercial banks be obliged by central banks to maintain the specified level of capital.
Key Findings	Maintaining the specified level of capital.
Area of Benefit	Strengthening the theoretical aspect and relying on indicators related to capital risk and profitability in Libyan commercial banks.

Second: Studies related to financial resilience are presented as follows in Table (2).

1- Study (Shojaee, 2024)	
Study Title:	The Impact of Financial Flexibility on the Resilience of Small and Medium Enterprises in the Face of Economic Shocks. The impact of financial flexibility on the ability of small and medium enterprises to withstand economic shocks.
Study Objective	This study was conducted to examine the effect of financial flexibility on the resilience of small and medium-sized enterprises when facing economic shocks.
Study Population and Sample	The study adopted a quantitative approach and used a mixed-methods design. The statistical population included 120 Iranian small and medium enterprises in the manufacturing, services, and trade sectors in 2024.
Study Method	Thirty companies were selected as a sample using stratified random sampling and Cochran's formula. The data collection instrument was a researcher-prepared questionnaire consisting of 30 items based on a Likert scale.
Key Findings	The importance of strengthening financial flexibility as a strategy to enhance financial resilience and mitigate the negative effects of economic shocks.
Area of Benefit	Strengthening the theoretical aspect and relying on indicators related to financial flexibility and the ability of small and medium enterprises to withstand economic shocks in organizations and the industrial, service, and trade sectors.
2- Study (Wara, 2015)	
Study Title	The Relationship between Financial Flexibility and Dividend Payouts: A Case of Listed Firms in Kenya. The relationship between financial flexibility and dividend distributions: the case of listed companies in Kenya.

Study Objective	The study aims to identify the relationship between financial flexibility and dividend payout policy.
Study Population and Sample	A sample of (40) Kenyan companies listed on the Nairobi Securities Exchange for the period (2008–2012) was selected.
Study Method	The existence of a relationship between financial flexibility and dividend payout policy, whereby financially flexible firms adopt a lower dividend payout policy.
Key Findings	The study proved the existence of a relationship between financial flexibility and dividend payout policy, and that the value of financial flexibility is affected by dividend payout levels, as the value decreases as distributed dividends increase.
Area of Benefit	Strengthening the theoretical aspect and relying on indicators related to financial flexibility and dividend payouts in the compa

Section Two\ Capital Risk and Financial Resilience

1- Capital Risk

Capital risk for a bank refers to the extent of the decline in the value of the bank’s assets before depositors and creditors are exposed to risk. This confirms that a bank with a capital-to-assets ratio of 15% can withstand a greater decline in the value of its assets than a bank with a ratio of approximately 5%. Capital risk is measured by determining the extent to which capital covers assets. The relationship is direct with both the leverage multiplier and return on equity; that is, any increase in financial leverage is associated with an increase in banking risk, within the framework of balancing return and risk in managing the bank’s funds. An increase in leverage beyond a certain limit means that liabilities will rise (deposits and borrowing from others ...) relative to equity, and the latter’s capacity to absorb losses and other risks supported by equity will weaken (**Cade, 2013:154**). A decrease in the level of financial leverage while maintaining a constant return on assets leads to a decrease in return on equity (**Al-Mukhalafi, 2004:51**). Within the context of the preceding relationship between capital risk and the leverage multiplier, these risks have sometimes been termed “leverage risk,” as they function as a capital buffer in the bank to protect depositors and borrowers from being affected by a decline in asset values. In light of these considerations, what is most visible to the public in economies is leverage and how it is reduced. When a bank has a desire for liquidity (due to the bank’s possession of advanced instruments and methods, represented by securitized assets, backed assets, and others), investors and consumers are able to extend credit easily, especially when the credit margin is low. Demand for credit from financial and non-financial assets increases, which in turn leads to higher asset prices. The underlying value of loans as collateral (measured at market prices) becomes large; borrowing ultimately increases and drives the purchase of assets, thereby restarting the cycle. This phenomenon is referred to as leverage because it drives further borrowing, and conversely in the phenomenon of financial deleveraging. These two phenomena were employed during the period 2007, such that it became a deleveraging phenomenon (**Hull, 2010:400**). All the risks explained above can affect the long-term continuity of any financial institution such as banks, and they are often referred to as capital risks due to capital fluctuations arising from different types of risks, which were generally not viewed separately by the relevant agencies (**Rose & Hudging, 2008:180**).

2- Financial Resilience

Interest in financial resilience has flourished over the past decades, as a result of the developments that have occurred in the financial system in general and the banking system in particular. Previously, most scholars focused on the financial resilience of cash flows—whether they were sufficient within the bank to deal with specific circumstances—and gradually shifted toward the bank’s ability to respond to uncertainty (**Al-Khafaji and Al-Mousawi, 2020:4**). Financial resilience is considered one of the important and influential pillars in the decision regarding a bank’s capital structure, as attention is given to the extent of the bank’s ability and capacity to mobilize financial resources in anticipation of uncertain future changes (**Shakrchy Al-Nassar, 2019:318**). Financial resilience consists of unused debt capacity. Some authors have demonstrated that banks with an optimal level of financial leverage in the long run can exploit available investment opportunities; accordingly, financial resilience has been defined as the bank’s ability to access the required financing at a lower cost and its ability to respond to unexpected cash flows and investment opportunities at the appropriate time (**Denis, 2011:31**). (**Chukwu et al. 2019:97**), added that financial resilience means maintaining the bank’s debt capacity to undertake expansions, such that it does not need to abandon or scale back operations when an economic crisis occurs. It represents the bank’s ability to deal with funding sources and restructure them at a lower cost, how to handle financial distress, and to extend investments at a low cost when profitable opportunities arise.

3- The Effect of Banking Risks on Financial Resilience

A bank uses depositors' funds and mixes them with its own funds, thereby making them part of its capital, with the aim of using them to provide banking services and facilities, which by their nature exceed its own capital. Any losses will cause it to lose its own funds and the depositors' funds, exposing the bank to the risk of bankruptcy. It is known that there is interdependence between the financial system and the banking system, and this, in turn, leads to a state of imbalance and instability in the financial system and hinders the process of economic growth in the country.

It also necessitates the presence of a capable and prudent management in developing a strategy and an integrated scientific approach through undertaking procedures that would stop or reduce exposure to losses and the escalation of their effects. We will clarify the effect of banking risks on financial resilience, along with the most important steps and measures that bank management must take to limit their impact, as follows (Shaheen, 2005:6):

– **The Role of Capital Risk in Financial Resilience**

Banking risks constitute the greatest challenges facing the banking sector. The risks faced by commercial banks are numerous and diverse. These risks have increased, which has driven bank management to address expected risks and to investigate the causes of their occurrence or hedge against them. Bank management therefore develops a complete strategy and scientific approach based on tools whose role is to limit or reduce risks. This requires bank management to exercise dynamic monitoring and supervision, and to assess capital adequacy and the extent of its ability to absorb unplanned losses and major shocks that the bank may be exposed to. Among the most important risks faced by banks is liquidity risk. Liquidity is one of the most prominent characteristics that distinguishes commercial banks from other business institutions; even the mere occurrence of a rumor that a bank lacks liquidity can reduce depositors' confidence, leading them to withdraw their deposits. There are factors and reasons that increase a bank's exposure to liquidity risk, which in turn affects the bank's financial resilience, including the unfair allocation of the bank's assets across uses that are difficult to convert into liquid balances, and poor planning by the bank to obtain sufficient liquidity to meet its obligations. In addition, the acute obligations faced by financial markets and shifts in countries' economic conditions constitute an obstacle for banks in meeting obligations. To limit or reduce the impact of liquidity risk on financial resilience, it is necessary to observe equality between assets and liabilities in terms of risk, strengthen relationships with other banks, and maintain sufficient cash and cash assets. Banks are among the business institutions most exposed to risks, because banks mix their own funds (which are limited) with depositors' funds (which constitute the majority) and allocate them to income-generating asset investments. Therefore, a bank's assets often exceed its equity by large multiples; accordingly, the occurrence of limited losses in assets will lead to a decrease in financial resilience (equity) and a portion of depositors' funds, which may cause the bank's bankruptcy (Babakr, 2002:1).

An increase in financial leverage drives an increase in profits by increasing the degree of volatility in both earnings per share and returns on equity at each level of volatility in sales and the returns on the associated assets.

Section Three / Analyzing and Measuring the Effect of Capital Risk and Financial Resilience for the Sample Banks During the Period (2018–2023)

1- Analysis of Capital Risk for the Sample Banks During the Period (2018–2023)

These risks are represented by the inadequacy of capital to protect the interests of depositors, investors, lenders, and other stakeholders. It is necessary for the supervisory authority to determine the capital required to face all risks encountered by the bank in accordance with the Basel Accords, which specified banks' capital adequacy to cover credit risk, market risk, operational risk, and other risks. It is measured by the following equation: (Al-Mukhalafi, 2004:65)

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Table (3): Capital Risk Index for the Banks in the Study Sample for the Period (2018–2023)

Banks \ years	2018	2019	2020	2021	2022	2023	Period Average
Baghdad	0.240	0.242	0.196	0.201	0.203	0.172	0.209
United Investment	0.589	0.502	0.434	0.370	0.386	0.575	0.476
National Bank of Iraq	0.491	0.406	0.344	0.173	0.138	0.126	0.280

Sumer Commercial	0.655	0.770	0.789	0.709	0.809	0.865	0.766
Gulf Commercial	0.544	0.559	0.601	0.565	0.558	0.561	0.565
Mansour Investment	0.190	0.191	0.223	0.401	0.384	0.275	0.277
Ashur International	0.574	0.629	0.577	0.459	0.378	0.405	0.504
Across Iraq	0.835	0.770	0.784	0.704	0.619	0.657	0.728
Average for all banks	0.515	0.509	0.494	0.448	0.434	0.455	0.476

Source: Prepared by the researchers based on the annual reports of the banks in the study sample for the period (2018–2023).

The results in Table (3) show the highest and lowest capital index for each bank individually during the study period. The highest value of the capital index for Bank of Baghdad was in 2019, reaching (0.242), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2023, reaching (0.172), due to an increase in the accumulated fair value within shareholders' equity. The average capital index—representing the lowest average—was (0.209).

The results also showed that the highest value of the capital index for United Bank for Investment was in 2018, reaching (0.589), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2021, reaching (0.370), due to an increase in the accumulated fair value within shareholders' equity. The average capital index for United Bank for Investment was (0.476).

The results indicated that the highest value of the capital index for the Iraqi National Bank was in 2018, reaching (0.491), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2023, reaching (0.126), due to an increase in the accumulated fair value within shareholders' equity. The average capital index for the Iraqi National Bank was (0.280).

The highest capital indices for Sumer Commercial Bank were in 2023, reaching (0.865), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2018, reaching (0.655), due to an increase in the accumulated fair value within shareholders' equity. The highest average capital index over the study period was (0.766).

The results showed that the highest value of the capital index for Gulf Commercial Bank was in 2020, reaching (0.601), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2018, reaching (0.544), due to an increase in the accumulated fair value within shareholders' equity. The average capital index over the study period was (0.565).

The highest value of the capital index for Al-Mansour Bank for Investment was in 2021, reaching (0.401), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2018, reaching (0.190), due to an increase in the accumulated fair value within shareholders' equity. The average capital index over the study period was (0.277).

The results also showed that the highest value of the capital index for Ashur International Bank was in 2019, reaching (0.629), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2022, reaching (0.378), due to an increase in the accumulated fair value within shareholders' equity. The average capital index over the study period was (0.504).

The results further showed that the highest value of the capital index for Across Iraq Bank was in 2018, reaching (0.835), due to the decline in the fair value within shareholders' equity. The lowest value of the capital index was in 2022, reaching (0.619), due to an increase in the accumulated fair value within shareholders' equity. The average capital index over the study period was (0.728).

When comparing the results of the analysis in Table (3), it becomes clear that the highest capital index in 2018 was for Across Iraq Bank, reaching (0.835), while the lowest capital index was for Al-Mansour Bank, reaching (0.190). The average capital index reached (0.515), which is the highest among the study sample. The results also showed that the highest capital index in 2019 was for Sumer Commercial Bank and Across Iraq Bank, each reaching (0.770), while the lowest capital index was for United Bank for Investment (0.191). The average capital index reached (0.509). In 2020, the highest capital index was for Sumer Commercial Bank, reaching (0.789), while the lowest capital index was for

Bank of Baghdad, reaching (0.196). The average capital index reached (0.494). In 2021, the highest capital index was for Sumer Commercial Bank, reaching (0.709), while the lowest capital index was for the Iraqi National Bank (0.173). The average capital index reached (0.448). The highest capital index in 2022 was for Sumer Commercial Bank, reaching (0.809), while the lowest capital index was for the Iraqi National Bank (0.138). The lowest average among the study sample reached (0.434). In 2023, the highest capital index was for Sumer Commercial Bank, reaching (0.865), while the lowest capital index was for the Iraqi National Bank (0.126). The average capital index reached (0.455).

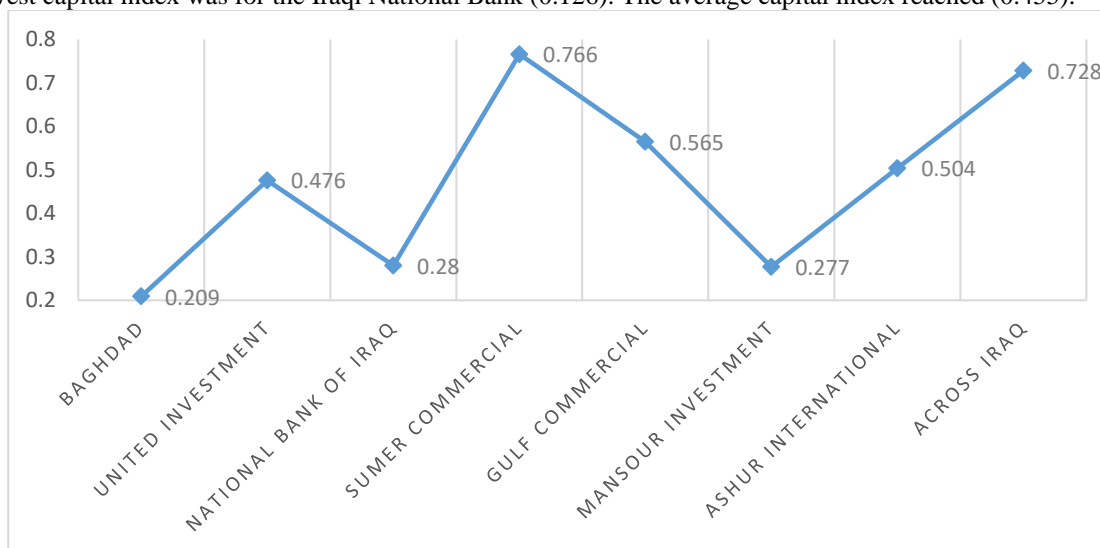


Figure (1): Average Capital Risk of the Sample Banks for the Period (2018–2023).

Source: Prepared by researchers based on the (WORD) program.

2- Analysis of Financial Resilience of the Sample Banks for the Period 2018–2023

The indicators of financial resilience were reviewed in Chapter Two, and the current ratio was adopted as an indicator reflecting financial resilience for the purpose of analyzing the financial resilience of the sample banks, represented by (current assets / current liabilities), as shown in the following equation: (Gizaw, 2016:18).

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

The current ratio is an important indicator for measuring current assets and current liabilities. An increase in this ratio indicates a higher level of liquidity and, consequently, the bank's ability to meet its short-term obligations. Therefore, the book value of a bank's current assets should be equal to or greater than the book value of its current liabilities. A decrease in the ratio, however, indicates lower liquidity and thus greater reliance on external financing to meet short-term obligations, given that liquidity affects the bank's ability to bear debt. Table (4) shows the financial resilience of the sample banks (2023–2018):

Table (4): Financial Flexibility Index of the Banks in the Study Sample for the Period (2018–2023)

Banks	years						
	2018	2019	2020	2021	2022	2023	Period Average
Baghdad	1.279	1.132	1.212	1.225	1.209	1.184	1.207
United Investment	1.729	1.704	0.648	0.864	0.745	1.394	1.181
National Bank of Iraq	1.971	1.598	1.450	1.076	1.151	1.121	1.395
Sumer Commercial	2.892	4.575	4.419	5.484	4.706	6.085	4.694
Gulf Commercial	2.017	2.163	2.256	2.089	1.971	2.141	2.106
Mansour Investment	1.214	1.299	1.251	1.612	1.567	1.353	1.383
Ashur International	2.303	2.676	2.303	1.799	1.612	2.141	2.139
Across Iraq	7.255	5.128	5.343	3.580	2.652	2.930	4.481

Average for all banks	2.583	2.534	2.360	2.216	1.952	2.294	2.323
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Source: Prepared by the researchers based on the annual reports of the banks in the study sample for the period (2018–2023).

As the results presented in Table (4) above show, the highest and lowest financial flexibility index for each bank individually during the study period were identified. The highest financial flexibility index for Bank of Baghdad was recorded in 2018, reaching (1.279), as a result of higher liquidity and the ability to meet short-term obligations, which leads to a reduction in the bank's risk. The lowest value was recorded in 2019, reaching (1.132); the decline was attributable to a shortage of liquidity at the bank. The average financial flexibility index for Bank of Baghdad over the study period was (1.207).

The results also indicated that the highest financial flexibility index for United Bank for Investment was in 2018, reaching (1.729), due to higher liquidity and the ability to meet short-term obligations, which leads to greater financial flexibility and lower bank risk. The lowest value was in 2020, reaching (0.648); the decline was due to a shortage of liquidity, which leads to increased risk at the bank. The average financial flexibility index for United Bank for Investment over the study period was (1.181), which is the lowest average among the study sample.

The data analysis results for the Iraqi National Bank showed that the highest financial flexibility index was in 2018, reaching (1.971), as a result of higher liquidity and the ability to meet short-term obligations, which leads to higher financial flexibility for the bank. The lowest value was in 2021, reaching (1.076), due to a shortage of liquidity and reliance on external financing. The average financial flexibility index for the Iraqi National Bank over the study period was (1.395).

The data analysis results for Sumer Commercial Bank showed that the highest financial flexibility index was in 2023, reaching (6.085), due to higher liquidity and lower bank risk. The lowest value was in 2018, reaching (2.892), due to a shortage of liquidity, reduced flexibility, and reliance on external financing. The average financial flexibility index for Sumer Commercial Bank over the study period was (4.694), which is the highest among the averages over the study period.

The highest financial flexibility index for Gulf Commercial Bank was in 2020, reaching (2.256), due to higher liquidity and the ability to settle its short-term obligations, which leads to higher financial flexibility for the bank. The lowest value was in 2022, reaching (1.971), indicating lower liquidity and, consequently, lower financial flexibility for the bank. The average financial flexibility index for Gulf Commercial Bank over the study period was (2.106).

The results also showed that the highest financial flexibility index for Al-Mansour Bank for Investment was in 2021, reaching (1.612), indicating increased liquidity, lower banking risks, and higher financial flexibility for the bank. The lowest value was in 2018, reaching (1.214), indicating lower liquidity and higher risk for the bank. The average financial flexibility index for Al-Mansour Bank for Investment over the study period was (1.383).

The results further showed that the highest financial flexibility index for Ashur International Bank was in 2019, reaching (2.676), due to higher liquidity and the ability to meet short-term obligations. The lowest value was in 2022, reaching (1.612), indicating lower liquidity and higher risk for the bank, along with a decline in the bank's financial flexibility. The average financial flexibility index for Ashur International Bank over the study period was (2.139).

The results also showed that the highest financial flexibility index for Across Iraq Bank was in 2018, reaching (7.255), due to higher liquidity and the ability to repay short-term obligations. The lowest value was in 2022, reaching (2.652), indicating lower liquidity and a decline in the bank's financial flexibility. The average financial flexibility index for Across Iraq Bank over the study period was (4.481).

When comparing the analysis results in Table (4), it is evident that the highest financial flexibility index in 2018 was recorded by Across Iraq Bank, reaching (7.255), while the lowest index was recorded by Al-Mansour Bank for Investment (1.214). The average financial flexibility was (2.583), representing the highest average over the study period. The results also showed that the highest financial flexibility index in 2019 was for Across Iraq Bank, reaching (5.128), while the lowest index was for Bank of Baghdad, reaching (1.132). The average financial flexibility was (2.534). In 2020, the highest financial flexibility index was for Across Iraq Bank, reaching (5.343), while the lowest index was for United Bank for Investment, reaching (0.648). The average financial flexibility was (2.360). In 2021, the highest financial flexibility index was for Sumer Commercial Bank, reaching (5.484), while the lowest index was for United Bank for Investment, reaching (0.864). The average financial flexibility was (2.216). In 2022, the highest financial flexibility index was for Sumer Commercial Bank, reaching (4.706), while the lowest index was for United Bank for Investment, reaching (0.745). The average financial flexibility was (1.952), which is the lowest average over the study

period. In 2023, the highest financial flexibility index was for Sumer Commercial Bank, reaching (6.085), while the lowest index was for the Iraqi National Bank, reaching (1.121). The average for the study period was (2.294).

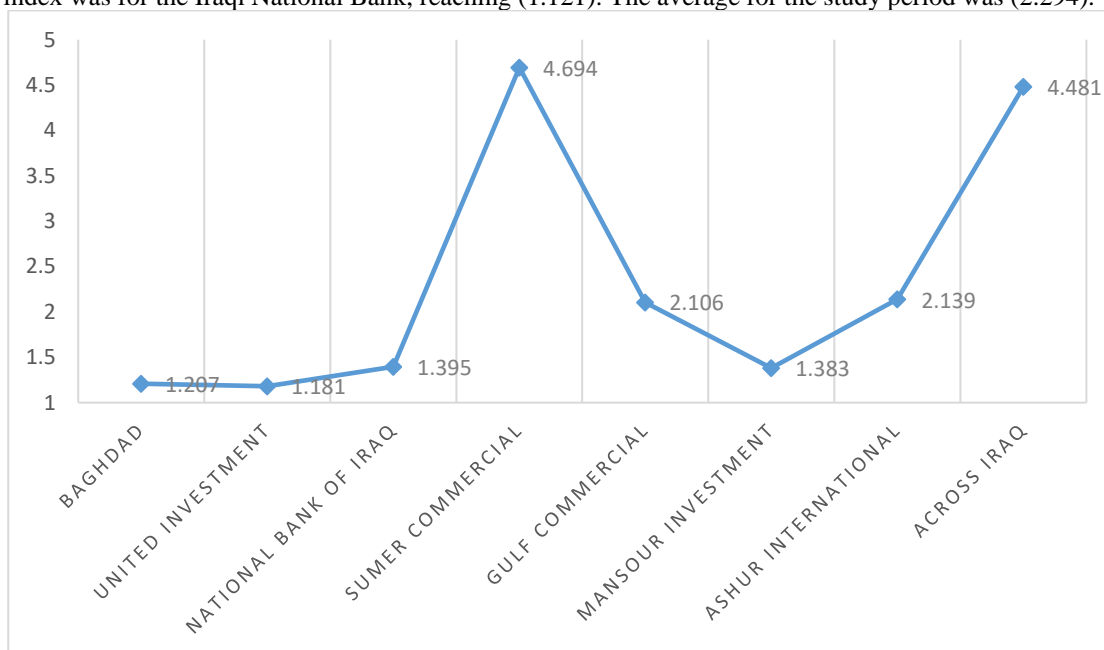


Figure (2): Average Financial Flexibility of the Banks in the Study Sample for the Period (2018–2023)

Source: Prepared by the researchers based on the (Word) program.

3. Measuring the Effect of Capital Risk on the Financial Flexibility of the Banks in the Study Sample for the Period (2018–2023)

This section focused on providing a comprehensive depiction of the nature of the data over the time period (2018–2023) for all banks included in the study, namely: (Bank of Baghdad, United Bank for Investment, Iraqi National Bank, Sumer Commercial Bank, Gulf Commercial Bank, Al-Mansour Bank for Investment, Ashur International Bank, Across Iraq Bank). Within this context, a set of key basic statistical indicators was calculated to provide a general description of the data, most notably: arithmetic means and standard deviations, in addition to identifying the maximum and minimum values for each variable. This analysis covered all study variables, which were classified into: **the independent variables**, which include banking risks as a main concept (capital risk); and **the dependent variable**, represented by financial flexibility, as the measure that reflects banks' ability to withstand financial pressures and adapt to environmental and economic changes. To ensure the soundness of the results and the robustness of the conclusions, the distributional properties of the data for the variables under study were tested using the **(Jarque-Bera) test**, which examines the distribution of the data and verifies that the data follow a normal distribution. This, in turn, affects the suitability of the data for subsequent statistical analyses and enhances the credibility of the interpretations. The second section focused on examining the proposed hypotheses by analyzing the nature of the relationships between the independent variables and the dependent variable. This was conducted through two main stages. First, **correlation testing: (correlation coefficients)** were used to measure the strength and direction of the relationship between the variables, and the significance of these relationships was verified based on the **(t-test)**, thereby ensuring the exclusion of random and statistically insignificant relationships. Second, **for analyzing causal effects: simple regression models** were employed to examine the magnitude and direction of the effect of each independent variable on financial flexibility, with the regression coefficients subjected to the **(t-test)** to verify their statistical significance. This helped to identify the variables with the greatest influence in strengthening or weakening the banks' financial flexibility. To conduct these statistical analyses accurately and efficiently, the researcher utilized a number of specialized programs, most notably **SPSS (version 24)**, which provided advanced capabilities for descriptive analysis and hypothesis testing, in addition to the statistical program **R**, which offered greater flexibility in producing certain illustrative graphs.

First: Capital Risk Variable (Independent Variable)**Table (5): Statistical Description of the Capital Risk Variable for the Fiscal Years 2018–2023 for the Banks under Study**

Banks	Mean	Standard Deviation	Jarque-Bera	Probability
Baghdad	0.209	0.027	1.827	0.847
United Investment	0.476	0.093	0.117	0.918
National Bank of Iraq	0.280	0.155	1.741	0.361
Sumer Commercial	0.766	0.075	0.162	0.996
Gulf Commercial	0.565	0.019	0.851	0.891
Mansour Investment	0.277	0.095	0.849	0.839
Ashur International	0.504	0.103	1.981	0.421
Across Iraq	0.728	0.082	1.839	0.349
Total banks studied	0.465	0.096	1.367	0.536

Source: Prepared by the researchers based on the statistical program.

From the results presented in Table (5), we note that the mean for the total of the banks studied reached (0.465), while the standard deviation for the total of the banks studied reached (0.096). From these results, we observe that the data for the capital risk variable for the total of the banks studied are somewhat homogeneous and close to one another; therefore, these banks do not suffer from dispersion in their values. When comparing the mean values of the banks studied, we find that the mean value of the capital risk variable for Sumer Commercial Bank was the highest compared with the banks under study, as the mean value for Sumer Commercial Bank reached (0.766), whereas the standard deviation for Sumer Commercial Bank reached (0.075). In contrast, the lowest mean value for the capital risk variable was recorded for Bank of Baghdad, with a mean value of (0.209), while its standard deviation was (0.027). However, the remaining banks have varying means over the study years (2018–2023), as shown in the table above.

For the purpose of testing and examining the normal distribution of the data for the studied variables, attention is focused on the Jarque–Bera test, through which it can be inferred that the variable’s data are normally distributed if the p-value is greater than (0.05). The Jarque–Bera test results for the capital risk variable for the banks studied indicated p-values greater than (0.05); therefore, it can be stated that the data for the capital risk variable follow a normal distribution for the banks under study.

Second: The Dependent Variable (Financial Flexibility)

The dependent variable (**financial flexibility**) can be described below. The results listed in the table below present the statistical description of the financial flexibility variable.

Table (6): Statistical Description of the Financial Flexibility Variable for the Fiscal Years 2018–2023 for the Banks under Study

Banks	Mean	Standard Deviation	Jarque-Bera	Probability
Baghdad	1.207	0.048	1.568	0.526
United Investment	1.181	0.489	1.535	0.513
National Bank of Iraq	1.395	0.349	1.626	0.465
Sumer Commercial	4.694	1.086	0.826	0.957
Gulf Commercial	2.106	0.104	1.164	0.462
Mansour Investment	1.383	0.167	1.346	0.127
Ashur International	2.139	0.384	0.927	0.854
Across Iraq	4.481	1.756	1.392	0.337
Total banks studied	2.323	0.548	1.264	0.534

Source: Prepared by the researchers based on the statistical program.

From the results presented in Table (6), we note that the mean for the total of the banks studied reached (2.323), while the standard deviation for the total of the banks studied reached (0.548). From these results, we observe that the data for the financial flexibility variable for the total of the banks studied are somewhat homogeneous and close to one another; therefore, these banks do not suffer from dispersion in their values. When comparing the mean values of the banks studied, we find that the mean value of the financial flexibility variable for Sumer Commercial Bank was the highest compared with the banks under study, as the mean value for Sumer Commercial Bank reached (4.694), whereas the standard deviation for Sumer Commercial Bank reached (1.086). In contrast, the lowest mean value for the financial flexibility variable was recorded for United Bank for Investment, with a mean value of (1.181), while its standard deviation reached (0.489). However, the remaining banks have varying means over the study years (2018–2023), as shown in the table above.

For the purpose of testing and examining the normal distribution of the data for the studied variables, attention is focused on the (Jarque–Bera) test, through which it can be inferred that the variable data are normally distributed if the p-value is greater than (0.05). The Jarque–Bera test results for the financial flexibility variable for the banks studied indicated p-values greater than (0.05); therefore, it can be stated that the data for the financial flexibility variable follow a normal distribution for the banks under study.

– **Studying and Analyzing the Causal Relationship Between the Study Variables for the Banks in the Study Sample**

The causal relationship between the study variables can be examined and analyzed.

Table (7): Results of the Simple Regression Coefficient for the Banking Risk Variable (Capital Risk) on the Financial Flexibility Variable for the Total Sample Banks

The Impact Relationship of Capital Risk on Financial Flexibility for the Total Sample Banks				
dependent variable Independent Variable	financial flexibility			Calculated (F)
	Coefficient Estimates (β)	Calculated T	Sig	
Intercept	3.218	5.527	0.000	9.720
Capital Risk	-0.791	-3.234	0.000	
Determination factor $R^2=0.701$		Corrected coefficient of determination $R^2=0.672$		

Source: Prepared by the researchers based on the statistical software.

Third: The Impact Relationship of Capital Risk on Financial Flexibility

From the results presented in Table (7), we find that the coefficient of determination (R^2) reached (0.701), and the adjusted coefficient of determination reached (0.672), which indicates that this coefficient has a very high capacity to explain the regression equation. This means that (67.2%) of the changes that occur in financial flexibility are attributable to the capital risk variable.

It is clear from the results shown in Table (7) that the calculated (F) value is (9.720) and its p-value is (0.000). When compared with the significance level (0.05), it is observed that this p-value is far less than 0.05; therefore, we conclude that the model under study between **capital risk and financial flexibility is statistically significant**, i.e., it fits clearly with the data of the variables under study related to the total of the banks examined.

We find that the capital risk variable has an inverse effect, meaning that when capital risk increases by one unit, the financial flexibility variable decreases by (0.791), and this variable has a statistically significant effect. This is evident through the (t) test for the beta coefficient (B_1), which reached (3.234), with a p-value equal to (0.000). Upon comparison, it is clearly observed that the p-value is far less than 0.05, which indicates that the beta coefficient for the capital risk variable has a statistically significant effect on the financial flexibility variable. Accordingly, the statistical decision in this case is to reject the hypothesis stating, “There is no statistically significant impact relationship between capital risk and financial flexibility for the total of the banks studied for the period 2018–2023,” and to accept the alternative hypothesis.

Conclusions

The conclusions reached by the study can be summarized as follows:

Financial flexibility is one of the most important indicators that shows the extent to which unrestricted liquid cash assets are available at any time, whereas credit lines indicate conditional liquidity, as they are available to creditors who are willing to renew their commitments more than once, provided that companies have not terminated the current commitment between them and maintain their current qualifications. Given the high rates of return on loans in countries with weak economies, it is logical to seek collateral. The use of credit facilities during the 2007–2009 financial crisis can also be observed, which indicates that banks reduce their use of credit lines when internal liquidity is available.

Capital risk is referred to as leverage risk. Capital risk is measured by determining the extent of capital coverage for assets, and the relationship is direct: the higher the leverage, the higher the banking risk. An increase in leverage beyond a certain limit indicates that liabilities will rise (deposits and borrowing from others, etc.) compared with equity, and that equity has a reduced capacity to absorb losses and other risks supported by shareholders' equity.

There is a statistically significant impact relationship between capital risk and financial flexibility for the banks in the study sample, reflecting the nature of the relationship between the level of risk faced by banks and their ability to adapt and respond to financial shocks, represented by economic crises and meeting the bank's obligations without default.

There is a statistically significant impact relationship between capital risk and financial flexibility for the banks in the study sample, meaning that there is a greater likelihood that the bank will face difficulty in maintaining capital adequacy, which threatens its financial stability. This would require the bank to adjust its capital structure or funding sources.

Recommendations

In light of the conclusions reached, a number of recommendations were presented as follows:

1. Strengthening oversight by the Central Bank of Iraq over banks to ensure their commitment to risk management, in addition to supporting banks through monetary policy instruments during crisis periods to enhance financial flexibility, and developing clear contingency plans to *مواجهة* financial crises.
2. The necessity of developing early warning systems in Iraqi banks to monitor potential risks such as capital risk, credit risk, and profitability risk, through the use of modern risk analysis models that employ big data and artificial intelligence to enhance the prediction of crises.
3. Banks should increase capital efficiency by strengthening capital adequacy requirements in line with the Basel III accords, in addition to increasing reserve provisions to *مواجهة* unexpected losses.
4. Strengthening financial flexibility by diversifying funding sources and reducing reliance on a single source to mitigate risks, in addition to diversifying the investment portfolio and asset base to reduce exposure to market fluctuations.
5. Enhancing governance and oversight in banks by strengthening the role of audit and risk committees within the bank to monitor the implementation of risk management strategies, in addition to training human resources on risk culture and financial flexibility.

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