



**An-Najah National University
Faculty of Graduate Studies**

**THE IMPACT OF OFF-BALANCE SHEET
ACTIVITIES ON FINANCIAL RISK INDICATORS IN
BANK'S LISTED ON ARAB-ASIAN MARKETS**

**By
Shahrazan Nasser Zahdan Frihat**

**Supervisors
Dr. Muiz Abu-Alia
Dr. Saed Al-Koni**

**This Thesis is submitted in Partial Fulfilment of the Requirements for the Master
of Degree of Accounting, Faculty of Graduate Studies, An-Najah National
University, Nablus, Palestine.**

2025

THE IMPACT OF OFF-BALANCE SHEET ACTIVITIES ON FINANCIAL RISK INDICATORS IN BANK'S LISTED ON ARAB-ASIAN MARKETS

**By
Shahrazan Nasser Zahdan Frihat**

This Thesis was defended successfully on 11/06/2025 and approved by:

Dr. Muiz Abu Alia

Supervisor

Signature

Dr. Saed Al-Koni

Co-Supervisor

Signature

Dr. Ibrahim Ateeq

External Examiner

Signature

Prof. Abdel-Nase Noor

Internal Examiner

Signature

Dedication

إلى نفسي،

إلى تلك الروح التي اجتازت كل الصعوبات وتحملت الكثير من التحديات، ولكنها لم تستسلم. أهدي هذا البحث إلى إصراري الذي لم يخفت وإلى قوتي التي ظهرت في لحظات الضعف وإلى عزمي التي دفعتني دائماً للمضي قدماً رغم كل العقبات. هذا الإنجاز هو ثمرة جهد وتعب طويل، وأنا فخور بما حققته. فلكل الساعات الطويلة التي قضيتها في العمل والبحث، ولكل التحديات التي تجاوزتها، أهدي نفسي هذا النجاح المستحق.

إلى عائلتي الرائعة،

أمي وأبي، إخوتي وأخواتي، هذا الأهداء يترجم مشاعر الامتنان والحماس الذين يملؤون قلبي. من خلال تضحياتكم ودعمكم، وجدت القوة والإلهام لتحقيق هذا الإنجاز الأكاديمي. كانت رحلة البحث هذه لنا جميعاً،

إلى أصدقائي المذهلين،

في لحظة كهذه، أجد نفسي أشعر بالامتنان الكبير لكل واحد منكم على المساهمة في رحلتي الأكاديمية. كانت هذه السنوات مليئة بالتحديات والإنجازات، ولكنها كانت أيضاً مليئة بلحظات الضحك والتشجيع.. إلى صديقتي المعطاءة المجتهدة المثابرة أ. رؤيا عبد الحافظ التي كانت عوناً وسنداً طيلة مرحلتي الدراسية

وإلى كل من أحب

Acknowledgment

رب أوزعني أن أشكر نعمتك " - سورة النمل.

بعد الحمد لله رب العالمين الرازق الكريم على ما أنعمه على برفعي درجة علمية ثانية.. والصلاة والسلام

على أشرف الخلق والمرسلين سيدنا محمد صل الله عليه وسلم...

انقدم بجزيل الشكر والعرفان لهذا الصرح العلمي العريق جامعتي جامعة النجاح الوطنية، مشرفي الأول..

د. معز ابو عليا مشرفي الثاني الدكتور سائد الكوني على دعمها المستمر في مسيرة إعداد هذه الرسالة.

كما اتقدم بالشكر الجزيل لجميع القامات العلمية الداعمة للذين لم يبخلوا بعلمهم ووقتهم خلال رحلة

الماجستير د. عبد الناصر نور د. غسان دعاس د. سامح العطوط. الشكر موصول للقامة العلمية

صاحب الخبرة والعطاء د. علاء دويكات الذي ساهم في إتمام وإثراء قسم التحليل الاحصائي.

كل الامتتان بصفة خاصة للصديقة والباحثة المتميزة أ. رؤيا عبد الحافظ على نصائحها المستمرة

أحسبها عند الله علماً نافعاً...

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

THE IMPACT OF OFF-BALANCE SHEET ACTIVITIES ON FINANCIAL RISK INDICATORS IN BANK'S LISTED ON ARAB-ASIAN MARKETS

I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name

Shahrazan Nasser Zahdan Frihat

Signature:

Shahrazan

Date:

11/06/2025

List of Contents

Dedication.....	iii
Acknowledgment.....	iv
Declaration.....	v
List of Contents.....	vi
List of Tables.....	viii
List of Figures.....	ix
List of Appendices.....	x
Abstract.....	xi
Chapter One: Introduction and Theoretical Background.....	1
1.1 Introduction.....	1
1.2 Research problem.....	3
1.3 Research Objectives.....	4
1.4 Research Importance.....	5
1.5 Theoretical Framework, Previous Studies, and Hypothesis Development.....	5
1.5.1 Off-Balance-Sheet Activities.....	6
1.5.2 Financial risks.....	10
1.5.3 Related theories.....	13
1.5.4 Previous studies and development of study hypotheses.....	16
1.5.5 Financial markets for the study sample.....	25
Chapter Two: Research Methodology.....	29
2.1 Introduction.....	29
2.2 Data collection.....	29
2.3 Research sample.....	29
2.4 Research Model.....	30
2.5 Measurement of research variables.....	31
2.5.1 Dependent variables.....	31
2.5.2 Controlling Variables.....	34
2.5.3 Independent variables.....	36
Chapter Three: Results and Discussion.....	37
3.1 Descriptive statistics.....	37
3.1.1 Descriptive Statistics Analysis.....	37
3.2 Correlation analysis.....	39
3.3 Regression analyses.....	42

3.3.1 Liquidity risks	42
3.3.2 Leverage risks	44
3.3.3 Bankruptcy risks	47
Chapter Four: Conclusions and Recommendations.....	50
4.1 Conclusions.....	50
4.2 Recommendations.....	51
References.....	53
Appendices.....	62
الملخص.....	ب

List of Tables

Table (1): Summary of off-balance sheet activities	9
Table (2): Variable names and data collection sources	29
Table (3): Research sample.....	30
Table (4): Summary of the study variables.....	62
Table (5): Descriptive statistics	38
Table (6): Matrix for the correlation of the research sample	41
Table (7): Regression analysis of the impact of off-balance sheet activities on liquidity risk	44
Table (8): Regression analysis of the impact of off-balance sheet activities on financial leverage risks	47
Table (9): Regression analysis of the impact of off-balance sheet activities on bankruptcy risks.....	49

List of Figures

Figure (1): The impact of OBSA on financial risk indicators	31
---	----

List of Appendices

Appendix (A): Tables	62
Appendix (B): Certificate of English Proofreading and Editing	64

THE IMPACT OF OFF-BALANCE SHEET ACTIVITIES ON FINANCIAL RISK INDICATORS IN BANK'S LISTED ON ARAB-ASIAN MARKETS

By
Shahrazan Nasser Zahdan Frihat
Supervisors
Dr. Muiz Abu-Alia
Dr. Saed Al-Koni

Abstract

This study aimed to investigate the impact of off-balance-sheet activities on financial risk indicators in bank's listed on Arab-Asian markets. The study relied on 86 banks distributed across 9 Arab exchanges (Bahrain, Qatar, Oman, Jordan, Palestine, Saudi Arabia, Abu Dhabi, Dubai, and Kuwait) from 2015 to 2023. It considered off-balance-sheet activities as an independent variable, while financial leverage, liquidity, and bankruptcy risks were treated as dependent variables. Bank size, GDP, and profitability were used as control variables. The independent variable, off-balance-sheet activities, was measured by dividing the total off-balance-sheet activities by the total assets. As for the dependent variables, financial leverage risk was measured by dividing total liabilities by total assets. Liquidity risk was measured by dividing cash and cash equivalents by total assets, and the square of the difference between the average return on assets during the period and the average return on assets for each year measured bankruptcy risk. Regarding the control variables, bank size was measured using the logarithm of total assets, GDP was measured by the annual percentage change, and profitability was measured by return on assets, calculated by dividing net profit by total assets.

The study employed descriptive analysis and regression analysis, and the regression analysis Results indicated that off-balance-sheet activities have a positive effect on liquidity risk and bankruptcy risk while having a negative effect on financial leverage risk.

So, rationalizing decisions concerning OBSA balance sheet activities is essential for maintaining the overall stability of the financial system, with a particular emphasis on ensuring the robustness of the banking sector. Ultimately, a strategic focus on off-balance sheet operations contributes to a more resilient economic environment.

Keywords: off-balance-sheet activities; financial risks; financial leverage risk; liquidity risk; bankruptcy risk.

Chapter One

Introduction and Theoretical Background

1.1 Introduction

The banking sector plays a crucial economic role due to its unique operational characteristics. It is a key pillar in managing depositors' funds and investing shareholders' capital. Additionally, OBSA create potential connections and obligations that banks must navigate carefully (Al-Tahat & AbuNqira, 2016). The balance sheet provides a comprehensive overview of an organization's financial position. In addition to the visible assets and liabilities, certain items are disclosed as footnotes or notes accompanying the balance sheet. Particularly pertinent for banks are off-balance sheet items, which are crucial in assessing solvency, liquidity, and profitability (Narasimhan, 2014). Traditionally, banks have focused on financing loans derived from deposited funds. However, in response to evolving global trends and a decrease in inflation and interest rates, there has been a noticeable shift towards enhancing revenue generation through fees and commissions. In the early 1990s, off-balance-sheet operations accounted for approximately 30% of the banking sector's total assets. This figure surged in the 2000s, reaching levels as high as 150%. Since the beginning of the 21st century, the scale of off-balance-sheet activities has consistently surpassed total banking assets, highlighting a significant transformation in the banks' operational strategies (Ayele, 2012).

In today's landscape of intricate and interconnected markets, alongside evolving regulatory frameworks such as Basel II, the significance of effective risk monitoring and management cannot be overstated; it is a pivotal factor that can influence a bank's success or failure. The discourse surrounding risk management techniques predominantly centers on the financial risks that the banking sector encounters and the strategies employed to mitigate them. Given the inherent nature of banking services, which involves assuming a diverse array of risks, the management of financial risk has emerged as a fundamental function within banking operations, underscoring its critical role in sustaining organizational stability and performance (Abdelkarim & Burbar, 2017). A notable trend within the commercial banking sector is the integration of off-balance sheet items into the overall financial structure of firms. Off-balance sheet activities (OBSA) do not appear on a bank's balance sheet; they differ from conventional banking operations and are

characterized as contingent contracts that cannot be classified as either assets or liabilities. OBSA does not qualify as conventional assets or liabilities but rather represents contingencies that may transform into either.

Previous work concluded that these activities may offer a source of income for commercial banks. These are different from their balance sheets (Basheer et al., 2019).

Banks frequently use Off-Balance Sheet (OBS) items due to their effectiveness in managing various risks, including default, forward exchange, and growth risks. While OBS instruments can offer considerable advantages, they also carry inherent risks that could transform them into valuable opportunities or significant threats. The OBS portfolio of commercial banks encompasses a range of contingent guarantees, such as letters of credit and underwriting insurance for payments to other banks, along with client lending commitments (Basheer et al., 2019).

Regulatory authorities, securities analysts, and economists appear to be extremely concerned about the risks associated with business activities that rely on emergency claims, as they lead to increased leverage, exacerbating the overall risks facing the banking sector. These risks include interest rate risk, credit risk, and liquidity risk. Additionally, in the current environment of global financial deregulation, banks have made efforts to expand the scope of risks they are exposed to, resulting in a greater prevalence of market failures (Elian, 2012). The scrutiny of off-balance sheet (OBS) activities has significantly intensified since the late 2000s, particularly after the US housing market collapse triggered by the subprime mortgage crisis. This crisis was predominantly fueled by excessive leveraging through OBS practices. Before this downturn, advocates for OBS transactions argued that they mitigated risk by providing a means to safeguard against overall bank portfolio vulnerabilities, thereby enhancing the banking system's flexibility, efficiency, and resilience. However, in the aftermath of the crisis, OBS activities—especially those involving derivatives—have been criticized as contributing to a "financial trap" that inundated the market with substandard assets within an environment characterized by adverse selection (Raz A et al., 2017).

Financial intermediaries have increased their engagement in OBSA. This surge has been happened due to the increasing demands of corporations and firms seeking various guarantees. While this diversification into non-traditional activities has positively contributed to the banking sector by generating additional fee income and providing innovative hedging strategies for specific risks, it has also posed challenges to financial stability and the soundness of banks. Specifically, these non-traditional activities have heightened banks' exposure to various risk types, potentially incentivizing them to engage in riskier behaviors (Ziadeh, 2012). Off-balance sheet (OBS) activities present a dual-edged profile for financial institutions, exhibiting both potential for amplified risk and opportunities for risk mitigation. While enhanced OBS earnings may offset increased exposure, potentially bolstering solvency under normal operating conditions, these activities also possess the capacity to exacerbate financial instability during periods of systemic crisis significantly (Elian, 2012).

One school of thought suggests that diversifying banking activities to include non-traditional services is a response to the declining profitability associated with traditional banking services and increasing competition among financial institutions (Yogesh, 2022). The balance sheet structure of commercial banks has undergone a significant transformation, largely due to the rise of OBSA within banking operations. Several key factors have driven this growth, including intensified competition in established markets and the deregulation of international financial markets, which facilitated the emergence of innovative financial instruments aimed at enhancing risk management. Technological advancements have also played a crucial role, further influencing the expansion of OBSA. Additionally, increasing volatility in financial markets and diminishing margins from traditional on-balance sheet operations have prompted banks to pursue off-balance sheet avenues to meet investor demand for higher returns (Abd Karim & Gee, 2007).

1.2 Research problem

The banking sector is witnessing significant development in the quality and volume of banking services offered to clients, thanks to more open economic policies. This is achieved by enhancing trade exchanges with the outside world through facilitating import and export operations, which has led to increased activities related to off-balance-sheet (OBS) items such as financial guarantees, accepted papers for facilities, documentary credits, and letters of guarantee. Raz et al. (2017) added that these activities can impact

bank risks. They also can affect their management mechanisms. Meanwhile, some studies have indicated a negative relationship between total banking risks and OBS activities (Hassan K. M., 1993). Other studies have confirmed that OBS activities are riskier and lead to more vulnerabilities (bin Hidthiir, 2021). Therefore, testing this matter in a new environment with political, economic, and cultural characteristics different from those prevalent in other environments is useful.

Thus, the research problem crystallizes in the following question: What is The impact of off-balance sheet activities on financial risk indicators in bank's listed on Arab-Asian markets? This question gives rise to the following sub-questions:

1. What is the impact of off-balance-sheet activities on financial leverage risks in banks listed on Arab-Asian markets?
2. What is the impact of off-balance-sheet activities on liquidity risks in banks listed on Arab-Asian markets?
3. What is the impact of off-balance-sheet activities on bankruptcy or insolvency risks in banks listed on Arab-Asian markets?

1.3 Research Objectives

Due to unprecedented developments in the fields of computing, information, and sports finance, financial services markets have become extremely complex. The research objectives can be outlined as follows:

1. To define the scientific basis for the concept of off-balance sheet activities and financial risks in the banking sector.
2. Identifying the direct relationship between off-balance-sheet activity items (financial guarantees, accepted papers for facilities, documentary credits, letters of guarantee) and the total financial risks(Leverage risk, Bankruptcy risk and Liquidity risk)Risks in the banking sectors of Arab stock exchanges.
3. Understanding the most significant relative financial risks for banks in Arab stock exchanges.
4. Bridging the research gap concerning off-balance-sheet activities in Arab countries context

1.4 Research Importance

The significance of this study lies in the critical role that off-balance-sheet activities play as a substantial source of revenue for banks. However, these activities also introduce various risks that can impact the sustainability and growth of financial institutions. This research benefits bank management, especially the risk management departments, as it fosters improved governance practices in this domain. Furthermore, it aids in identifying the extent to which off-balance-sheet activities contribute to banking risks that may be challenging to manage effectively, thereby emphasizing the need to address these risks to sustain banking operations and stimulate growth.

Additionally, the study is increasingly relevant due to the rising volume of off-balance-sheet activities within the banking sector and their influence on growth metrics and financial performance, especially in a competitive landscape. It seeks to fill the existing research gap regarding the relationship between off-balance-sheet activities and financial risks. From a value perspective, off-balance-sheet activities are significantly more impactful than their on-balance-sheet equivalents.

To ensure the safety of the banking sector, a prudent regulatory system must be in place to oversee and monitor the operations of banks. However, despite the recent oversight of bank activities by the central bank, the focus is often on on-balance-sheet activities due to the unique nature and uncertainty of off-balance-sheet activities, as well as the lack of clear regulatory frameworks through which these activities can be examined by regulatory authorities and the necessary accounting and precautionary measures can be taken, as is the case with on-balance-sheet activities.

1.5 Theoretical Framework, Previous Studies, and Hypothesis Development

This chapter examines the existing literature on the relationship between the study variables and related theories. Additionally, the researcher in this chapter elaborates on OBSA in depth. Based on these detentions, the researcher then formulates the study hypotheses and theories.

1.5.1 Off-Balance-Sheet Activities

Off-balance-sheet activities are those carried out by the financial institution without appearing or being recorded on the balance sheet, as they do not involve owning assets or issuing debt instruments (Widyatini & Sasmita, 2021).

Off-balance sheet items, often referred to as off-balance sheet assets or liabilities, represent financial elements that are not reflected on a company's balance sheet due to the absence of legal ownership by the company. Consequently, these items are classified as off-balance sheets and are documented separately in the financial statement notes. This concept is prevalent among asset management firms, brokerage houses, and wealth managers, where managed assets do not legally belong to the clients and thus are excluded from the companies' balance sheets. A quintessential example of an off-balance sheet item is an operating lease, which does not impact the company's capital structure; in such cases, lease payments are viewed as operating expenses rather than direct liabilities.

Off-balance-sheet activities are not considered liabilities for the bank unless they materialize as assets or obligations, which would have a tangible impact on future financial statements. However, increased banks' exposure to these activities may lead to unhealthy risks related to guarantees and obligations and their position in financial markets regarding held derivatives.

In recent years, banks have increasingly engaged in various OBSA as part of their financial innovation efforts. This expansion has broadened the types of such activities and significantly increased their volume. A bank's balance sheet is no longer a complete representation of its operations, as OBSA encompass a varied and often nebulous collection of income-generating ventures that remain unrecorded on the balance sheet (Aziz, 2019). Off-balance-sheet (OBS) activities present a complex duality, possessing the potential to yield both positive and negative outcomes for the financial system and the broader economy. Banks are motivated to engage in OBS for several reasons, including expanding debt capacity without impacting their balance sheets, optimizing liquidity management, enhancing credit ratings, capitalizing on arbitrage opportunities, and achieving tax efficiency (Olaniyi et al., 2019). Banks' OBSA are among the many factors blamed for the risk-taking that led to the 2007-2008 financial crisis (Haq et al., 2022).

OBSA are potential assets and liabilities. They can influence the future of a financial institution's balance sheet. Also, these activities have emerged as a significant source of fee income for nearly all banks, and they carry the inherent risk of producing favorable and unfavorable future cash flows. OBS activities encompass the issuance of diverse guarantees, commitments, and derivatives, each playing a crucial role in the overall financial landscape of the institution (Khasawneh et al., 2012).

OBSA encompass banking products and practices that differ from traditional portfolio lending. These activities consist of contingent commitments or contracts that generate revenue for banks yet are not classified as assets or liabilities in accordance with conventional accounting standards. Instead, they are presented as notes on the balance sheet. Off-balance-sheet activities can include guarantees, commitments, market-related operations such as financial derivatives, and various advisory or management services for commercial banks. Additionally, these activities often involve issuing diverse types of guarantees (Swain & Panda, 2017).

The inquiry at hand revolves around the rationale behind commercial banks' adoption of OBSA. Banks utilize OBSA for a myriad of reasons, with the primary motive being its capacity to generate supplementary cash flows. This approach enables banks to broaden the scope of their operations, thereby increasing income beyond what can be derived from traditional balance sheet items or conventional banking services (Basheer et al., 2019).

The transactions of off-balance-sheet activities have increased. This is for several reasons, including:

Attempt to increase profitability, avoid taxes, face increased competition within the banking sector itself and from the non-banking financial sector, increase profits by reducing costs, meet customer demands, be able to create new products that can provide suitable services for new needs, be able to generate new resources instead of relying solely on deposits as a source of funds, rapid developments in technology to increase commission profits (GÖÇMEN, 2015). Flexibility and Investment Efficiency OBS funding provides banks with flexibility in managing investments, allowing them to support debt repayments voluntarily and signal the quality of future projects, thus improving investment efficiency (Segura & Zeng, 2019). OBS activities provide banks with an additional source of income and a competitive edge. They allow banks to offer a

wider range of services to meet client needs, which has been a significant driver of their expansion (Marko, 2012). the ability to expand debt capacity without impacting their balance sheets, optimize liquidity management, enhance credit ratings, capitalize on arbitrage opportunities, and achieve tax efficiency (Olaniyi et al., 2019).

Types of OBSA

1. Market-related activities carried out by the bank encompass participation in loans and derivative transactions, including foreign exchange contracts, futures, options, swaps, and credit derivatives. These activities have evolved into significant off-balance-sheet operations for major commercial banks. While they do not replace on-balance-sheet activities, they offer a simpler framework to mitigate credit risk associated with on-balance-sheet transactions (Abd Karim & Gee, 2007).
2. Guarantees are assurances that any performance undertaken will be fulfilled. This type of transaction holds significant importance in international trade. The primary role of bank guarantees is to secure the beneficiary against the risks of non-fulfillment of the performance specified in the contract. Consequently, the beneficiary receives confirmation of the bank's guarantee amount against financial inconveniences and potential losses arising from the failure of the counterparty to meet its obligations (GÖÇMEN, 2015).
3. Collateral and Pledged Assets: The collateral assets include client funds and portfolio properties, pledged securities, checks deposited for collection, commercial papers deposited for collection, and assets issued by an intermediary; the pledged assets consist of securities, bonds, real estate, and pledged assets (cash and deposits) (KALE & SELİMLER, 2012).
4. Liabilities represent a significant part of off-balance-sheet activity. The bank's legally binding agreement regarding a future transaction in which it agrees to provide a loan or lease financing to the borrower at a fixed rate over a specified period for a specific purpose. In this case, the bank allocates funds the borrower will draw later. The most common types of liabilities are loan and lease obligations (Abd Karim & Gee, 2007). While banks can derive fee income from commitment agreements with borrowers, these arrangements amplify their exposure to credit and liquidity risks (Khasawneh et al., 2012).

5. Letters of Credit LC: Letters of credit (LCs), encompassing both Commercial Letters of Credit (CLCs) and Standby Letters of Credit (SLCs), represent financial guarantees offered by depository institutions. These institutions underwrite performance obligations in exchange for fees, simultaneously creating contingent future liabilities. While both CLCs and SLCs expose the issuing institution to default risk, the magnitude of this risk can vary significantly between the two types (Khasawneh et al., 2012).

Summary of OBSA according to the study (Nachane & Ghosh, 2002)

Table (1)

Summary of off-balance sheet activities

Contingent Claims	Financial Services
- Overdraft Facilities	- Loan-Related Services
- Credit Lines	- Loan Origination
- Back up Lines for Commercial Paper	- Loan Servicing
- Standby Lines of Credit	- Loan Pass-through
- Revolving Lines of Credit	- Asset Sales with Recourse
- Reciprocal Deposit Arrangements	- Sales of Loan Participation
- Repurchase Agreements	- Agent for Syndicated Loans
- Note Issuance Facilities	
- Guarantees	- Trust and Advisory Services
- Acceptances	- Portfolio Management
- Asset Sales with Recourse	- Investment Advisory Services
- Standby Letters of Credit	- Arranging Mergers and Acquisitions
- Commercial Letters of Credit	- Tax and Financial Planning
	- Trust and Estate Management
	- Trusteeship for Unit Trust, Pension Plans & Debentures
	- Safekeeping of Securities
	- Offshore Financial Services
- Warranties and Indemnities	- Brokerage/Agency Services
- Swap and Hedging Transactions	- Share/Bond/Mutual Fund Brokerage
- Forward Foreign Exchange Market	- Insurance (life and General) Brokering
- Currency Swaps	- Real Estate Agency
- Currency Futures	- Travel Agency
- Currency Options	- Payment Service
- Cross-Currency Swaps	- Data processing
- Interest Rate Swaps	- Network Arrangements
- Cross-Currency Interest Rate Swaps	- Clearing House Services
- Interest Rate Options	- Credit/Debit Cards/Home Banking
- Interest Rate Caps, Floors & Collars	- Cash Management Systems
- Investment Banking Activities	- Export/Import Services
- Securities Underwriting	- Correspondent Banking Services
- Securities Dealership/Distribution	- Trade Advice
- Gold and Commodities Trading	- Export Insurance Services
- Market-Making in Securities	- Counter-trade Exchange

1.5.2 Financial risks

Risk arises from uncertainty and is considered an essential element that cannot be dispensed with by banks (Jain & Arora, 2017). Effective risk management is paramount within the financial sector, most notably in banking, due to its inherent susceptibility to fluctuations in economic climates and regulatory frameworks. Robust risk management practices are therefore critical for ensuring sustained financial stability and proactively identifying emerging threats to institutional solvency (Maulana et al., 2024). Risk can be understood as the occurrence of events that may influence the attainment of goals. It encompasses the potential benefits that such events might present as opportunities and the challenges they pose as threats (Adeusi et al., 2014).

Risks are characterized as any elements that may hinder the achievement of specific objectives. These risks can stem from internal and external sources depending on the contextual situation. Encountering such risks can increase the potential for adverse outcomes. A more effective approach to navigating these circumstances is to take proactive steps to identify risks that could result in unfavourable consequences. Managing risks in advance rather than waiting for them to manifest is significantly more advantageous. Risk management encompasses identifying, analyzing, and responding to particular risks; it is fundamentally an ongoing endeavor and a valuable tool in the decision-making framework (Kanchu & Kumar, 2013).

The banking company's management employs a structured approach to establish an effective risk management system comprising four sequential stages. These stages include (Adeusi et al., 2014):

1. The development of standards and reporting mechanisms.
2. The establishment of limits or position rules.
3. The formulation of guidelines or investment strategies.
4. The design of incentive and compensation contracts.

Each of these steps is essential to ensure a comprehensive framework for managing risk within the organization.

Financial risk management has been defined by the Basel Committee (2001) as "a sequence of four processes: identifying events in one or more categories of market, credit, operational, and other risks, as well as in specific subcategories; assessing risks using data and risk models; monitoring and evaluating risks in a timely manner; and controlling these risks by senior management." Risk management is commonly referred to as "decision analytics" and constitutes a subsystem of statistics, operations research, and economics (Abdelkarim & Burbar, 2017). Financial risk is inherent in every business transaction a bank executes, as it may incur losses (Kanchu & Kumar, 2013).

Risk classification can be approached in various ways, one of which distinguishes between business risks and financial risks. Business risks are inherent to the company's operations and are influenced by product market factors. In contrast, financial risks arise from potential losses in financial markets due to fluctuations in financial variables, often linked to leverage, which increases the risk of failing to meet obligations with available assets. Another analytical framework categorizes risks into systematic and unsystematic components. Systematic risks are tied to the broader market or economy, while unsystematic risks pertain to specific assets or companies (Abdelkarim & Burbar, 2017).

Types of financial risks

1. **Operational Risk:** Operational risk encompasses the potential for financial losses resulting from deficiencies or failures in an organization's internal processes, personnel, and systems, as well as from disruptive external events. This category includes risks arising from process execution and management, such as client asset mismanagement due to negligence, inaccurate data entry, accounting discrepancies, and failures to meet regulatory reporting obligations (Chen & Sirui, 2023). Also, operational risk encompasses the potential for financial losses stemming from inadequacies or failures in internal processes and systems, human error, misconduct, and external events. These events are technological malfunctions, employee negligence, natural disasters, and unforeseen operational expenditures (Al-Tamimi et al., 2015).
2. **Market Risk:** Market risk, stemming from fluctuations in market prices like interest rates, exchange rates, and equity or commodity values, poses a significant threat to financial institutions. Rapid market volatility can precipitate substantial and

immediate financial losses. Under extreme conditions, unchecked market risk can even lead to the failure of an entire institution (Muriithi et al., 2016).

3. **Credit Risk:** Credit risk represents the potential for financial loss to a lending institution stemming from a borrower's inability to fulfill their contractual repayment obligations. Defaulting borrowers elevates the credit risk exposure of financial institutions, ultimately impacting profitability (Chai et al., 2022). Credit risk has been and remains the main type of risk banks take to obtain the highest possible profit (Aleksandr, 2023). Borrower default, or credit risk, substantially threatens financial stability (Scott et al., 2024).
4. **Liquidity Risk:** One of the most significant risks to which banks are exposed is liquidity risk, which is the capacity of a bank to immediately satisfy all of its financial obligations made during commercial operations (Chen & Sirui, 2023). Commercial banks must maintain sufficient liquid assets that can be easily converted into cash. Meanwhile, the inability of a company to meet its short-term obligations leads to liquidity risk (Chai et al., 2022).
5. **Interest Risk :**The interest rate is one of the most vital economic factors. In a modern economy, its fluctuations affect the entire economy in addition to having a major effect on the capital and monetary markets (Chen & Sirui, 2023).
6. **Leverage:** Leverage plays a pivotal role in financial management by influencing a company's investment and financing decisions, which in turn affects its profitability and financial risk (Saleh, 2024). Financial leverage represents the extent to which a company utilizes debt to fund its operations. While it can be a valuable tool for boosting investment returns and overall profitability, it also introduces significant financial risks, particularly within the context of developing economies (Odhiambo et al., 2025).
7. **Bankruptcy risks:** In today's financial landscape, proactive identification and mitigation of bankruptcy risks are paramount for maintaining financial institutions' stability and long-term viability. The failure of such an institution represents a multifaceted crisis, with potentially devastating repercussions for the broader economy and the individuals who entrust their savings to these entities (Serpa et al.,

2025). Corporate bankruptcy arises when a company's liabilities surpass its assets, often stemming from a confluence of factors. These can include inadequate capitalization, insufficient cash reserves, inefficient resource allocation, ineffective management practices, declining sales, and adverse market conditions. These combined pressures can ultimately lead to financial insolvency (Horváthová & Mokrišová, 2018).

8. Foreign exchange risk :Exchange rate exposure represents the risk that fluctuations in currency values will negatively affect a company's financial performance. Specifically, currency movements can erode profitability. A common scenario arises when multinational corporations import materials. Production costs escalate if the host country's currency weakens relative to the supplier's currency, thereby diminishing profit margins (Apitsama & Christine, 2024).

1.5.3 Related theories

Many theories are interested in explaining the relationship between OBSA and bank risks.

The market discipline theory

The premise suggests that because off-balance-sheet (OBS) activities are not covered by insurance and are associated with claims linked to banks, institutions with more secure financial standings are likely to partake in increased OBS activities. This trend is expected to mitigate overall risk for these banks. As the safety of banks improves, customers are inclined to assign greater value to these claims. Consequently, banks that already engage in OBS transactions will be motivated to lower their risk exposure and expand their issuance of additional OBS items (Khasawneh et al., 2012). According to this theory, a negative relationship exists between a bank's risks and off-balance-sheet (OBS) items (Duran & Vivas, 2013). The heightened focus has been placed on market discipline within the banking sector due to its potential to mitigate moral hazard and excessive risk-taking by financial institutions. This market-based incentive system relies on investors to price risk appropriately in bank liabilities, thereby increasing the cost of capital for institutions engaging in imprudent behaviour. Regulatory bodies, such as the Basel Committee, emphasize the significance of bolstering market discipline, particularly in constrained supervisory resources and the growing complexity of banking operations (Nier & Baumann, 2003).

The market discipline idea suggests that banks with plenty of cash and strong financial backing are more likely to use special financial activities (kept separate from their main accounts) as a way to protect themselves from risks. This is predicated on the understanding that OBS activities, representing contingent claims rather than direct liabilities, are not typically insured. Therefore, institutions with stronger financial foundations can leverage OBS instruments more effectively to manage risk profiles without jeopardizing their solvency (Khasawneh & Hassan, 2010). The market discipline hypothesis states that safer banks and savings institutions tend to issue more uninsured securities than riskier banks and savings funds and that banks and savings institutions with more uninsured securities will become less risky. The intuition behind these arguments is that uninsured securities represent future claims on the bank and savings funds that are subject to other claims on the bank and savings funds. The value of these claims to the customer increases with the safety of the bank, providing incentives for banks that issue uninsured securities to enhance their safety and encourage lower external risks (Hassan & Sackley, 2006).

The theory of moral hazard

This theory considers moral hazard to be an inherent characteristic of the financial and economic system. One party may resort to taking steps that prioritize their own interests over those of others, thereby exposing them to the risks associated with these actions (WANJOHI, 2013). The moral hazard hypothesis posits a positive correlation between a bank's likelihood of failure and its propensity to engage in off-balance-sheet (OBS) activities. This stems from the amplified moral hazard incentives facing institutions with precarious financial positions. Specifically, banks constrained by limited capital are theorised to exhibit a greater inclination toward OBS activities compared to their more financially robust counterparts (Khasawneh et al., 2012). This theory suggests that banks with inadequate capital are more prone to partake in OBS ventures compared to their well-capitalized counterparts. Additionally, institutions nearing insolvency often leverage OBS instruments that bypass standard accounting regulations, enabling them to recognise income from these activities immediately. In contrast, income generated from balance sheet assets is only acknowledged once it is definitively earned, highlighting the regulatory and operational advantages distressed banks may seek through OBS practices (Khasawneh & Hassan, 2010).

The modern portfolio (MPT)

Modern and post-modern portfolio theory, pioneered by Harry Markowitz and others, provides a framework for strategically allocating capital across various financial assets. The central objective of this framework is to optimize the risk-return tradeoff by constructing portfolios that effectively balance expected returns with acceptable levels of risk exposure (Harville, 2023).

Modern Portfolio Theory (MPT) has significantly shaped the foundational principles of portfolio management. Its widespread adoption within the finance industry underscores its utility in constructing diversified investment portfolios (Wen, 2023). It is a pivotal concept in contemporary finance, positing that investors and financial institutions can mitigate risks by strategically hedging their financial instrument portfolios. Central to this theory is the notion that diversification enables banks to diminish risk exposure, ultimately enhancing anticipated returns within risk management. By aligning with the principles of MPT, one can assert that Optimal Bank Strategy Adaptation (OBSA) aids banks in diversifying the risks associated with their investment portfolios, presenting itself as a viable solution for institutions grappling with high-risk, suboptimal performance and weakened asset quality (bin Hidthiir, 2021).

The core principle involves maximizing expected portfolio return for a defined risk tolerance level or minimizing portfolio risk while maintaining a specified target return. This is achieved judiciously selecting and weighing various asset classes (WANJOHI, 2013). The theory posits a logical relationship between the distribution of investment return rates and associated risk. It assumes rational investor behavior in decision-making, risk aversion, and a normal distribution of return rates (JIANU et al., 2013).

Banks are increasingly diversifying their loan portfolios and investment risks through off-balance sheet activities. This strategy aligns with portfolio theory principles, which emphasize the value of incorporating assets with low correlation to reduce overall portfolio risk. As such, off-balance sheet activities represent a strategic approach to risk management in banking operations. Commercial banks face increasing pressure to diversify as traditional banking services experience declining profitability. This diversification parallels the strategies employed by investors who seek to lower return risks by broadening their investment portfolios. Markowitz's mean-variance theory

supports this approach by assisting investors in asset selection and emphasizing that effective portfolio construction can only be achieved within defined efficient boundaries (BASHEER, 2020). While Modern Portfolio Theory (MPT) is not without its limitations, its capacity to leverage market sentiment in identifying portfolios with potentially lower risk and higher returns remains a valuable asset in investment strategy (Surtee & Alagidede, 2023). Modern portfolio theory argues that bank size is negatively related to risk and, therefore, negatively related to OBSA (Basheer et al., 2019).

1.5.4 Previous studies and development of study hypotheses

The accounting literature contains numerous studies focusing on various aspects of off-balance-sheet activities and bank risks, some of which have linked these two variables. However, most of this research has been conducted in advanced markets. Bank risks have been addressed from multiple angles, including financial leverage, liquidity, and bankruptcy risks.

Leverage risk

Banks' leverage refers to using debt to finance assets and new investments, significantly contributing to the overall banking risks (Papanikolaou & Wolffa, 2013). One of the main explanations for the presence of OBS activities in companies' financial data is the need to reduce financial leverage (Ahmad & Misman, 2012).

Ahmad & Misman (2012) This study highlighted a significant relationship between OBS activities and default, liquidity, and leverage risks. Islamic banks in Malaysia enjoy lower leverage risks due to off-balance-sheet (OBS) activities compared to traditional banks. The study relied on three theories regarding OBS risks: the risk-sharing hypothesis, the underinvestment hypothesis, and the moral hazard hypothesis. Regarding leverage risks, the study showed the relationship between this type of risk and OBSA and that these activities have no impact on such risks. This was also confirmed by the study of Žiković & Mandaci (2013). This research examines the effects of off-balance sheet (OBS) activities on the financial performance of banks publicly traded on the Istanbul Stock Exchange (ISE). Utilizing four key performance indicators – bank risk exposure, profitability, leverage, and liquidity – the study's findings suggest that OBS activities are perceived as hedging instruments, leading to improved bank stock returns. However, the analysis also indicates a negative correlation between OBS activities and return on equity.

Furthermore, the study found no statistically significant relationship between OBS activities and bank leverage or liquidity positions. This result is similar to previous work completed by Abd Karim & Gee (2007). This study clarified the impact of off-balance-sheet activities of local commercial banks on their performance, particularly regarding their exposure to various risks, profitability, and financial leverage. Standard econometric regression analysis was employed to process the data. The results indicate a weak relationship between off-balance-sheet activities and interest rate risks and idiosyncratic risks, while those activities significantly affect market risks. The study also revealed that return on equity is negatively associated with off-balance-sheet activities, and there is no statistically significant relationship between those activities and equity returns, financial leverage, or liquidity ratios. Al-Tahat & AbuNqira (2016) suggest that off-balance-sheet activities do not significantly influence financial leverage risks within Jordanian commercial banks. Additionally, the study emphasizes a growing interest in these activities, evidenced by a consistent annual increase, underscoring their importance to the banking sector in Jordan and their vital role in the overall operations of commercial banks. As a result, the following hypothesis was put forward:

H01: There is a statistical effect positive of relationship between off-balance sheet activities and leverage risk.

Liquidity risk

The Basel Committee characterizes liquidity as the capacity of a bank to finance asset growth and fulfill obligations as they arise, all while avoiding significant losses. The bank and regulatory authorities must consider the bank's asset composition and associated liquidity requirements, as these factors may reveal vulnerabilities over time (GARP, 2014). Banks are significantly influenced by several factors that impact their liquidity. One key factor is their access to financial markets. While all banks have some level of access, smaller institutions typically face greater challenges in this area compared to their larger counterparts. Additionally, the overall financial condition of a bank plays a crucial role; inadequate earnings and low asset quality can severely undermine liquidity (Abdelkarim & Burbar, 2017).

Studies have also focused on the relationship between off-balance-sheet activities and liquidity risks, showing conflicting results. A study by Al-Tahat & AbuNqira (2016)

demonstrated a positive relationship between off-balance-sheet activities and liquidity risk, indicating that as off-balance-sheet activities increase, liquidity risks also rise. In contrast, a study by Pushkala et al. (2017) showed that off-balance-sheet items significantly affect the liquidity and financial capacity of banks in both the public and private sectors in India, where ownership policies and the Reserve Bank of India play a role in these aspects indicated that there is no statistically significant relationship between off-balance-sheet activities and liquidity ratios. A study by Nie (2014) showed that off-balance-sheet activities in banks have an inverse U-shaped relationship with liquidity risk, where greater income diversification leads to fewer liquidity problems but higher default risks. These results are consistent with a study by Abd Karim and Gee (2007), which showed no statistically significant relationship between OBSA and the liquidity ratio. Žiković and Mandaci (2013) also showed that OBSA had no statistically significant impact on liquidity. Accordingly, the following hypothesis was proposed:

H02: There is a statistical effect positive of relationship between off-balance sheet activities and liquidity risk.

Bankruptcy risk

This type has many names, such as financial distress, financial failure, insolvency, lack of solvency, lack of robustness, insufficient capital, and inability to meet others' demands. The risk of bankruptcy (insolvency) is the inability of a company to meet its due obligations, which may arise either from ongoing operations, the achievement of which is a condition for the continuation of activity, or from mandatory fees (Bordeianu et al., 2011).

YE (2015) empirically investigates the impact of off-balance sheet (OBS) activities on bank risk, specifically examining overall risk, bankruptcy risk, and credit risk. The analysis differentiates between state-owned commercial banks and joint-stock commercial banks. Findings indicate that increased OBS activity significantly elevates overall bankruptcy and credit risk for state-owned commercial banks. Conversely, the study reveals that expanding OBS activities in joint-stock commercial banks is associated with a significant reduction in overall risk. A study by Maina (2013) investigated the correlation between OBSA and commercial banks' solvency in Kenya. Prior research indicates these activities can elevate overall risk profiles, potentially affecting financial

solvency and stability. For example, a study by Nadiri et al. (2016) conducted a panel data regression analysis on annual financial data from 2005 to 2015 to assess the impact of off-balance-sheet (OBS) activities on bank risk. The study examined eight state-owned and privately-owned banks separately, evaluating OBS activities' influence on overall risk, bankruptcy risk, and credit risk. Results indicated a significant negative relationship between OBS activities and overall risk for all banks and state-owned banks specifically. Conversely, while OBS activities reduced credit and bankruptcy risk in state-owned banks, the impact was statistically insignificant for all banks combined and the privately-owned bank subset. Furthermore, the coefficient for OBS activities and credit/bankruptcy risk was positive, though not statistically significant, in the latter two groups.

Additionally, a study by Duran and Vivas (2013) showed that bank off-balance sheet activity is negatively related to failure risk. As a result, the following hypothesis was put forward:

H03: There is a statistical effect positive of relationship between off-balance sheet activities and bankruptcy risk.

On the other hand, accounting literature has indicated that bank risks are influenced by a range of other variables, the most important of which are the size and profitability of the bank and GDP.

Bank size: Alsyahrin et al. (2018) investigates the influence of liquidity risk, financing risk, and operational risk on the financing activities of Indonesian Islamic banks, with bank size considered as a moderating factor. The research employs moderated regression analysis using panel data derived from the financial statements of Islamic commercial banks selected through purposive sampling. The findings indicate a significant impact of liquidity, financing, and operational risks on Islamic bank financing in Indonesia, with bank size demonstrating a positive moderating effect. El-Massah et al. (2019) also pointed out that bank size positively affects liquidity risks. Conversely, a study by Alzoubi (2017) indicated that bank size negatively impacts liquidity risk; as the size of the bank increases, its liquidity position improves, and liquidity risks decrease as for other types of risks. Dávila and Walther's (2017) study explores how large and small banks make financing decisions when governments provide system-wide bailouts to the financial sector. It shows that, on purely strategic grounds, bank size is a key factor in determining banks'

borrowing choices, even when bailout policies treat large and small banks symmetrically. A study showed that the size of the bank greatly affects leverage options and the size of rescue operations, as large banks bear a greater amount of financial leverage than small banks. Also, Wollbrant & Lager's (2016) study showed that financial leverage has a positive, statistically significant relationship with the size of the bank. Shah et al. (2019) study showed that bank size, tangibility, and growth are positively related to banks' financial leverage. As for the risks of bankruptcy, Ruiz et al. (2017) investigate the influence of banking relationships on bankruptcy outcomes, focusing on the moderating effect of firm size. Analyzing a sample of 622 unlisted, non-financial SMEs that declared bankruptcy in 2010 and whose cases were resolved by the end of 2014, the study reveals a positive correlation between firm size and the probability of survival. Specifically, small and medium-sized enterprises are more likely to emerge from bankruptcy than very small firms.

Furthermore, maintaining established relationships with major banks is associated with a greater propensity for reorganization than liquidation among these firms. Bella et al. (2021) study showed that small banks have the smallest average bankruptcy expectations, while large banks have the largest average bankruptcy expectations based on their market capitalization. Grzelak (2020) investigates the factors influencing bankruptcy risk within commercial banks in Central and Eastern Europe. Specifically, it hypothesizes that profitability, asset quality, bank size, credit risk, asset structure, core business direction, and funding sources significantly affect the likelihood of failure. An econometric model was developed and applied to the entire sample, segmented by bank size (large vs. small), and further analyzed based on EU membership status to test this hypothesis. The findings indicate that profitability, asset quality, bank size, asset structure, and core business direction are significant determinants of bankruptcy. Moreover, the relative importance of these determinants varies according to bank size, while EU membership modulates the strength, but not the nature, of these relationships. Aeni's (2020) study showed that company size has a positive and insignificant relationship with the possibility of bankruptcy. Tambunan et al. (2024) This research investigates the determinants of bankruptcy risk for banks listed on the Indonesia Stock Exchange. Employing panel data regression analysis on a dataset of 36 publicly traded banks observed over five years (2018-2022), the study aims to identify key variables influencing financial distress. The analysis suggests that bank size, net interest margin, and the ratio of deposits to total

assets are negatively associated with the probability of bankruptcy among the sampled Indonesian banks.

Return on assets: Regarding the profitability of banks. Chandra (2021) investigates the impact of financial leverage (debt-to-asset ratio), liquidity (current ratio), and profitability (return on assets) on financial distress. The research also examines the moderating role of profitability in the relationship between both leverage and liquidity with financial distress. The findings indicate a positive and significant correlation between the debt-to-asset ratio and financial distress, while the current ratio demonstrates a negative and significant correlation. Similarly, return on assets exhibits a negative and significant association with financial distress.

Furthermore, return on assets was found to significantly moderate the effects of both the debt-to-asset ratio and the current ratio on the likelihood of financial distress. Yousaf (2023) uses secondary data to examine the impact of bankruptcy risk, assessed using the Altman and Springate models, on the profitability of both small and medium-sized enterprises (SMEs) and large firms. Uniquely, this research investigates the differential effects of firm size on profitability. Key findings indicate a positive correlation between bankruptcy risk models and firm profitability, with SMEs demonstrating higher profitability than large firms. Furthermore, the analysis suggests that SMEs exhibit greater bankruptcy risk than their larger counterparts. Farhadi & Kordbisheh (2021) found that return on equity has an inverse relationship with bankruptcy risk.

Milić et al. (2022) employed multiple regression analysis to assess the influence of profitability and productivity on bankruptcy risk within agricultural and food companies, stratified by size (small, medium, and large). The analysis further compared these impacts across the agricultural and food sectors. Findings revealed a statistically significant positive relationship between profitability and bankruptcy risk for small and large agricultural enterprises. Productivity similarly significantly positively affected bankruptcy risk, specifically for small agricultural companies. Conversely, neither profitability nor productivity significantly influenced the bankruptcy risk of medium-sized agricultural firms. Within the food sector, profitability demonstrated a statistically significant positive correlation with bankruptcy risk in small and micro-sized companies, while no significant relationship was observed for medium and large-sized food

businesses. Tuti et al. (2022) research investigated the impact of return on assets (ROA), capital adequacy ratio (CAR), and funding on liquidity risk within the Indonesian banking sector. A panel regression model was employed to analyze data from 40 banks registered with the Financial Services Authority. The findings revealed a statistically significant positive relationship between CAR and liquidity risk, suggesting higher capital adequacy is associated with increased liquidity risk. Conversely, ROA and funding significantly negatively influence liquidity risk, indicating that improved profitability and increased funding are associated with reduced liquidity risk.

Additionally, a study by Widyarti et al. (2022) showed that return on assets significantly and positively impacts liquidity risk. Alshehadeh (2021) investigated the impact of liquidity risk management practices on commercial banks' profitability on the Amman Stock Exchange. Utilizing multiple regression analysis, the findings suggest a limited statistically significant relationship between common liquidity risk indicators and profitability metrics. However, a notable positive correlation was identified between return on equity, statutory reserve ratios, and fund investment. Based on these findings, the study recommends that Jordanian commercial banks enhance financial policymakers' awareness of the interconnectedness of liquidity risk management and profitability. Maintaining optimal liquidity influences investment volumes, potentially enhancing a bank's market valuation through increased stock exchange participation. Al Nimer et al. (2015) indicated that the return on assets in Jordanian banks is greatly affected by liquidity. Shah et al. (2019) This research investigates the factors influencing leverage within the Islamic banking sector in Pakistan. Specifically, it examines the impact of bank-specific characteristics and macroeconomic conditions on financing choices. The findings suggest a positive correlation between bank size, composition (texture), and growth with leverage. Conversely, profitability, liquidity, and capital adequacy negatively affect leverage. Furthermore, macroeconomic variables reveal that real interest rates and inflation negatively affect leverage, while the industrial production index exhibits a positive relationship with leverage in the Pakistani Islamic banking industry.

GDP: Kugler and Junge (2017) showed that there is no clear evidence of the long-term impact of financial leverage on GDP, although there are positive short-term interactions between GDP and financial leverage. The study by Nuño and Thomas (2013) indicated that financial leverage is positively associated with GDP. The study by Reema & Jadla

(2019) revealed a positive impact of financial leverage on liquidity and GDP growth rate. Szajt & Wójcik-Mazu (2015) This research investigates the key determinants of liquidity risk within commercial banks, with a specific focus on institutions operating in established European Union member states. Utilizing two distinct liquidity risk indicators, the study assesses the impact of both microeconomic and macroeconomic factors. Microeconomic determinants include credit risk, operational efficiency, bank size, leverage, and interbank market activity. Macroeconomic variables considered are interbank deposit rates, domestic credit-to-GDP ratio, inflation, and GDP. The analysis identifies a consistent set of internal bank characteristics that significantly influence liquidity risk, irrespective of the specific liquidity measure employed or the country of operation. Furthermore, the study demonstrates the substantial influence of macroeconomic conditions on bank liquidity risk. Berger & Sedunov (2017) This research demonstrates a statistically significant and economically relevant positive relationship between bank liquidity creation and real economic output. Bank liquidity creation predicts economic output more strongly than traditional measures like bank assets. The study further reveals a size-dependent dynamic: on-balance sheet liquidity creation is more influential for smaller banks, whereas off-balance sheet liquidity creation is more crucial for larger banks. While small banks generate more GDP per dollar of liquidity created, the overall impact of large bank liquidity creation is greater due to the higher volume of liquidity created by these institutions. Finally, the observed stronger relationship between bank liquidity creation and output in bank-dependent industries supports the proposed transmission mechanism linking these variables. Umar et al. (2021) investigate the impact of bank liquidity creation on economic growth, focusing on the Chinese banking sector between 2006 and 2017. Analyzing data from listed and unlisted Chinese banks reveals a statistically significant negative relationship between bank liquidity creation and Gross Domestic Product (GDP). Notably, the negative effect of liquidity creation is more pronounced for smaller banks than for larger institutions. The study further identifies that liquidity creation influences GDP directly and indirectly through key macroeconomic channels, including consumption, investment, government spending, and net exports, thus supporting the hypothesis of a multifaceted influence on economic output.

Other early work completed by Moravec (2016) investigates the relationship between macroeconomic factors and entrepreneurial bankruptcy filings using time series data from

1993 to 2012. Specifically, the study analyzes the impact of Gross Domestic Product (GDP), corporate indebtedness, inflation, and interest rates on bankruptcy declaration rates. The analysis considers both contemporaneous and lagged effects of these macroeconomic variables, exploring potential positive or negative correlations. The study's findings demonstrate a significant association between the selected macroeconomic indicators and entrepreneurial bankruptcy rates. Indayani & Adelia (2019) This research investigated the influence of Gross Domestic Product (GDP) and inflation on the likelihood of bankruptcy among small and medium-sized enterprises (SMEs) located in Sidoarjo City. The findings demonstrate a statistically significant relationship between GDP fluctuations and the potential for bankruptcy in these businesses.

Furthermore, the study concludes that inflation also significantly influences the bankruptcy risk faced by SMEs within Sidoarjo City. Banerjee et al. (2020) study showed that bankruptcies are expected to rise significantly by the end of 2021, with real GDP growth representing the largest portion of this increase. Bankruptcy and financial distress, according to Inekwe et al. (2015), make a fundamental contribution to bankruptcy forecasting models by providing a dynamic characterization of the link between bankruptcy/liquidation, prior distress risk, and the real economy. Using a simultaneous equations model, we present a comprehensive setup for forecasting prior and subsequent distress risks and examine their effects on output growth. Over the period 1970–2012, results from U.S. firms reveal that bankruptcy and prior distress are strongly associated with GDP volatility.

A study by Ahmad et al. (2022) explored the interconnectedness of personal bankruptcy, GDP, CPI, interest rates, household debt, and unemployment in Malaysia and Singapore. The findings for Malaysia indicate that, in the long term, CPI and debt ratio are significantly and negatively correlated with personal bankruptcy, whereas CPI exhibits a positive association. Conversely, in the short term, CPI displays a positive influence, while CPI demonstrates a negative impact. In Singapore, the long-term analysis reveals a significant negative effect of CPI and a positive effect of the debt ratio on personal bankruptcy. The short-term results, however, indicate a significant positive correlation between CPI and personal bankruptcy. Interestingly, CPI consistently shows a positive and significant effect on bankruptcy in both nations. Given the contrasting influences of

certain macroeconomic variables on personal bankruptcy in Malaysia and Singapore, the study suggests that country-specific policies and regulatory reforms tailored to each nation's distinct economic environment are crucial for effectively managing personal bankruptcy. Tambunan et al.(2024) investigate the determinants of bankruptcy risk among banks listed on the Indonesia Stock Exchange. Employing panel data regression analysis on a sample of 36 banks over 2018-2022, the study analyzes the influence of several key variables. The findings indicate that bank size, net interest margin, and the ratio of deposits to total assets negatively correlate with bankruptcy risk. Conversely, the diversification index and Gross Domestic Product (GDP) demonstrated no statistically significant impact on the likelihood of bank failure within the analyzed timeframe.

1.5.5 Financial markets for the study sample

1. Palestine Exchange

Established in 1995 as a private entity, the Palestine Exchange (PEX) transitioned to public ownership in 2010, becoming the second publicly traded Arab stock exchange. As of July 2012, PEX listed 48 companies with a combined market capitalization of \$2.8 billion, operating across five key sectors: insurance, investment, manufacturing, services, and banking/financial services. The PEX facilitates investment within the Palestinian economy by offering a regulated trading environment designed to protect investors and foster relationships with domestic and international financial institutions. Its strategic objectives include attracting foreign and diaspora investment, enhancing market depth through expanded financial product offerings, and increasing financial literacy among the public. Notably, listed companies utilize both Jordanian Dinars and US Dollars. This study, however, focuses exclusively on companies within the PEX's manufacturing sector (PEX, 2024).

2. Amman Stock Exchange

Established on March 11, 1999, the Amman Stock Exchange (ASE) initially functioned as a self-regulated, non-profit entity focused on securities trading in Jordan. Subsequently, on February 20, 2017, it transitioned to a government-owned public shareholding company, inheriting the operational mandates of its predecessor. The ASE Company is governed by a seven-member Board of Directors appointed by the general assembly, with a full-time executive director overseeing daily operations. As defined in

its Articles of Association, the Company's core responsibilities encompass the operation, management, and development of domestic and international securities, commodities, and derivatives markets. Its overarching objective is to facilitate transparent, fair, and efficient interaction between supply and demand, fostering investment culture and enhancing public financial literacy regarding its services (ASE, 2024).

3. Qatar Stock Exchange

The Qatar Stock Exchange is a bright spot in the history of the Qatari financial market. Since its 1997 activities, it has undergone numerous changes and has been the central hub for Qatar's continuous development of capital markets. The exchange has achieved many accomplishments in its pursuit of becoming a platform for diversifying the national economy and achieving sustainable development. These achievements have varied over the past years, whether in terms of performance, improving infrastructure, enhancing social responsibility, promoting investment culture among community members, improving transparency, developing investor relations, and enhancing disclosure and information dissemination according to the best international practices. Additionally, it has focused on developing products and services that meet various investment aspirations (QSE, 2024).

4. Kuwait Stock Exchange

Established in April 2014, the Kuwait Stock Exchange Company (K.S.C.) manages Kuwait's securities market and, since 2016, has been a key driver of communication, growth, and innovation within the sector. The Exchange supports stakeholders, including the Capital Markets Authority, issuers, and investors. Contributing to the diversification of the national economy and supporting the New Kuwait Vision 2035, K.S.C. has implemented phased market reforms to enhance performance. These reforms encompass the introduction of new investment instruments, improved transparency, and market restructuring aimed at increasing liquidity and competitiveness, all while aligning Kuwait's market practices with global standards (KSE, 2024).

5. Bahrain Stock Exchange

Bahrain Bourse functions as a self-regulated, multi-asset exchange, offering a comprehensive suite of services encompassing listing, trading, settlement, and central depository functions for a wide spectrum of asset classes. Since its inception as the

Bahrain Stock Exchange in 1987, the Bourse has been a regional innovator driven by governmental support and collaborative partnerships. Re-established as a closed joint-stock company in 2010, Bahrain Bourse aspires to become the region's leading multi-asset financial market. The exchange actively participates in influential global and regional organizations, including the Arab Stock Exchanges Union and the World Federation of Exchanges, solidifying its position within the international financial landscape (BHB, 2024).

6. Saudi Stock Exchange

Tadawul Saudi Arabia actively facilitates the listing and trading of securities for local and international investors. It stands out as a premier destination for long-term growth initiatives, offering a wide array of attractive investment opportunities for participants in the financial market. Ranking among the world's largest and the third largest among emerging markets, it boasts a market capitalization of \$2.87 trillion as of April 2024, encompassing 422 listed securities (Tadawul, 2024).

7. Dubai Stock Exchange

Operating as a vibrant and strong multi-platform marketplace for capital raising, listing, and trading across a variety of securities and asset classes, Dubai Financial Market is the top financial market in the area.

As the preferred exchange for initial public offerings and listings for leading issuers in key economic sectors and global companies seeking dual listings, it plays a vital role in enabling economic development in the United Arab Emirates. It was the first exchange in the UAE, launched in 2000, and in 2007, it became the first publicly listed exchange in the region. It provides liquidity and active trading for over one million local and international investors from 212 nationalities. Additionally, Nasdaq Dubai has merged with Dubai Exchange to offer a broader range of asset classes and facilitate access to the listed securities on both exchanges with a single investor number (DFM, 2023).

8. The Muscat Stock Exchange

Royal Decree 5/2021 transformed the Muscat Securities Market into the Muscat Stock Exchange (MSX), a key initiative for Oman's economic diversification. The MSX, owned by the Omani Investment Authority (OIA), aims to be a leading global exchange,

fostering an efficient investment environment aligned with Oman Vision 2040. Its strategy focuses on national economic development, market attractiveness, technology advancement, business foundation strength, and employee well-being. The Muscat Clearing and Depository Company (MCD), an MSX subsidiary, provides clearing, settlement, and depository services. The MSX seeks to establish a competitive, sophisticated, and globally compliant securities market (MSX, 2024).

9. Abu Dhabi Stock Exchange

The Abu Dhabi Securities Exchange (ADX) facilitates trading in a range of securities, operating under the regulation of the Securities and Commodities Authority. Established in 2000 and converted to a public joint-stock company in 2020, the ADX is an Abu Dhabi Holding Company subsidiary. As the second-largest market in the MENA region, ADX aims to be a leading financial market driving sustainable economic growth (ADX, 2024).

Chapter Two

Research Methodology

2.1 Introduction

This research utilized a descriptive analytical methodology to assess the effects of the independent variable, specifically off-balance-sheet activities, on the dependent variables, which encompass various banking risks.

2.2 Data collection

The required data was collected to measure the impact of off-balance-sheet activities on financial risk indicators (liquidity risk, financial leverage risk, insolvency risk) from the annual reports of the banking sector listed on several Arab stock exchanges (Palestine Stock Exchange, Jordan Stock Exchange, Dubai Stock Exchange, Qatar Stock Exchange, Oman Stock Exchange, Kuwait Stock Exchange, UAE, Abu Dhabi Stock Exchange, Saudi Stock Exchange). For the period from 2015 to 2023. Each of these countries has different environmental characteristics and conditions. An observation 774 for this study was conducted, and the variable names and data collection sources are shown in Table (2).

Table (2)

Variable names and data collection sources

Variables	Label	Source data
Off-Balance Sheet activities	OBSA	Annual reports
Liquidity risks	Ly	Annual reports
Financial leverage risks	LV	Annual reports
Risks of insolvency or bankruptcy	RB	Annual reports
Bank capital size	SIZEB	Annual reports
Return on assets	ROA	Annual reports
Gross Domestic Product	GDP	Annual reports

2.3 Research sample

The study includes all banks listed on the stock exchanges of Arab countries, namely Bahrain, Saudi Arabia, Oman, Qatar, the Emirates, Kuwait, Palestine, Jordan, Dubai, and Abu Dhabi. The total number of banks is 87. Al-Safa Bank, listed on the Palestine Stock

Exchange, was excluded because its listing date does not match the research sample. The remaining sample includes 86 banks distributed across the stock exchanges, as shown in Table (3) below. The study covers the period from 2015 to 2023.

Table (3)

Research sample

Stock Exchange	Number of banks
Bahrain	9
Saudi Arabia	10
Jordan	14
Qatar	9
Kuwait	9
Dubai	11
Abu Dhabi	11
Oman	7
Palestine	6

2.4 Research Model

Statistical descriptive analysis was used on the study sample to determine the impact of off-balance-sheet activities on financial risk indicators (liquidity risk, bankruptcy risk, financial leverage risk) in Arab stock exchanges from 2015 to 2023. The study examines the following:

$$LY_{it} = B_0 + B_1 OBS_{it} + B_2 ROA_{it} + B_3 SIZE_{it} + B_4 GDP_{it} + \epsilon_{it}$$

$$BR_{it} = B_0 + B_1 OBS_{it} + B_2 ROA_{it} + B_3 SIZE_{it} + B_4 GDP_{it} + \epsilon_{it}$$

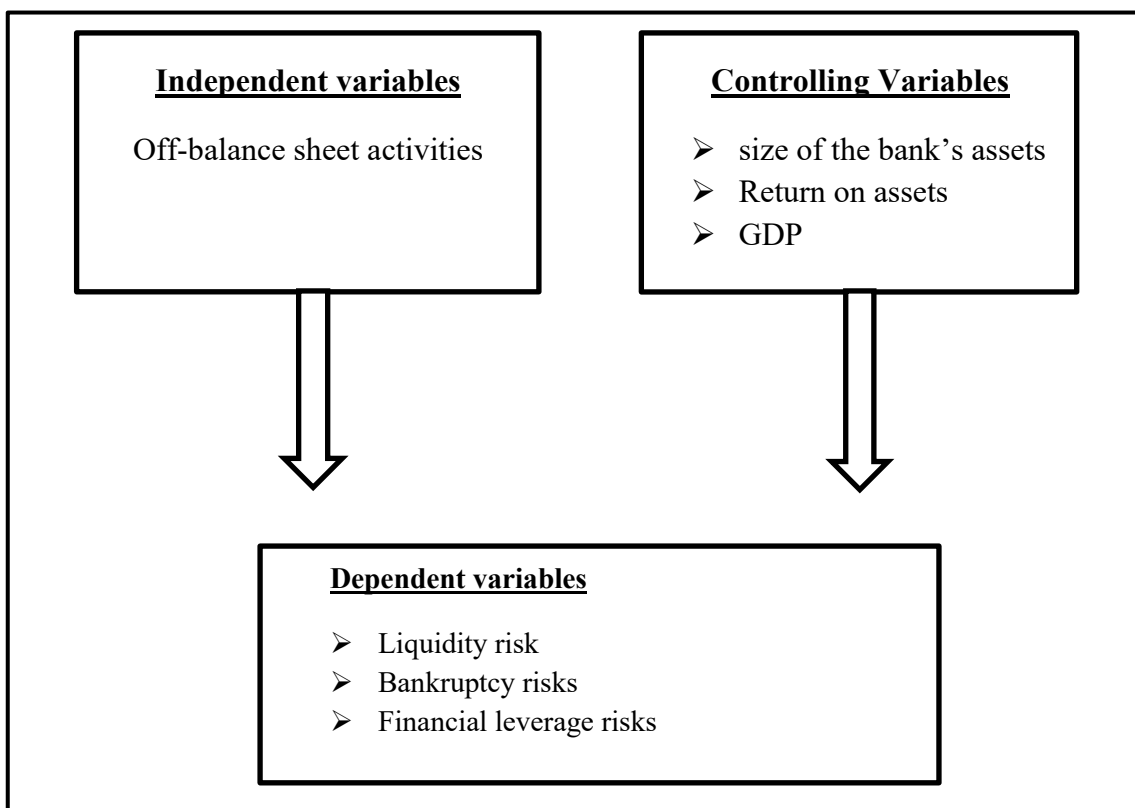
$$LV_{it} = B_0 + B_1 OBS_{it} + B_2 ROA_{it} + B_3 SIZE_{it} + B_4 GDP_{it} + \epsilon_{it}$$

- OBS_{it} = off-balance sheet activities, which includes commitments, guarantees, Credit Alternative Items, Derivative Contracts, and Credit Derivatives.
- LY = liquidity risk. It is the currency and what is equivalent to it on the total deposits
- BR = bankruptcy risk. It is the square of the difference between the average return on assets over the period and the return on assets for each year
- LV = leverage risk, It is the total liabilities over total assets

- SIZE = Bank size, natural logarithm of total assets
- ROA = return on assets. It is the net income to total assets
- GDP = gross domestic product. It is the annual rate of change
- (i): the banks
- (t): the time (years)
- ϵ_{it} : error term

Figure (1)

The impact of OBSA on financial risk indicators



2.5 Measurement of research variables

2.5.1 Dependent variables

1. Liquidity risks

Liquidity risk is a challenge faced by banks in maintaining financial stability (El-Massah, et al., 2019). Liquidity risks arise from insufficient liquidity to meet normal operational requirements, which reduces banks' ability to fulfill their obligations when they come due. These risks may stem from difficulties obtaining cash at a reasonable cost through loans

(funding or funding liquidity risks) or selling assets (asset liquidity risks). One aspect of banking asset and liability management is reducing liquidity risks (Abdelkarim & Burbar, 2017). Liquidity risk is an important factor affecting performance, profitability, and non-traditional banking activities such as OBS (Basheer et al., 2019).

Liquidity risk is measured by dividing cash and cash equivalents by total deposits.

Liquidity Risk = Cash and Cash Equivalents / Total Deposits

2. Risks of bankruptcy

Bankruptcy occurs when a company's liabilities surpass its assets. This often arises from factors such as inadequate capitalization, insufficient liquidity, improper utilization of resources, inefficient activity management, declining sales, and unfavorable market conditions (Venkataramana et al., 2012). Bankruptcy risk refers to the likelihood of an impending legal bankruptcy process, which can lead to adverse financial repercussions, including the depletion of assets and a decline in projected revenues (Rybak, 2006).

It is important to highlight that a business's bankruptcy typically results from a combination of internal (endogenous) and external (exogenous) factors. Internal causes, which point to the primary reasons behind the failure of many enterprises, include poor financial management that results in excessive debt levels, loss of market share, an ill-defined corporate strategy, elevated debt burdens, and insufficient financial oversight of contracts. In contrast, external causes are often more complex, as they are influenced by the country's broader political, macroeconomic, and social context and the dynamics involving partners, investors, and clients. Furthermore, internal and external factors vary in terms of their predictability and the intensity of their consequences (Kitowski et al., 2022).

Bankruptcy forecast models play a crucial role in mitigating the risk of insolvency, enabling organizations to make informed strategies. Various methodologies for predicting bankruptcy are outlined in academic literature, including (Juozas & Garškaitė, 2000):

1. The analysis of key indicators that signal the likelihood of bankruptcy.
2. The assessment of fluctuations in financial statement components and their impact on the overall financial stability of the firm.
3. The utilization of a system of financial ratios to evaluate performance.

The square of the difference between the average return on assets during the period and the return on assets for each year measures this.

3. Leverage Risks

Banking leverage refers to using debt to finance new assets and investments. In relation to leverage on banks' balance sheets it is associated with the use of deposited funds or other balance sheet items, such as bonds, to supplement banks' capital in financing loans and new investments (Papanikolaou & Wolff, 2013). Also, Leverage refers to the strategic combination of debt and equity within a company's capital structure. It highlights the organization's capacity to secure loans that can potentially enhance overall returns for its shareholders. By utilizing borrowed funds, a company can optimize its capital structure, aiming to maximize market value and increase the wealth of its shareholders. Importantly, leverage indicates a company's proficiency in employing debt capital to fund future investments. It plays a crucial role in illustrating how a company can leverage fixed-cost assets or funds to boost returns for its owners whilst also influencing the uncertain dynamics of risk management. Therefore, it is essential for businesses to carefully weigh their leverage decisions to effectively navigate these financial considerations (Lestari, 2021).

Beaver et al. (1970) indicate that an increase in debt magnifies equity holders' return volatility (Hamada, 1972). Research indicates that around 25% of systematic risk is attributable to institutions' financial leverage level. Conversely, Mandelker & Rhee (1984) assert that both operating leverage and financial leverage, defined by the ratio of total liabilities to total assets, work together to influence systematic risk. Consequently, an increase in these leverage ratios could result in heightened volatility in the equity returns of banks, thereby contributing to an escalation in market risk.

Financial leverage risk is measured by dividing total liabilities by total assets. Financial leverage risk = Total liabilities / Total assets

2.5.2 Controlling Variables

1. Size of the bank's assets

The size of a banking institution plays a crucial role in its utilization of Off-Balance Sheet (OBS) activities. Larger banks are often perceived to benefit from economies of scale, which can enhance their earnings related to OBS. Conversely, as banks grow in size, they may experience increased opportunities for risk diversification. This diversification can lead to a decrease in the level of OBS activities, as larger financial entities possess a greater capability to spread their asset portfolios across various risks. Thus, the relationship between bank size and OBS is complex and multifaceted, reflecting both potential benefits and mitigated risks associated with larger banking organizations (Khasawneh et al., 2012). In addition, greater market confidence is typically directed towards large banks, which reduces the likelihood of failure. These and other indicators will encourage banks to expand their operations towards off-balance-sheet items (Elian, 2012).

The size of the bank is measured by the natural logarithm of the bank's assets.

2. Return on Assets

Profitability reflects the ability to generate profit per unit of cost, inputs, or outputs that reflect business results (Thu DANG et al., 2020).

Return on Assets (ROA) is a financial metric that evaluates the relationship between a company's income and its total assets, which include equivalents, liabilities, and capital. This measure can be understood from two perspectives. Firstly, it indicates management's effectiveness in utilizing the organization's assets to produce operational profits. Secondly, it reflects the total return received by all capital providers, encompassing both debt and equity stakeholders (Al Nimer et al., 2015). Return on Assets (ROA) is a key financial metric utilized to evaluate the effectiveness of a company in generating profit from its total assets after accounting for interest and taxes. A higher ROA signals that the company successfully leverages its assets to produce substantial earnings. This ratio reflects the efficiency of asset utilization and is an important indicator of overall financial performance and operational efficiency within the organization (Heikal et al., 2014).

This ratio reveals profitability from asset management without incorporating risks. Although off-balance-sheet items are not considered assets, they pose a significant risk to the company's assets. Therefore, it would be interesting to know to what extent off-balance-sheet profits achieve returns on on-balance-sheet assets. Banks worldwide have explored ways to generate income through off-balance-sheet items and fee revenues. In this scenario, assessing profitability based on assets on the balance sheet will not reveal the true state of relevant profitability. The need to determine the true efficiency of commercial banks and their solvency related to high exposures to off-balance-sheet items requires a deep examination of these items (Narasimhan, 2014).

Profitability is considered a measure of banks' creditworthiness and indicates customer confidence, leading to an expected positive relationship between profitability and the issuance of OBS items. Furthermore, higher profits result in increased cash flows, which can be retained to absorb future losses, reflecting an opportunity to improve creditworthiness. Banks with greater creditworthiness will attract more OBS business or will utilize it. This view supports the argument that increased profitability indicates superior management through the optimal use of bank assets and increased productivity, which results in lower costs, reflecting an improvement in interest rate spreads (Elian, 2012).

Return on assets is measured by dividing net income by total assets

Return on assets = net income / total assets

3. Gross domestic product (GDP)

Of the microeconomic indicators, the only important factor for bank profitability is real GDP growth (Ayele, 2012).

Gross Domestic Product (GDP) is a comprehensive measure of a nation's economic output, quantifying the total monetary value of final goods and services produced annually within its borders. Real GDP per capita, adjusted for inflationary effects, is a commonly utilized metric for evaluating a country's economic performance across time and in comparison to other nations. Although frequently correlated with societal well-being and often used interchangeably with the term "standard of living," this association is largely empirical, having developed over time rather than arising from a pre-established theoretical connection between GDP and social welfare (Bergh & CJM, 2009).

The annual percentage change measures it.

2.5.3 Independent variables

1) Off-balance-sheet activities (OBSA)

Various potential assets and liabilities may influence the financial institution's balance sheet. Off-balance-sheet (OBS) activities have emerged as a significant source of fee income for nearly all banks; however, they may result in unfavourable future cash flows (Khasawneh et al., 2012). Off-balance-sheet activities refer to operations that do not require disclosure in the balance sheet but are included in the attached notes. These activities include services that rely on fees or commissions provided by banks, such as confirmations, guarantees, foreign exchange transactions, and derivatives. Typically, these activities generate fees, but they create deferred or contingent liabilities or assets, meaning they are not reflected in the balance sheet until they convert into actual assets or liabilities (Jain & Arora, 2017).

In this research, the researcher organized the balance sheet items into three basic categories and then summed these categories to obtain the total OBSA.

1. **Credit Alternative Items:** This category encompasses off-balance-sheet (OBS) items that share characteristics akin to loans. It specifically includes unused commitments, standby letters of credit for financial purposes, standby letters of credit for performance obligations, commercial letters of credit, and analogous items .
2. **Derivative Contracts:** This category includes various financial instruments such as interest rate contracts, foreign exchange contracts, equity derivatives, and commodity derivatives. These derivative contracts are further classified based on their intended use, distinguishing between those held for trading and non-trading purposes.
3. **Credit Derivatives:** This category pertains to financial instruments designed to transfer credit risk between parties.

Where OBSA is measured by dividing OBSA by total assets

$$\text{OBSA} = \text{Total OBS activities} / \text{Total assets}$$

Table (4) in appendix (A) is a summary of the study variables, their concepts, measurement methods, and the expected signal.

Chapter Three

Results and Discussion

3.1 Descriptive statistics

3.1.1 Descriptive Statistics Analysis

The mean, median, standard deviation, maximum, and minimum values were used to analyze the independent and dependent study variables. Table (5) shows the results of the descriptive analysis of the study variables for the sample of Arab banks .

The liquidity risk variable ranges from (-0.48) to (13.278). This wide range shows that banks face varying levels of liquidity risk with a standard deviation of (1.625). The standard deviation indicates significant variation in the financial conditions of banks, and the mean (0. 513) indicates that most banks have moderate liquidity risk, but some exceptions may be exposed to very high risks

. The ranges of financial leverage risk variables range from (0.169) to (0.958), with a standard deviation of (0.204). This analysis confirms a marked variation in the debt levels used to finance assets and the mean (0. 772). It reflects a heavy reliance on leverage, which may reflect an increase in the risks associated with debt, and thus highlights the importance of carefully managing these risks.

As for the bankruptcy risk variable, it ranges from (0) to (4.452), with a standard deviation of (0.454). This field shows very few cases close to the lower limits, but some banks face greater risks that may lead to bankruptcy, and the mean (0.049) indicates that most banks are in the safety zone.

The ranges of off-balance-sheet activities range from (0.048) to (2.364). The minimum threshold of 0.048 reflects the presence of some activities with limited or less common impact, while the maximum threshold of 2.364 indicates the existence of activities that may be more complex or have a greater impact on the financial performance of banks. With a standard deviation of (0.617), there is a noticeable variation around the average. A high standard deviation indicates that some OBSA may differ significantly from the mean and the mean (0.546). However, the return on assets variable ranges from (-0.006) to (0.027). This indicates a variable level that may show minor losses in some cases but

can generate positive returns in others, with a standard deviation of (0.012) It indicates that there is limited variation in the returns achieved, which may reflect the stability of the relative performance of banks and the mean (0.012). The arithmetic mean indicates that returns, on the whole, tend towards a relatively balanced level between growth and recession.

The gross domestic product ranges from (-11.3) to (8.9). This indicates a significant disparity in economic performance. Gross Domestic Product (GDP) is a key feature of the economy, reflecting the total value of goods and services produced over a specific period. The negative figure of -11.3 may indicate a period of economic contraction or recession, while the positive figure of 8.9 indicates periods of strong growth with a standard deviation of (3.279). This reflects the degree of dispersion in the data. A relatively high standard deviation indicates that there is a significant variation in the performance of GDP between different periods and the mean (1.751). This indicates that the overall performance may be slightly positive despite the significant fluctuations. The range logarithm of asset size ranges from (6.354) to (9.721) with a mean of (8.1). The size of assets reflects the ability of institutions to generate wealth and resources. When we analyze this scope, we see a clear difference in the size of available assets among economic entities, where lower figures (6,354) indicate the presence of smaller entities, while higher figures (9,721) may suggest large institutions or positive economic contributions.

Table (5)

Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
LY	771	0.513	1.625	-0.048	13.278
LV	771	0.772	0.204	0.169	0.958
RB	770	0.049	0.454	0	4.452
OBS	771	0.546	0.617	0.048	2.364
ROA	771	0.012	0.008	-0.006	.027
SIZE	771	8.1	1.07	6.354	9.721
GDP	773	1.751	3.279	-11.3	8.9

3.2 Correlation analysis

The correlation matrix defines the relationship between variables, which can be useful in understanding the strength and nature of the relationship between the studied variables. It helps measure the linear correlation between the dependent variable and each independent and mediating variable and determine the strength and degree of correlation among all variables. Variables with a high correlation exceeding 80% will yield the same results and effects; thus, the correlation matrix is an important tool for assessing the sensitivity of results when including or excluding certain variables (Quddoos et al., 2020).

Table (6) presents the linear correlation between the study variables and the overall sample, We notice that all the study variables have a relationship of less than 80 percent, so there is no issue with Multicollinearity.

The correlation between off-balance-sheet activities and liquidity risks is negative, with a (-0.200) correlation coefficient. Off-balance-sheet activities are considered essential in analyzing institutions' financial performance, as they encompass operations and obligations not reflected in the balance sheet, granting companies the ability to manage their financial resources flexibly. However, the correlation between these activities and liquidity risks is a concern that warrants attention.

Firstly, off-balance-sheet activities contribute to the formation of invisible liabilities that may negatively impact liquidity levels. When companies rely on financing that is not listed on the balance sheet, unexpected cash requirements can arise, increasing liquidity pressures, especially when companies need to balance immediate obligations with investment needs.

Secondly, these activities lead to ambiguity in the true financial picture of the entity, which may prompt investors and lenders to make ill-informed decisions, raising borrowing costs and reducing confidence in the company's ability to meet its financial obligations. This aspect enhances liquidity risks, as companies face difficulty obtaining reliable funding sources when needed.

Moreover, off-balance-sheet activities indicate high levels of financial innovation. While some forms of innovation may be beneficial, they can also come with additional risks that

affect financial stability. These complexities in operations can hinder companies' ability to predict cash flows, thereby increasing liquidity risk levels.

In conclusion, the complex correlation between off-balance-sheet activities and liquidity risks is manifested through the formation of invisible liabilities, financial ambiguity, and increased financial complexity. Therefore, companies must consider these aspects when making financial decisions to ensure sustainability and growth in the future.

The correlation between off-balance-sheet activities and financial leverage risks is positive, with a correlation coefficient of (0.239). The positive correlation between off-balance-sheet activities and financial leverage risks is manifested through several key factors. First, these activities allow companies to improve their financial performance without adding new debt to their balance sheets. As a result, companies can utilize the available leverage to finance additional projects, leading to increased potential returns on investment and an overall enhancement of their financial position.

Second, off-balance-sheet activities improve the company's financial image by reducing the debt-to-equity ratio. When debts are managed off the balance sheet, this creates an impression of the company's financial stability, which enhances the attractiveness of its investments and increases investor confidence.

Despite the potential benefits arising from the correlation between off-balance-sheet activities and financial leverage risks, this requires careful and transparent management to ensure that the desired outcomes are achieved without exposing the company to significant financial risks. Understanding these dynamics is essential to help companies make informed financial decisions that support their growth and prosperity in a competitive business environment.

Additionally, the correlation between off-balance-sheet activities and bankruptcy risks is positive, with a correlation coefficient of (0.037). Overreliance on off-balance-sheet activities may increase exposure to bankruptcy risks.

First, off-balance-sheet activities allow companies to conceal certain financial obligations, giving them a false impression of financial health. When companies mitigate their liabilities by transferring them to off-balance-sheet activities, it can lead to an inaccurate assessment of their true financial position. Consequently, companies may

remain in denial about real risks, increasing the likelihood of encountering financial distress and exacerbating bankruptcy risks.

Second, off-balance-sheet activities can create an incentive for excessive expansion. When companies can finance new projects or expand their operations without including those liabilities on the balance sheet, they may make uncalculated investment decisions. These decisions can burden the company with additional financial risks, making it susceptible to losing control over its obligations and ability to meet them, thereby enhancing the chances of bankruptcy.

Third, transparency plays a crucial role in the business environment. When financial activities are not fully disclosed, investors and creditors may risk making decisions based on misleading information. This information gap can lead to a loss of trust from stakeholders, making it difficult for companies to secure necessary funding or fulfill their future plans. Therefore, a lack of transparency in off-balance-sheet activities can increase bankruptcy risks.

Thus, companies should adopt sound and clear accounting practices to avoid bankruptcy risks and ensure a stable working environment. Handling off-balance-sheet activities with caution and transparency is essential for maintaining companies' stability and long-term success.

Table (6)

Matrix for the correlation of the research sample

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) LY	1.000						
(2) LV	-0.623	1.000					
(3) RB	0.082	-0.129	1.000				
(4) OBS	-0.200	0.239	0.037	1.000			
(5) ROA	-0.009	-0.074	0.001	0.160	1.000		
(6) SIZE	0.020	0.110	-0.185	-0.039	0.141	1.000	
(7) GDP	-0.005	-0.008	0.002	0.013	0.203	0.019	1.000

3.3 Regression analyses

3.3.1 Liquidity risks

Table (7) shows that there is a statistically significant positive effect of off-balance-sheet activities on liquidity risks. Accordingly, the research hypothesis that there is a statistically significant positive impact of the relationship between off-balance sheet activities and liquidity risk was accepted. This result is inconsistent with the market discipline theory and The theory of moral hazard, which says a negative relationship exists between a bank's risks and off-balance sheet items. This means that as off-balance-sheet activities increase, liquidity risks also increase, indicating that the bank may struggle to convert its assets into cash on time and at a low cost to meet its financial obligations. This result aligns with our expectations regarding the relationship between off-balance-sheet activities and liquidity risks. It is consistent with previous work completed by (Al-Tahat & AbuNqira, 2016; Pushkala et al., 2017), which demonstrated a positive relationship between off-balance-sheet activities and liquidity risks. The results of this study are in contrast with (Abd Karim & Gee, 2007; Aktan et al., 2013; Nie, 2014), who indicated that there is no statistically significant relationship between off-balance-sheet activities and liquidity ratios.

Table (7) also shows that the relationship between return on assets and liquidity risk is positive, as proven by (Widyarti et al., 2022; Al Nimer et al., 2015). Companies or banks enjoy a high return on assets and can often manage their assets more effectively, enhancing their cash flows. When liquidity is sufficiently available, these companies can invest in new projects and expand their operations, contributing to an increase in return on assets in the future. Therefore, managing liquidity well is important in enhancing return on assets.

Moreover, companies with high returns tend to be more attractive to investors, which may lead to increased investments and capital used to improve liquidity levels. In this case, this cash flow can strengthen the company's position and reduce liquidity risks.

On the contrary, the results of (Tuti et al., 2022; Alshehadeh, 2021) showed a negative relationship between return on assets and liquidity risk.

Table (7) also shows that the relationship between bank size and liquidity risk is negative with significant statistical significance, as proven by the Alzoubi (2017) study. Large banks typically enjoy significant economic advantages, such as diversifying funding sources, which provides them with greater flexibility in managing financial crises. A large bank has a broader customer base, allowing it to distribute risks more effectively, thereby reducing its reliance on a single source or a limited group of deposits.

On the other hand, large banks have a higher capacity to attract investments and savings, strengthening their capital base. The higher the bank's credit rating, the greater its chances of obtaining financing at lower interest rates. This helps improve liquidity and enhances the efficiency of asset and liability management.

Moreover, large banks are often subject to more secure regulatory and supervisory frameworks, which leads to improved financial stability. This contributes to reducing liquidity risks as they operate within a transparency and accountability framework. Additionally, the availability of financial statements and periodic analyses helps external parties, whether investors or customers, to effectively assess the bank's financial situation.

In contrast, (Alsyahrin et al., 2018; El-Massah et al., 2019) study showed that the relationship between bank size and liquidity risk is positive

Table (7) also shows that the relationship between GDP and liquidity risk is positive, as proven by (Szajt et al., 2015; Berger & Sedunov, 2017). Gross Domestic Product (GDP) is a fundamental indicator used to measure economic growth in a country. When GDP rises, it signifies an increase in production and services, which in turn leads to higher profits and increased returns on investment. This growth boosts market confidence and increases financial flows, thereby reducing liquidity risks. When the economy is strong, institutions are better able to generate revenues, giving them a greater capacity to meet their financing needs.

Secondly, a high GDP encourages an increase in foreign and domestic investments, as investors are drawn to markets with promising growth potential. This influx of investments enhances liquidity as the amount of money available in the market increases. Consequently, the financial conditions of companies improve, enabling them to manage financing risks more effectively, which reduces liquidity risk levels.

Moreover, economic growth is associated with an increasing demand for products and services, reflecting the need for more innovation and business expansion. With increased production, companies become more capable of generating cash, leading to improved liquidity management. Additionally, enhanced liquidity strengthens banks' ability to provide loans, which are pivotal in fostering economic growth, creating a virtuous cycle of positivity.

In contrast, Umar et al. (2021) showed that the relationship between GDP and liquidity risk is negative.

Table (7)

Regression analysis of the impact of off-balance sheet activities on liquidity risk

Variables	(2) LY	(3) LY
OBSR	0.0290* (0.0166)	0.0538*** (0.0172)
ROA	0.793 (1.610)	1.362 (1.202)
LnTa	-0.0601* (0.0317)	-0.137** (0.0601)
GDP		0.00264 (0.00335)
Year <i>fe</i>	Yes	Yes
Country <i>fe</i>	Yes	No
Firm <i>fe</i>	No	Yes
Constant	0.833*** (0.231)	-0.893** (0.437)
Observations	771	771
R-squared	0.189	0.742

3.3.2 Leverage risks

Table (8) shows a statistically significant negative relationship between off-balance-sheet activities and financial leverage risks.. The research hypothesis that there is a positive statistical effect of the relationship between off-balance sheet activities and leverage risks was rejected. This result is consistent with the theory of market discipline and The theory of moral hazard, which says a negative relationship exists between a bank's risks and its

off-balance sheet items. This result aligns with our expectations regarding the relationship between off-balance-sheet activities and financial leverage risks and is consistent with the study by Ahmad and Misman (2012), which demonstrated that these activities have no effect on these risks. Al-Tahat & AbuNqira (2016) also indicated that off-balance-sheet activities do not impact financial leverage risks in Jordanian commercial banks. The study by Aktan et al.(2013) further confirmed this and Abd Karim & Gee (2007). They clarified that there is no statistically significant relationship between off-balance-sheet activities and financial leverage risks in Malaysian commercial banks.

Off-balance-sheet activities reflect a lack of transparency in financial reporting. The absence of clarity in financial information can make it difficult for investors and lenders to assess the true risks associated with the company. This non-transparent environment leads to a loss of trust, which increases borrowing costs and undermines the company's ability to attract investment. A decline in trust can, in turn, lead to higher costs of financial leverage, which serves as further evidence of the negative relationship between off-balance-sheet activities and financial leverage risks.

Table (8) shows that the relationship between return on assets and financial leverage risk is a significant negative relationship, which aligns with the study by (Shah et al. 2019).

The main reason is that financial leverage increases the financial pressures on the company. When a company heavily relies on debt as a means of financing, any deterioration in financial performance or decline in revenues can lead to significant difficulties in meeting financial obligations. These pressures negatively affect the ability to achieve a high return on assets as the focus shifts to covering financial leverage obligations rather than achieving actual growth.

The relationship between bank size and financial leverage risk is a significant positive relationship. So, the results are consistent with previous work (Shah et al., 2019; Dávila & Walther, 2017; Wollbrant & Lager, 2016).

This relationship can be explained through the concept of diversification. As the size of the bank increases, so does its ability to diversify its investment portfolio and financial operations. However, diversification does not necessarily mean a reduction in risk. In some cases, the projects in which the bank is involved can be affected simultaneously,

leading to an overall increase in risk exposure. Therefore, as the size of the bank increases, its exposure to risks associated with leverage may also increase due to its multiple investments.

Table (8) shows a negative relationship between GDP and financial leverage risk. These results are consistent with previous work (Reema & Jadla, 2019) and contradict (Nuño & Thomas, 2013).

The risks of financial leverage manifest in the excessive reliance on debt to finance economic activities. When companies or governments increase their debt-to-equity ratio, they expose themselves to heightened risks related to the inability to repay, especially during times of economic crises or downturns in economic performance. Consequently, high financial leverage can lead to greater fluctuations in GDP, as a decline in economic performance results in increased repayment pressures, negatively impacting profitability and growth.

On the other hand, high risks associated with financial leverage can contribute to a slowdown in economic growth. When debt levels rise, a need arises to allocate significant revenues to debt repayment instead of investing in growth and economic expansion. This trend restricts the economy's ability to recover and grow, adversely affecting GDP. Ultimately, it becomes clear that the economy only grows when companies can invest their funds freely in projects that enhance their competitiveness.

Moreover, countries relying heavily on financial leverage have been affected by negative economic phenomena such as inflation and recession. Poor elections and ineffective debt management can exacerbate economic problems, leading to a decline in GDP. When companies and governments realize that debt levels have reached an unsustainable point, there is a sharp decline in economic confidence, resulting in reduced investments and slowed growth.

Table (8)

Regression analysis of the impact of off-balance sheet activities on financial leverage risks

Variables	(2) LV	(3) LV
OBSR	-0.0564*** (0.00899)	-0.0139** (0.00684)
ROA	-2.526*** (0.973)	-1.445** (0.704)
LnTa	0.0531*** (0.0167)	0.0510** (0.0362)
GDP		-0.000460 (0.00190)
Year <i>fe</i>	Yes	Yes
Country <i>fe</i>	Yes	No
Firm <i>fe</i>	No	Yes
Constant	0.340*** (0.119)	0.524** (0.263)
Observations	771	771
R-squared	0.262	0.895

3.3.3 Bankruptcy risks

Table number (9) shows a positive and statistically significant relationship between off-balance-sheet activities and bankruptcy risks. Based on this, the research hypothesis was accepted, which states that there is a positive statistical effect of the relationship between off-balance sheet activities and bankruptcy risks. This result is not consistent with the theory of market discipline and The theory of moral hazard, which says that there is a negative relationship between a bank's risks and its off-balance sheet items. This result does not align with our expectations regarding the relationship between off-balance-sheet activities and financial liquidity risks, nor does it correspond with the study by Naderi et al. (2016), which indicated that OBS activities have a negative and diminishing effect on bankruptcy risks in banks listed on the Tehran Stock Exchange. However, the impact of these activities on private banks is not significant. It aligns with the study by Ye (2015), which demonstrated that the development of off-balance-sheet activities in state-owned commercial banks significantly increases overall risks, bankruptcy risks, and credit risks.

Meanwhile, in the sample of joint-stock commercial banks, the development of off-balance-sheet activities significantly reduces overall risks.

Some companies resort to using off-balance-sheet activities to enhance their financial image. These strategies may conceal the true burdens that the company bears, leading to inaccurate risk assessments and consequently increasing the likelihood of default during financial crises.

Table 9 shows that the relationship between return on assets and bankruptcy risk is positive in the first model when adding the country variable, which aligns with (Yousaf, 2023; Milić et al., 2022). When adding GDP, the relationship between return on assets and bankruptcy risk in the second model shows a significant negative relationship, which also corresponds with (Farhadi & Kordbisheh, 2021).

As the return on assets rises, the figures indicate that companies are achieving strong results, but this can also be attributed to making high-risk investment decisions. When managers seek to achieve higher returns, they may engage in investments or projects that involve greater risks, increasing the likelihood of incurring losses. Sometimes, these decisions can lead to resource depletion, which heightens financial risks and raises the possibility of bankruptcy.

When the return on assets is high, it means that the company is able to achieve good profits from its resources. This financial efficiency improves liquidity, reducing the risk of bankruptcy. Companies with a high return on assets often have a strong financial base, allowing them to bear financial burdens regardless of economic pressures. In contrast, companies with a low return on assets typically face challenges in generating profits, increasing their exposure to bankruptcy risks due to a lack of liquidity.

The table also indicates a significant negative relationship between bank size and bankruptcy risk. The results of this study are consistent with previous work (Tambunan et al. 2024) and contradict (Aeni, 2020; Grzelak, 2020).

Diversification in the asset portfolio is one of the main reasons that contribute to reducing the risk of bankruptcy. The larger the bank, the greater its ability to diversify its investments and financial assets. This diversification helps distribute risks across several sectors and markets, thereby reducing the impact of financial crises in a specific area on

the bank as a whole. In the event that one asset is affected by an economic downturn, large institutions can rely on other assets to achieve greater stability.

The relationship between GDP and bankruptcy risk is negative, and the results of this study align with previous work (Ahmad et al., 2022). However, the results of this study contradict the study of (Indayani and Adelia 2019).

Diversification in the asset portfolio is one of the main reasons that contribute to reducing the risk of bankruptcy. The larger the bank, the greater its ability to diversify its investments and financial assets. This diversification helps distribute risks across several sectors and markets, thereby reducing the impact of financial crises in a specific area on the bank as a whole. In the event that one asset is affected by an economic downturn, large institutions can rely on other assets to achieve greater stability.

Table (9)

Regression analysis of the impact of off-balance sheet activities on bankruptcy risks

Variables	(2) RB	(3) RB
OBSR	1.6605 (1.0605)	2.9405** (1.2405)
ROA	0.000404 (0.00122)	-0.00212** (0.00116)
LnTa	-2.5005** (1.51e-05)	-0.000184*** (4.75e-05)
GDP		-6.59e-07 (1.55e-06)
Year <i>fe</i>	Yes	Yes
Country <i>fe</i>	Yes	No
Firm <i>fe</i>	No	Yes
Constant	0.321*** (0.158)	0.412** (0.292)
Observations	770	770
R-squared	0.105	0.599

Chapter Four

Conclusions and Recommendations

4.1 Conclusions

1. Off-balance-sheet transactions have become more prominent on the agendas of global financial circles than ever before, as they are considered one of the main causes of the recent global crisis. The improvement of new financial products has led to another increase in off-balance-sheet transactions. This situation indicates that greater attention will be given to off-balance-sheet transactions in the upcoming period.
2. Off-budget activities are considered unconventional and modern activities in the banking sector that result from changes in the structure of customer needs.
3. The current study relies on a sample consisting of all commercial banks in Arab countries over a period of 9 years, which gives its results significant importance as they reflect data from all Arab banks and for a relatively recent period.
4. The involvement of banks in off-balance-sheet activities represents a strategic method for enhancing their operational capabilities and expanding their product offerings and revenue sources. Nevertheless, these activities—such as different guarantees—also bring increased risks. These commitments may require banks to make future payments based on certain conditions that could be unfavorable, ultimately increasing the overall risk profile of the institution.
5. The non-disclosure of off-balance-sheet transactions may make financial reports appear to be performing well. This is dangerous because management may use off-balance-sheet transactions to cover the financial statements. The aim is for management to appear to be performing well in the eyes of stakeholders or for other specific purposes. The possibility of non-disclosure of off-balance-sheet transactions could lead to illegal financial actions, which are taken to conceal or distort the bank's financial position. This drives banks to fail to implement good corporate governance, providing information openly and informatively to stakeholders. It has been shown that this affects banks' tendency towards default risk.
6. Off-balance sheet (OBS) activities are crucial for the banking sector's economic contribution. Commercial banks increasingly recognise the significance of OBS

activities as a means to foster growth. Consequently, they are employing these activities judiciously and strategically

7. The relationship between off-balance-sheet activities and bankruptcy risks is a positive one that does not bode well. Companies must pay special attention to managing these activities alongside traditional liabilities, focusing on the importance of transparency in financial reporting and accurately assessing financial conditions. This necessitates the development of effective strategies that ensure financial sustainability and reduce exposure to bankruptcy risks. Awareness of real risks and a shift towards more transparent financial management can contribute to protecting companies from unexpected crises and maintaining their stability in the markets.

4.2 Recommendations

1. The process of rationalizing decisions concerning OBSA is essential for maintaining the overall stability of the financial system, with a particular emphasis on ensuring the robustness of the banking sector. By carefully evaluating and managing these activities, financial institutions can mitigate risks that could otherwise undermine systemic integrity. This approach not only fosters greater accountability within banks but also reinforces public confidence in the financial system. A strategic focus on off-balance sheet operations ultimately contributes to a more resilient economic environment.
2. Banks must continue to train and educate bank employees to analyze activities outside the balance sheet and estimate their associated risks to enhance the banking sector's strength.
3. Further research should be undertaken to identify additional risks that may arise from OBSA. This exploration will provide a more comprehensive understanding of such financial practices' potential implications and challenges.
4. Off-balance sheet transactions vary, and their amounts increase day by day. Therefore, knowing the risks involved with these high amounts and the income obtained from these accounts is important. Therefore, reporting the income generated by these accounts and the risks posed by these accounts and providing information about them is also important for all parties involved.

5. Banks that are experiencing a liquidity shortage are likely to participate more in off-balance-sheet (OBS) activities. A lack of liquidity would motivate banks to seek new sources of funding.
6. To enhance the efficacy of the risk management process, it is crucial for banks to implement a robust internal control system. This step is vital for the establishment of a comprehensive risk management framework.
7. The cultivation of a robust risk management culture within banking institutions can be achieved through the active involvement of multiple departments in the risk management process, facilitated by regular discussion sessions. It is crucial to prioritize the engagement of the board of directors in these efforts. Banks should foster a conducive risk management environment by articulating clear objectives and strategies related to risk management. Furthermore, each department must effectively execute risk management policies by putting in place systems that are capable of identifying, measuring, monitoring, and managing a range of potential risk exposures.
8. To form a more comprehensive and holistic picture, further research and studies are needed on the impact of off-budget activities on other accounting aspects and dimensions related to financial risks or financial reporting.

References

- Aeni, A. N. (2020). Deteksi Dini Potensi Kebangkrutan Bank dengan Model Grover. *Jurnal Ilmu Manajemen*, 8(3), 981-994.. doi: <https://doi.org/10.26740/JIM.V8N3>.
- Ahmad, W., & Misman, F. N. (2012). Off-balanced sheet risk: Evidence from Malaysia Islamic and conventional banks. *The Journal of Muamalat and Islamic Finance Research*, 125-142.
- Aktan, B., Chan, S. G., Žiković, S., & Evrim-Mandaci, P. (2013). Off-balance sheet activities impact on commercial banks performance: An emerging market perspective. *Economic research-Ekonomska istraživanja*, 26(3), 117-132.
- Al Nimer, M., Warrad, L., & Al Omari, R. (2015). The impact of liquidity on Jordanian banks profitability through return on assets. *European Journal of Business and Management*, 7(7), 229-232.
- Aleksandr, G. (2023). CREDIT RISKS AND THEIR IMPACT ON THE ACTIVITIES OF A COMMERCIAL BANK. *RUSSIAN JOURNAL OF MANAGEMENT*, 11(2). doi:10.29039/2409-6024-2023-11-2-38-44.
- Alshehadeh, A. R. (2021, July). The relationship between liquidity risk and profitability in the commercial banks listed in amman stock exchange. In *2021 International Conference on Information Technology (ICIT)* (pp. 257-261). IEEE.
- Al-Tahat, S. S., & AbuNqira, N. M. (2016). The impact of off-balance sheet activities (OBS) on the banking risk and revenue growth for Jordanian commercial banks listed on the Amman Stock Exchange (ASE). *Research Journal of Finance and Accounting*, 7(18), 82-92.
- Hassan Al-Tamimi, H. A., Miniaoui, H., & Elkelish, W. (2015). Financial risk and Islamic banks' performance in the Gulf cooperation council countries. *The International Journal of Business and Finance Research*, 9(5), 103-112.
- Rueanjaiman, A., & Christine, N. M. (2024). Exchange rate risk exposure, operational hedging strategies: A panel study into Japanese Multinational Corporations.
- Aziz, S. (2019, 4 30). "Off-balance sheet items in bank industry". United International University.
- Banerjee, R. N., Cornelli, G., & Zakrajšek, E. (2020). *The outlook for business bankruptcies* (No. 30). Bank for International Settlements..
- BASHEER, M. F. (2020). THE IMPACT OF BANK REGULATORY CHANGES, BANK SPECIFIC FACTORS, AND SYSTEMATIC RISK UPON THE OFF-BALANCE-SHEET ACTIVITIES IN SELECTED CONVENTIONAL COMMERCIAL BANKS IN SOUTH ASIA.

- Bella, F., & Dwi Radianto, W. E. (2021). Bankruptcy prediction of the banking sector using bankometer: comparative study based on company size.. doi: <https://doi.org/10.2991/AEBMR.K.210510.051>.
- Van den Bergh, J. C. (2009). The GDP paradox. *Journal of economic psychology*, 30(2), 117-135. doi:<https://doi.org/10.1016/j.joep.2008.12.001>.
- Büyükoğlu, B., Şit, A., & Başar, B. D. (2023). Effects of Off-Balance Sheet Items on the Financial Performance of Turkish Deposit Banks. *Trends in Business and Economics*, 37(3), 197-205.. doi:doi: 10.5152/TBE.2023.22098.
- Chai, Z., Sadiq, M. N., Ali, N., Malik, M., & Hamid, S. A. R. (2022). Bank specific risks and financial stability nexus: Evidence from Pakistan. *Frontiers in Psychology*, 13, 909141. doi:10.3389/fpsyg.2022.909141.
- Dewi, N. R. C. (2021). *Analisis pengaruh debt asset ratio dan current ratio terhadap financial distress dengan return on asset sebagai variabel moderasi: studi kasus pada perusahaan sub sektor perdagangan eceran yang terdaftar di Bursa Efek Indonesia tahun 2017-2019* (Doctoral dissertation, Universitas Islam Negeri Maulana Malik Ibrahim).
- Chen, S. (2023). The Risk Management of Commercial Banks. *BCP Business & Management*, pp. 118-126.
- Dávila, E., & Walther, A. (2020). Does size matter? Bailouts with large and small banks. *Journal of Financial Economics*, 136(1), 1-22. doi: <https://doi.org/10.2139/ssrn.3090754>.
- Duran, M. A., & Lozano-Vivas, A. (2013). Off-balance-sheet activity under adverse selection: The European experience. *Journal of Economic Behavior & Organization*, 85, 176-190.. doi:<https://doi.org/10.1016/j.jebo.2012.04.008>.
- E El-Massah, S., Bacheer, S. M., & Al Sayed, O. (2019). Liquidity risk in the MENA region banking sector: does bank type make a difference?. *The Journal of Developing Areas*, 53(1).
- Farhadi, C., & Kordbisheh, H. (2021). Study of the financial deficit in the Iranian banking system and its determinants. *Financial Engineering and Securities Management*, 12(46), 365-388.
- Grzelak, J. (2020). Determinants of the bankruptcy risk of commercial banks in Central and Eastern Europe. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 64(1), 55-65.. doi:10.15611/pn.2020.1.05.
- Haq, M., Tripe, D., & Seth, R. (2022). Do traditional off-balance sheet exposures increase bank risk?. *Journal of International Financial Markets, Institutions and Money*, 80, 101627.
- Hassan, M. K., & Sackley, W. H. (2006). DETERMINANTS OF THRIFT INSTITUTION OFF-BALANCE SHEET ACTIVITIES: AN EMPIRICAL INVESTIGATION. *Journal of Financial Management & Analysis*, 19(1).

- Heikal, M., Khaddafi, M., & Ummah, A. (2014, December). Influence Analysis of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt To Equity Ratio (DER), and current ratio (CR), Against Corporate Profit Growth In Automotive In Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*, 12(4), 2222-6990. doi: 10.6007/IJARBSS/v4-i12/1331.
- Horváthová, J., & Mokrišová, M. (2018). Risk of bankruptcy, its determinants and models. *Risks*, 6(4), 117. ISO 690.
- Indayani, L., & Adelia, W. (2019). Dampak Produk Domestik Bruto dan Inflasi Terhadap Potensi Kebangkrutan UKM di Kota Sidoarjo. *Jurnal Manajemen Bisnis*, 10(1), 120-129.. doi:doi={10.18196/MB.10172}
- I Inekwe, J. N., Jin, Y., & Valenzuela, M. R. (2015). Output Growth and Financial Distress. *Available at SSRN 2568515*.. doi:10.2139/SSRN.2568515.
- GEAMBAŞU, C., ŞOVA, R., Jianu, I., & GEAMBAŞU, L. (2013). RISK MEASUREMENT IN POST-MODERN PORTFOLIO THEORY: DIFFERENCES FROM MODERN PORTFOLIO THEORY. *Economic Computation & Economic Cybernetics Studies & Research*, 47(1).<https://www.researchgate.net/publication/286072010>.
- Khasawneh, A. Y., Khrawish, H. A., & Khrisat, F. A. (2012). The determinants of OBS activities in Jordan banking system: Panel data analysis. *European Journal of Economics, Finance and Administrative Sciences*, 47(47), 30-42.
- Khasawneh, A. Y., & Hassan, M. K. (2010, October). The determinants and Policy implications of off-balance sheet activities in MENA Countries Commercial Banks. *In Economic Research Forum*.
- Kitowski, J., Kowal-Pawul, A., & Lichota, W. (2022). Identifying symptoms of bankruptcy risk based on bankruptcy prediction models—A case study of Poland. *Sustainability*, 14(3), 1416.. doi: <https://doi.org/10.3390/su14031416>.
- K Kugler, P., & Junge, G. (2017). Bank leverage, *credit and GDP in Switzerland: A VAR analysis 1987-2015* (No. 2017/10). WWZ Working Paper. doi:<https://doi.org/10.5451/unibas-ep61307>.
- Lestari, H. S. (2021). Financial leverage and financial performance of conventional banks in Indonesia. *Journal of Hunan University Natural Sciences*, 48(2).
- Maina, D. W. (2013). *The Relationship Between Off-Balance Sheet Activities and Solvency of Commercial Banks in Kenya* (Doctoral dissertation, University of Nairobi).
- Ivaniš, M. (2012). Off-balance-sheet operations of banks. *Ekonomija: teorija i praksa*, 5(2), 15-28.
- Milić, D. M., Tekić, D. D., Novaković, T. J., Zekić, V. N., Popov, M. R., & Mihajlov, Z. G. (2022). The impact of profitability and productivity on the risk of bankruptcy for

- agricultural and food companies in Vojvodina. *Journal of Agricultural Sciences, Belgrade*, 67(1), 47-61. doi:10.2298/jas2201047m.
- Moravec, T. (2016, 6 19). THE BANCROPTCY IN THE CZECH REPUBLIC – INFLUENCE OF MACROECONOMIC VARIABLES. 136-145. 1 Vysoká škola ekonomická v Praze.
- Muriithi, J. G., Muturi, W. M., & Waweru, K. M. (2016). The effect of market risk on financial performance of commercial banks in Kenya. doi:doi:10.11648/j.jfa.20160404.18.
- Nachane, D. M., & Ghosh, S. (2002). Determinants of off-balance sheet activities: An empirical analysis of public sector banks. *Economic and political weekly*, 421-427.
- Nadiri, M., Behzadi, M., & Nourahmadi, M. (2017). The Impact of Off-balance-sheet Activities on the Risk of Banks Listed in TSE. *Journal of Risk modeling and Financial Engineering*, 2(2), 158-178.
- Narasimhan, P. (2014). OFF-BALANCE SHEET ITEMS AND PROFITABILITY OF FOREIGN BANKS IN INDIA- AN INSIGHT. Presidency University Bangalore.
- Nier, E., & Baumann, U. (2006). Market discipline, disclosure and moral hazard in banking. *Journal of financial intermediation*, 15(3), 332-361.
- Nuño, G., & Thomas, C. (2013, march). Bank leverage cycles. 1-39. doi:http://hdl.handle.net/10419/153957.
- Olaniyi, O. N., Abdullah, S. K., & Ayadurai, C. (2019). DETERMINANTS OF OFF-BALANCE SHEET (OBS) ACTIVITIES: A CASE OF SELECTED RETAIL BANKS IN MALAYSIA. *Asia-Pacific Management Accounting Journal*, 14(1).
- Raz, A., Agusman, A., Gasbarro, D., & Monroe, G. S. (2015, August). Off-Balance Sheet Derivatives and Banking Risk: Indonesian Evidence. In *28th Australasian Finance and Banking Conference*.
- Scott, A. O., Amajuoyi, P., & Adeusi, K. B. (2024). Advanced risk management solutions for mitigating credit risk in financial operations. *Magna Scientia Advanced Research and Reviews*, 11(1), 212-223. doi:DOI: <https://doi.org/10.30574/msarr.2024.11.1.0085>.
- Rehman Shah, M. A., Rashid, A., & Khaleequzzaman, M. (2019). Determinants of financial leverage in Islamic banks. *Islamic Finance, Risk-Sharing and Macroeconomic Stability*, 121-149. doi: https://doi.org/10.1007/978-3-030-05225-6_7.
- Surtee, T. G., & Alagidede, I. P. (2023). A novel approach to using modern portfolio theory. *Borsa Istanbul Review*, 23(3), 527-540. doi:doi.org/10.1016/j.bir.2022.12.005.
- Swain, A. K., & Panda, G. P. (2017). Determinants of growth of off balance sheet activities of private sector banks: Empirical evidence from India. *International*

Journal of Research-Granthaalayah, 5(1), 61-72. doi:DOI: <https://doi.org/10.29121/granthaalayah.v5.i1.2017.1693>.

- Tambunan, A. L., Indriyantini, D. F., Puspita, G. F., & Lestari, H. S. (2024). The Effect of Income Diversification on Default Risk in Conventional Banking Companies in Indonesia. *Jurnal Manajemen Bisnis*, 11(2), 1519-1529. doi:10.33096/jmb.v11i2.791.
- Tuti, W. Y., Rahmizal, M., & Aswan, K. (2022). The Effects of Return on Assets, Capital Adequacy Ratio, and Financing on Liquidity Risk in Sharia BPRs in Indonesia. *AKUMULASI: Indonesian Journal of Applied Accounting and Finance*, 1(1), 54-62. doi:DOI: <https://doi.org/10.20961/akumulasi.v1i1.314>.
- Umar, M., Sial, M. S., & Xu, Y. (2021). What are the channels through which bank liquidity creation affects GDP? Evidence from an emerging country. *SAGE Open*, 11(2), 21582440211022325. doi:<https://doi.org/10.1177/21582440211022325>.
- WANJOHI, J. G. (2013, OCTOBER). THE EFFECT OF FINANCIAL RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA. *A magister message that is not published*. UNIVERSITY OF NAIROB.
- Wen, Z. (2023). Theoretical analysis of modern portfolio theory. *BCP Bus. Manag*, 47, 99-104. doi:10.54691/bcpbm.v47i.5177.
- Widyarti, E. T., Widyakto, A., & Suhardjo, Y. (2022). Analysis of the effect of non-performing loan, return on assets, return on equity and size on banking liquidity risk (case study on conventional banks registered in IDX period 2016–2020). *JDM (Jurnal Dinamika Manajemen)*, 13(1), 78-86.
- Widyatini, I. R., & Sasmita, R. P. H. (2021). Off-Balance Sheet Analysis Toward Risk-Adjusted Performance. *The Indonesian Journal of Accounting Research*, 24(1), 127-146. doi: DOI: 10.33312/ijar.508.
- Wollbrant, C., & Lager, O. (2016). Determinants of Bank Capital Structure.
- Y Ye, K. (2015). Off-balance sheet activities and bank risks: An investigation of the listed commercial banks in China (1999–2013). *Annals of Financial Economics*, 10(01), 1550004. doi:<https://doi.org/10.1142/S2010495215500049>.
- Yousaf, M. (2023). Bankruptcy risk, firm size, and firm profitability: a dynamic panel data approach. *International Journal of Sustainable Economy*, 15(2), 186-204. doi:10.1504/ijse.2023.10045805.
- Abd Karim, M. Z., & Gee, C. S. (2007, January). Off-Balance Sheet Activities and Performance of Commercial Banks in Malaysia. *ICFAI Journal of Financial Economics*, 5(4), 67-80.
- Abdelkarim, N., & Burbar, M. (2017). How Banks in Palestine Manage Financial Risk. *مجلة رماح للبحوث والدراسات*, 22, pp. 7-44. doi:DOI: 10.12816/0038851.

- Adeusi, S. O., Akeke, N. I., Adebisi, O. S., & Oladunjoye, O. (2014). Risk management and financial performance of banks in Nigeria. *Risk Management*, 6(31), 123-129.
- ADX. (2024). *ADX*. doi:<https://www.ADX.com>.
- Ahmad, N. H., Isa, A. M., & Zainol, Z. (2022). Personal bankruptcy in Malaysia and Singapore: an empirical analysis. *Journal of Economics and Sustainability (JES)*, 4(1), 33-47. doi:10.32890/jes2022.4.1.3.
- Ahmed, M. A., & Rozario, K. P. (2024). Impact of off-balance sheet activities on bank profitability: Evidence from Bangladesh. *International Journal of Financial, Accounting, and Management*, 6(2), 283-299. doi:doi.org/10.35912/ijfam.v6i2.2510.
- Alsyaahrin, D. P., Atahau, A. D. R., & Robiyanto, R. (2018). The effect of liquidity risk, financing risk, and operational risk toward Indonesian Sharia Bank's financing with bank size as a moderating variable. *Journal of Economics, Business and Accountancy Ventura*, 21(2), 241-249. doi:10.14414/jebav.v21i2.1181.
- Alzoubi, T. (2017). Determinants of liquidity risk in Islamic banks. *Banks & bank systems*, (12, № 3), 142-148.
- ASE. (2024). Retrieved from ASE: <https://www.ase.com>.
- Ayele, H. N. (2012). Determinants of bank profitability: An empirical study on Ethiopian private commercial banks. *Unpublished MBA Project, Addis Ababa University*.
- bahrainbourse. (2024). Retrieved from bahrainbourse: <https://bahrainbourse.com>.
- Basheer, M. F., Hidhiir, M. H., & Waemustafa, W. (2019). Impact of bank regulatory change and bank specific factors upon off-balance-sheet activities across commercial banks in south Asia. *Asian Economic and Financial Review*, 9(4), 419. doi:10.18488/journal.aefr.2019.94.419.431.
- Beaver, W., Kettler, P., & Scholes, M. (1970). The association between market determined and accounting determined risk measures. *The Accounting Review*, 45(4), 654-682.
- Berger, A. N., & Udunov, J. (2017). Bank liquidity creation and real economic output. *Journal of Banking & Finance*, 81, 1-19. doi:doi={10.2139/ssrn.2515361}.
- bin Hidhiir, M. H. (2021). Exploring the nexus between Credit risk and Off-balance sheet activities of commercial banks: A case of an emerging Asian economy. *The Asian Bulletin of Contemporary Issues in Econo*.
- Bordeianu, G. D., Radu, F., Paraschivescu, M. D., & Păvăloaia, W. (2011). Analysis models of the bankruptcy risk. *Economy Transdisciplinarity Cognition*, 14(1), 248-259. *mics and Finance*, 1(1), 40-50.
- boursakuwait. (2024). Retrieved from boursakuwait: <https://www.boursakuwait.com>.
- dfm. (2023). Retrieved from dfm: <https://www.dfm.ae/discover-dfm/why-dfm>.

- Elian, M. (2012). Determinants of off-balance sheet business in the case of GCC banking sectors. *International Journal of Banking and Finance*, 9(3), 46-68.
- GARP (Global Association of Risk Professionals). (2014). Foundations of banking risk: an overview of banking, banking risks, and risk-based banking regulation.
- Göçmen, G. TÜRKİYE'DE BANKACILIK SEKTÖRÜNÜN BİLANÇO DIŞI FAALİYETLERİNDEKİ GELİŞMELER. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, (17).
- Hamada, R. S. (1972). The effect of the firm's capital structure on the systematic risk of common stocks. *The journal of finance*, 27(2), 435-452.
- Harville, D. A. (2023). Modern and post-modern portfolio theory as applied to moneyline betting. *Journal of Quantitative Analysis in Sports*, 19(2), 73-89. doi:10.1515/jqas-2021-0107.
- Hassan, M. K. (1993). The off-balance sheet banking risk of large US commercial banks. *The Quarterly Review of Economics and Finance*, 33(1), 51-69.
- Jain, N., & Arora, D. (2017). Risk and Off-Balance Sheet Activities in Indian Banks: An Analysis. *International Journal of Management Research*, 14. <https://www.researchgate.net/publication/354620943>
- Bivainis, J., & Garškaitė, K. (2000). Įmonių bankroto grėsmės įvertinimas. *Ekonomika*, 51, 7-19.
- Selimler, H., & Kale, S. (2012). Türk Bankacılık Sektöründe Bilanço Dışı İşlemlerin Risk ve Karlılık Açısından Değerlendirilmesi (Evaluation of the Off-Balance Sheet Activities of the Turkish Banking Sector with Risk and Profitability Approach). *Marmara Üniversitesi İİB Dergisi*, 33(2), 173-204.
- Kanchu, T., & Kumar, M. (2013, February). RISK MANAGEMENT IN BANKING SECTOR -AN EMPIRICAL STUDY. *International Journal of Marketing, Financial Services & Management Research*, 2(2), 145-153.
- Maulana, A., Dwita, M., Fitriyani, M., Sunaryo, D., & Adiyanto, Y. (2024). Risk management as a determinant of Indonesian banking financial performance: A systematic literature approach. *Indo-Fintech Intellectuals: Journal of Economics and Business*, 4(5), 2523-2537.. doi: <https://doi.org/10.54373/ifijeb.v4i5.2120>.
- Mennawi, A. N. A. (2020). The The impact of liquidity, credit, and financial leverage risks on financial performance of Islamic banks: A case of Sudanese banking sector. *Risk and Financial Management*, 2(2), p59-p59. <https://doi.org/10.30560/rfm.v2n2p59>.
- Ziadeh, N. (2012, June). Bank risk exposure, bank failure and off balance sheet activities: An empirical analysis for US commercial banks. In *Paris December 2012 Finance Meeting EUROFIDAI-AFFI Paper*. doi:10.2139/ssrn.2147149.
- msx. (2024). Retrieved from msx: <https://www.msx.om>.

- Narasimhan, P. (2014). OFF-BALANCE SHEET ITEMS AND PROFITABILITY OF FOREIGN BANKS IN INDIA- AN INSIGHT. Presidency University Bangalore.
- Nie, H. S. (2014). Off-balance sheet activities, revenue diversification and bank risk: Some international evidence.
- Odhiambo, J. D., Murori, C. K., & Aringo, C. E. (2025). Financial Leverage and Firm Performance: An Empirical Review and Analysis. *East African Finance Journal*, 4(1), 25-35. doi: 10.59413/eafj/v4.i1.2.
- PEX. (2024, 10 10). Retrieved from PEX: <https://www.pex.ps>.
- Pushkala, N., Mahamayi, J., & Venkatesh, K. A. (2017). Liquidity and off-balance sheet items: A comparative study of public and private sector banks in India. *SDMIMD Journal of Management*, 47-54. doi: <https://doi.org/10.18311/SDMIMD/2017/15721>.
- qe. (2024). Retrieved from qe: <https://www.qe.com>.
- Ruiz-Mallorquí, M. V., & Aguiar-Díaz, I. (2017). Relationship banking and bankruptcy resolution in Spain: The impact of size. *The Spanish Review of Financial Economics*, 15(1), 21-32. doi: <https://doi.org/10.1016/J.SRFE.2016.12.001>.
- Rybak, T. N. (2006). Analysis and estimate of the enterprises bankruptcy risk. In *3rd International Conference Řízení a Modelování Finančních Rizik, Ostrava, Czech Republic, September* (pp. 6-7).
- Saleh, N. (2024, November). The Impact of Leverage on Corporate Financial Performance: A Comprehensive Literature Review. In *International Conference On Economics Business Management And Accounting (ICOEMA)* (Vol. 3, pp. 421-430).
- Saudiexchange. (2024). Retrieved from saudiexchange: <https://www.saudiexchange.sa>.
- Segura, A., & Zeng, J. (2020). Off-balance sheet funding, voluntary support and investment efficiency. *Journal of Financial Economics*, 137(1), 90-107. doi:10.2139/ssrn.3222658.
- Vásquez-Serpa, L. J., Rodríguez, C., Pérez-Núñez, J. R., & Navarro, C. (2025). Challenges of Artificial Intelligence for the Prevention and Identification of Bankruptcy Risk in Financial Institutions: A Systematic Review. *Journal of Risk and Financial Management*, 18(1), 26. doi: <https://doi.org/10.3390/jrfm18010026>.
- DANG, H. T., PHAN, D. T., & NGUYEN, H. T. (2020). Factors affecting financial risk: evidence from listed enterprises in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(9), 11-18. doi:doi:10.13106/jafeb.2020.vol7.no9.011.
- Venkataramana, N., Azash, S., & Ramakrishnaiah, K. (2012). Financial performance and predicting the risk of bankruptcy: A case of selected cement companies in India. *International Journal of Public administration and Management research*, 1(1), 40-56.

Yogesh. (2022, June). OFF-BALANCE SHEET ACTIVITIES ON PERFORMANCE AND STABILITY OF COMMERCIAL BANKS: SYSTEMATIC LITERATURE REVIEW (SLR). *Corporate Governance Insight*, 4. doi:: 10.58426/cgi.v4.i1.2022.68-80.

Appendices

Appendix (A)

Tables

Table (4)

Summary of the study variables

Variable type	Variables	Indicator	Definition	Measurement	Ref	Expected signal
Dependent variable	Liquidity risk	Ly	This indicator demonstrates the bank's capacity to fulfill its financial commitments in response to both anticipated and unforeseen cash requests from its customer	Cash and cash equivalents/total deposits.		Negative
Dependent variable	Liquidity risk	Ly	This indicator demonstrates the bank's capacity to fulfill its financial commitments in response to both anticipated and unforeseen cash requests from its customer	Cash and cash equivalents/total deposits.		Negative
Dependent variable	Liquidity risk	Ly	This indicator demonstrates the bank's capacity to fulfill its financial commitments in response to both anticipated and unforeseen cash requests from its customer	Cash and cash equivalents/total deposits.		Negative
Dependent variable	Bankruptcy risks	RB	There exists a potential for an anticipated legal bankruptcy process, which may subsequently lead to adverse financial outcomes, including the depletion of resources and a decline in expected revenue.	The square of the difference between the average return on assets during the period and the return on assets for each year.	(Ziadeh, 2012)	Negative
Dependent variable	Leverage risk	LV	Bank leverage refers to the use of debt to finance new assets and investments . (Papanikolaou & Wolff, 2013)	Total liabilities/total assets		Negative

Independent variable	Off-balance sheet activities	OBS	Off-balance-sheet activities refer to transactions involving the trading of financial instruments and the generation of revenue through fees and loan sales. While these activities can significantly influence a bank's profitability, they do not appear on the balance sheet, making their impact less visible in traditional financial statements..	Total off-balance sheet exposure divided by total assets		Positive
Independent variable	Off-balance sheet activities	OBS	Off-balance-sheet activities refer to transactions involving the trading of financial instruments and the generation of revenue through fees and loan sales. While these activities can significantly influence a bank's profitability, they do not appear on the balance sheet, making their impact less visible in traditional financial statements..	Total off-balance sheet exposure divided by total assets		Positive
Control variable	The size of the bank's assets	SIZE	One of the most important factors related to the size of off-balance sheet activities is the size of the company	The logarithm of total assets		Positive
Control variable	Return on assets	ROA	Profitability reflects the ability to generate profit per unit of cost, inputs, or outputs that reflect business results.	The ratio of net profit to total assets		Negative
Control variable	gross domestic product	RGD	Real GDP growth rate	Annual percentage change	(Szajt & Wójcik-Mazu, 2015)	Positive

Appendix (B)

Certificate of English Proofreading and Editing

Certificate of English Proofreading and Editing

This certificate confirms that the thesis mentioned below was proofread by a copy editor and edited by a native speaker.

The following issues were corrected: grammar, punctuation, sentence structure, and phrasing.

Faculty of Graduate Studies at An-Najah National University may contact us for a copy of the edited document that the author submitted.

Title

The Impact of Off-Balance Sheet Activities on Financial Risk Indicators

Authors

Shahrazan Nasser Zahdan Frihat

Supervisors

Dr. Muaz Abu Alia
Dr. Saed Al-Koni

Date Issued

05/07/2025

Dr. Islam A. Ismail
Copy Editor & Editor-in-Chief at DJE
North East Ham, London, United Kingdom
editor.education@dibonjournals.com

Islam Ismail

Ms. Kiran Siddiq
Editor
Birmingham, United Kingdom
kiransiddiq@hotmail.co.uk

Kiran Siddiq

Certificate no: 4020



جامعة النجاح الوطنية
كلية الدراسات العليا

أثر الأنشطة خارج الميزانية العمومية على مؤشرات المخاطر
المالية في البنوك المدرجة في الأسواق العربية الآسيوية

إعداد
شهرزان ناصر زهدان فريحات

إشراف
د. معز أبو عليا
د. سائد الكوني

قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في المحاسبة بكلية الدراسات
العليا في جامعة النجاح الوطنية، نابلس، فلسطين.

2025

أثر الأنشطة خارج الميزانية العمومية على مؤشرات المخاطر

المالية في البنوك المدرجة في الأسواق العربية الآسيوية

إعداد

شهرزان ناصر زهدان فريحات

إشراف

د. معز أبو عليا

د. سائد الكوني

الملخص

هدفت هذه الدراسة إلى دراسة أثر الأنشطة خارج الميزانية العمومية على مؤشرات المخاطر المالية للبنوك المدرجة في الأسواق العربية الآسيوية. واعتمدت الدراسة على 86 بنكاً موزعة على 9 دول عربية (البحرين، قطر، عُمان، الأردن، فلسطين، المملكة العربية السعودية، أبو ظبي، دبي، الكويت) خلال الفترة من 2015 إلى 2023. واعتبرت الأنشطة خارج الميزانية العمومية متغيراً مستقلاً، بينما تمت معالجة مخاطر الرفع المالي ومخاطر السيولة ومخاطر الإفلاس كمتغيرات تابعة. وتم استخدام حجم البنك والنتاج المحلي الإجمالي والربحية كمتغيرات ضابطة. وتم قياس المتغير المستقل الأنشطة خارج الميزانية العمومية بقسمة إجمالي الأنشطة خارج الميزانية العمومية على إجمالي الأصول. أما المتغيرات التابعة فقد تم قياس مخاطر الرفع المالي بقسمة إجمالي المطلوبات على إجمالي الأصول، وتم قياس مخاطر السيولة بقسمة النقد وما في حكمه على إجمالي الأصول، وتم قياس مخاطر الإفلاس بمربع الفرق بين متوسط العائد على الأصول خلال الفترة ومتوسط العائد على الأصول لكل عام. وفيما يتعلق بمتغيرات الضبط، تم قياس حجم البنك باستخدام لوغاريتم إجمالي الأصول، وتم قياس الناتج المحلي الإجمالي بنسبة التغير السنوي، وتم قياس الربحية من خلال العائد على الأصول، والذي تم حسابه بقسمة صافي الربح على إجمالي الأصول.

واستخدمت الدراسة التحليل الوصفي وتحليل الانحدار، وأشارت نتائج تحليل الانحدار إلى أن الأنشطة خارج الميزانية العمومية لها تأثير إيجابي على مخاطر السيولة ومخاطر الإفلاس، في حين كان لها تأثير سلبي على مخاطر الرفع المالي.

لذا فإن عملية ترشيد القرارات المتعلقة بالأنشطة خارج الميزانية أمر ضروري للحفاظ على الاستقرار العام للنظام المالي، مع التركيز بشكل خاص على ضمان متانة القطاع المصرفي. وفي نهاية المطاف، يساهم التركيز الاستراتيجي على العمليات خارج الميزانية في خلق بيئة اقتصادية أكثر مرونة.

الكلمات المفتاحية: الأنشطة خارج الميزانية العمومية، المخاطر المالية، مخاطر الرافعة المالية، مخاطر السيولة، مخاطر الإفلاس.