



# The Application of Hedging Accounting Procedures in Light of the Challenges of Cybersecurity CSC and its Impact on Reducing Capital Risk: An Applied Study in a Sample of Banks Listed on the Iraq Stock Exchange

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**Abstract:** The research aims to apply hedging accounting procedures in light of cybersecurity challenges (CSC) And explaining the impact of that in discount risks head Money , in addition to identifying the most important procedures that can be used to minimize the financial risks to which economic units are exposed by helping in Dealing with Cases that no maybe In it Prediction In the future on face certainty and that Risks Finance It arises from side Finance at the facility , and it increases with more Accreditation on Debts, The danger It represents Possibilities midwife For measurement To achieve losses or non Get on Value That because Risk They differ on non Confirmation where that The last not midwife For measurement. The research population consists of banks listed on the Iraq Stock Exchange, while the research sample was selected purposively from three banks, namely Bank Mosul For development Investment and bank Baghdad and bank via Iraq For investment, the research was conducted over a five-year period, from 2018 to 2022. The research reached a number of conclusions, the most important of which was that the application of hedging accounting procedures in light of cybersecurity challenges (CSC) whenever to a reduction risks head Money in banks is the research sample.

**Keywords:** Hedging Accounting, Cybersecurity (CSC), Capital Risk.

## Introduction

Given that banking units are exposed to a range of financial risks, the most important of which are capital risks, procedures accounting Hedging in shadow Challenges Security cyber (CSC) It seeks to identify and measurement Control and reduction Risks that Faces The economic unit, and therefore managing these risks efficiently and effectively, and controlling At risk and reduce it to levels Acceptable insofar as it cannot negatively affect the performance and outcome of the economic unit's operations, and maintaining on Assets The existing ones and increasing the effectiveness and efficiency of their optimal use To protect Interests investors Depositors and creditors, and limit from losses And reduce it to minimum end It is possible to work on avoiding these losses and their associated risks in the future financial risks is based on the development of periodic reports on the size of the risks to which the economic units are exposed. The purpose of hedging accounting procedures under cybersecurity challenges (CSC) is to protect the economic unit from uncertainties of future events, and also requires assessing the impact of credit risk that could

affect the change in the fair value of the hedging instrument and aligning hedging accounting with risk management objectives as it relates to the required hedging ratio.

## **Methodology**

### **Research Methodology**

#### **1. Search problem:**

Due to the fact that the business environment is characterized by complexity, this makes current and prospective investors in a state of apprehension when investing their money in the financial markets, hence the urgent need to confront these risks using hedge accounting procedures, and the problem of research lies in the failure to follow in particular to hedge accounting procedures, The research problem lies in the failure of Iraqi economic units in general, and banking units in particular, to follow hedging accounting procedures. This has led to these units bearing a range of financial risks, the most important of which are risks of... head Money, and on it for problem Search In summary The question is: Does the application procedures accounting Hedging in shadow Challenges Security cyber (CSC) Helps in discount risks head the money?.

#### **2. The importance of research:**

Produces importance Search in Being attempt Avenue To stand on Risks Finance that It is exposed she has companies Listed in market Iraq For paper Finance Especially capital risks, as well as statement Most important procedures Accounting that from Her Limit from antiquities that Risks To reduce Concerns investors current And futures, where hedge accounting operates in shadow Challenges Security cyber (CSC) On determining and measurement Control and reduction Risks, and therefore efficiently and effectively, as well as control risks and reduce them to acceptable levels so that they cannot negatively affect the performance and result of the business by estimating risks and protecting them in a way that does not affect profitability through the development of appropriate plans to face these risks.

#### **3. Research Objectives:**

The research aims to apply procedures accounting Hedging in shadow Challenges Security cyber (CSC) And explaining the impact of that in discount risks head Money , in addition to identifying the most important procedures that can be used to minimize the financial risks to which economic units are exposed by helping in Dealing with Cases that no maybe In it Prediction In the future on face certainty and that Risks Finance It arises from side Finance At the facility , And it increases with more Accreditation on Debts, The danger It represents Possibilities midwife For measurement To achieve losses or non Get on Value That because Risk They differ on non Confirmation where that The last not midwife For measurement.

## Research Hypothesis

The research is based on a fundamental premise: there is no statistically significant effect between Hedging accounting procedures in light of cybersecurity challenges (CSC) and between Capital risks.

### 1. Society and Research Sample:

The research population consists of banks listed on the Iraq Stock Exchange. The research sample was selected purposively, consisting of three banks: Bank Mosul For development Investment and bank Baghdad and bank via Iraq For investment, the five-year research was applied for the period from 2018 to 2022.

### 2. Research Methodology:

In order to achieve the research objectives, the descriptive analytical approach was followed, relying on Arabic and foreign books and periodicals, university theses and dissertations, and the Internet, in addition to using the inductive approach in the practical aspect of the research, relying on financial reports, operations reports, and performance reports in the banks included in the research sample.

## Previous studies and the contribution of current research:

During this paragraph, previous studies related to the current research Part will be addressed, in addition to a statement of the contribution of the current research and the extent to which it differs from previous studies.

### 1. Previous studies:

1. A study ([Beatty et al, 2020](#)). Titled (Hedge commitments and agency costs of debt: Evidence from interest rate protection covenants and accounting conservatism), This is a study published in the Journal of Account Studies. The research aimed to demonstrate the role that hedge accounting can play in managing the risks to which economic units are exposed, and the research concluded that there are importance large To account Hedging in Confrontation cases non Confirmation from Events importance of hedging accounting in the face of uncertainty of future events, especially with regard to its effects on the change that may occur in fair value, cash flows and change in exchange rates. The research recommended the importance of maintaining the application of hedging accounting to achieve justice and reliability in the final financial statements for the benefit of internal and external users.
2. A study ([Martinez, et al, 2020](#)). entitled (Financial Derivatives, Hedge Accounting and Tax - Aggressiveness in Brazil) , This is a study published in the Journal of Contability. (Negotiations) : The research aimed to clarify the role of hedge accounting in risk management in a way that is appropriate to the changes that have accompanied the contemporary business environment, and the research concluded that estimating Risks and shelter From it In what no Affects on Profitability from during situation Plans Suitability To confront This is amazing Risks, and identifying Treatment qualitative per type from Types Risks next to to improve performance Unity Economic whether Was it Performance Financial or Strategic and conservative on Assets existing and increase effectiveness and efficiency Using it In a way I am an example To protect Interests

investors Depositors And creditors, and work on Limit from losses And reduce it to minimum end maybe.

3. A study ([Eierle et al, 2021](#)) Titled (Hedge Accounting and Firms' Future Investment Spending), This study, published in the Journal of Accounting, Finance, Management, Marketing and Organizational Studies, aimed to clarify the nature of the relationship between hedge accounting and investments. The research concluded that the drawbacks Systems Accounting Traditional shows in non-Disclosure on effects Strategies Hedging from Risks Finance Using tools Engineering Finance accounting systems appear in the non-disclosure of the effects of financial risk hedging strategies using financial engineering tools, especially derivative financial instruments, on the financial statements of financial institutions, which results in a deficiency in providing information to decision makers, whether within the facility and represented in management. Or outside the entity to ensure the provision of objectivity and fairness in measuring and presenting hedging strategies in the financial statements.
4. A study ([Camilo et al, 2022](#)) entitled (Hedge accounting: results and opportunities for future studies), a study published in (Journal of National Accounting): The research aimed to show the role of hedging accounting in managing the risks to which economic units are exposed, the institution resorts to facing risks to use financial derivatives as a means of hedging such as futures, options, swaps and futures, accompanied by the increased use of this type of products problematic how to address accounting for them, especially if we know that they are characterized by diversity and complexity and this is what the International Accounting Standards Board (IASB) went to) By issuing the International Standard (39) on recognition and measurement, it talks in part about accounting for financial derivatives, and the research concluded that the application of hedge accounting contributes to improving financial performance by helping to reduce financial risks to which economic units are exposed.

## **2. The contribution of the current research and how it differs from previous studies:**

The contribution of search and the extent of its difference from previous studies can be clarified through the current research developed a specific methodology for the application of hedge accounting procedures in light of cybersecurity challenges (CSC) and the statement of the impact of this in reducing capital risks in Iraqi banks in general, as well as contributing to identifying the correlation and impact between hedge accounting procedures in light of cybersecurity challenges (CSC). And between the risks of capital, the current research came as a complement to previous studies and that it started in terms of what these studies concluded in a manner consistent with different environmental requirements.

### **The Theoretical Aspect of the Research**

#### **Concept and Importance Accounting procedures Hedging :**

Hedging accounting procedures refer to the use of a set of tools to manage risks when the company has a transaction or investment position that exposes it to some kind of risk, as a

hedge may be established with the aim of reducing the risk, or eliminating the risk, hedging means taking the economic unit of two different positions so that the losses achieved from one position must be balanced by the profits of the other position, and thus the hedge tries to remove price risk by fixing the exchange rate to be done at a later date ([Abdel Qader, 2017](#)).

Therefore, hedging accounting procedures refer to a clearing transaction so that if the original transaction causes an adverse result, the hedge will create a positive result to cancel the adverse effect on the economic unit, but if the original transaction causes a positive result, the hedge will create a negative result that cancels it, and the purpose of the hedging is not to ensure a positive result but to reduce or eliminate risks (Iannuzzo, 2020).

Derivatives can be used to create hedges, and derivatives are instruments that derive their value from some other asset. The most commonly used derivatives as hedging are options, futures, futures and swaps, and in light of volatile markets and continued uncertainty, hedging activities against these risks tend to increase ([Mohammed & Ahmed, 2020](#)).

The fluctuation not Justification in net income economic units make council Standards Accounting Finance It allows the use of a certain type Special treatment Accounting It is accounting Hedging, and this maybe economic units from identification on gains losses Tools Derived and the clauses covered in net Income For the same Periods, where it reduces from fluctuation Profits Output on accounting Derivatives According to sign The market, and that To obtain on possibility application accounting Hedging He should on economic units Fulfillment Standards Strict on this matter ([Eierle et al, 2021](#)). And it stems importance procedures accounting Hedging from importance Preservation on value Investment in interview The risks, and this importance can be illustrated by the following ([Cummins, 2019](#))

1. to set and measurement Control and reduction Risks that Faces The economic unit, and therefore managing these risks efficiently and effectively.
1. control At risk and reduce it to levels Acceptable in such a way that it cannot negatively affect the performance and outcome of the economic unit's operations.
2. appreciation Risks and shelter From it In what no Effects on Profitability By developing appropriate plans to address these risks.
3. to set Treatment qualitative per type from Types Risks alongside improving the performance of the economic unit, whether financial or strategic.
4. Governorate on Assets The existing ones and increasing the effectiveness and efficiency of their optimal use To protect Interests investors Depositors And the creditors.
5. the job on Limit from losses And reduce it to minimum end It is possible to work on avoiding these losses and the associated risks in the future.
6. It does practical Hedging from Risks Finance on situation Reports patrol about size Risks that It is exposed It has economic units.

### **Hedging Accounting under Cybersecurity Challenges (CSC) :**

The purpose of hedging accounting under cybersecurity challenges (CSC) is to protect the economic unit from uncertainties of future events, and according to the international standard (IFRS-9) if the derivative instrument meets the eligibility criteria, it can be successfully set as such, provided that it continues to meet the hedge accounting standards, and the standards will essentially require the establishment of a relationship Economic between the financial derivative and the hedged element, to align hedge accounting with risk management objectives as it relates to the required hedging ratio ([Beneda, 2013](#)).

The starting point for the economic unit to start this accounting journey under cybersecurity challenges (CSC) should be to identify the risks that currently affect profits and once these elements are identified and hedged then the economic unit will then require the appointment of hedging by formal documentation. These documents should specify the economic unit's risk management strategy, the hedging instrument and the nature of the risks ([Bratten et al, 2016](#)).

When the hedge accounting process is completed under cybersecurity challenges (CSC), testing ineffectiveness should be an ongoing procedure as long as the hedge remains active and continues to meet the requirements of IFRS-9), and if not, cessation of hedging accounting becomes inevitable, and the frequency of these tests should be combined with the accounting requirements of organizations. The moment the economic unit develops this procedure internally, it becomes a routine process afterwards. I think it's a journey worth exploring, a journey that will better represent risk management activities while reducing income statement volatility. We wish you a clear year-end accounting close ([Campbell et al, 2019](#)).

Describes how derivatives are calculated and hedge accounting is applied. Second, IFRS-13 describes how fair value is determined for accounting purposes, and in practice includes consideration of non-performance risks such as credit and other risks to which you are exposed. the institution in valuations, and third, the international standard (IFRS-7) which describes the qualitative and quantitative disclosures required. The three main hedge accounting models under (IFRS-9) are summarized as follows: ([Landi et al, 2022](#)).

1. hedge Value Fairness : The risks that It is Hedging From it here she Change in Value fair For the assets or The opponents, as it includes that also commitment Steady not Acknowledged With him maybe that It is attributed to risk specific able on impact in Profit and loss For the organization. In this The model, Compensate (or Cancels gains losses Derivatives And the elements Heated From it Some of them Some And it is Confession With them in Profit And the loss.
2. net Hedging Investment : This The model specific some The thing He is designer For the company Holding She has companies Follower Operations Foreign Dominate On it coins foreign, The idea here she Hedging from risks Currency Related Translation that Operations Foreign Ministry in existing Income Comprehensive The other In a way

Consistent with registration Differences Disbursement Cumulative resulting on translation Operations Foreign.

3. hedge flows Cash: To end far, this The model he The most Popularity. The goal. that It is Hedging From him here he Contrast in flows Cash Which maybe that It is attributed to risks specific And it is possible that Affect on Profit and loss For the organization. It may be flows Cash Related In the original or opponents Current or Obligations on Company or Transactions The probability High. In Hedging from flows Cash, maybe registration profits and losses for the derivative Financial in existing Income Comprehensive The other and return Rotate it to existing Income in same the time that It is In it registration treatment Hedging. Explains The drawing The graph Below The method that It works In it accounting Hedging For flows Cash, And how maybe that to avoid The organization earnings losses Changes in Value fair For derivatives.

### **Capital Risk: Concept and Measurement:**

Risks head the money probability non capacity Bank on Loyalty With his commitments, and He is unable Bank on Loyalty With commitments When Faces rights ownership Negative, And it is determined net rights Royalty For the bank By the difference between Value Market For its origins and Value Market To her opponents ([Nitzl, 2016](#)).

And represents head the money Paid head the money The investor, As for Assets Most likely to be at risk So he represented all Origins Except Cash and balances I have Banks and institutions Finance. And it measures rate risks head the money range that It decreases It has value Assets before that Affects that on funds Depositors And the owners, and risks arise head the money when It decreases Value Market For origins Bank To lower level from Value Market opponents The bank ([Juhl, 2019](#)).

And from The known that head the money The owned It should that He is solid And enough To counter the risks. But from The difficult from The area The process to set bezel adequacy head Money for the bank Commercial One, or until The device Banker As a whole; That's For lack of Behavioral knowledge Depositors and borrowers in The future Accurately, head Money The possessor is necessary For safety Bank and strengthening trust In it And the governorate on level Appropriate security, But he no Guarantees that Safety, But He should that Available to Factors Other To verify that Safety ([Kanagaretnam et al, 2021](#)).

and hedging Regarding the risks of capital, strategy To provide Time where no It is necessary on investors changing formation Their governor or Taking any decisions investment Other building on Changes in The market. This. Meaning also that it maybe For investors Overcome periods The difficult in market Don The need to Taking decisions Radical ([Power, 2015](#)).

And it is possible measurement risks head the money Knowing the percentage coverage rights Royalty For the assets Dangerous, risks head the money on Inverse relationship with coefficient Lifting And the return on rights Ownership. So, what He decided Bank Increased risks head the money for Lifting And the return on rights The monarchy, and with survival Circumstances and variables The other Fixed He is Large. But

if Forced Bank To Risk reduction head the money for Return on rights pain For you and coefficient Lifting They become Less, as maybe to set risks head the money By division head the money The owned For the bank On total Requirements, decrease This is amazing ratio It represents danger on Revenues And the requirements due For others ([Jamaan, 2017](#)).

### **The relationship between hedging accounting under cybersecurity challenges (CSC) and capital risk:**

Maybe Hedging from risks head the money Using tools investment Different, for example if the economic unit owns shares in a particular company and there risk from that Prices may It decreases In the short term or range Average, It is possible Hedging on road buying contracts Sale on Stocks in market Options ([Injured, 2014](#)).

from where The essence, for Hedging It resembles Taking policy insurance against Risks that may Affect on Your investments, as collateral, for Purpose from Hedging not judiciary on Risks But To limit from impact any It happened He was It will Lola that to loss Destructive head the money Investment in the economic unit during the accounting period ([Osuji & Odita, 2012](#)).

And with that, for Hedging not live like Insurance. There is. Ways different For hedging from risks Investment, and some Strategies Apply only on Types specific from Investments, like Hedging from Currencies. No. He should Hedging from all Assets, But when It is exposed risks more Which Feeling Comfort Towards him, maybe that Helps you to implement strategy Hedging in to set level Exposure For risks Accepted ([Noman et al, 2015](#)).

The advantage The most importance For hedging she that it Helps in , hate Looking on conditions The market. From during Hedging, maybe For investors Limit from Limit Al-Aqsa For loss that maybe that They bear it With their investments different in The market is facing investors from all Types risks different =, maybe that Reduce it Strategies Hedging The different ones where it Some companies By hedging from Height not natural in Prices in The market ([Takyi et al, 2019](#)).

And it is possible that He is For hedging also Many from Benefits strategy For companies. It is possible. that Help strategy companies on reaped Profits For goods that It produces it. On Way For example, Used Producers goods market Contracts Future For hedging from Centers Open And harvest Profits from during Approval on Prices Fixed For production Future. With this. The method, It is isolate them on any decrease possible in Prices Products Basic ([Rifqah & Hafinaz, 2019](#)).

The head the money The owned necessary For safety Bank and strengthening trust In it And the governorate on level Appropriate security, But he no Guarantees that Safety, But He should that Available to Factors Other To verify that Safety, so what He decided Bank Increase risks head the money for Lifting And the return on rights Ownership ([Vagin et al, 2022](#)).

## Result and Discussion

### Introductory summary of the research sample:

The research sample is represented by three banks, namely Mosul Bank for Development and Investment, the Bank of Baghdad and the Trans Iraq Investment Bank, and an overview of these banks can be given as follows:

**First: Mosul Development Bank:** The bank was established in 2001, and the bank undertakes various types of local and international commercial and investment banking activities in different currencies, namely internal and external investments, internal and external transfers, current accounts, savings, deposits, deposits, sock ratification and others.

**Second: Bank of Baghdad:** The bank was established in 1992 and aims Bank to Filling savings Nationalism and employing it in Fields investment different and industrial agricultural Housing and tourism and service and projects development The other Practice Banking usual For his account or To calculate Others Presentation various Services Customer banking.

**Third: Bank through Iraq for investment:** The bank was established in 2006 and the bank seeks to attract its customers with its high-quality services at preferential prices through the introduction of automation in all banking transactions from information systems, devices and equipment that will speed up the completion of banking service as well as the development of work and entry into the world of modern banking technology.

### Application of hedging accounting procedures in light of cybersecurity challenges (CSC) in the banks:

Banks are considering sample Search To hedge On the basis that Means Management Risks It is from during Use Derived Finance one or more from that or tools hedge Other To confront Changes in Value fair or flows Cash to origin or commitment financial or For any practical Future-oriented, and the banks in the research sample resort to discrimination. between tool Hedging and the clause Heated For him, and a tool Hedging It is in Derivatives Finance or It is considered in condition Hedging risks Prices Disbursement pedigreed financial or commitment financial not derivative,

The assets can be explained Finance In value fair For banks sample Search For the period (2018-2022) as shown in the following table:

**Table 1.**

Assets Finance In value Fairness for banks, research sample For the period (2018-2022) (amounts) thousands Dinars)

Details	2018.	2019	2020	2021	2022
Mosul Development Bank	4200863	4200899	5099995	5109995	5901801
Bank of Baghdad	4666318	4182827	4738042	2368857	2378166
Trans Iraq Investment Bank	26330253	26222712	26474477	28275070	3105206
Total	35197434	34606438	36312514	35753922	11385173
Average	11732478	11535479	12104171	11917974	3795058

Source : Prepared by the researcher based on the financial data of the banks in the research sample.

The table above shows that the total assets Finance In value fair For banks sample The research for the years 2018, 2019, 2020, 2021, and 2022 showed that the total assets were (35,197,434), (34,606,438), (36,312,514), (35,753,922), and (11,385,173) thousand dinars respectively, and the average assets were also Finance In value fair For banks sample The search results show (11732478), (11535479), (12104171), (11917974), and (3795058) thousand dinars respectively, as the assets Finance In value fair Register from during Reliance on the rights clause Royalty and accounts Investment, where register tools rights Royalty within This is amazing wallet In value fair And it is recorded Changes The suffix in Value fair within item Reserve Value fair in side rights Property and owners Accounts Investment. After identifying the assets Finance In value fair For banks sample The research will use a cash flow model to measure value fair For stocks, this model is based on the premise that the wealth derived from an asset is embodied in the cash flows generated from that asset. The cash flow valuation model for common stocks is shown through the following equation:

$$P_o = \sum_{t=1}^n \frac{C_t}{(1 + K)^t}$$

Because:

PO : Fair value of shares.

Ct : The difference between cash inflows and cash outflows.

K : Required rate of return (discount rate).

Cash flow refers to the movement of money into or out of a business, project, or financial product. It is typically measured over a specific, limited period. Cash flow is a general term that refers to past actual cash flows, expected future cash flows, the total cash flows of all involved parties, or only a subset of those cash flows. Identifying cash flow problems in a business requires determining the value or rate of return of the economic unit. Profits are not necessarily liquid cash. A company can fail due to a lack of cash, even if it has profits.

To determine the value fair For shares banks (research sample) For the period (2018-2022) according to the model flow In the case of criticism, the difference must be determined. between flows Cash Dakhla and flows Cash The outgoing, which represents the net flows The cash disclosed in the cash flow statement, as well as determining the required rate of return (discount rate) , and after reviewing the financial data of the banks in the research sample, it became clear that the rate Return Required (rate) The discount for these banks was (12%), either the difference between flows Cash Dakhla and flows Cash Al-Kharja Which Represents net flows Cash It is extracted from existing flows Cash for banks, the research sample.

Net can be explained flows Cash For banks sample Search For the period (2018-2022) (Amounts thousands Dinars) as shown in the following table:

**Table 2.**

net flows Cash (Difference) between flows Cash Dakhla and flows Cash (Outside) banks, research sample For the period (2018-2022) (amounts) thousands Dinars)

Details	2018,	2019	2020	2021	2022
Mosul Development Bank	20821467	-21836849	9701177	371454491	-2996216
Bank of Baghdad	76081035	71988593	343809776	-55890346	-199388805

Trans Iraq Investment Bank	-5842177	-12339199	-19326970	-35769731	-60842249
Total	91060325	37812545	334183983	279794414	-263227270
Average	30353442	12604182	111394661	93264804	-87742423

Source : Prepared by the researcher based on the financial data of the banks in the research sample.

The table above shows that the net total flows Cash For banks sample The research for the years 2018, 2019, 2020, 2021, and 2022 was (91,060,325), (37,812,545), (334,183,983), (279,794,414), and (-263,227,270) thousand dinars respectively, and the average net flows Cash For these banks (30353442), (12604182), (111394661), (93264804), (-87742423) thousand dinars respectively. It is also noted from the table above that there are negative values for net cash flows due to the increase in cash outflows over cash inflows.

The value can be explained fair For shares banks (research sample) For the period (2018-2022) as shown in the following table:

**Table 3.**

Value fair For shares banks (research sample) For the period (2018-2022) (amounts) thousands Dinars)

Details	2018.	2019	2020	2021	2022
Mosul Development Bank	18590596	-19497187	8661765	331655796	-2675193
Bank of Baghdad	67929496	64275529	306973014	-49902095	-178025719
Trans Iraq Investment Bank	-5216229	-11017142	-17256223	-31937260	-54323437
Total	81303863	33761200	298378556	249816441	-235024349
Average	27101288	11253733	99459518	83272147	-78341449

Source : Prepared by the researcher based on the previous table.

It can be seen from the table above that the total value fair For shares banks sample The search results for the years 2018, 2019, 2020, 2021, and 2022 were (81,303,863), (33,761,200), (298,378,556), (249,816,441), and (-235,024,349) thousand dinars respectively, and the average value was fair For shares banks sample The search results show (27101288), (11253733), (99459518), (83272147), and (-78341449) thousand dinars respectively, and it is also clear that the value fair For shares banks sample The research was affected by the value of net cash flows, therefore negative values appeared in the table above.

### **Risk Measurement head Money in banks: a research sample for the period (2018-2022) :**

There are two scales that can be used to measure risk head the money They are a ratio head Money / Total Assets and ratio head Money / Rights Ownership, and obtaining risks head the money in banks when It decreases Value Market For origins banks To Level less from Value Market opponents This is amazing banks during a period Accounting Specific, These two measures for the banks in the research sample can be explained as follows: First: Percentage head Money / Total Assets The percentage can be explained head Money / Total Assets in banks sample Search For the period (2018-2022) as shown in the following table:

**Table 4.**  
rate head Money / Total Assets in banks (research sample) For the period (2018-2022)

Details	2018.	2019	2020	2021	2022
Mosul Development Bank	0.61624	0.61560	0.63530	0.32666	0.31811
Bank of Baghdad	0.22451	0.22070	0.17611	0.16236	0.14499
Trans Iraq Investment Bank	0.80553	0.76158	0.77216	0.70198	0.63724
Total	1.64628	1.59788	1.58357	1.19100	1.10034
Average	0.54876	0.53262	0.52785	0.39700	0.36678

Source : Prepared by the researcher.

It can be seen from the table above that the total percentage head Money / Total Assets For banks sample The research for the years 2018, 2019, 2020, 2021, and 2022 were (1.64628), (1.59788), (1.58357), (1.19100), and (1.10034) respectively, and the average percentage was head Money / Total Assets For banks sample The search results were (0.54876), (0.53262), (0.52785), (0.39700), and (0.36678) respectively, and seek banks (research sample) to that He is head the money The owned solid And enough To confront Risks, so Seeking banks to knowledge behavior Depositors and borrowers in The future Accurately, head Money Owned necessary For safety Bank and strengthening trust In it And the governorate on level Safety Appropriate, and also works banks sample Search on measurement risks head the money from during Knowledge rate coverage rights Royalty For the assets Dangerous, risks head the money on relationship reverse with coefficient Lifting And the return on rights Ownership. So, what He decided Bank Increase risks head the money for Lifting And the return on rights Ownership, and if She was forced banks sample Search To Discount risks head the money for Return on rights pain For you and coefficient Lifting They become less, as maybe to set risks head the money By division head the money The owned For the bank Ali total Requirements, decrease This is amazing ratio It represents danger on Revenues And the requirements due For others, from Methods administration Risks Related head the money Which Follow it banks planning head the money, As well as to improve policy For distribution Profits during period Accounting.

Second: Percentage head Money / Rights Royalty The percentage can be explained head Money / Rights Royalty in banks sample Search For the period (2018-2022) as shown in the following table:

**Table 5.**  
rate head Money / Rights Royalty in banks (research sample) For the period (2018-2022)

Details	2018,	2019	2020	2021	2022
Mosul Development Bank	0.95005	0.94055	0.93661	0.92945	0.91343
Bank of Baghdad	0.93723	0.91360	0.89787	0.80872	0.71505
Trans Iraq Investment Bank	0.96434	0.98898	0.98436	0.99657	1.02896
Total	2.85162	2.84313	2.81884	2.73474	2.65744
Average	0.95054	0.94771	0.93961	0.91158	0.88581

Source : Prepared by the researcher.

The table above shows that the total percentage head Money / Rights Royalty For banks sample The research for the years 2018, 2019, 2020, 2021, and 2022 were (2.85162),

(2.84313), (2.81884), (2.73474), and (2.65744) respectively, and the average percentage was head Money / Rights Royalty For banks sample The search results were (0.95054), (0.94771), (0.93961), (0.91158), and (0.88581) respectively, as follows: Risks potential For purchase or borrowing head the money For investment in Origins banks It comes As a result reverse It is decrease value Assets, like that Commitment By paying loan that may It comes Different To place boxes Investment, The matter that maybe that Affects In a way negative on Performance Financial For banks, even banks sample Search It works on Presentation shares Increase For subscription The year, As well as It works on transformation funds from the reserve Optional or from Profits detained or Which Increase on Limit Lowest For the reserve Legal to shares, In addition to transformation religion on banks or Bonds or Instruments to shares That's from Okay Help in discount risks head the money to less what It is possible, and also seeks banks to Get on group Various from sources head the money that maybe For banks Access To her, And most Common she Stocks Debts And grants, as and rights Royalty she Most important type from head the money, where that it provide banks With resources Finance For growth and expansion from Okay discount risks head the money to minimum end It's possible, where it works banks Research sample on measurement risks head the money from during Knowledge rate coverage rights Royalty For the assets Dangerous, risks head the money on relationship reverse with coefficient Lifting And the return on rights Ownership. So, what He decided Bank Increase risks head the money for Lifting And the return on rights Ownership.

**Measuring the correlation and impact relationships between the research variables and testing its hypotheses:**

The Pearson correlation coefficient can be used to illustrate the relationship between hedging accounting practices in light of cybersecurity challenges. (CSC) Capital risks in the banks included in the research sample for the period (2018-2022) are shown in the following table:

**Table 6.**

Pearson 's correlation coefficient between procedures accounting Hedging in shadow Challenges Security cyber (CSC) Capital risks In banks sample Research for the period (2018-2022)

<b>Correlations</b>			
<b>The Variables</b>		<b>procedures accounting Hedging in shadow Challenges Security CybersecurityCSC</b>	<b>risks head the money</b>
procedures accounting Hedging in shadow Challenges Security CybersecurityCSC	Pearson	1	-0.976*
	Correlation		
	Sig. (2-tailed)	0.000	0.000
	N	15	15
risks head the money	Pearson	-0.976*	1
	Correlation		
	Sig. (2-tailed)	0.000	0.000
	N	15	15
Correlation is significant at the 0.01 level (2-tailed) *			

Source : Outputs of the statistical program (SPSS-26).

The table above shows that relationship between Hedging accounting procedures in light of cybersecurity challenges (CSC) Capital risks are relationship reverse Strong and significant at the 1% level, and it may reached coefficient Correlation (-0.976) This Meaning The more the hedging accounting procedures are improved in light of cybersecurity challenges (CSC) This leads to a reduction in capital risk through a focus on financial derivatives.

The impact relationship between hedging accounting procedures in light of cybersecurity challenges (CSC) can be illustrated by testing. Capital risks in banks sample The research covers the period from 2018 to 2022 , as shown in the following table:

**Table 7.**

a test relationship The impact of hedging accounting procedures in light of cybersecurity challenges (CSC) Capital risks In banks sample Research for the period (2018-2022)

The independent variable	R	SD Error of the Estimate	Durbin-Waston	Beta factor	T value	The dependent variable
procedures accounting Hedging in shadow Challenges Security CybersecurityCSC	-0.976*	0.674232	1.987654	-0.744	12.355	Capital risks

Correlation is significant at the 0.01 level (2-tailed) \*

Source : Outputs of the statistical program (SPSS-26).

As can be seen from the table above, relationship between Hedging accounting procedures in light of cybersecurity challenges (CSC) Capital risks are relationship reverse Strong and significant at the 1% level, and it may reached coefficient Correlation (-0.744) , This Meaning It is whenever hedging accounting procedures are used and applied in light of cybersecurity challenges (CSC) This leads to a reduction in capital risk. Furthermore, the Durbin-Waston test value was between 1.5 and 2.5, with a value of 1.987654 , indicating no autocorrelation between the residuals in the research model. This confirms the validity of the findings. Regarding the research hypothesis, which states: "There is no statistically significant effect between Hedging accounting procedures in light of cybersecurity challenges (CSC) and between Capital risks), can be tested based on the beta coefficient and the calculated t- value. The beta coefficient was (-0.744) and the calculated t- value was (12.355), which is greater than its tabulated value. This confirms the impact of hedging accounting procedures in light of cybersecurity challenges (CSC). Regarding capital risks in the banks included in the research sample for the period from 2018 to 2022, it can therefore be said that the application of hedging accounting procedures in light of cybersecurity challenges (CSC). This leads to a reduction in capital risk, and thus the research hypothesis is proven.

## Conclusions

1. The procedures accounting Hedging It refers to a transaction Clearing So that if Caused The transaction original in a result reverse for Hedging It will create a result Positive to cancel The effect The inverse in the economic unit, but if Caused The transaction original in a result Positive for Hedging It will create a result Negative Cancel it, and that is a guarantee a result Positive But To reduce or judiciary on Risks.
2. Allow Hedging for investors By limit from Exposing them For risks in The markets. While It is Investment To achieve Profits, maybe that Leads Risks that It involves On it in some Sometimes to losses Destructive. Therefore, It is to implement Strategies Hedging an order Necessary when You want in reduction or control in Your exposure For risks in The market.
3. Purpose from accounting Hedging in shadow Challenges Security cyber (CSC) he protection The economic unit of cases non Confirmation from Events Future, According to For the standard International (IFRS- 9) if She was The tool Derived It fulfills By standards Eligibility, It is possible Appointing her Successfully on this Grammar, Condition that It continues in Meeting Standards accounting Hedging.
4. Reached coefficient The correlation between the research variables was (-0.976). This Meaning It is whenever it is applied procedures accounting Hedging in shadow Challenges Security cyber (CSC) This will lead to discount risks head the money.
5. The value of the beta coefficient was (-0.744) and the calculated t- value was (12.355), which is greater than its critical value, thus confirming the effect of the procedures. accounting Hedging in shadow Challenges Security cyber (CSC) At risk head Money, that is, the application procedures accounting Hedging in shadow Challenges Security cyber (CSC) The more this leads to a reduction risks head Money in banks is the research sample.

## Recommendations

1. Necessity Standing Economic units in general and banking units Publishing culture and concepts accounting Hedging And explaining the importance Its application, as well as determining its suitability to the requirements of the contemporary business environment and the changes and developments that have accompanied it.
2. Accreditation on Entrances Modern in appreciation risk As an introduction The scenario that It is tool Active in Taking Decisions Finance And confrontation Challenges especially if She was The scenario Built on information and programs technique and computer Advanced To access to results minute And fast.
3. Interest Study Analysis Relations Correlation and influence between Variables Related By taking risks and returns Values Assets Finance and knowledge Its trends To be able from Taking Decisions Suitability To achieve Goals Banking units.
4. To publish Awareness Financial Importance tools Derivatives Finance and qualification staff and participants in markets Finance from investors and mediators Malians in evaluation Stocks And how to set the price equitable like redundant Profitability He is

from more Measurements importance in Applications Derivatives Finance in banking units.

5. Confirmation on to set And follow degree Link between returns Stocks For companies with Indicators market For assets Finance Being Give vision clear For the one who takes Decisions Finance and taking Scenarios Suitability To confront Challenges.

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