INTERNATIONAL JOURNAL OF ECONOMICS AND FINANCE STUDIES
Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117
Received: 11.09.2023 | **Accepted:** 20.12.2023 | **Published Online:** 30.05.2024

-RESEARCH ARTICLE-

THE CREDIT BUREAU SYSTEM'S ROLE IN ACHIEVING THE BANKING SOUNDNESS PRINCIPLE

Husam Ali Kadhem

Department of Finance and Banking, College of Administration and Economics, University of Baghdad, Baghdad, Iraq.
ORCID: https://orcid.org/0000-0003-3140-1838
Email: husam.a@coadec.uobaghdad.edu.iq

Hakeem Hammood Flayyih *

Department of Accounting, College of Administration and Economics, University of Baghdad, Baghdad, Iraq.
ORCID: https://orcid.org/0000-0003-0615-0854
Email: hakeem.hmood@coadec.uobaghdad.edu.iq

—Abstract—

The regulatory authorities have implemented various standards to address the risks associated with credit facilities. One important aspect is the use of the Credit Bureau System (CBS), which plays a central role in ensuring banking soundness. Thus, the study seeks to explore the role of CBS in attaining banking soundness as a fundamental principle. The research sample consisted of three Iraqi banks spanning from 2010 to 2022. The research findings indicated that the implementation of CBS had a significant positive impact on achieving Banking Soundness (BS) rates in my bank. Furthermore, the asset quality index's value increased significantly, surpassing the standard value of 5%. It became evident that the banks needed to formulate a well-defined plan for managing non-performing credits, given the significant number of such credits in relation to the total credit extended.

Keywords: Credit bureau system, credit inquiry; banking soundness; bad credit.

Citation (APA): Kadhem, H. A., Flayyih, H. H. (2024). The Credit Bureau System's Role in Achieving the Banking Soundness Principle. *International Journal of Economics and Finance Studies*, 16(01), 380-397. doi: 10.34109/ijefs.202416117

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

INTRODUCTION

CBS is a global financial system known for its high degree of banking professionalism, flexibility, and accuracy. It effectively caters to the financial needs of modern society (Hurley & Adebayo, 2016). It is also a highly effective system that offers comprehensive information about the cash credit applicant, enabling the bank to efficiently manage its operations and make informed credit decisions. It is also a crucial tool for tackling long-standing banking issues like credit arrears. Therefore, Credit Inquiry (CI) plays a vital role in gathering the necessary information to assess the customer's character. Banking behaviour allows the credit department to gather the necessary data in a broad sense (Posnaya et al., 2020). This source is derived from various sources, such as the customer requesting credit, internal sources within the bank, and external sources.

Therefore, it is crucial for the credit department to continue their responsibility of investigating the customer's credit and carefully evaluating the outcomes of this investigation to make the most suitable decision. Making an incorrect decision regarding credit approval could potentially result in missed opportunities for the bank to enhance its profits through the credit granting process. Accuracy in the current study reduces the risk potential. The effectiveness of the credit decision to grant credit or not determines the efficiency and effectiveness of credit management. In other words, the lower the risks in this area, the higher the bank's achievement of banking safety (Rona-Tas, 2016).

CBS system ensures the safety of banking operations as the information it provides is reliable and up to date, enabling banks to know the extent of customers' ability to meet their financial obligations to repay loans. In addition, this system can provide separate reports regarding credit history, payment methods, and financial risk estimates. Banks can use this information to make well-informed decisions about credit approval and risk management. Failing to meet the indicators of CBS, such as capital adequacy, asset presence, and provision for loan losses, can leave the bank vulnerable to the inability to recover funds from clients who fail to make payments.

The main emphasis of the study is on understanding CBS's role in achieving banking stability. Nevertheless, the implementation of CBS as a worldwide system for obtaining precise and comprehensive information about credit applicants has posed challenges, and its use and effectiveness in banking operations continue to be a topic of concern. The issue of research thus revolves around how banks utilise CBS to make favourable credit decisions, ultimately enhancing their stability. One issue that arises is when individuals attempt to determine if current banks are committed to and aware of the significance of CBS in mitigating risks associated with credit approval (Nayak & Chandiramani, 2022). In addition, it is important to reassess whether banks are implementing the appropriate value criteria, such as capital adequacy, assets quality,

Vol: 16 No: 01 Year: 2024 ISSN: 1309-8055 (Online) (pp. 380-397) Doi: 10.34109/ijefs.202416117

and allowance for losses, as the fundamental indicators of banking stability (Arunthathi, 2020).

The current research aims to achieve a set of main objectives: The impact of using the CBS system and its implementation mechanisms on reducing credit risks when compared with the current situation of banks. Identifying weaknesses in the application of the CBS system by determining the current quality of its application in enhancing effective banking practices. Identifying the characteristics of the CBS system and its benefits in analyzing the safety indicators of banking institutions for current research. Benefiting from the CBS system in ensuring banking stability through the recommendations provided by the research. The current study also includes a set of questions regarding the CBS system and banking safety:

Q1: How is the capital adequacy of banks affected by the CBS system? Q2. Is the quality of banks' assets affected by the application of the CBS system? Q3. Are the specific allocations for loan losses affected if the CBS system is applied? Through the above questions, the importance of studying the CBS system lies in its decisive factor in financial turmoil through its credit information about capital adequacy ratios (Hersugondo et al., 2021). The CBS system also contributes to achieving stability and flexibility in the banking system by providing information that helps policymakers and banking regulatory bodies take appropriate measures in financial turmoil (Moussawi et al., 2024; Giner & Mora, 2021). The CBS also helps provide reliable information that enables banks to avoid recurring problematic loans, enhancing the overall quality of loan portfolios (Muindi & Ambrose, 2023). The CBS system thus reduces loan risks through the insights it provides about banks' readiness for credit risks and mechanisms for dealing with them to achieve financial well-being for banks (Ozili, 2023).

LITERATURE REVIEW

Theoretical framework and previous studies

The concept of credit inquiry

The CI encompasses comprehensive information and data pertaining to the customer, their business, their relationship with the bank, their creditworthiness, financial standing, and ethical conduct within the banking sector. It also involves assessing prospects, analysing risks, evaluating the customer's willingness to expedite loan repayment, and determining their capacity to generate income, which forms the basis for the payment process. The CI is influenced by various factors, such as the loan amount, sources of repayment, economic purpose of the loan request, customer's transaction behaviour, and the guarantees provided to document the loan (Sangwan & Nayak, 2021).

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

This system is commonly referred to as the one that gathers customer information and data from various financial institutions and companies. The data is transformed into valuable information, which is then stored in the information base. This information can be readily accessed when the customer requests cash credit once more. It is a system that effectively manages financing, accurately identifies bank customers, and provides insight into their repayment capacity by connecting them through a network between the bank granting the financing and other banks. The function of CBS involves the participation of credit agencies in Gathering financial data on individuals, institutions, and companies, performing thorough financial analysis of their operations, generating credit reports and credit ratings, and consolidating this information to establish a central credit registry. The lack of efficient and sufficient access to credit poses challenges for individuals with limited financial resources, hindering their ability to access necessary facilities and seize opportunities (Gaitho, 2013).

The researcher describes CBS as a service that offers information, both positive and negative, about individual borrowers, companies, and others. This comprehensive report contains details about borrowers, their credit history, loan amounts, repayment history, and other essential information required for credit approval. There are three main types of CBS:

The official CBS: Systems implemented by central banks to oversee and regulate banking institutions. These institutions have a responsibility to provide credit data, which is handled by supervisory authorities to ensure safety and proper use. Nevertheless, a notable drawback is that it solely encompasses certain banking institutions, as numerous financial and financing institutions operate outside the purview of central banks and, as a result, do not furnish them with the necessary information (Indriastuti et al., 2022; McKillop et al., 2020).

The independent CBS: A system created by individuals or institutions outside of traditional banking that offers credit services. Due to its focus on business operations, this entity stands out for its commitment to innovation and the provision of cutting-edge CI services. It also prides itself on maintaining a high level of integrity and avoiding any conflicts of interest. This system has become prevalent in numerous developed countries, including the United States. There is a combination of a creditor-owned system and an independent system, where a CI company is formed. This company is primarily owned by independent entities and individuals, while banks and other lenders have minority ownership.

Systems owned by creditors: These systems offer CI services to customers and credit facilities for exchanging credit information. They also provide CI services to entities with shared ownership, as well as banks and financial institutions seeking to benefit from their services. Byusa and Nkusi (2012) found that banks with high interest rates

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

often experience a higher number of bad debts. Therefore, it is crucial for banks to enhance their policies.

Regarding the banks in the research sample, they utilise an official inquiry system to gather information about their customers. Cooperation through the exchange of credit information between banks is one of the most important pillars of the CBS system, and in 2014, instructions were issued to regulate this relationship.

Credit Risk Management Theory

Credit management theory is an effective model that works to reduce the risks resulting from default on the part of its beneficiaries, so it is of importance in banking and financial journals as it includes principles, standards, and practices that help banks avoid the risks of losses arising probable losses (Ginting et al., 2022; Goyal et al., 2023; Olobo et al., 2021). In credit risk management, the credit rating is known through credit recording and analysis, and these procedures are important for evaluating banks' credit (Maldonado et al., 2020; Takawira, 2024). This information provided by the above tests provides the diversification that banks aspire to by creating a diverse group of borrowers, areas, and geographical locations to reduce the severe impact of credit risks by assessing the losses resulting from default on loans and determining appropriate interest and credit rates.

Credit risk management also plays a vital role in monitoring and reporting credit risks. This role of credit risk management is reflected in controlling interest rates through risk-based pricing, which is reflected in increasing revenues from high-risk loans to avoid the possibility of losses (Hassan, 2024; Kaur & Sharma, 2022). This lies in obtaining a proactive view to detect potential credit risks through carefully monitoring borrowers' status, economic indicators, and market trends using advanced analytical tools and credit scoring models. The current study analyzes the factors the CBS plays through investing capital, processing non-performing loans, and provisions in achieving banking stability. The CBS system enhances the role of credit risk management in the credit decision-making process as it adds real value through the reliable and easily accessible credit information it provides. This is consistent with the role of credit management, which emphasizes the periodic assessment of credit risk. The information provided by the CBS system gives banks a highly accurate assessment of the credit status of borrowers, which enhances provisions to avoid losses and adds quality to assets through the improved credit information it provides.

Analysis of banking soundness indicators

There is a close and reciprocal relationship between the macroeconomy and the mechanisms for developing the banking sector. To ensure a stable economic situation, it is important to monitor and evaluate the performance of the banking sectors periodically. Regulators and external parties utilise specific indicators to analyse the soundness of the banking system (Baniawwad et al., 2024; Seyedi et al., 2019). It is the banks' capacity to effectively handle their operations during unforeseen circumstances, which demonstrates their ability to meet financial obligations in challenging economic situations using their capital and reserve accounts (Nghia, 2022; Swamy, 2014). The process of auditing economic operations and activities by monitoring banking risks is conducted using various financial and non-financial indicators (Aghakarimi et al., 2023; Siregar, 2022). There are several indicators available for assessing BS. Nevertheless, the emphasis will be on indicators that are closely linked to the research topic, which can be stated in the following:

Capital adequacy

The bank's strong capital adequacy and financial solvency shield it from the potential risks of banking shocks caused by changes in the macroeconomic climate, exchange rates, credit risks, and interest rates. These indicators offer important insights for supervisory authorities in assessing capital adequacy, a crucial factor in determining financial stability. Furthermore, ensuring BS serves as a crucial metric for assessing the potential risks faced by banks. The ratio has been established at 12.5 in accordance with Basel (3).

Asset Quality

Examining asset quality is crucial for assessing financial strength. Ensuring asset quality is crucial in the banking industry, with the main objective being to measure the proportion of non-performing assets in relation to total assets (Hadi et al., 2023). Evaluating assets is crucial for assessing credit risks related to operational operations and determining the profitability of loans for the bank. Loan quality is often referred to as asset quality, particularly in the banking industry. It is used to assess the level of financial risk associated with assets and the potential losses that may arise from them. Loans and advances are key assets in the banking industry that necessitate precise evaluation of their quality (Jin & Choi, 2022; Nzoka, 2015).

Allowance for loan losses LLP

LLP is crucial in the banking industry as it helps to replenish loan loss reserves. These reserves act as a safeguard against potential losses in the bank's loan portfolio. Creating LLP consistently across credit portfolios safeguards the bank's capital base from depletion in the event of credit losses. This is particularly crucial during times of crises when there is a rise in non-performing loans. Simultaneously, LLP has a direct impact on the BS index. Banks are required to disclose the size of LLP in their financial statements, unlike non-performing loans. The limited liability company performs

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

several tasks, including conveying clear and understandable information about credit risks to shareholders in the capital, using this company as an intermediary for conveying information related to the market, and developing the ability of banks to exercise discretion when reporting net income.

METHODOLOGY

This study is based on analyzing the relationship between the CBS system and improving the stability indicators of the banking sector in terms of capital, assets, and provisions for non-performing loans by collecting data and information related to the CBS system and analyzing it in a precise scientific manner to reveal its positive effects. The study sample included three Iraqi banks listed on Iraqi securities with prominent market positions and comprehensive information about the mechanisms for implementing the CBS system from 2010 to 2022. This prompted the researcher to compare the three banks regarding the possibility of generalizing the results reached by the research. The practical aspect included several stages to analyze the data obtained from the three banks and work on analyzing it using a descriptive-analytical approach to ensure the achievement of the research objectives (Do, 2022; Mezmir, 2020).

The mean, median, and standard deviation were used as common tools for data analysis through careful examination of financial data and regulatory reports to clarify and illustrate the comparisons. The changes in the Bank Soundness Index were also presented using illustrative charts and line charts that evaluate the differences between the three banks before and after the implementation of CBS. This type of analysis serves the research in knowing the potential impact of CBS on the stability of the banking system. The importance of the data collected over different periods lies in tracking capital adequacy and examining the differences in asset quality indicators and losses on non-performing loans. In addition, identifying the criteria and factors that provide an accurate analysis of the differences between the three banks when implementing CBS will undoubtedly give real and tangible results and determine the potential impacts in the future.

THE RESULTS

The financial status of the banking sector can be known through indicators that reveal the soundness of banks to prepare for potential risks. They also demonstrate the banks' proficiency in managing their liabilities and assets, meeting capital adequacy requirements, maintaining asset quality, and implementing an effective credit policy.

Capital adequacy index

The data presented in Table 1 and Figure 1 demonstrate the fluctuation of the capital adequacy ratio among the banks in the research sample over the study period. This

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

fluctuation was observed in both increasing and decreasing directions, depending on the bank's ability to effectively utilise its resources and avoid freezing them or restricting fund allocation. Customers are often deterred by the presence of banking facilities and the frustrating bureaucracy that accompanies them. The capital adequacy ratio, as measured by the Cook Index, experienced a steady rise from approximately 27% in 2010 to around 118% in 2015. However, in 2016, it declined to 52%, a decrease compared to the previous year's level of 118%. This decrease is attributed to the bank's enhanced credit activity and efficient resource utilisation, contributing to the overall development goal. The bank's primary objective of maximising revenue is also being achieved, with a noticeable increase in this percentage since 2016. There was a significant increase of 267% in 2018. This is a result of the bank's operational capabilities and the decrease in efficiency of its financial resources.

Despite a significant decrease in the subsequent two years, the percentage remained at a high level, reaching 59% in 2022. This substantial figure demonstrates the bank's capacity to confront credit risks and financial crises. The percentage in the Commercial Bank of Iraq was significantly higher than the standard rate specified. However, it experienced fluctuations at significant levels. Therefore, the bank achieved an impressive 760.4% in 2014, the highest percentage recorded for this indicator.

Table 1: Development of the capital adequacy index for several banks for the period 2010-2022.

Year	Ashur	Middle East	Commercial
2010	28	33	577
2011	37	49	566
2012	48	53	414
2013	65	73	489.7
2014	79	109	760.4
2015	118	104	536
Average (2010-2015)	62.5	70.2	557.2
2016	52	99	728.8
2017	105	127	594.1
2018	267	110	657.6
2019	262	111.2	529.2
2020	222	106	344
2021	227	95	327
2022	59	89	312
Average (2016-2022)	171	105	499

Source: Iraq Stock Exchange, annual statements from 2010-2022, (CBI), Banking Control Department, financial statements of the sample banks.

The index has experienced a significant increase of approximately 312% in 2022. Therefore, it is evident that the Commercial Bank of Iraq demonstrates a strong capability in managing credit and other risks. Additionally, the bank is highly efficient in providing credit facilities and effectively reducing risk-weighted assets. These factors have contributed to an increase in the bank's capital adequacy ratio. Although the capital adequacy ratios for Middle East Banking were lower compared to the other two banks, it did manage to achieve the specified standard ratio of 12.5% at a slightly higher level, particularly at the beginning of the study period. Throughout the study period, this ratio gradually increased to reach 89% in 2022. The highest ratio was recorded in 2017 at 127%, while the lowest ratio was in 2010 at 33%. Therefore, it is evident that the Middle East Bank has successfully met the standard ratio and fulfilled the capital adequacy index requirements, demonstrating its capacity to handle risks effectively. Upon analysing the three banks being examined, it becomes evident that the Commercial Bank of Iraq stands out for its adeptness in managing credit risks and its effectiveness in minimising the amount of risk-weighted assets. Next, the Bank of Ashur secured the second spot, followed by the Bank of the Middle East, which ended up in last place.

Table 1 clearly demonstrates the positive impact of the Central Bank's implementation of the banking inquiry system in late 2015. The subsequent implementation by banks in 2016 significantly contributed to achieving higher BS rates in the Ashurn and Middle East Banks. This is evident in the average adequacy index ratios, which improved after the system was put in place. The capital in these two banks reached 171 and 105 during the period 2016-2022, compared to 62.5 and 70.2 for the period 2010-2015. This indicates the effectiveness of the inquiry system in mitigating risks associated with credit facility operations, as observed. In comparing the average ratios for the same index, it is observed that the Commercial Bank of Iraq experienced a decrease from approximately 557.2 during the period of 2010-2015 to around 499 during the period of 2016-2022. The decrease in question can be attributed to the increase in credit volume, which is significantly higher than the standard ratio.

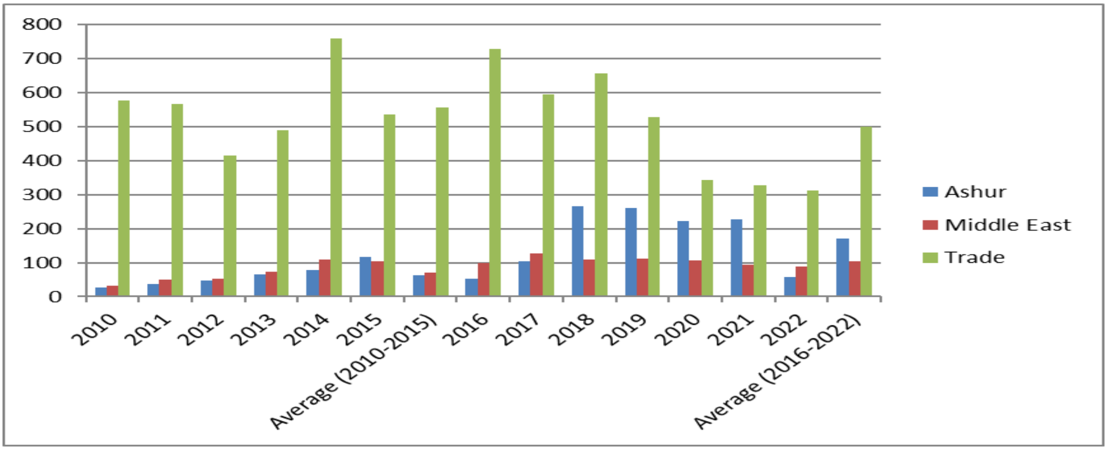

Figure 1: Development of the capital adequacy index in banks (Ashur, Middle East, and Commercial) for the period 2010-2022
Source: Conducted by the researcher based on the data in Table 1.

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

Asset quality index

This indicator is an important measure of the ability to collect defaulted credit and maximise revenue generation. The CBI has established a benchmark of not exceeding 5% for this indicator. When the ratio of unproductive credit to the total credit in the bank is high, it suggests a notable weakness in the granting of credit facilities, their conditions, and the guarantees involved. Table 2 and Figure 2 show a significant increase in the asset quality index in Ashur and Commercial Banks during the study period. The values exceeded the standard value of (5%), with average percentages reaching (93.3%) and (46%), respectively. This indicates a notable improvement in the asset quality of both banks. The bank's lack of a clear strategy for collecting non-performing credits is evident, along with the rise in the proportion of non-performing credits compared to the total cash credit provided by the bank. Additionally, there has been a slight decrease in the volume of credits granted. The Middle East Bank has shown significant improvement in its commitment to the standard ratio, despite fluctuations in some years of the study period. In most years, the bank successfully achieved compliance with regulatory instructions, resulting in an average rate of 4.8% for the period 2010-2022. This demonstrates the bank's ability to effectively manage the credit process and heavily rely on the returns it generates. The bank's reliance on the currency sale window and the recent decrease in the volume of cash credits granted have led to a decrease in unproductive credits compared to the total volume of credits.

Table 2: Development of the asset quality index for the banks in the research sample for the period 2010-2022

Year	Ashur	Middle East	Commercial
2010	62.4	3	90
2011	68.9	1	94
2012	73.5	3	81
2013	77.6	10	69
2014	80.7	3	58
2015	81.39	6	48
Average (2010-2015)	74.1	4.8	73.3
2016	94.78	3	53
2017	97.01	4	48
2018	95.4	8	44
2019	93.7	8	57
2020	96.8	6	43
2021	91.2	4	40
2022	85.1	3.8	37
Average (2016-2022)	93.3	5.2	46

Source: Iraq Stock Exchange, annual statements from 2010-2022 (CBI), Banking Control Department, financial statements of the sample banks.

It is evident from the Table that despite the implementation of CBS, the asset quality index in Bank of Ashur has shown a gradual increase. From an average percentage of approximately 74.1 during the period of 2010-2015, it has risen to about 93.3 during the period of 2016-2022. This increase can be attributed to certain factors. There was a rise in the volume of doubtful debts as a result of the credit process expanding in comparison to the previous period. Simultaneously, the Middle East Bank upheld its dedication to the standard ratio, maintaining an average ratio of 5.2 throughout the period from 2016 to 2022. Regarding the significance of CI, its impact became evident upon its implementation in the Commercial Bank of Iraq, leading to significant improvements. The bank made the decision to decrease the volume of risk-weighted credit from an average ratio of 73.3% during the period 2010-2015 to an average ratio of 46% during the period 2016-2022.

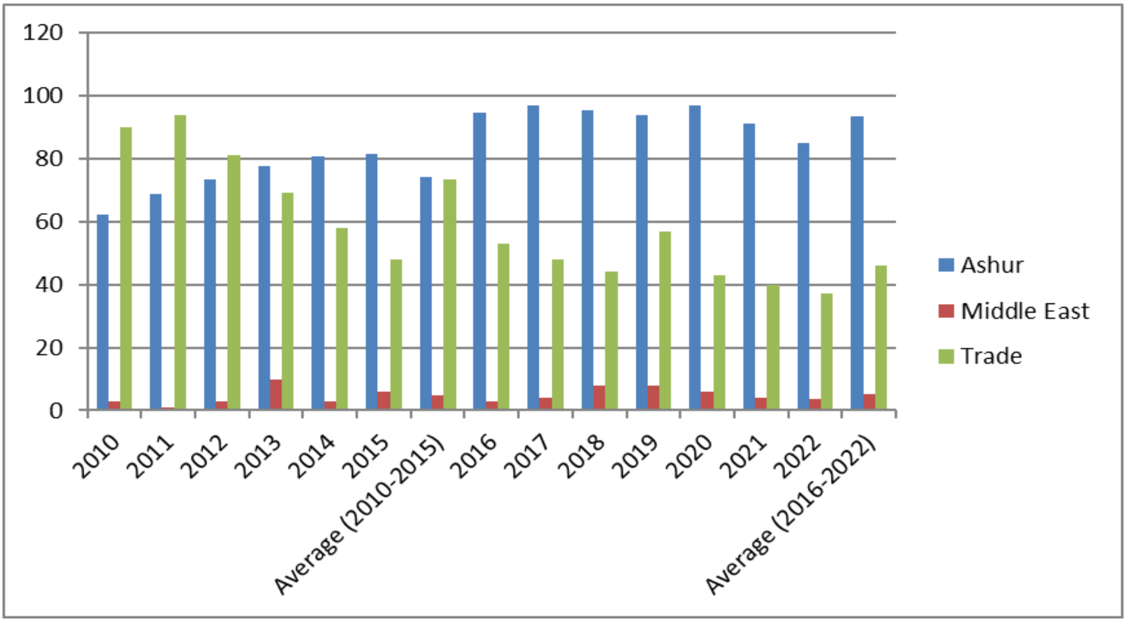

Figure 2: Development of the asset quality index in banks (Ashur, Middle East, and Commercial) for the period 2010-2022
Source: Conducted by the researcher based on the data in Table 2.

Provision for loan losses

This indicator reflects the magnitude of the allocations that banks track to anticipate potential losses on loans they have granted. The size of these allocations is directly related to the bank's capacity to expand its credit operations, especially considering the new standards implemented by the Central Bank of Ireland (CBI). These standards, including Standard No. 9, have prompted banks to act. In this research, we are focused on analysing an indicator that is involved in accounting aspects related to profit management. Our main concern is whether this indicator exceeds 100% or not, as shown

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

in Table 3. During most of the study period, banks consistently exceeded 100% before the year 2016. This raises concerns about the banking reality and the essential work of the bank in terms of risk management. It suggests the possibility of creative accounting and manipulation of profit figures. Nevertheless, there was a decline in the allocation for loan losses relative to its magnitude after 2016, partially attributed to the implementation of CBS.

Table 3: Evolution of the loan loss provision index for banks in the research sample for the period 2010-2022

Year	Ashur	Middle East	Commercial
2010	Greater than 100	Greater than 100	Greater than 100
2011	Greater than 100	Greater than 100	Greater than 100
2012	Greater than 100	Greater than 100	Greater than 100
2013	Greater than 100	Less than 100	Less than 100
2014	Less than 100	Greater than 100	Greater than 100
2015	Greater than 100	Less than 100	Greater than 100
2016	Greater than 100	Greater than 100	Greater than 100
2017	Greater than 100	Less than 100	Greater than 100
2018	Less than 100	Greater than 100	Less than 100
2019	Less than 100	Less than 100	Greater than 100
2020	Greater than 100	Less than 100	Less than 100
2021	Less than 100	Less than 100	Greater than 100
2022	Greater than 100	Greater than 100	Greater than 100

Source: (CBI), Banking Control Department, financial statements of the sample banks, tables for the banks.

DISCUSSION

The CAR exhibited significant volatility throughout the study period, characterised by an overall downward trajectory. The CAR reached its peak at 760 for the Commercial Bank of Iraq. In 2014, there was a 4% increase, followed by a significant jump to 312% in 2022. The high ratios indicate a strong ability to handle credit and financial risks, thanks to efficient resource management and lower risk weighted assets. Yet, the CAR decreased after 2015, suggesting increased credit operations and improved resource utilisation in line with the goal of boosting revenue. Middle East Bank demonstrated CARs that exceeded the 12.5% standard, reaching a maximum of 127% in 2017. This indicates the company's adherence to regulatory requirements and the efficacy of its risk management practices. The Ashur Bank figure experienced fluctuations but showed overall improvement over the years, demonstrating an increased capacity to manage credit risk. In 2016, the implementation of CBS led to improved capital adequacy in Ashur and Middle Eastern banks. The average CARs have risen to 171% and 105% respectively compared to pre-2016. This improvement demonstrates the significant role that CBS has played in reducing credit risk and enhancing banking stability.

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

The asset quality index, which measures the ratio of non-performing loans (NPLs) to total loans, showed different trends among the banks. During the year under analysis, the asset quality index of the Commercial Bank of Iraq decreased from 73 to 72. With a range of 3% to 46% post-CBS, it is evident that credit risk management has seen significant improvement. However, the asset quality of Ashur Bank deteriorated as the index rose from 74.1% to 93.3%. This suggests that the NPLs are likely to increase due to a lack of adequate collection mechanisms for the increased credit operations. The Middle East Bank demonstrated effective credit management, maintaining an average asset quality index of 4. 8% falls below the 5% standard, thanks to the strict credit policies and low NPLs. The provision for loan losses demonstrates the banks' level of preparedness in the event of loan losses.

Prior to 2016, when provisions exceeded 100%, it suggested that the company was overly cautious and potentially engaging in profit manipulation. Following 2016, the implementation of CBS resulted in the adoption of more standardised provisions that align more closely with actual risk levels. The Commercial Bank of Iraq consistently maintained provisions at over 100% throughout most of the years, demonstrating the bank's robust risk management. It also appears that changes due to risks and the implementation of new regulations have led to instability in Middle Eastern and Asian banks, such as Standard No. 9, which has sometimes fallen below 100%.

STUDY IMPLICATIONS

The study presented how Iraqi banks are affected by the central standard by providing comprehensive information about it. This standard's role is crucial regarding asset quality by improving capital adequacy indicators. This is reflected in one way or another in improving the operational performance of risk management. Therefore, financial institutions see the central standard as a way to reduce non-performing loans and improve financial stability. Applying strict regulatory standards will undoubtedly create a financially committed management and provide sufficient information to policymakers and decision-makers to ensure the continuity of banking operations.

STUDY LIMITATIONS

Among the limitations of the current study is the small sample size if it included the banking system of three banks listed in the Iraqi stock market. The reports on which the current study relied in its financial data manipulation may contain some inaccuracy or fraud in their content. Future research can increase the scope of the research by increasing the sample size, extracting qualitative data, and diversifying economic factors.

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

CONCLUSIONS

Based on the results obtained, it can be concluded that the Central Bank's directive to all banks to implement CBS has significantly contributed to the achievement of higher BS rates in Ashurn and Middle East Banks. This is evident from the average capital adequacy index ratios of 171 and 105, respectively, during the period. In the years 2016-2022, there was a noticeable change in the performance of the inquiry system. After achieving percentages of 62.5 and 70.2 during the period 2010-2015, it became evident that the system was effective in minimising the risks associated with credit facility operations. However, the situation was different for the Commercial Bank of Iraq. The asset quality index in Ashur and Iraqi banks saw a significant increase during the study period, surpassing the standard value of 5%. The average percentages reached 84.5% and 58.6% in Ashur and Iraqi banks respectively. This suggests that the bank lacks a well-defined strategy.

The Middle East Bank's asset quality index showed a significant improvement in its commitment to the standard ratio, despite fluctuations in some years of the study period. It successfully achieved compliance with the instructions in most years of the study, resulting in an increase in non-performing credits as a percentage of total credit provided. Efforts have been made to maintain a consistent average percentage from 2010-2022. The significance of CI became evident when it was implemented in the Commercial Bank of Iraq. This measure aided the bank in lowering the amount of risk-weighted credit, resulting in a decrease from an average ratio of 74.1% during the period 2010-2015 to an average ratio of 46% during the period 2016-2022, as indicated by the asset quality index. During the study period, most banks in the sample exceeded the loan loss provision index before 2016. However, there was a slight decrease in this trend after the implementation of CBS, considering its limited impact.

RECOMMENDATIONS

1. It is recommended that the banks in the research sample establish dedicated administrative units to handle troubled credit facilities and devise a medium-term plan to restore these facilities.

2. A credit inquiry should include information showing insufficient funds for the check written or that there is more than one account in different banks and not just include a CI about defaults or the customer's credit history.

3. There should be a flexible approach that accurately assesses the status of each defaulting customer to identify the reasons for default and the duration of default on credit facilities to differentiate between customers on that basis.

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

4. Establishing mandatory provisions and regulatory procedures to reduce the amount of credit losses on the one hand and improve the banking system on the other hand.

5. Work to intensify cognitive efforts to further clarify the relationship between credit inquiries and banking stability by knowing the financial situation before and after establishing mechanisms to implement the credit monitoring system.

REFERENCES

Aghakarimi, E., Fereidouni, Z., Hamid, M., Rabbani, E., & Rabbani, M. (2023). An integrated framework to assess and improve the financial soundness of private banks. *Scientia Iranica*. https://doi.org/10.24200/sci.2023.60931.7060

Arunthathi, K. (2020). An Empirical Study On Financial Soundness Of Public And Private Sector Banks In India–Integrating Camel, Altman And Bankometer *Models* Anna University, Chennai]. https://naac.kct.ac.in/1/ssr/1_3_4/projects/19MBA023.pdf

Baniawwad, A. H., Tarif, L. I. B., Rady, Y., Yousef, N. I., Soliman, M., Farag, H. A., Elkilany, A. M., & Khasawneh, M. (2024). Influence of Assistive Technology Training on Educators Performance in Saudi Special Education: With the Mediating Role of Educators Knowledge and Educators Self-Efficacy. *Eurasian Journal of Educational Research*, *110*(110), 1-17. https://ejer.com.tr/manuscript/index.php/journal/article/view/1638

Byusa, V., & Nkusi, D. (2012). The effects of credit policy on bank performance: Evidence from selected Rwandan Commercial banks. *Rwanda Journal*, *26*, 116-119. https://doi.org/10.4314/rj.v26i1.7

Do, D. T. (2022). Application of FUCA method for multi-criteria decision making in mechanical machining processes. *Operational Research in Engineering Sciences: Theory and Applications*, *5*(3), 131-152. https://oresta.org/menu-script/index.php/oresta/article/view/331

El Moussawi, C., Goutte, S., Kouki, I., & Obeid, H. (2024). Assessing the impact of the expansion of pan-African banks and the institution's quality on African banking stability. *Research in International Business and Finance*, *70*, 102283. https://doi.org/10.1016/j.ribaf.2024.102283

Gaitho, N. W. (2013). Role of credit reference bureaus on credit access in Kenya: A survey of commercial banks in Kenya. *European Scientific Journal*, *9*(13). https://core.ac.uk/download/pdf/236416582.pdf

Giner, B., & Mora, A. (2021). Bank loan loss accounting and its contracting effects: the new expected loss models. In *Accounting and Debt Markets* (pp. 111-137). Routledge. https://doi.org/10.4324/9781003139508

Ginting, L., Kamello, T., & Yamin, M. (2022). The Principle of Horizontal Separation in Banking Guarantee Practices in Indonesia. *Cuadernos de Economía*, *45*(128), 61-70. https://cude.es/submit-a-manuscript/index.php/CUDE/article/view/263

Goyal, S., Kaur, J., Qazi, S., & Bhalla, P. (2023). Moderating effect of perceived organizational support in the relationship between thriving at work and work performance. *International Journal of eBusiness and eGovernment Studies*, *15*(2), 187-211. https://www.agbioforum.org/sobiad.org/menuscript/index.php/ijebeg/article/view/1721

Hassan, R. A. H. S. A. (2024). The Effect of Using Podcasting on Developing Achievement and Attention Among Students of the Physics Department in The College of Education. *Arts Educa*, *38*. https://artseduca.com/submissions/index.php/ae/article/view/272

Hadi, A. H., Abdulhameed, G. R., Malik, Y. S., & Flayyih, H. H. (2023). The Influence of Information Technology (IT) on Firm Profitability and Stock Returns. Eastern-European Journal of Enterprise Technologies, 4(13(124)), 87–93. https://doi.org/10.15587/1729-4061.2023.286212

Hersugondo, H., Anjani, N., & Pamungkas, I. D. (2021). The role of non-performing asset, capital, adequacy and insolvency risk on bank performance: a case study in Indonesia. *The Journal of Asian Finance, Economics and Business*, *8*(3), 319-329. https://doi.org/10.13106/jafeb.2021.vol8.no3.0319

Hurley, M., & Adebayo, J. (2016). *Credit scoring in the era of big data*. Yale JL & Tech. https://yjolt.org/sites/default/files/hurley_18yjolt136_jz_proofedits_final_7aug16_clean_0.pdf

Indriastuti, S., Hara, A. E., Patriadi, H. B., Trihartono, A., & Sunarko, B. S. (2022). Health versus Economic Security: An Ambivalence of Anti-Tobacco Norm Internalisation in Indonesia. *Journal of Human Security*, *18*(1), 5-17. https://www.librelloph.com/journalofhumansecurity/article/view/johs-18.1.5

Jin, S., & Choi, J. (2022). Optimal load scheduling of home appliances considering operation conditions. *Operational Research in Engineering Sciences: Theory and Applications*, *5*(3), 230-243. https://doi.org/10.31181/oresta121222211j

Kaur, G., & Sharma, R. (2022). Estimating Determinants of Liquidity Risk: Empirical Evidence from Indian Scheduled Commercial Banks. *SCMS Journal of Indian Management*, *19*(1), 43-55. https://www.proquest.com/openview/40f33298b9967fec4f29e32c6ea7e82a/1?pq-origsite=gscholar&cbl=546310

Maldonado, S., Peters, G., & Weber, R. (2020). Credit scoring using three-way decisions with probabilistic rough sets. *Information Sciences*, *507*, 700-714. https://doi.org/10.1016/j.ins.2018.08.001

McKillop, D., French, D., Quinn, B., Sobiech, A. L., & Wilson, J. O. (2020). Cooperative financial institutions: A review of the literature. *International Review of Financial Analysis*, *71*, 101520. https://doi.org/10.1016/j.irfa.2020.101520

Mezmir, E. A. (2020). Qualitative data analysis: An overview of data reduction, data display, and interpretation. *Research on humanities and social sciences*, *10*(21), 15-27. https://core.ac.uk/download/pdf/356684456.pdf

Muindi, C. W., & Ambrose, J. (2023). Microcredit Risk Management Strategies and Loan Portfolio Quality of Microfinance Institutions in Kenya. *Journal of Finance and Accounting*, *3*(4), 32-42. https://edinburgjournals.org/journals/index.php/journal-of-finance-and-accountin/article/view/232

Nayak, S., & Chandiramani, J. (2022). A crisis that changed the banking scenario in India: exploring the role of ethics in business. *Asian Journal of Business Ethics*, *11*(Suppl 1), 7-32. https://doi.org/10.1007/s13520-022-00151-4

Nghia, N. K. (2022). The role of individualism–Collectivism in enhancing knowledge sharing and innovative work behavior: Evidence from higher education in Vietnam. *International Journal of Operations and Quantitative Management*, *28*(1), 134-155. https://submissions.ijoqm.org/index.php/ijoqm/article/view/37

Nzoka, F. K. (2015). *The effect of assets quality on the financial performance of commercial banks in Kenya* University of Nairobi]. http://hdl.handle.net/11295/94990

Olobo, M., Karyeija, G., Sande, P., & Khoch, S. (2021). Credit risk management practices and performance of commercial banks in South Sudan. *Journal of Financial Risk Management* https://doi.org/10.4236/jfrm.2021.103018

Ozili, P. K. (2023). Bank loan loss provisioning for sustainable development: the case for a sustainable or green loan loss provisioning system. *Journal of Sustainable Finance & Investment*, 1-13. https://doi.org/10.1080/20430795.2022.2163847

Posnaya, E. A., Ditsulenko, O. I., Kaznova, M. I., & Cheremysynova, D. (2020). Improving the management efficiency of banking institutions through interaction with credit bureau. *Proceedings on Engineering Sciences*, *2*(4), 453-462. https://pesjournal.net/journal/v2-n4/12.pdf

Rona-Tas, A. (2016). The role of credit bureaus in globalised economies: why they matter less than we think and how they can matter more. In *Consumer debt and social exclusion in Europe* (pp. 177-188). Routledge. https://doi.org/10.4324/9781315573694

Sangwan, S., & Nayak, N. C. (2021). Factors influencing the borrower loan size in microfinance group lending: a survey from Indian microfinance institutions. *Journal of Financial Economic Policy*, *13*(2), 223-238. https://doi.org/10.1108/JFEP-01-2020-0002

Seyedi, S. A., Abdoli, M., & Noghabi, M. J. (2019). Assessing the Financial Health Indicators of Commercial Banks in Views of Banking Experts. *Journal of Accounting Advances*, *11*(2), 207-252. https://jaa.shirazu.ac.ir/m/article_5425_a1f984f28c28ba5c20127bc212b41bdb.pdf

Vol: 16 **No:** 01 **Year:** 2024 **ISSN:** 1309-8055 (Online) (**pp.** 380-397) **Doi:** 10.34109/ijefs.202416117

Siregar, E. (2022). Improving Student Academic Performance in Universities of Indonesia: Impact of Student Citizenship Behavior and Social Media Collaborative Learning. *International Journal of Operations and Quantitative Management*, *28*(1), 156-173. https://submissions.ijoqm.org/index.php/ijoqm/article/view/38

Swamy, V. (2014). Testing the interrelatedness of banking stability measures. *Journal of Financial Economic Policy*, *6*(1), 25-45. https://doi.org/10.1108/JFEP-01-2013-0002

Takawira, O. (2024). Comparing the prediction performance of machine learning algorithms against the logistic regression model in forecasting sovereign debt ratings. *International Journal of Economics and Finance Studies*, *16*(1), 23-61. https://sobiad.org/menuscript/index.php/ijefs/article/view/1840