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**College of Business
administration**



**Department of Islamic
Banking**

ISLAMIC ALTERNATIVE APPLICATIONS OF REPURCHASE AGREEMENT (REPO) IN ISLAMIC BANKS

A Thesis Submitted in Partial Fulfilment of the Requirements for the
M.Sc.Degree in Islamic Banking and Finance

Submitted by
Zainab Ammar Abdulla AlKoheji
20157112

Supervised by
Dr. Abdulrahman Abdulla Alsaadi
(Associate Professor)
University of Bahrain

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Defense Committee's Approval

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Thesis Discussion Committee Decision

Student Name: Zainab Ammar Abdulla Alkoheji	Student ID: 20157112
Department: Islamic Banking	College: Business administration
Program: Masters in Islamic Banking and Finance	
Thesis Title: Islamic Alternative Applications of Repurchase Agreement (Repo) in Islamic Banks	
Supervisor Name: Dr. Abdulrahman Abdulla Alsaadi	Student GPA: 3.96

The Discussion Committee met on 01-Sep-24 In Section 241, College of Business Administration, University of Bahrain, Sakheer, Kingdom of Bahrain. Upon discussing the student whose details are stated above in public, the discussion committee recommends the following:

The student is awarded a grade ^{Pass} in the thesis subject.

☒ Without making any changes to the thesis.

☐ After making the modifications attached with this decision.

Discussion Committee Members Approval:

Name

Signature

1. Dr. Abdulrahman Alsaadi (Advisor)
2. Dr. Mehdi Mili (Internal Examiner)
3. Professor Alija Avdukic (External Examiner)

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Abstract

Repurchase Agreements (Repo) offer institutions a toolbox for managing short-term liquidity. They allow institutions to address liquidity needs without selling long-term investments, enable institutions with excess cash to earn returns, and empower the central banks to manage the money supply and short-term interest rates. However, Repos are prohibited in Islamic Finance due to their inherent interest-based nature (Riba) under Sharia law. This research addresses a critical gap in the knowledge base by exploring Sharia-compliant alternatives that effectively address the short-term liquidity needs of Islamic financial institutions (IFIs). Employing a multifaceted methodology, the primary approach will be qualitative, the analysis will employ a combination of approaches namely descriptive approach, comparative jurisprudential approach, and applied approach. This study investigates both Repos in conventional banking and Sharia-compliant alternatives proposed by scholars and industry bodies. The research identifies and analyzes a range of these alternatives, including structures Three-Party I'aadat Al Shira'a and the Collateralized I'aadat Al Shira'a, alongside the feasibility of Reciprocal Loans With Equal Ratios and Wakala Investment based on Mudaraba or Murabaha principles, etc. Looking forward, the research paves the way for further exploration in optimizing their practical implementation for enhanced efficiency, and encouraging development of new Sharia-compliant instruments to foster a more vibrant Islamic finance landscape.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Dedication

With deepest gratitude, I dedicate this thesis to Allah, the Almighty, the source of all knowledge and wisdom. His guidance and blessings have illuminated my path throughout this endeavor.

To my beloved Parents, words cannot express the depth of my appreciation for your unwavering love, unwavering support, and endless sacrifices. You have been the wind beneath my wings, propelling me forward even during moments of doubt. Your belief in me has been a constant source of strength, and I am forever grateful for the foundation upon which you have so lovingly nurtured me.

To my dear Siblings, your love and encouragement have been a constant comfort throughout this journey. Thank you for your understanding and unwavering support, especially during the times when my academic pursuits demanded more of my time and attention. Your presence in my life has been a source of immense joy and motivation.

My sincerest gratitude extends to my wise and insightful Supervisor. Your invaluable guidance, mentorship, and constructive criticism have been instrumental in shaping this research from its inception. Your dedication, patience, and willingness to share your knowledge have been truly inspiring. I am deeply grateful for the privilege of learning under your sagacious and insightful tutelage.

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May Allah shower you all with his abundant blessings and reward you for your unwavering support throughout this journey.

Tables of Content

Defense Committee's Approval.....	A
Abstract	B
Dedication	C
List of Table	1
List of Figures	1
1. Chapter One: Introduction to Study	2
1.1. Introduction	3
1.2. Research Problem	4
1.3. Research Questions	5
1.4. Research Objectives	6
1.5. Research Significance	6
1.6. Research Method	8
1.7. The Study Setting	9
1.8. Research Terminology	10
2. Chapter Two: Literature Review	12
3. Chapter Three: The Repurchase Agreement (Repo) in Commercial Banks	20
3.1. Definition of the Repurchase Agreement (Repo)	21
3.2. Significance of the Repurchase Agreement (Repo)	24
3.3. Types of the Repurchase Agreement (Repo)	26
3.3.1. Maturity	27
3.3.2. Delivery vs. Payment	28
3.3.3. Underlying Asset	30
3.3.4. Other Types	31
3.4. The Repurchase Agreement (Repo) Risks	34
3.4.1. Counterparty Risk	34
3.4.2. Market Risk	35
3.5. Uses of the Repurchase Agreement (Repo)	36
3.6. Mechanism of the Repurchase Agreement (Repo) in Commercial Banks	39
3.6.1. Bilateral Repo	40
3.6.2. Tri-party Repo	41
3.7. Sharia Ruling for the Repurchase Agreement (Repo)	43
4. Chapter Four: Repurchase Agreement (Repo) Islamic Alternative Applications	48
4.1. IIFM Proposed Structures	50

4.1.1.	Bilateral Structure I'aadat Al Shira'a (IS)	50
4.1.2.	Bilateral Structure I'aadat Al Shira'a (IS) With Different Undertaking...	54
4.1.3.	Three Party IS Structure.....	56
4.1.4.	Collateralized IS Structure	59
4.2.	Alternative Based on Reciprocal Loans (Al-Qurood Al-Mutabadala)	64
4.2.1.	Structure Overview	65
4.2.2.	 Sharia Compliance Analysis	68
4.3.	Alternative Based on Wakala Investment.....	73
4.3.1.	Structure Overview	73
4.3.2.	 Sharia Compliance Analysis	75
4.4.	Applications of Islamic Alternatives of Repurchase Agreement (Repo) in Several Countries	76
4.4.1.	Application in the Kingdom of Bahrain.....	76
4.4.2.	Application in United Arab Emirates (UAE).....	78
4.4.3.	Application in Malaysia	79
5.	Chapter Five: Conclusion & Recommendations.....	81
5.1.	Conclusion	82
5.2.	Recommendations.....	83
	References.....	85
	Abstract (Arabic)	93

List of Table

Table (1) - Key Difference between European tri-party Repo and US Tri-party Repo. Source: ICMA

List of Figures

Figure (1) - Structure of Classic Repurchase Agreement

Figure (2) - The total value of the Repo contracts outstanding on the books of ICMA members from the year 2018 to 2022.

Figure (3) - The total value of the Repo contracts outstanding on the books of SIFMA members from the year 2017 to 2021. Sources: Federal Reserve Bank of New York, SIFMA estimates.

Figure (4) - Structure of Bilateral Repo

Figure (5) - Tri-Party Repo Structure

Figure (6) - Structure of Bilateral IS

Figure (7) - Structure of Bilateral IS with Different Undertaking

Figure (8) - Structure of Three Party IS

Figure (9) - Structure of Murabaha-based Collateralized IS

Figure (10) - Structure of Reciprocal Loan with Equal Ratio

Figure (11) - Structure of Reciprocal Loan with Unequal Ratio

Figure (12) - Wakala investment Structure in case the Institution with liquidity deficit

Figure (13) - Wakala investment Structure in case the Institution with liquidity excess

1. Chapter One: Introduction to Study

1.1. Introduction

The present era has largely witnessed significant innovations and wide-scale enhancements in the banking sector worldwide. Additionally, it has mostly reflected a large widespread emergence of Islamic banks that seek to apply provisions of the Islamic Sharia in contemporary products and find alternatives and legitimate solutions to the forbidden products executed in commercial banks in order to actively compete and vigorously involve in the economic growth of the community. One of the most prominent challenges that banks currently face in carrying out their activities is managing their cash liquidity with high efficiency that achieves a balance between the requirement to achieve profits and the need to fulfill the obligations they have. To this end, banks are obliged resort to many tools and instruments that help them achieve flexibility in managing their cash liquidity without being exposed to risks as a result.

One of these tools is the Repurchase Agreement (Repo) which Fleming & Garbade (2003) defined it as a sale of securities accompanied with a commitment to buy back the same securities at a future date and higher pricing. In this sense, it is generally similar to a collateralized loan which shariah clearly prohibits. Hence, Islamic finance sector initiated a workable and internationally acceptable alternatives to Repo which could both be recognized by Shari'ah and be practical from a market perspective.

Even if the Repurchase Agreement (Repo) features generates profits, they are not primarily an investment tool; rather, they are one of the liquidity management strategies used by bank treasuries (Choudhry, 2010). Instead, it is a product designed to manage the account between the bank and the central

bank and organize liquidity in order to ensure that there neither an excess nor deficit of it at the end of the day. It is evident when comparing the ways that commercial banks and Islamic banks apply the Repurchase Agreement (Repo) are different, bearing that Islamic banks are obliged to follow the Sharia rulings at all times and in all operations; yet the name stays the same in both Commercial and Islamic banks. Since the Islamic Banks' key objective is to offer Sharia compliant products and services in a way that serves the interests of stakeholders and increase the company's wealth, liquidity management is essential for maintaining financial stability and preventing bank failures (Abdul Majid, 2003).

Hence, we would like to seize this opportunity to examine the Repurchase Agreement (Repo) principles and procedures and explore their diverse alternative Sharia-compliant applications in the Islamic Banks.

1.2. Research Problem

The research problem can be summarized in the following points:

1. Except for a few research's that studied the subject broadly, there are no research publications to the best of the author's knowledge in English language that discuss Islamic Alternatives to the Repurchase Agreement (Repo) with regard to Sharia perspective.
2. Since the Repurchase Agreement (Repo) is executed between bank internal department and the central bank, researchers and other stakeholders are unable to understand the mechanism in whole since it is rare to find published data related to the topic.

3. The Repurchase Agreement (Repo) falls under treasury products which is considered more complex than other products offered in an Islamic Banks because of the compounded nature of its products, which is constructed in a unique manner based on the necessities, operation requirements, and Sharia restrictions.

1.3. Research Questions

The research questions shall be illustrated as follow:

1. What is the definition of the Repurchase Agreement (Repo)?
2. What is the significance of the Repurchase Agreement (Repo)?
3. What are the types of the Repurchase Agreement (Repo)?
4. What is the mechanism of the Repurchase Agreement (Repo) in commercial banks?
5. What are the Repurchase Agreement (Repo) Risks?
6. What are the uses of Repurchase Agreement?
7. What is the Sharia Ruling of the Repurchase Agreement (Repo)?
8. What are the Islamic alternatives products of the Repurchase Agreement (Repo) that are applied in Islamic Banks?
9. How are the alternative's Islamic products of the Repurchase Agreement (Repo) that are applied in Islamic Banks different from other?
10. Are the Islamic products of the Repurchase Agreement (Repo) in compliance with the international standard-setting organization specifically AAOIFI?

1.4. Research Objectives

The focal purpose of this research is to study in depth the Repurchase Agreement (Repo) from an Islamic Jurisprudence aspect and explore the innovative applications in the Islamic Banks. The main focus of this research is to demonstrate applications of Islamic banks with regards to Repurchase Agreement (Repo) and investigate its permissibility against Sharia rulings.

Thus, this research has the following objectives:

1. To have full understanding on the nature of the Repurchase Agreement (Repo) and the way it works in commercial banks.
2. To study and investigate the permissibility of the Repurchase Agreement (Repo) from a recommendations Islamic Jurisprudence perspective.
3. To identify the Repurchase Agreement (Repo) applications in the Islamic Banks.
4. To examine the Repurchase Agreement (Repo) applications in the Islamic Banks against Sharia principles and its compliance with the international standard-setting organizations.

1.5. Research Significance

This research additionally aims to enhance the Islamic Finance literature by exploring and studying the Islamic Jurisprudence perspective of the Repurchase Agreement (Repo) and the practical aspect of its application in the present time in the Islamic Banking Sector. Thus, it will provide an extensive useful insight to the current practices of the Islamic Finance.

The study is significant, as it will:

1. Provide key vital information regarding the literature of Repurchase Agreement and its applications in the Islamic Banks which can assist and ease the job of shariah advisors and specialists.
2. There are few published papers related to this matter that covers in depth the Sharia and application perspective. Most of published papers are in Arabic language where they cover the Sharia part in depth while English publishes are countable and mostly explain the topic generally without covering the Sharia perspective.
3. This research will add value to the sector covering different matters and aspects including the understanding of the Repurchase Agreement (Repo) generally, analyzing it from Shari point of view, illustrating its applications and comparing it against other treasury products. By the end of the paper the reader will have full understanding on the topic from Sharia and practical perspective.
4. Provide the banks' management with beneficial information needed for enhancing the Repurchase Agreement (Repo) applications.
5. Deliver vital input for stakeholders on the Repurchase Agreement (Repo) applications in the Islamic Finance Sector.

The research may also enhance the banks' reputation, thus further contributing to foster the Islamic finance literature, students and academics extensively interested in Islamic Finance field.

1.6. Research Method

This research adopts a multifaceted methodology to comprehensively analyze Repurchase Agreements (Repos) and their Islamic alternatives. The primary approach will be qualitative, focusing on in-depth exploration of the theoretical underpinnings, legal interpretations, and practical applications of these instruments. Data will be collected through library research, drawing on scholarly publications in Islamic finance, conventional finance, and Sharia jurisprudence, along with authoritative pronouncements from the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and the International Islamic Fiqh Academy (IIFA).

The analysis will employ a combination of approaches. First, a descriptive approach will provide a clear understanding of Repos in conventional banking context, detailing their nature, core features, and purpose. Second, a comparative jurisprudential approach will delve into the legal basis of Repos under Islamic law. This will involve examining the reasoning and evidence used by scholars of the four major Sunni schools of jurisprudence to assess their Sharia compliance, highlighting any areas of disagreement. Finally, an applied approach will explore the practical implementation of Sharia-compliant alternatives to Repos in Islamic banks, outlining the operational procedures and steps involved in utilizing these instruments. This multi-pronged approach will enable a thorough examination of Repos and their Islamic alternatives, ultimately generating insightful findings that contribute to the knowledge base of Islamic finance.

1.7. The Study Setting

The research is structured fulfils the requirements of academic thesis writing standards of University of Bahrain. The research shall include the following chapters:

- Chapter One: Introduction to the Study
 - I. Introduction
 - II. Research Problem
 - III. Research Questions
 - IV. Research Objective
 - V. Research Significance
 - VI. Research Method
 - VII. The Study Setting
 - VIII. Research Terminology
- Chapter Two: Literature Review
- Chapter Three: The Repurchase Agreement (Repo) in Commercial Banks
 - I. Definition of the Repurchase Agreement (Repo)
 - II. Significance of the Repurchase Agreement (Repo)
 - III. Types of the Repurchase Agreement (Repo)
 - IV. the Repurchase Agreement (Repo) Risks
 - V. Uses of the Repurchase Agreement (Repo)
 - VI. Mechanism of the Repurchase Agreement (Repo) in Commercial Banks
 - VII. Sharia Ruling for the Repurchase Agreement (Repo)
- Chapter Four: Repurchase Agreement (Repo) Islamic Alternative Applications

- I. Structures Proposed by the International Islamic Financial Market (IIFM):
 - 1) Bilateral Structure I'aadat Al Shira'a (IS)
 - 2) Bilateral Structure with different undertakings
 - 3) Three Party Structure 'IS'
 - 4) Collateralized 'IS'
- II. Alternative based on Reciprocal Loans
- III. Alternative based on Wakala Investment
- IV. Applications of Islamic Alternatives of Repurchase Agreement (Repo) in Several Countries
- Chapter Five: Conclusion and Recommendation

1.8. Research Terminology

- **Liquidity:** The Basel Committee on Banking Supervision (BCBS) defines it as the capability of a bank to finance asset growth and fulfill obligations in a timely manner without suffering unbearable losses.
- **Liquidity Management:** BCBS defines it as a process of ensuring that a bank has adequate cash and other liquid assets to fulfill its short-term obligations without experiencing intolerable losses.
- **Repurchase Agreement (Repo):** It is a liquidity management instrument which is defined as a short-term lending arrangement wherein the borrower agrees to pay the lender cash in return for the sale of securities and then buys the securities back at a later time for a higher price (Reiff, 2024).
- **Money Market:** The Cambridge dictionary defined the money market as a market for borrowing and lending money for short periods between banks and other financial organizations.

- **Sharia-Compliance:** the Islamic Markets defined Sharia Compliance as an act or activity that complies with the requirements of the Shariah, and Islamic law.

2. Chapter Two: Literature Review

Repurchase agreements (Repos) are essential tools in conventional finance for managing liquidity and conducting monetary policy. However, their structure often conflicts with Islamic legal principles prohibiting usury (Riba). While the need for Sharia-compliant alternatives is well-established, existing research in this area remains relatively limited in comparison to the conventional Repo research. This scarcity necessitates a comprehensive review of the available literature to identify knowledge gaps and opportunities for further exploration.

The Accounting & Auditing Organization for Islamic Financial Institutions (AAOIFI) Sharia Standards, is generally reckoned one of the most significant references in the Islamic banking field, according to experts. Moreover, the volume of Shari'ah Standards has noticeably turned into the foremost compilation of contemporary Fiqh reasoning in the area of Fiqh al-Mu'amalat (Jurisprudence of Financial Transactions) around the globe. The standards extensively cover a large array of Islamic financial contracts and products, including those pertaining to banking, Islamic insurance, investment banking, capital markets, financing, and so on. The Repurchase Agreement (Repo) is specifically covered under Sharia standard (58), nevertheless this reference exclusively addresses Islamic bank products in general rather than going into specific procedural details. Nevertheless, this standard only addresses Islamic bank products in general rather than going into specific procedural details of Repo.

The International Islamic Financial Market (IIFM) reference paper explores I'aadat Al Shira'a, a Sharia-compliant alternative to conventional

repurchase agreements (Repos). The paper outlines the concept, operations, and uses of conventional Repos to establish a foundation for understanding I'aadat Al Shira'a's structure and functionalities. This comparative approach aims to identify a solution that effectively addresses Islamic institutions' liquidity management needs while adhering to Sharia principles. The paper goes beyond mere replication of conventional practices, seeking to provide Islamic institutions with a new tool to manage liquidity and finance assets, Sukuk, and equities. The paper proposed only specific alternative applications that was studied and suggested by group of experts from Islamic finance field which needed further specifications.

Haron et al. (2023) conducted a comparative analysis of Islamic and Conventional Repurchase Agreements (Repos) in Malaysia. Their research, based on library research methods, highlighted the core distinction between the two models. While conventional Repos operate through interest-based loans, Islamic Repos adhere to Sharia principles. This necessitates the use of Sharia-compliant contracts within the Islamic Repo structure. The study explores the potential of various Islamic Repo alternatives, including bilateral Islamic Repo, collateralized murabahah, and the Malaysian-specific SBBA (sell and buy-back agreement). The SBBA, approved by the Sharia Advisory Council of Bank Negara Malaysia, functions as a combination of a sale contract and a repurchasing agreement (wa'd). This Sharia-compliant structure allows Islamic financial institutions, conventional banks, and other market participants to manage liquidity needs in accordance with Islamic law. The research covered the structures of the products of the Repurchase Agreement (Repo) offered in general and didn't address the Sharia perspective in relation

to these products. The author moreover focused only on the applications of Islamic banks in Malaysia only.

Baianonie (2022) explores the complexities of Islamic treasury products through a multifaceted lens. Their research combines descriptive analysis to define and detail these instruments alongside their functionalities. Furthermore, a comparative jurisprudential analysis is employed to assess the Sharia compliance of these products across the four major Sunni schools of Islamic law (Hanafi, Maliki, Shafi'i, and Hanbali). This combined approach sheds light on the compatibility of Islamic treasury products with Islamic legal principles. The study also emphasizes the importance of understanding conventional financial instruments to grasp the intricacies of their Islamic counterparts. Significantly, Baianonie identifies areas requiring further *ijtihad* (scholarly reasoning) to develop Sharia-compliant solutions that can address contemporary challenges in Islamic banking practices. This research not only contributes to the understanding of existing Islamic treasury products but also highlights the need for continuous innovation and adaptation within Islamic finance. The gap in this research is that the author published it in Arabic where it can only benefit part of the population who have an interest in this matter who understands and reads Arabic. Moreover, the author focused on all instruments and tools offered in treasury department of the Islamic banks, yet in regard to the Repurchase Agreement (Repo), the author mentioned two Sharia alternative applications to the Repurchase Agreement (Repo) namely alternative based on Reciprocal Loans and Alternative based on Wakala Investment.

Kolchin et al. (2022) offered a detailed examination of the U.S. Repurchase Agreement (Repo) market in their Report titled "The US Repo Markets: A Chart Book,". Employing a data-driven approach informed by SIFMA Research databases, the Report dissects various product types within the Repo market, identifies key participants, and outlines the regulatory landscape governing these transactions. Furthermore, the analysis provides valuable insights into outstanding balances and collateral statistics across Bilateral, General Collateral Finance (GCF), And Tri-Party Repo markets. The gap in this research that it covered the conventional Repo focusing only on the US market.

Al-Jinayni (2022) employed an analytical comparative approach to investigate the Sharia compliance of repurchase agreements (Repos). Their research involved analyzing the legal and economic aspects of Repos, followed by a comparative jurisprudential analysis that examined the different scholarly opinions and their justifications. Al-Jinayni concluded that while Repos offer economic benefits and are often structured as sales agreements, their underlying function resembles interest-bearing loans and therefore violates Islamic financing principles. The study also explores potential Sharia-compliant alternatives for utilizing Repos in Islamic finance. The gap in this research that it was published in Arabic which makes it limited only to Arabic readers. Moreover, the researcher didn't mention the islamic alternatives of Repo

Sarker et al, (2019) investigated Liquidity Management Instruments for the Islamic Banks in Bangladesh. The Report was based on based on empirical survey. The study team visited Islamic money market instruments and the

central bank instruments introduced in Bahrain and Malaysia to share experiences in this new emerging field. The study Report focused on the liquidity management system of Islamic Banks of the country and tried to explore the necessity of the Sharia based liquidity management system as well as explored new financial instruments for Sharia based banks for efficient management of their liquidity. In Bangladesh, there are lots of instruments for conventional banks than Islamic banks to manage their liquidity. Islamic banks are performing complying with Sharia principles, and they cannot use all available instruments to manage their liquidity. It is required to take additional measures for scaling up their efficiency in liquidity management areas due to their unique characteristics and requirements of the Sharia. Study also focuses on introducing new Instruments for the Islamic Banks in the context of Bangladesh. The Report has highlighted the Islamic financial instruments introduced by the Central Banks of Bahrain and Malaysia and put forward some Islamic financial instruments for liquidity management of the Islamic banks in Bangladesh. The instruments suggested are the Bangladesh Government Islamic Treasury Bill (BGITB), Bangladesh Government Ijarah Sukuk (BGIS) and Unrestricted Wakalah alternative to Repo and Reverse Repo. The gap in this research is that it mentioned only some applications practiced in some countries and didn't address sharia review and ruling to Repo.

Ghazi (2014) investigated the Sharia compliance of Repurchase Agreements (Repos) through a comparative Islamic jurisprudence lens. His research explored the concept, components, and functions of Repos, while also analyzing their legal characterization and permissibility under Islamic law. Ghazi concluded that Repos are functionally equivalent to interest-bearing

loans secured by collateral, rendering them prohibited (haram) in Islamic finance. To address this, he identified Sharia-compliant alternatives, including Reciprocal loans with equal value exchange, Wakala Investment with various configurations based on bank participation and profit-sharing, and Islamic Investment Sukuk. The study emphasizes the importance of utilizing Sharia-compliant alternatives for financial institutions to ensure their operations adhere to Islamic principles. The gap of this study is that it was published in Arabic language which makes it limited to specific population.

Al-Shubaily (2013) delves into Repurchase Agreements (Repos) and Reverse Repos (reverse Repos), analyzing their functions and prohibition under Islamic law due to their resemblance to usurious loans. The research employs a jurisprudential methodology, outlining the different scholarly opinions and their supporting evidence. The study identifies key areas of disagreement and critiques opposing viewpoints. Sharia-compliant alternatives are explored, including Tawarruq and Reverse Tawarruq with collateralized securities, Conditional Reciprocal loans under Point Account, Unconditional Deposits (Al-Wade'a Al-Mubadala), Sale of Securities with promise to repurchase, and Wakala Investment structures. Al-Shubaily emphasizes the importance of differentiating between these Sharia-compliant instruments and their conventional counterparts to ensure adherence to Islamic legal principles. This research contributes to the discourse on Islamic finance by offering a comprehensive analysis of Repo instruments and proposing alternative practices that comply with Sharia requirements. The research is very beneficial and adds significant value to the sector, yet the author published it in Arabic language only and didn't cover all alternative products. Moreover,

the research was published before issuing the AAOIFI Sharia Standard 58 which included the Repurchase Agreement.

Osterberg, William P. (2011) examines the implementation of Repurchase Agreements (Repos) in Emerging Markets (EMs). He identifies key challenges surrounding Repos in these developing economies. These include the legal classification of the initial sale in a Repo transaction (true sale vs. secured loan), the distinction between Repos and "sell-buybacks," and other relevant aspects of EM legal frameworks, market depth, accounting practices, and monetary policy. Osterberg argues that Repo markets can enhance liquidity in government debt markets of emerging economies. However, their development hinges on removing legal barriers that restrict the collateralization and sale of government securities. He suggests that simpler "sell-buyback" agreements can serve as a steppingstone towards establishing full-fledged Repo markets. Finally, Osterberg emphasizes the need for a gradual implementation of accounting, regulatory, and risk management practices that align with international standards, while acknowledging the need for flexibility during the development phase in EMs. The gap in this research that the researcher focused only on the conventional Repo and its applications in the Emerging Markets.

3. Chapter Three: The Repurchase Agreement (Repo) in Commercial Banks

3.1. Definition of the Repurchase Agreement (Repo)

Fabozzi and Mann (2005) define a Repurchase Agreement (Repo) as a short-term secured financing transaction involving two parties: a seller and a buyer. The seller temporarily sells a security such as government bonds, to the buyer and agrees to repurchase it at a predetermined price on a future date.

The Federal Reserve Bank of New York highlights that Repos are most commonly conducted for overnight periods, although longer maturities are also prevalent, hence it is mostly conducted in money markets. As illustrated in Figure 1 of Bank X, a Repo can be used to borrow \$50 million overnight at an interest rate of 2.5% per annum. This is achieved by selling treasury securities to the central bank and simultaneously agreeing to repurchase them the following day for \$50,003,472 (\$50,000,000 + the daily interest accrued).

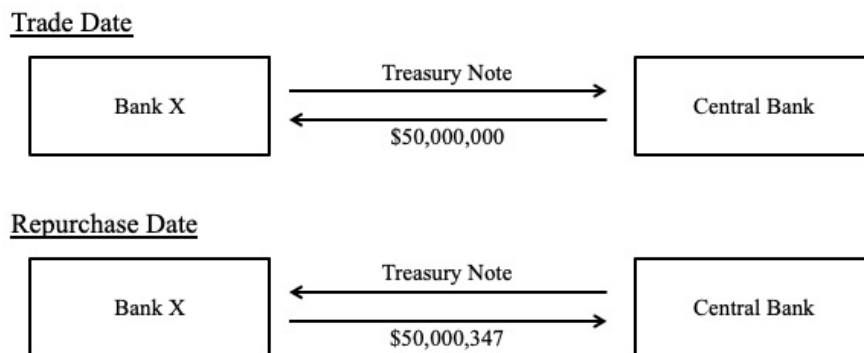


Figure 1- Structure of Classic Repurchase Agreement

Osterberg (2011) highlights the ongoing confusion surrounding terminology in Repurchase Agreement (Repo) markets, even in developed economies. The United States exemplifies this, where terms like "Repo" and

"sell-buyback" are used interchangeably despite documented distinctions. Classic Repos differ from sell-buybacks in several key aspects. Classic Repos treat the sale and repurchase as a single, unified transaction, while sell-buybacks are considered two separate transactions. Accounting treatment also differs; with classic Repos, the security remains on the seller's books (ideally reflecting the involvement in a Repo), while sell-buybacks require derecognition. Finally, classic Repos require the buyer to return any coupon payments received during the Repo term to the seller, whereas sell-buybacks allow the buyer to keep those coupons. Recognizing these nuances is crucial for accurate understanding, proper accounting treatment, and clear communication within Repo markets. Conversely, Choudhry (2010) classified sell-buybacks as a form of Repurchase Agreement (Repo).

Choudhry (2010) highlights that sell-buybacks offer an alternative to classic Repos, particularly in situations where legal agreements are not established. However, they come with increased risk due to the lack of formal documentation and potential challenges regarding coupon payments. Classic Repos, with their legal framework and clearly defined terms, are generally considered the lower-risk option. The International Capital Market Association (ICMA) identifies a distinction in Repo usage across various markets. While some markets, such as the United States, United Kingdom, France, Belgium, Netherlands, and Switzerland, primarily rely on traditional Repo transactions, others exhibit a preference, or even exclusive use, of sell-buybacks. Italy until 2017, Spain, and most emerging markets exemplify this latter category.

On the other hand, a review of the existing literature, along with the author's analysis, suggests that repurchase agreements (Repos) can be fundamentally characterized as secured loans. A secured loan is a type of credit agreement where the borrower pledges a valuable asset (collateral) as security for the loan (*The Fed - Glossary*, n.d.). In the event of a borrower defaulting on the loan (failing to make repayments), the lender has the legal right to seize and sell the collateral to recoup the outstanding debt. This collateralized structure mitigates the risk for the lender by providing a means to recover a portion, or potentially all, of the loaned amount if the borrower cannot fulfill their repayment obligations.

Repos and Secured loans share several core characteristics, despite operating in somewhat different contexts. They both share collateralized structure; both Repos and secured loans rely on collateral to mitigate risk for the lender. In a Repo, the seller pledges a security (often government bonds) as collateral. If the borrower (seller) fails to repurchase the security as agreed, the lender (buyer) has the right to seize and sell the collateral to recoup the loaned amount. Similarly, secured loans require borrowers to pledge an asset, such as real estate or a vehicle, as collateral. The lender can seize and sell this collateral in case of default (Fabozzi & Mann, 2005). On the other hand, short-term vs. long-term; while a key difference lies in their typical timeframes, both Repos and secured loans can be structured for various durations. Repos are generally short-term financing tools, often overnight or for a few days to weeks (Bowsher, 1979). Conversely, secured loans can range from short-term (car loans) to long-term (mortgages). However, the core principle of collateralized borrowing to mitigate risk remains the same across both instruments (Ceizyk, 2024).

Repos and secured loans share fundamental similarities in their use of collateral to manage risk and secure financing. While they may differ in their specific applications and timeframes, the underlying principles of creditworthiness and asset-backed borrowing connect these two financial instruments.

3.2. Significance of the Repurchase Agreement (Repo)

Repo play a critical role in ensuring the smooth operation of the financial system. Their significance stems from their multifaceted contributions to short-term financing, risk management, and overall market stability.

Repos serve as the foundation for a vast short-term secured lending market, with an average daily trading volume ranging from \$2 trillion to \$4 trillion (Wessel & Cheng, 2020). This market offers a readily available source of funding for various institutions, including financial institutions, businesses, and governments. For institutions with excess cash holdings, Repos provide a means to generate returns on their liquid assets ("Repo Market Functioning," 2017). ICMA highlighted that this efficient allocation of funds fosters a well-functioning financial system. By allowing deposits secured by high-quality liquid assets (HQLA) and expanding the pool of lenders beyond traditional commercial banks, Repos provide financial intermediaries with access to capital that is both cheaper and more reliable. Additionally, that Repos empower institutions and investors to address temporary liquidity needs without resorting to the sale of long-term investments.

The collateralized nature of Repos inherently mitigates risk for lenders. This feature positions Repos as a critical bulwark against systemic risk within the financial system. Their ability to mitigate risk stems from several key advantages over unsecured deposits as a source of short-term funding. Repos offer a more stable source of funding due to the requirement of high-quality collateral (HQLA), which reduces lender risk. This collateralized structure, coupled with a diverse pool of lenders, incentivizes longer-term lending and reduces the likelihood of credit freezes even during periods of financial crisis. Furthermore, Repos promote stability by allowing stressed market participants to access cash through temporary asset conversions. This mitigates fire sales that could further depress asset prices and exacerbate adverse financial conditions (ICMA, n.d.).

The central banks also utilize Repos as a key tool to manage the money supply and influence short-term interest rates within the economy. Repos serve as a precise tool for the central banks to manage short-term liquidity. The maturity structure of Repos allows for the automatic absorption of excess liquidity as they mature. Conversely, the central banks can directly withdraw cash by engaging in reverse Repos, where they act as borrowers and offer collateral for temporary deposits. This fine-tuning of liquidity conditions is critical for maintaining financial stability. By leveraging Repos, the central banks can influence interest rates, promote economic growth, and mitigate financial crises, solidifying their role as a cornerstone of a healthy financial system (Implications of Repo Markets for Central Banks, 1999).

Repos stands as a cornerstone of a well-functioning financial system. Their multifaceted contributions bolster both market liquidity and efficiency.

Repos offer a readily available source of short-term funding, acting as a crucial buffer during periods of market volatility. By enabling institutions to pledge high-quality, liquid assets as collateral, the system facilitates the rapid mobilization of cash. This ability to access immediate liquidity mitigates potential financial stress and ensures institutions can meet their short-term obligations. Furthermore, Repos function as a crucial bridge between lenders and borrowers within the financial system, fostering efficient intermediation and promoting a more stable financial environment (Repo Market Functioning, 2017). The presence of a robust Repo market fosters confidence and encourages participation, ultimately contributing to a more efficient allocation of capital and a healthier financial ecosystem overall.

3.3. Types of the Repurchase Agreement (Repo)

Repos lack a universally standardized typology. Our analysis reveals that research on Repos yields a diversity of outcomes, likely influenced by the specific environment, population, and national context of each study.

For example, Harding and Johnson (2006) listed 12 different types of Repos: Reverse Repo, Flex Repo, General Collateral Repo, Special Repo, Hold-in-Custody Repo, Open Repo, Overnight Repo, Term Repo, Cross-Currency Repo, Tri- Party Repo, Syndicated Repo, And Equity Repo. The distinctions between these types of Repos includes those made on the basis of custodial arrangements, settlement conventions, legal treatment, and other aspects too numerous to warrant mention. Not all of these distinctions are of in relevance to Repo markets around the world (Osterberg, 2011). On the other hand, Haron et. Al (2023) mentioned only two types: Bilateral Repo and

Tri-part Repo which were the two primary short-term Repos in the international money market.

Furthermore, Loew& Riegel (2020), Martinez Resano (2010), Choudhry (2010), etc. included sell buy/back under types of Repos while other research as mentioned earlier in this research stated that it differs.

Subsequent investigation led the researcher to conclude that the most effective approach to classifying Repos is based on their structural and functional characteristics. These characteristics include maturity, delivery versus custody arrangements, the nature of the underlying asset, and potentially other differentiating factors.

3.3.1. Maturity

Repurchase agreements (Repos), classified as money market instruments, are predominantly short-term in nature. The majority of Repo transactions have maturities ranging from overnight to three months, with occasional trades extending to six months or one year (Choudhry, 2010). However, the possibility of even longer-term Repos exists (Choudhry, 2010). As highlighted by Haron et al. (2023), there are three primary categories of Repo maturities:

Overnight Repo: These agreements represent the most prevalent maturity within the Repo market as highlighted by Bowsher (1979). This type of Repo represents a "one-day maturity" transaction, with a settlement period of a single business day.

Term Repo: Term Repos represent the most flexible category in terms of maturity. While there are no set limitations on the maximum term length, on average, term Repos typically mature within a week. However, structures can be designed to accommodate significantly longer maturities.

Open Repo: Unlike a Term Repo with a predetermined maturity date, an open Repo has no specified end date. The interest rate on an open Repo fluctuates daily based on prevailing money market conditions. The lender essentially agrees to an indeterminate loan term, allowing either party to terminate the agreement on any given day.

3.3.2. Delivery vs. Payment

Repo enable institutions to access funding by pledging collateral (securities) and allow lenders to earn a return on their cash holdings. A critical aspect of Repo transactions lies in the handling of collateral how it's delivered and held during the agreement's life. Hence, this section explores the two primary approaches within the context of bilateral and tri-party Repo structures.

3.3.2.1. Bilateral Repo

According to the Securities Industry and Financial Markets Association (SIFMA, 2022), the Bilateral Repo market facilitates the direct exchange of money and securities between investors and collateral providers. This contrasts with the Triparty Repo market, which involves a third-party as an intermediary. Bilateral Repo transactions offer flexibility in terms of collateral. They can allow for a broad range of "general collateral" or impose specific restrictions on the types of securities that can be used.

3.3.2.2. Tri-Party Repo

In contrast to bilateral Repos, tri-party Repos involve an intermediary, typically a custodian bank or clearinghouse, that facilitates the transaction between the borrower and lender (Copeland et al., 2014). This intermediary plays a critical role by holding the collateral securely throughout the life of the Repo, mitigating counterparty risk and enhancing operational efficiency. Due to the added security and reduced counterparty risk, tri-party Repos have become the predominant structure within the Repo market (Paddrik et al., 2021). Table 1 illustrates the key differences between US tri-party Repo and European Tri-party Repo.

Table 1 - Key Difference between European tri-party Repo and US Tri-party Repo.
Source: ICMA

Feature	European Tri-Party Repo	US Tri-Party Repo
Market Share of Tri-Party Agents	10%	66%
Underlying Collateral	Non-government bonds, equity (increasing government bonds)	Treasury and Agency debt (over 66%)
Term Repo Handling	True term Repo - avoids daily unwind	Traditionally unwound and re-arranged daily
Credit Exposure	Less intra-day credit exposure due to direct substitution and variation margining	High intra-day credit exposure due to financing sellers
Dominant Investors	More diverse	Money market mutual funds, securities lending agents reinvesting cash collateral
Collateral Risk	Less risk due to shorter-term collateral	Higher risk due to open-ended cash collateral vs. medium/long-term securities

3.3.3. Underlying Asset

3.3.3.1. General Collateral

ICMA demonstrates that Repurchase Agreements leverage General Collateral (“GC”) to establish a standardized and efficient approach to collateralization. GC comprises a basket of highly liquid securities, typically belonging to the same asset class (e.g., government bonds) or subclass (e.g., short-term government bonds). The fungibility of these securities within the GC pool allows for their substitution without impacting the GC Repo rate. Consequently, the primary driver of the GC Repo rate becomes the supply and demand for cash itself, rather than the specific security used as collateral. This characteristic is why GC Repos are often referred to as "Cash-Driven Repos." Furthermore, the strong correlation between the GC Repo rate and unsecured money market interest rates makes GC Repos a valuable indicator of overall liquidity conditions within the financial system.

General Collateral Finance (GCF) Repo is a recent innovation in this market that reduces transaction costs, enhances liquidity, and facilitates the efficient use of collateral. GCF Repo was introduced in 1998 by the Fixed Income Clearing Corporation (FICC) and two large dealer clearing banks, JPMorgan Chase Bank (JPMC) and Bank of New York (BoNY), to reduce transaction costs and enhance liquidity in the Repo market. In particular, GCF Repo provides for netting in settlement, accommodates settlement later in the day, and allows collateral to be easily substituted. These features reduce transaction costs, enhance liquidity, and facilitate the efficient use of collateral. The benefits of GCF Repo have contributed to its rapid growth and

explain why it has captured such a large share of the brokered general collateral Repo market (Fleming & Garbade, 2005).

3.3.3.2. Special Repo

In contrast to General Collateral (GC), the concept of "Special" in Repurchase Agreements arises when a specific security experiences exceptional demand in both the Repo and cash markets. This heightened demand incentivizes lenders in the Repo market to offer cash at a discount to acquire the security. Consequently, Special Repos are identified by a significantly lower Repo rate compared to the GC rate. In extreme cases, the Repo rate for a Special security can even reach zero or become negative, a phenomenon unique to the Repo market. This phenomenon, termed Specialness is driven by an imbalance between excess demand and limited supply for a particular security. As a result, Special Repos are known as "Securities-Driven Repos" with rates independent of the GC Repo rate or broader money market interest rates. The spread between the GC Repo rate and a Special Repo rate reflects the implicit cost of borrowing the specific security, essentially functioning as an alternative form of securities lending and borrowing as stated by the ICMA.

3.3.4. Other Types

3.3.4.1. Sell-Buyback

As previously discussed, some scholars classify sell-buyback agreements as a type of repurchase agreement (Repo). Law Insider defines a sell-buyback as a two-pronged transaction. On the value date, there is an outright sale of eligible securities at the spot price. Simultaneously, an agreement is

established for the repurchase of the same quantity of identical securities on a predetermined forward value date. The Repo rate and any accrued coupon income earned during the transaction period on the nominal amount of the securities are embedded within the forward repurchase price, resulting in a single realized yield at the transaction's maturity.

Kajdi (1999) highlights the close resemblance between sell-buyback agreements and classic Repos. The key distinction lies in the contractual structure. Unlike classic Repos, which utilize a single agreement, sell-buyback transactions involve two separate contracts: one for the sale and another for the repurchase. Despite this structural difference, Kajdi emphasizes that the economic outcomes of both arrangements are identical. In essence, sell-buyback agreements can be viewed as the combined effect of two straightforward purchase agreements, mirroring the economic functionality of classic Repos.

3.3.4.2. Reverse Repo

The concept of a Reverse Repurchase Agreement also known as a Reverse Repo, represents the same underlying Repo viewed from the perspective of the buyer of the security. From this vantage point, a Reverse Repo signifies a contract to purchase a security at a predetermined price with a simultaneous agreement to sell it back at a future date, again at a pre-established price. This structure facilitates secured short-term lending in the financial system (Garriott & Gray, 2016).

Financial participants can utilize Repos for various purposes. A classic Repo allows an institution to borrow cash by pledging a security as collateral.

Conversely, a Reverse Repo allows an institution to lend cash and receive a security as collateral, effectively earning a return on their cash holdings during the Repo term.

3.3.4.3. Green Repo

The concept of a Green Repo market has gained traction within financial circles. This market would operate under the principle that all transferred bonds between buyers and sellers are classified as "green." Green bonds, by definition, finance environmentally sustainable projects or initiatives (Chen, 2021).

A pioneering example of this approach is the Green Bond GC Basket launched by Eurex in November 2020. This basket serves as a designated pool of green bonds specifically for use as collateral in Repo transactions. It is anticipated that other Central Counterparty Clearinghouses (CCPs) and tri-party agents will likely introduce similar green collateral baskets in the future, further facilitating the development of this market segment.

Beyond the creation of green collateral baskets, there are illustrative examples of green Repo transactions already taking place. In 2021, EDF and BNP Paribas collaborated to structure and execute the first green repurchase agreement initiated by a corporate issuer. Similarly, First Abu Dhabi Bank (FAB), the United Arab Emirates' largest bank, partnered with Deutsche Bank to execute the first green Repo transaction in the Middle East.

These initial transactions demonstrate the potential for broader adoption of Green Repos within the financial system. However, it's important to acknowledge that the Green Repo market is still in its nascent stages. Further development is needed to establish standardized practices and robust mechanisms for verifying the green credentials of collateral used in these transactions.

3.4. The Repurchase Agreement (Repo) Risks

Traditionally, repurchase agreements (Repos) were perceived as low-risk instruments due to the utilization of government securities as collateral and their inherently short maturities. However, a more nuanced understanding of the potential risks associated with Repos is crucial for market participants.

3.4.1. Counterparty Risk

This primary risk factor arises from the potential failure of a counterparty to fulfill their contractual obligations within a Repo transaction. As highlighted by the ICMA, careful selection of counterparties is paramount. Even with high-quality collateral, asset values can fluctuate, and unforeseen operational or legal hurdles can impede the timely liquidation of collateral in case of default. Therefore, collateral should be viewed as a safeguard against default, not a complete mitigation of counterparty credit risk. The level of "haircut" applied to the collateral (the difference between its market value and the loan amount) typically reflects both the quality of the collateral and the counterparty's creditworthiness, with a higher haircut mitigating some counterparty risk exposure (Brunnermeier & Krishnamurthy, 2014).

The creditor faces risk when the market value of the underlying securities falls below the repurchase price. If the borrower defaults on their repurchase obligation, the proceeds from liquidating the securities may not be sufficient to cover the creditor's claim. To mitigate this risk, creditors may require a margin on the collateral. This means the creditor might only agree to lend \$100 million if the collateral value is at least \$100.3 million. The higher collateral value provides a buffer in case the market value of the securities declines (Garbade, 2006).

Conversely, the borrower faces risk when the market value of the underlying securities increases above the repurchase price. In this scenario, if the creditor fails to return the securities upon repurchase, the borrower may need to replace them at a higher market value than the original principal. To mitigate this risk, the borrower might negotiate a margin provision. For example, the borrower may be willing to borrow only \$100 million if the collateral value is less than a certain threshold (e.g., \$99.5 million). This ensures the borrower has sufficient funds to repurchase the securities at a potentially higher market price if the creditor defaults (Garbade, 2006).

3.4.2. Market Risk

Galbis (1991) indicated that market risk refers to the potential decline in the market value of the underlying securities used as collateral in a Repo. Investors can minimize this risk by requiring sufficient margin from the borrower. This margin acts as a buffer against market fluctuations. Regularly monitoring the value of the securities (mark-to-market) is also essential. Inadequate margin requirements and a lack of mark-to-market practices have

historically contributed to losses, although primarily associated with credit risk.

By acknowledging and mitigating these key risks, market participants can engage in Repo transactions with a more informed and risk-averse approach.

3.5. Uses of the Repurchase Agreement (Repo)

Repurchase agreements (Repos) have emerged as a critical component of the financial system, offering substantial benefits to a wide range of market participants. Recent years have witnessed a surge in Repo activity, reflecting the increasing attractiveness of this market as a secure and rewarding haven for cash, particularly in an environment of rising interest rates.

According to the ICMA European Repo Market Survey conducted in June 2023, the total value of outstanding Repos stood at EUR 10,794 billion, with 62 entities participating in the survey. Figure 2 highlights significant growth in the total outstanding value of Repos from 2018 to 2022.

In contrast, the US market, while substantial, presents a different picture. Data indicates a total value of \$5,538.6 billion for both Repos and reverse Repos in December 2023, with a focus on Primary Dealers' Repo Outstandings. Figure 3 illustrates the fluctuations in Repo growth observed in the US market from 2017 to 2021.

These contrasting growth patterns suggest potential variations in the utilization of Repos across different geographical regions. Further research is necessary to explore the underlying factors driving these disparities. Nonetheless, the overall growth trajectory underscores the growing importance of Repo markets within the global financial landscape.

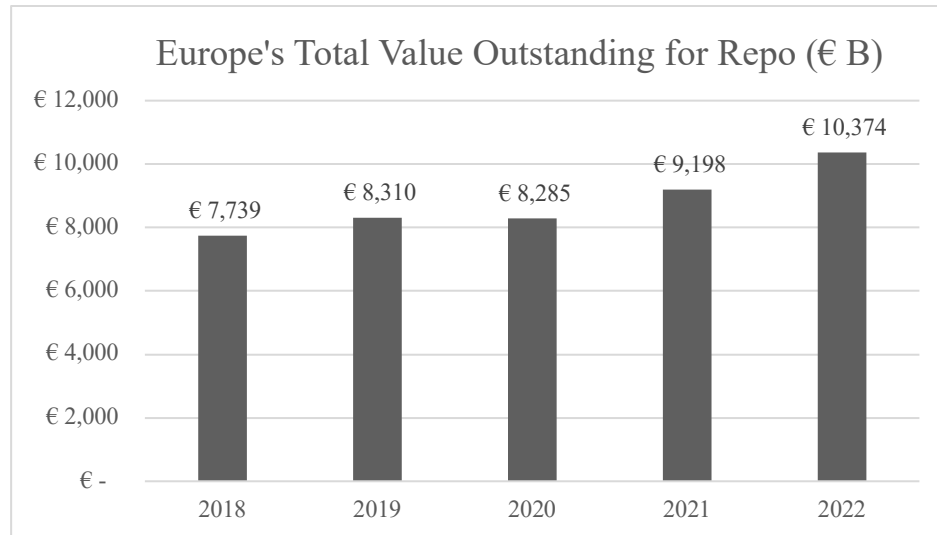


Figure 2 - The total value of the Repo contracts outstanding on the books of ICMA members from the year 2018 to 2022.

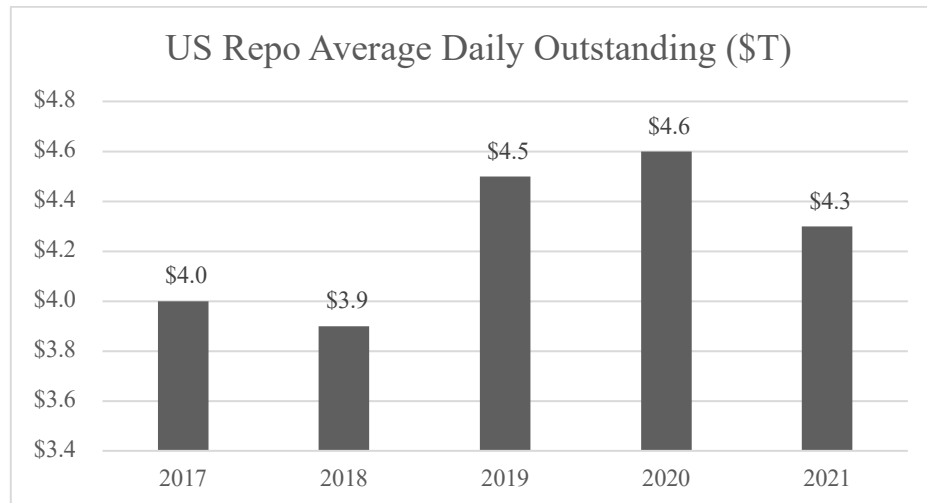


Figure 8 - The total value of the Repo contracts outstanding on the books of SIFMA members from the year 2017 to 2021. Sources: Federal Reserve Bank of New York, SIFMA estimates.

Repos provide short-term funding arrangements to offer a flexible and secure means for market participants to manage their liquidity positions and engage in various investment strategies. This versatility has fueled the significant growth of Repo markets worldwide, making them a critical component of financial infrastructure. Here, we delve into the key uses of Repos, exploring how they benefit various participants and contribute to the smooth functioning of financial markets.

Firstly, Repos are used for short-term liquidity management. As highlighted by Kolchin et al. (2022), financial institutions leverage Repos primarily to address short-term fluctuations in their cash holdings. This allows them to act as either borrowers or lenders depending on their immediate needs. For instance, institutions with excess cash can lend it out in the Repo market to earn a return, while those experiencing temporary cash shortfalls can borrow through Repos to maintain liquidity. This flexibility fosters efficient cash management within the financial system.

Secondly, Repos are used for secondary market liquidity enhancement. Repos play a crucial role in promoting liquidity within secondary markets for cash instruments by enabling dealers to act as efficient market makers, they provide the necessary cash and access to securities to facilitate transactions. This ensures smooth operation of secondary cash markets, as emphasized by Kolchin et al. (2022). Dealers can quickly buy or sell securities to meet customer demands, knowing they can readily access cash or securities through the Repo market.

Thirdly, Repos are used for The central banks intervention. The central banks can utilize Repos as a tool to influence overall market stability and manage liquidity. By acting as lenders or borrowers in the Repo market, they can inject or withdraw cash from the financial system, thereby impacting short-term interest rates (Implications of Repo markets for central banks, 1999). This allows the central banks to fine-tune monetary policy and address potential imbalances within the financial system.

Last but not least, Repos are used for investment strategies. Repos offer opportunities for diverse investment strategies. Investors with excess cash balances can securely and efficiently manage them by lending them in the Repo market. Similarly, long-term holders of securities can earn additional returns by lending them through Repos while retaining ownership (Kolchin et al., 2022). Dealers also benefit from reduced funding costs, the ability to finance long positions, and the capacity to borrow securities for short positions to fulfill client demands. Repos thus provide investors and dealers with flexible tools to optimize their investment strategies.

3.6. Mechanism of the Repurchase Agreement (Repo) in Commercial Banks

Institutions and investors possess a diverse range of avenues for engaging in Repo transactions. These avenues encompass direct counterparty arrangements, where borrowers directly interact with lenders (and vice versa), as well as intermediated transactions facilitated by entities like Tri-party agents (the most prevalent format). Additionally, trading platforms and open

markets offer alternative execution channels. Notably, the specific mechanism employed for a Repo transaction hinges on the type of Repo undertaken.

3.6.1. Bilateral Repo

Bilateral Repos involve a straightforward exchange of collateral and cash directly between the borrower and lender at the beginning and end of the agreement (Hu et al., 2020).

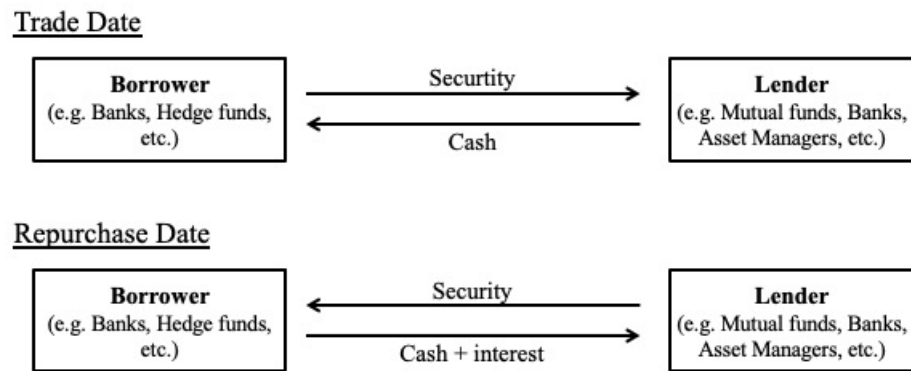


Figure 4 - Structure of Bilateral Repo

As shown in Figure 4, a bilateral Repo transaction involves the following steps (Haron et al., 2023):

- 1- The Lender purchases securities in from the Borrower (who has liquidity deficit) at a pre-determined price at a fixed future date. The Borrower receives the agreed cash and simultaneously transfers the ownership of the underlying securities to the Lender.
- 2- Ownership of any additional securities is transferred as part of margin maintenance;

3- The Lender transfers ownership of equivalent securities to the Borrower at the date of maturity and the Borrower transfer the agreed amount plus interest to the lender.

3.6.2. Tri-party Repo

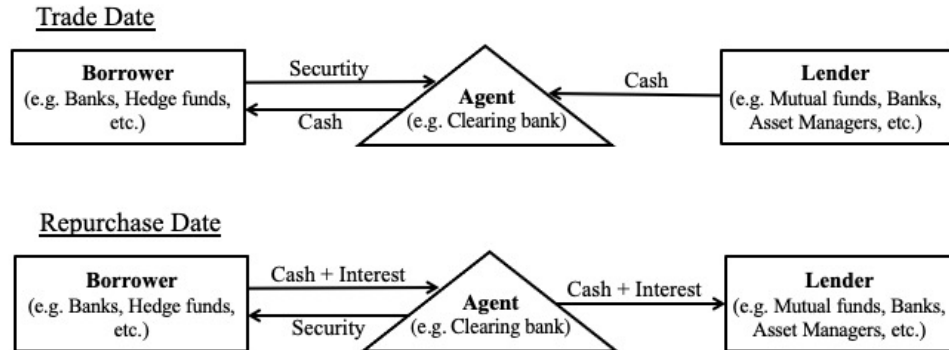


Figure 5 - Tri-Party Repo Structure

Tri-party Repo transactions are characterized by their short maturities, often lasting a single day (Copeland et al., 2012). Figure 5 demonstrates the flow of Tri-party Repo arrangement.

Hu et al. (2020) highlighted that Tri-party Repo transactions introduce a trusted partner into the equation; the tri-party agent. Often the agent is a major clearing bank like JP Morgan Chase or Bank of New York Mellon in the US, this agent acts as a one-stop shop for both the borrower and lender in the Repo deal. This intermediary significantly simplifies the process, especially for lenders. The tri-party agent assumes the role of custodian, securely holding the collateral provided by the borrower. Additionally, they act as the clearinghouse, facilitating the smooth and secure exchange of cash and collateral between the counterparties. They even handle the daily marking of the collateral's value to market, reflecting any price fluctuations. These

services significantly reduce the operational burden for lenders, particularly those with limited resources for managing complex collateral. In some cases, the Tri-party agent can even act as a temporary financier for the borrower during the "unwinding" of the Repo, bridging the gap between returning the cash and receiving back the collateral. Overall, the tri-party agent streamlines the entire process, making tri-party Repo transactions more efficient and convenient, especially for lenders with limited resources.

We shall illustrate the Tri-party mechanism as stated by the ICMA as follow:

- 1- Once the borrower and lender (counterparties) have reached a mutual agreement on the terms, both parties independently notify a third-party intermediary (tri-party agent) and deliver him the instructions.
- 2- The Tri-party agent undertakes a comprehensive verification process, ensuring the accuracy and alignment of the trade details. If everything corresponds, the agent then proceeds with the execution of the transaction.
- 3- The Tri-party agent leverages its automated systems to select sufficient collateral from the borrower's securities account.
- 4- The chosen securities are delivered electronically to the lender simultaneously with the transfer of cash from the lender's account.

The ICMA highlighted that the automated system selection process adheres to pre-established criteria, including creditworthiness of the issuer, liquidity of the specific securities, concentration limits on any individual security type, and any specific preferences jointly established by the borrower and lender. It's important to understand that due to the automated nature of collateral selection, Tri-party Repos are not suitable for transactions requiring

the borrowing or lending of specific securities. Instead, they primarily function as a "general collateral (GC)" funding facility, reflected in the large average transaction size and the utilization of multiple securities as collateral.

Moreover, this simultaneous exchange follows a delivery-versus-payment (DVP) settlement mechanism, ensuring that neither party incurs settlement risk. It's crucial to note that a pre-agreed initial margin is deducted from the total collateral value before its delivery to the lender.

3.7. Sharia Ruling for the Repurchase Agreement (Repo)

As previously explored, Repos may possess characteristics that align more closely with secured loans upon closer scrutiny. Secured loans, as the term suggests, involve the use of collateral either pledge or guarantee to mitigate the risk of a borrower defaulting on their obligations at maturity. The permissibility of mortgages within Islamic finance serves as a relevant example. As cited by Abu Ishaq Al-Shirazi in his book, *Al-Muhadhdhab fi Fiqh al-Imam al-Shafi'i*, taking a guarantee on a loan is considered permissible due to its obligatory nature. However, this permissibility hinges on the underlying contract adhering to Sharia principles. This translates to a contract free from prohibited elements such as interest (Riba), speculative activities or gambling (Maysir), excessive risk or uncertainty (Gharar), and others.

Given the aforementioned considerations, and as previously mentioned, Repos often involve elements that raise concerns from a Sharia perspective. These elements include interest-based financing and the potential use of non-Sharia compliant collateral. In light of these concerns, the practice of Repos in their current form are non-compliant to sharia and therefore prohibited to

practice. The mechanism practiced in the market that was mentioned earlier contradicts with Sharia Standard no. 58 issued by AAOIFI which makes it impermissible to practice.

The following sections will delve deeper into this analysis, exploring the specific aspects of Repos that conflict with Sharia principles.

Ali (2013) states that Repos are a type of accounting gimmick employed in off-balance-sheet transactions. These transactions leverage a combination of securitization, asset sales, and repurchase. The primary objective of utilizing Repos in this manner is to achieve a temporary concealment of a company's liabilities, ultimately aiming to present more favorable financial data to the investment community.

Al Shubaily (2012) highlights that while resembling Repo as a sale, key aspects reveal their true nature. Al- Jinayni (2022) stipulates that first, ownership of the financial assets doesn't transfer, and any benefits (growth or distributions) accrue to the seller, not the buyer. Second, the seller repurchases the assets at a predetermined price regardless of market fluctuations, highlighting a pre-arranged loan with a fixed repurchase obligation. Third, the seller is responsible for maintaining the collateral's value and potentially increasing it if necessary. Finally, the buyer's rights are limited to holding the assets as security for the loan, further emphasizing their role as a lender with a secured claim.

We shall break the sharia ruling into two parts, first part is in regard to the structure of Repo and second part is in regard to the collateral. First, in regard to the structure of Repo, as mentioned earlier Repo is a secured loan

which is basically a traditional loan pledged with securities. Traditional loans are similar to Riba Al Dyun. And as stated in the Holy Quran Riba is forbidden in Islam {those who consume interest cannot stand (on the day of resurrection) except as one stands who is being beaten by satan into insanity. That is because they say “Trade is (just) interest.” But Allah has permitted trade and has forbidden interest. So, whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah. But whoever returns to (dealing in interest or usury) – those are the companions of the Fire; they will abide eternally therein.} (Al-Baqarah: 275, Sahih International). Moreover, prophet Mohamed (PBUH) as stipulated in his Sunnah stated that "Every loan, which leads to a benefit, is usury."

AAOIFI Sharia standards strictly prohibits the stipulation of any excess benefit for the lender in a loan transaction. This excess, regardless of its form, constitutes interest (Riba). It is irrelevant whether the excess is in terms of quantity or quality, a tangible object, or an intangible benefit. Furthermore, the prohibition applies irrespective of the timing of the stipulation. Excess benefit is forbidden whether stipulated at the outset of the contract, while determining the repayment period, during the actual period of delay, or even if it is simply a customary practice, even if unwritten.

The International Islamic Fiqh Academy (IIFA) declared in its Resolution No. 10 (10/2) that any increase or interest levied on a matured debt in exchange for a delayed repayment, as well as any increase or interest stipulated on a loan at the outset of the agreement in anticipation of a potential delay, constitute forms of Riba and are therefore prohibited under Sharia law.

Second part will delve into the Sharia compliance of collateral used in Repo transactions. Collaterals that are used in Repo vary but the most commonly used are bonds issued by the central governments (Lioudis, 2023). Bonds function as fixed-income instruments and investment products. In essence, individuals act as lenders to a government or company (the issuer) for a predetermined period. The lender receives a fixed interest rate in addition to the repayment of the principal amount invested (Fernando, 2024).

As highlighted by Zuḥaylī (2003), the prevailing and definitive opinion within Sharia law deems bonds to be impermissible. This prohibition stems from the classification of bonds as a form of loan that generates a predetermined benefit for the lender. This aligns with the definition of Riba in Islamic law. Consequently, both buying and selling bonds are considered prohibited transactions. Moreover, dealing with these bonds is based on the usurious capitalist ideology that money begets money, while the Islamic perspective emphasizes that it is labor that produces wealth.

AAOIFI Sharia standards clearly prohibits issuing and trading in bonds and any similar financial paper. AAOIFI suggested a substitute for bonds that is practiced in the Islamic Finance market which is investment Sukuk.

Furthermore, IIFA declared in its Resolution no. 60(11/6) that it comprehensively prohibits various forms of bonds that generate predetermined interest or profit. This prohibition applies to all bonds, regardless of issuer (private sector or state-affiliated), and irrespective of terminology used (certificates, investment securities, etc.). Zero-coupon and prize bonds are also deemed impermissible due to their inherent interest-bearing nature or resemblance to gambling. As a Sharia-compliant alternative,

IIFA recommends bonds or certificates issued based on a profit-sharing Mudaraba contract. These instruments eliminate predetermined returns, instead offering investors a share in the project's profits proportional to their investment. This profit-sharing approach aligns with Islamic principles and avoids the pitfalls of Riba.

4. Chapter Four: Repurchase Agreement (Repo) Islamic Alternative Applications

Building upon the prior chapter's analysis, which concluded that conventional repurchase agreements (Repos) are incompatible with Sharia principles, Islamic scholars and institutions have developed alternative tools. These Sharia-compliant instruments aim to fulfill the critical role that Repos play in conventional finance, particularly for Islamic financial institutions (IFIs). Their primary functions include facilitating liquidity management and enabling IFIs to effectively finance their asset portfolios, which may include Sukuk (Islamic bonds) and equities. This chapter delves into a detailed examination of six (6) such Sharia-compliant Repo alternatives, evaluating each from the perspective of Islamic law. International Islamic Financial Market (IIFM) proposed four (4) Islamic Repo alternatives namely: Bilateral Structure I'aadat Al Shira'a (IS), Bilateral Structure with different undertakings, Three Party Structure 'IS', and Collateralized 'IS'. Moreover, we shall study also alternative based on Reciprocal Loans (Al-Qurood Al-Mutabadala), and alternative based on Wakala Investment. Finally, we shall investigate the Islamic Alternatives of Repurchase Agreement (Repo) that are practiced in Several Countries namely Kingdom of Bahrain, United Arab Emirates, and Malaysia.

4.1. IIFM Proposed Structures

The IIFM proposed four structures as an Islamic alternative to the conventional Repo in its reference paper that was issued on I'aadat al-Shira'a (IS), which are bilateral system; bilateral structure with different undertakings; three-party system, and collateralized IS.

4.1.1. Bilateral Structure I'aadat Al Shira'a (IS)

The Bilateral structure involves the sale of Sharia-compliant securities for immediate delivery (spot value) with a simultaneous commitment to repurchase them at a predetermined price on a future date. Figure 6 visually illustrates the key steps of a bilateral Repo transaction.

4.1.1.1. Structure Overview

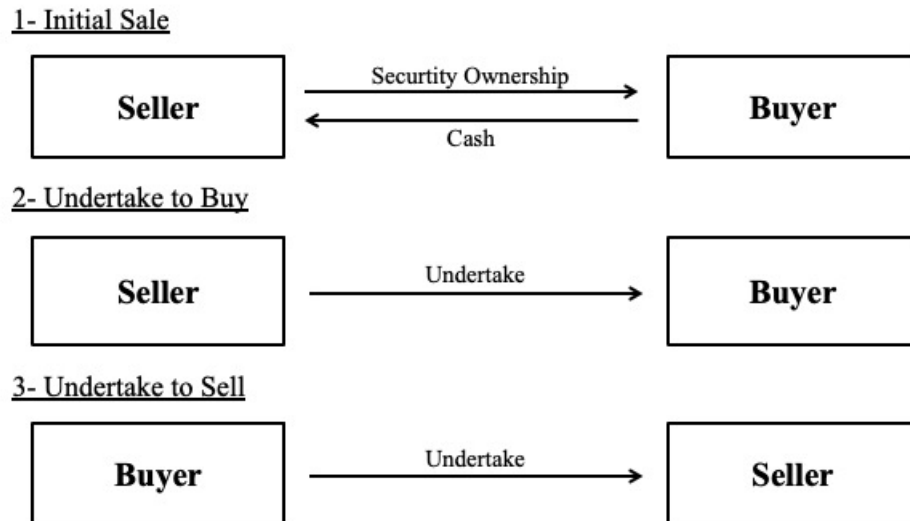


Figure 6 - Structure of Bilateral IS

The initial step involves Party A (the seller) selling the Sharia-compliant securities and transferring ownership (Purchased Securities) to Party B (the

buyer) on a spot basis. Party B pays an agreed-upon price (Purchase Price) in exchange for the Purchased Securities.

To ensure repurchase, Party A grants a Purchase Undertaking in favor of Party B. This undertaking obligates Party A to buy back certain Sharia-compliant securities (Equivalent Securities) at a specified future date (Repurchase Date) or upon the occurrence of a pre-defined "Event of Default." The repurchase price (Repurchase Price) is determined by a formula.

The Purchase Undertaking specifies the criteria for the Equivalent Securities. These securities must be issued by the same entity as the Purchased Securities, belong to the same issuance series, and possess identical characteristics in terms of type, nominal value, and description (and quantity, unless otherwise stated).

In some cases, Party B may also provide a Sale Undertaking, granting Party A the right to request the sale of Equivalent Securities. However, this right is contingent upon Party A's failure to exercise the Purchase Undertaking within a specific timeframe.

4.1.1.2. Sharia Compliance Analysis

Based on our investigation and analysis, the proposed Bilateral IS structure, while utilizing Sharia-compliant securities and a repurchase undertaking (Wa'ad), it presents potential challenges from a Sharia perspective.

Moreover, since the agreement is between two parties where the buyer in the first contract is the seller in the second contract, the predetermined repurchase price, irrespective of market fluctuations at the repurchase date

concerns regarding the potential application of Aks Al- Ayna (Reversed Ayna), a prohibited sale-and-buy-back arrangement. Aks al-Ayna involves selling an asset for cash and then repurchasing it at a higher price on credit. The permissibility of Aks al-Ayna has also been a subject of debate among scholars, with the majority opinion (Jumhur) holding it to be impermissible due to its resemblance to Riba. There evidence was from Prophet Mohamed (PBUH) Sunnah that was narrated Ibn 'Umar (RA): I heard Allah's Messenger (ﷺ) say, "If you sell anything on credit to anyone, on the condition that you will buy it back for a lower price (Al-Ayna), take hold of the tails of cattle, become pleased with agriculture and give up Jihad - Allah will make disgrace prevail over you and will not remove it from you till you return to your religion." The hadith didn't specify the party whether buyer or seller so this proofs that it is subjected to both parties. Moreover, This prohibition aligns with the broader principle of avoiding any actions or transactions that circumvent or violate divine prohibitions (Al Shubaily, 2012). Furthermore, as Ibn Al-Qayyim stated in Tahdhib Al-Sunan that Ahmed Bin Hanbal highlighted that Aks al- Al-Ayna is essentially the same as Bai' Al-Ayna, albeit in a reversed form." The underlying principle remains the same which is engaging in transactions that result in an unjust enrichment for one party at the expense of the other, thereby violating the principles of equity and fairness enshrined in Islamic law.

The binding nature of the repurchase undertaking (Wa'ad) presents a further challenge since its bilateral. According to AAOIFI Sharia Standard 58, neither party should be obligated to enter a subsequent contract (repurchase), and there should be no pre-determined price advantage in repurchase arrangements. The standard also prohibits the sale of an asset in cash followed

by its repurchase at a higher deferred price unless it is free from any pre-arranged manipulation (Muwata'ah) or established custom (Urf) that could influence prices or unfairly benefit one party, the price difference must genuinely reflect a change in the characteristics (Siffa) or market value (Qima) of the asset itself and not solely result from the deferred payment structure, the buyer in the contract (second contract) must be different from the original seller (first contract) and neither party should be a fully-owned or majority-owned subsidiary of the other, and if one of the contracts (purchase or repurchase) involves payment in a non-cash form, such as goods or services (instead of currency), the price difference may be more readily justifiable.

While Wa'ad can be permissible under certain conditions, there are specific elements that render them impermissible in Islamic law. One such element is a binding promise (Wa'ad Mulzim) on both parties (bilateral) to conclude the sale contract. A binding promise in this context is akin to actually concluding the sale contract, but with the completion of the sale deferred to a future date. This creates an obligation on both parties to fulfill their respective commitments, similar to a legally enforceable contract.

The impermissibility of bilateral undertakings may concern Riba or other prohibitions stipulated in Sharia. The promise of a future sale at a fixed price which is considered to be akin to an actual sale in this case raises concerns about potential Riba particularly if the agreed-upon price deviates from the prevailing market price at the time of the actual sale.

The IIFM highlighted that their scholars suggested the possibility of a Sharia-compliant Bilateral IS using non-binding Wa'ads and a market-determined repurchase price. However, the scholars revealed that this

approach may not be practical for market participants due to inherent market risks. Additionally, scholars advise that participating parties must assume the corresponding risks associated with such transactions.

The proposed Bilateral IS structure, while innovative, requires further analysis to ensure its full compliance with Sharia principles. Addressing the concerns regarding fixed repurchase prices and binding repurchase undertakings is crucial for developing a Sharia-compliant Islamic Repo framework. Additionally, balancing Sharia compliance with practical market considerations remains a key challenge.

4.1.2. Bilateral Structure I'aadat Al Shira'a (IS) With Different Undertaking

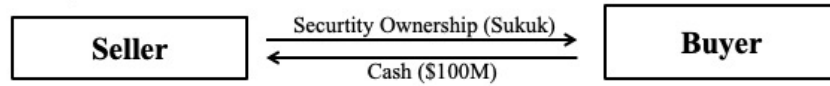
The IIFM also considers implementing the bilateral IS structure using two different undertakings (wa'adan). This section delves into the mechanics of this wa'adan structure, as illustrated in Figure 7.

4.1.2.1. Structure Overview

The initial phase of the bilateral IS with dual undertakings involves a spot transaction. The seller transfers ownership of the underlying Sharia-compliant securities to the buyer on a spot basis. This means immediate delivery typically occurs on a predetermined date (e.g., 15 May 2024). In exchange for the securities, the buyer pays the prevailing market price (e.g., USD 100 million).

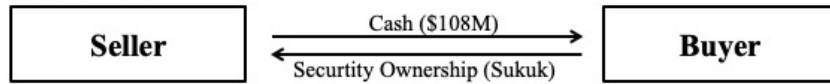
1- Spot Transaction: Immediate Sale and Delivery

15 May 2024



2- Forward Transaction: Unilateral Undertakings for Repurchase and Sale

29 June 2024



30 June 2024

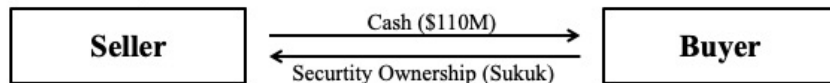


Figure 7 - Structure of Bilateral IS with Different Undertaking

The subsequent phase of the transaction involves forward commitments through the exchange of unilateral undertakings. These undertakings are binding promises (wa'adan) issued by each party.

Seller's Undertaking: The seller provides a unilateral undertaking to repurchase the underlying securities from the buyer at a future date (e.g., 30 June 2024) for a pre-determined price (e.g., USD 110 million). Additionally, the seller's undertaking may be triggered upon the occurrence of a pre-defined "Event of Default." In such a scenario, the buyer would serve a notice, allowing them to demand immediate repurchase by the seller.

Buyer's Undertaking: Conversely, the buyer provides a unilateral undertaking to sell the underlying securities back to the seller. This can occur on a predetermined future date (e.g., 29 June 2024) at a pre-determined price (e.g., USD 108 million). Similar to the seller's undertaking, the buyer's undertaking can also be triggered by a pre-defined "Event of Default" on the part of the buyer, allowing the seller to serve a notice and demand repurchase.

Crucially, the events or timeframes enabling the exercise of these respective undertakings are designed to be distinct. This prevents the possibility of both undertakings being exercised simultaneously, ensuring a controlled and orderly repurchase process within the Islamic Repo structure as stated by the IIFM.

4.1.2.2. Sharia Compliance Analysis

Our investigation and analysis reveal potential Sharia compliance concerns with the proposed Bilateral IS structure. Although the structure utilizes separate undertakings (Wa'ads) from both parties, distinct in both timing and price, their ultimate objective remains facilitating the repurchase of the underlying asset. This inherent pre-commitment to a future repurchase raises questions regarding its compatibility with Sharia principles.

Furthermore, as previously discussed, even if the bilateral undertakings differ in terms of timing and value, they may still be considered analogous to Aks Al-Ayna (reverse of ribah) in our opinion. This concern arises because the buyer in the Repurchase contract (second contract) is the the seller in the initial contract. This scenario directly contradicts AAOIFI Sharia standards, which explicitly prohibit such arrangements.

4.1.3. Three Party IS Structure

IIFM has proposed a Sharia-compliant alternative to the tri-party Repo known as the Three-Party Islamic Structure (IS). The key distinction between a conventional tri-party Repo and the proposed Three-Party IS lies in the role of the third party. In a conventional structure, the third-party acts as an agent, facilitating the transaction but not assuming any risk.

Conversely, within the Three-Party IS, the third party becomes a principal, taking on risk despite acting as an intermediary between the seller (Party A) and the buyer (Party B). Due to this risk assumption by all three parties, the IIFM working group has designated this structure as the Three-Party IS. Figure 8 illustrates the mechanics of this structure.

4.1.3.1. Structure Overview

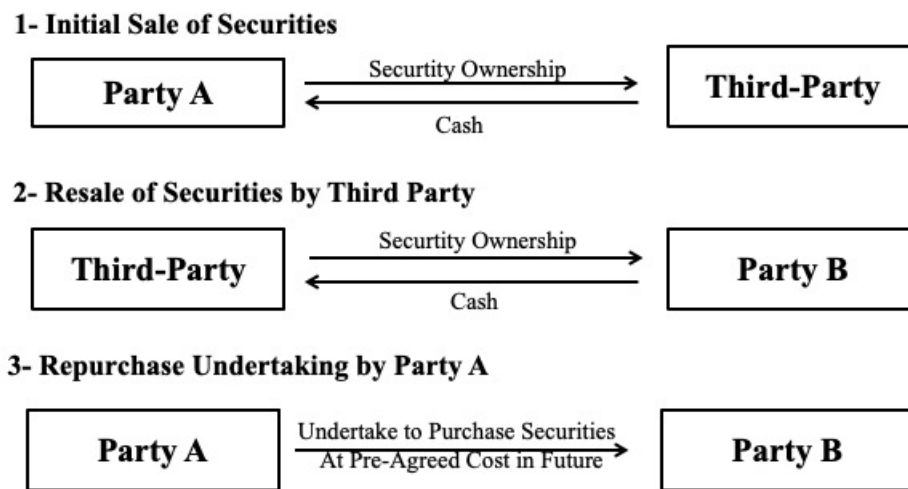


Figure 8 - Structure of Three Party IS

The initial step involves Party A, the seller, transferring ownership of Sharia-compliant securities to a third party in exchange for immediate cash payment. Ideally, this third party should be an independent entity, such as a clearing house of a Stock Exchange or a custodian bank, to minimize potential conflicts of interest.

Next, the third-party acts as a principal by immediately reselling the acquired securities to Party B, the buyer, for cash.

Finally, to ensure the eventual return of the underlying securities, Party A grants an undertaking to Party B. This undertaking is a binding promise obligating Party A to repurchase "equivalent securities" from Party B at a predetermined price upon maturity.

4.1.3.2. Sharia Compliance Analysis

The analysis examines the Sharia compliance of the proposed Three-Party IS structure. The proposed structure includes individual elements like unilateral undertakings and separate sale contracts, which based on our investigation is permissible in Sharia law.

The proposal highlights the presence of three independent sale contracts within the structure, with each party acting as a principal and assuming ownership risks for the security during their respective holding period. This aligns with the concept of independent sale contracts being permissible under Sharia principles.

Moreover, the structure employs a unilateral undertaking (Wa'ad Bil Shira') from Party A to Party B. This approach aligns with AAOIFI Sharia Standard 58, which permits a unilateral undertaking by either the buyer or seller to repurchase the security in the future. Notably, as highlighted by Shaikh Abdulaziz bin Baz, such an undertaking does not constitute a sale contract but solely a promise. However, it should be noted that the parties are still obligated to conclude a formal sale contract upon maturity.

AAOIFI Sharia Standard 58 outlines permissible scenarios for repurchase contracts involving a higher security price. One such scenario involves a different buyer in the repurchase contract (second contract)

compared to the original seller (first contract). The Three-Party IS structure involves three independent sale contracts. Party A in the first contract transacts with Party B in the third and final contract. This structure allows for repurchase of the equivalent security at a higher price due to the separation of parties in the preceding sale contracts. The initial sale (Party A to third party) and second sale (third party to Party B) do not involve the same parties. Consequently, the repurchase between Party A and Party B does not constitute *Aks al-Ayna*.

4.1.4. Collateralized IS Structure

IIFM proposal namely Collateralized IS Structure focuses on utilizing existing Sukuk held within institutions' portfolios that are not currently deployed. To initiate the process, the IIFM team suggests employing either Murabaha or Wakala structures. Given the established nature of Murabaha within Islamic finance, the team prioritizes this arrangement for initial implementation. This approach offers the advantage of facilitating transactions across various jurisdictions. The team recommended seeking necessary legal modifications within Organization of Islamic Cooperation (OIC) countries to further streamline the process.

4.1.4.1. Structure Overview

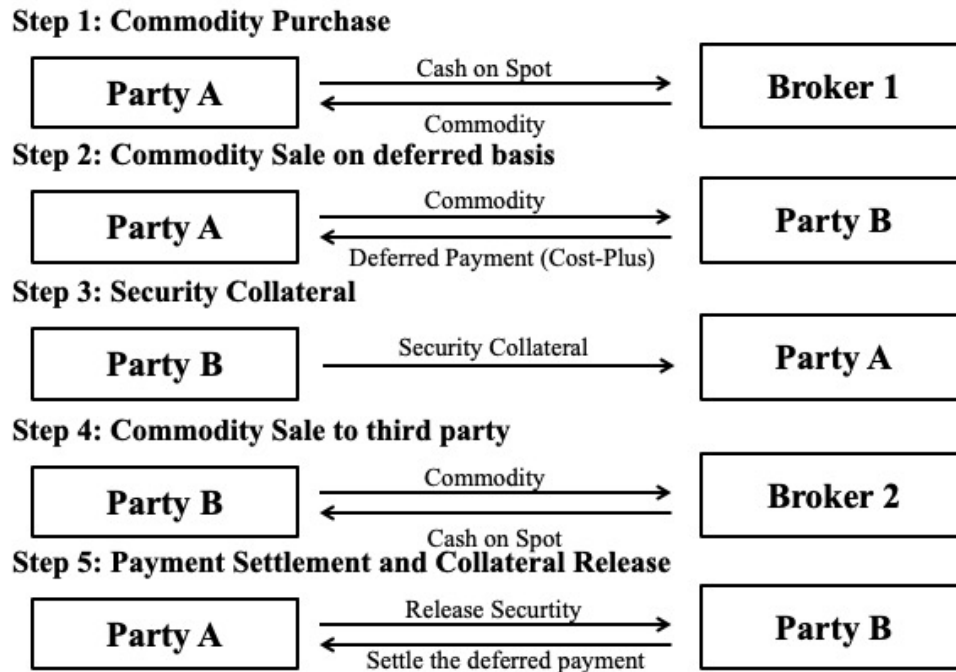


Figure 9 - Structure of Murabaha-based Collateralized IS

As shown in Figure 9, the proposed Murabaha-based structure can be visualized using the following steps:

1. Party A purchases commodities from a broker against immediate cash payment.
2. Party A then acts as a seller, transferring ownership of the commodities to Party B under Murabaha Sale contract with deferred purchase price that reflects the cost-plus price as predetermined profit margin.
3. To secure the payment of the deferred purchase price, Party B grants a security interest in its own holdings of securities in favor of Party A. The security value shall be higher than the Murabaha price to allow price fluctuation and to reduce the movement of Collateral back and forth.

4. Party B then acts as a seller, transferring the commodities to a broker in exchange for immediate cash payment.
5. Upon "maturity," Party B fulfills its obligation by paying the deferred purchase price to Party A. Consequently, the security interest granted in favor of Party A is released.

4.1.4.2. Sharia Compliance Analysis

Our analysis reveals that the Collateralized IS structure bears similarities to Organized Tawarruq, a financial instrument that raises Sharia compliance concerns. We will delve deeper into these concerns in the following sections.

Organized Tawarruq is a financing arrangement where the client, through an Islamic bank, purchases a commodity on a deferred payment basis. The client then appoints the bank to sell the same commodity to a third party for immediate cash. In essence, the client secures immediate funds and repays them with installments in the future (Habib et. al, 2018).

A key distinction separates Organized Tawarruq from Real Tawarruq is the pre-arranged sale. In Real Tawarruq, the client after acquiring the commodity, independently chooses to keep or sell the commodity without prior arrangement with the bank (Dabu, n.d.). The majority of scholars, both contemporary and historical, consider this form of Tawarruq permissible, as evidenced by the decision issued by the IIFA.

Most contemporary scholars have ruled that organized Tawarruq is prohibited. This is because the arrangement for one of the contracting parties to sell or buy a commodity on behalf of the other party in financing contracts renders the contract fictitious. The purpose of the commodity is to obtain cash financing, and the buyer does not intend to own or take possession of it.

Therefore, the seller is authorized to sell it. The reality of the transaction is an exchange of present cash for deferred cash with an additional amount.

This opinion is supported by the IIFA, and AAOIFI Sharia Standard. However, AAOIFI had an exception made which stipulates that if the legal system does not allow the dealer to sell the commodity himself, in which case he is permitted to authorize the bank to sell it on his behalf. This is what was adopted by some Shariah bodies, allowing for authorization in Tawarruq contracts on international commodities where the dealer is not allowed to sell them himself (Dabu, n.d.).

This is the most likely opinion, and therefore the principle is to prohibit authorization in Organized Tawarruq contracts, except in cases where the legal system does not allow the buyer to sell or buy, in this case he is permitted to authorize the other party to do so.

The Sharia permissibility of using Sukuk as collateral within the Collateralized IS structure finds support in AAOIFI Sharia Standard 39 on Mortgage (Al-Rahn). This standard explicitly permits mortgaging financial instruments issued and transacted according to Sharia, including Islamic Sukuk and shares of Islamic financial institutions, as well as shares of companies with Sharia-compliant core activities. Therefore, Sukuk can be a viable collateral option for the Collateralized IS structure, provided the specific Sukuk used strictly adheres to Sharia principles in its issuance and transactions.

4.1.4.3. Master Collateralized Murabaha Agreement (MCMA)

In response to industry needs for Sharia-compliant liquidity management tools, the IIFM published the Master Collateralized Murabaha Agreement on November 16, 2014. This standardized agreement establishes a mechanism for IFIs to access Sharia-compliant collateralized liquidity. The agreement leverages the Islamic principle of Rahn (pledge) to utilize Sukuk and other Islamic securities portfolios as collateral.

This initiative represents a significant advancement for IFIs, particularly in the context of heightened global regulatory focus on liquidity and collateral requirements. Collateralized transactions structured on Murabaha principles create a level playing field for IFIs, enabling them to access potential central bank funding during periods of liquidity shortage the IIFA stated.

Moreover, the underlying product structure utilizes Murabaha, a Sharia-compliant sales contract with a profit markup. This approach aligns well with the requirements of Rahn, which necessitates a debt-based contractual framework. The Murabaha structure effectively addresses the need for a Sharia-compliant alternative to conventional Repos in managing short-term liquidity needs within the Islamic financial landscape.

4.2. Alternative Based on Reciprocal Loans (Al-Qurood Al-Mutabadala)

Reciprocal lending or even called interbank lending is a common practice in interbank transactions, involving both Islamic and conventional banks, including the central banks and one of its various purposes is liquidity management. They involve two parties agreeing to lend each other equivalent amounts of money for a specific period (Bushnaq, 2017). This fosters a collaborative approach in facilitating liquidity management and strengthening interbank relationships (Al-Masri, 2002).

When it comes to managing liquidity in Islamic banks, one of the proposed alternatives involves offsetting outstanding credit balances with overdrawn debit balances. This is achieved through a point system, where credit points are assigned to credit balances based on the amount and duration. Conversely, debit points are calculated for debit balances, also considering the amount and duration. This method is known in financial sector as the "Point Account" or "Number Account" (Al Shubaily, 2012).

Al Shubaily (2012) highlighted that in reciprocal loan arrangements, parties may agree to settle accounts and reach a point balance (equating the number of credit points and debit points) within a specified period, or they may opt for an open-ended agreement. Typically, a maximum point limit is set in reciprocal loans to prevent one bank from continuously borrowing from the other.

The ratio of these loans is not necessarily fixed at equal ratio (1:1). One party may have an advantage, setting their credit points to be double those of the other, resulting in a non-equal ratio (2:1). This often occurs when one party

holds a stronger position, such as the central banks in relation to commercial banks, or a bank in relation to its customers. We shall illustrate an example for both structures.

4.2.1. Structure Overview

4.2.1.1. Equal Ratio

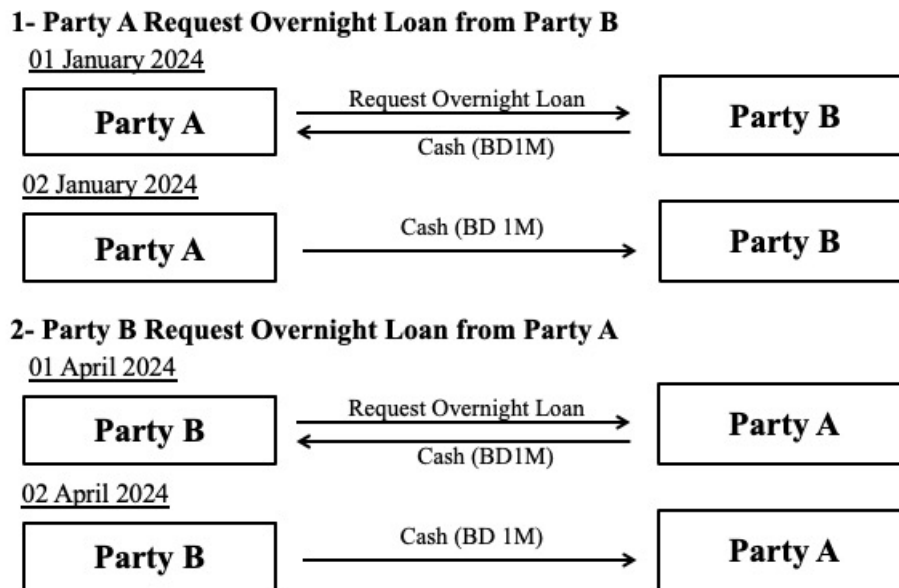


Figure 10 - Structure of Reciprocal Loan with Equal Ratio

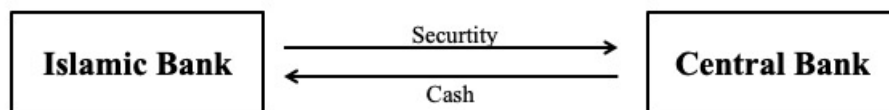
Figure 10 illustrates a reciprocal loan arrangement where both parties borrow and lend the equal amount for the equal duration. We shall illustrate the structure as follow:

- 1- At the end of the business day, Party A finds itself with a liquidity shortfall, it borrows from the Party B an amount of BD 1,000,000/- for overnight to cover its deficit. Party A offers Sharia- Compliant collateral as a security.

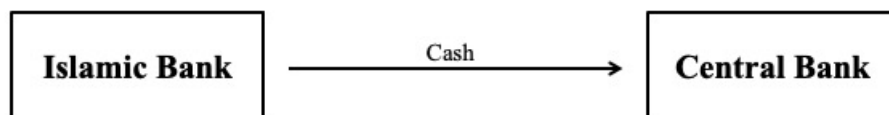
- 2- On the following business day, Party A repays the loan it borrowed from Party B without paying any interest. After repaying the loan amount, Party A is obligated to lend to Party B the same amount against the same period, both of which are determined by the agreed-upon Number Account (1:1).
- 3- In future, Party B finds shortfall in its liquidity, so it borrows from Party A amount BD 1,000,000/- for overnight. Party B offers Sharia-Compliant collateral as a security.
- 4- On the following day, Party B repays the loan it borrowed from Party A without paying any interest.

4.2.1.2. Unequal Ratio

1- Islamic Bank borrow from Central Bank & pledge Sharia-Compliance collateral



2- Islamic Bank fulfill its obligation and return the borrowed amount



3- Islamic bank is obligated to lend the Central Bank against agreed-upon Number Account

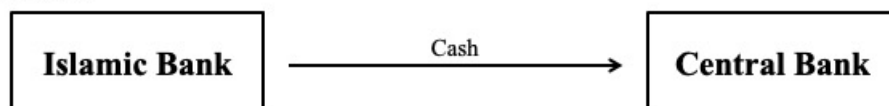


Figure 11 - Structure of Reciprocal Loan with Unequal Ratio

Figure 11 showcases the structure of a Reciprocal loan arrangement between an Islamic bank and a Central bank. The Central Bank may set a borrowing limit for the Islamic bank and may require a longer lending period

or larger amount from the Islamic bank compared to the borrowed amount. The structure demonstrated as follow (Baianonie, 2022).

- 1- At the end of the business day, Islamic bank finds itself with liquidity shortfall, it borrows from Central Bank an amount (BD 10 million) to cover this deficit overnight. The Islamic bank can purchase Government Sukuk or arrange a Tawarruq for the Central Bank amounting BD 10 million (the deficit amount) as collateral in case the Islamic bank failed to fulfill its obligations. The Islamic bank can then borrow daily from the Central Bank at a predetermined percentage of the total financing amount (e.g., 80%). As per the Figure 11, the total financing value is BD 10 million, so the maximum daily borrowing limit for the Islamic Bank is BD 8 million only.
- 2- On the following business day, the Islamic bank repays the loan it borrowed from Central Bank without paying any interest. If the Islamic bank fails to repay the loan amount for any reason, Central Bank grants the Islamic bank an extension to repay the amount without charging a late fee. If the Islamic bank fails to repay the amount at all, Central Bank then deducts the amount from the total outstanding debt under the financing transaction or from the sale proceeds of the pledged Sukuk.
- 3- After repaying the loan amount, the Islamic bank is obligated to lend to the Central Bank a specified amount for a specified period, both of which are determined by the agreed-upon Point Account. For example, if the agreed-upon Point Account between the Islamic bank and the Central Bank is (1:2), then for every amount the Islamic Bank borrows from the Central Bank, the Islamic Bank is obligated to lend

the same amount to the Central Bank for twice the duration, or twice the amount for the same duration, and so on.

For instance, as stated in Figure 11 the Islamic bank borrowed BD 10 million for one day, it will be obligated either to lend the Central Bank BD 10 million for two days, or BD 20 million for one day, or BD 5 million for four days, and so on.

4.2.2. Sharia Compliance Analysis

We shall break the analysis into two sections. Section 1 covers the sharia review of the Conditional Reciprocal Loans that are based on equal ratios. Section 2 covers sharia review of the Conditional Reciprocal Loans that are based on unequal ratios.

4.2.2.1. Reciprocal Loans with Equal Ratios

The scholars had two different opinions against the ruling of conditional Reciprocal Loans.

1- Prohibition of the Contract: The majority of scholars, including the Maliki, Shafi'i, and Hanbali schools of thought, consider conditional reciprocal loans to be prohibited. Maliki's consider it under the principle "if you let me borrow, I will lend you" (A'slefni U'slifk) (Al Shubaily, 2012). Al Sharwani (2016) stated that the intent is not for the borrower to lend to the lender; because in that case, it would benefit the lender, and this is not permissible. Ibn Qudama in Al Mughni stated that if a condition is stipulated in the loan that the lender rents out the property, sells something, or lends the borrower again, the loan is not permissible. They had three evidences stipulated to their opinion is as follow:

a) They argue that such loans provide benefit to the lender, violating the Hadeeth stated by Prophet Mohamed (PBUH) which stated, "Every loan, which leads to a benefit, is usury."

Opponents of the prohibition argued that the benefit in this case is not only associated to the lender, it a common benefit between both the lender and the borrower, and achieves a fair interest for both parties, and there is neither a stipulated evidence that it is prohibited nor in the meaning of the text, as stated by the Council of Senior Scholars in Saudi Arabia "The default principle of the contracts (Mu'amalat) is its permissibility unless there is an explicit evidence (Dalil) that contradicts or prohibits it."

b) They cite the hadith of the Prophet Muhammad (PBUH) which state: "the condition of a loan combined with a sale is not lawful, now two conditions relating to one transaction, nor the profit arising from something which is not in one's charge, nor selling what is not in your possession."

The significance point in the Hadith is that there should be no selling and lending at the same time which is interpreting it to extend to the stipulation of a loan in return for another loan.

Opponents of the prohibition argued that the conditional reciprocal loans involve a combined sale and loan which is not supported by either explicit or implied meaning of the relevant text. Explicitly, there is no sale in this transaction. The parties simply agree to lend and borrow equal amounts for equal durations. This does not constitute a sale in any sense of the term. Moreover, the implied meaning of the prohibition against combining a sale and a loan is based on the concern that such transactions could lead to usury (Ibn Qudama, 1928).

c) The cited the narration of Abu Huraira which stated that Prophet Mohamed (PBUH) forbade two transactions (sales) combined in one.

The significance point is that that such transactions involve the stipulation of a contract within another contract, which is analogous to the prohibited practice of two sales in one.

Opponents of the prohibition argue that reciprocal loans with stipulations are not analogous to "two sales in one." They emphasize that reciprocal loans involve the exchange of equal amounts of money for equal durations, without any exchange of goods or services. They argue that this arrangement does not involve the deception or exploitation inherent in the prohibited practice of "two sales in one" (Al Shubaily, 2012).

2- Permissibility of the Contract: A minority of scholars, including several contemporary researchers and Sharia Boards, endorse the permissibility of conditional reciprocal loans, provided they adhere to the principle of equality between the parties (Ghazi, 2014). They had two evidence stipulated to their opinion is as follow:

a) They argue that these transactions are analogous to Suftaja, which are widely accepted in Islamic finance. They contend that since the majority of scholars permit Suftaja, it follows logically that they should also permit reciprocal loans with stipulations. Both Suftaja and Conditional Reciprocal Loans involve the exchange of equal amounts of money for equal durations. In both cases, the benefit is not exclusively for the lender but is shared between both parties (Al Shubaily, 2012).

Opponents of this analogy argue that there are crucial differences between Suftaja and reciprocal loans with stipulations. They point out that Suftaja transactions typically do not involve a conditional future loan, nor do

they impose a burden on the borrower. In contrast, Conditional Reciprocal Loans with stipulations are conditional and may place a burden on the borrower (Al Shubaily, 2012).

b) They argue that Riba is prohibited because they involve injustice and exploitation. On the other hand, such transactions do not involve any injustice or exploitation. They emphasize that both parties agree to lend and borrow equal amounts for equal durations, ensuring fairness and mutual benefit. They contend that this arrangement is in line with the Islamic principle of justice (adl) between the parties (Al Shubaily, 2012).

Opponents of this argument acknowledge injustice is one reason to prohibit Riba. However, they argue that the primary purpose of a loan is to assist the borrower, not to gain benefits to the lender. When a loan is made conditional on a future loan, it shifts the focus from assisting the borrower to securing a future benefit for the lender. This, they argue, deviates from the original purpose of a loan and raises concerns about exploitation (Al Shubaily, 2012).

AAOIFI Sharia Standards indicated the permissibility of this contract through its standards. First, in Standard no. 1 regarding Trading in Currencies, it stipulated the permissibility of the Islamic Financial institutions hedge against the future valuation of the currency by execute interest free Reciprocal Loans using diverse currencies without obtaining or giving any extra benefit, in a condition that the two loans are not contractually connected to each other. Second, in Standard 19 regarding loans, it stated that in order to avoid interest-based transactions, the standard has no restriction in event that an agreement is made between the institution with other correspondent banks to place a

ceiling upon the overdrafts of one drawn upon the other without any claims for profits (interest). Finally, in Standard no. 58 mentioned an Islamic Alternatives to Repurchase Agreements which included Reciprocal Loans with Points Calculation (Point Account) as a sharia-compliant instrument under certain conditions. To ensure Sharia compliance the standard obliged the equality in points calculation (1:1), impermissibility of converting the points to cash compensation upon non-fulfillment, and only the principal amount of the loan and its duration are considered only, and interest shall not be charged on the loans.

The debate surrounding Reciprocal Loans with a condition highlights the complexity of Islamic jurisprudence and the need for careful consideration of both legal principles and practical implications. While the majority view upholds the prohibition based on concerns of exploitation and potential for usury, the minority view advocates for permissibility under specific conditions that preserve equity and mutual benefit. Ultimately, most scholars allow these loans if both sides benefit equally and the loans themselves are equal in amount and duration, regardless of any interest rate differences. Therefore, based on our analysis we are in the view that this alternative is permissible within the certain conditions stated above.

4.2.2.2. Reciprocal Loans with Unequal Ratios

If a Reciprocal Loan agreement involves an imbalance between the parties, such as a 2:1 points ratio (i.e., lending 2000 days for 4000 days or 2000 days for 400 days). This type of arrangement is definitely prohibited, and there is no scholarly disagreement on the prohibition of such a stipulation. This is because it represents an unfair advantage for the lender and falls under

the consensus on the impermissibility of any loan that grants a conditional benefit to the lender. Moreover, scholars who permit Reciprocal Loans with condition agree that the validity of such arrangements hinges on equality, with equal amounts of money lent for equal durations (Al Shubaily, 2012).

4.3. Alternative Based on Wakala Investment

Wakala Investment, as defined by AAOIFI is a contractual arrangement where one party (Principle) appoints another party (Agent) to invest and manage their wealth, with or without a fee. This Sharia-compliant instrument has gained significant traction in the Islamic finance sector, playing a crucial role in driving growth and liquidity management for Islamic banks. Ghazi (2014) further emphasizes the potential of Wakala Investment as a viable Islamic alternative to repurchase agreements (Repos)

4.3.1. Structure Overview

The application of Wakala Investment caters to both institutions experiencing liquidity deficits and those with surplus funds as specified by Ghazi (2014).

4.3.1.1. Institution with liquidity deficit (shortfall)

- a) Party A (institution that needs liquidity) enters into a Mudaraba or Musharaka or Wakala Investment contract with Party B (institution that have excess in liquidity) and agree on the capital amount, duration and profit ratios.
- b) Party A (Agent) will invest the capital provided by Party B (Principle) in a sharia-compliant investments.

- c) At maturity, Party A will return the capital to Party B and profits (if occurred) will be shared between the parties upon agreement.

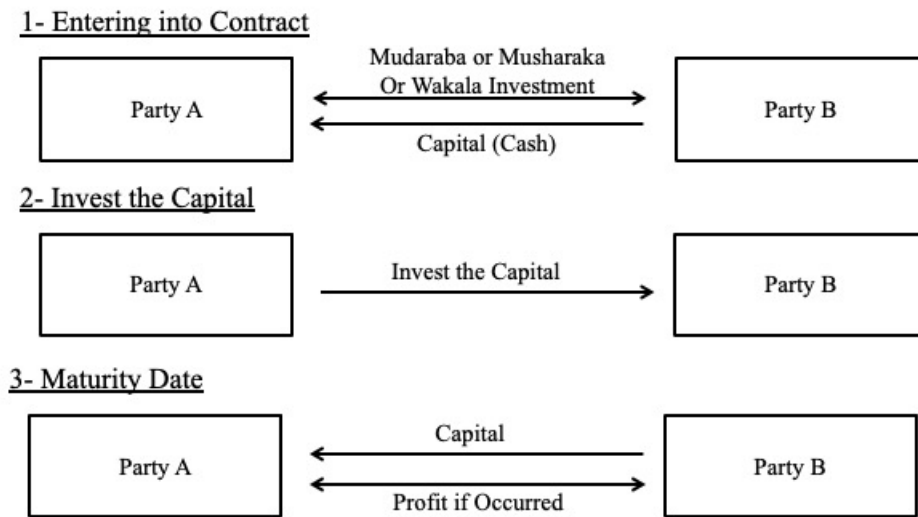


Figure 12 - Wakala investment Structure in case the Institution with liquidity deficit

4.3.1.2. Institution with liquidity excess

- a) Party A (institution that have excess in liquidity) enters into a Mudaraba or Musharaka or Wakala Investment contract with Party B (institution that needs liquidity) and agree on the capital amount, duration and profit ratios.
- b) Party B (Agent) will invest the capital provided by Party A (Principle) in a sharia-compliant investments.
- c) At maturity, Party B will return the capital to Party A and profits (if occurred) will be shared between the parties upon agreement.

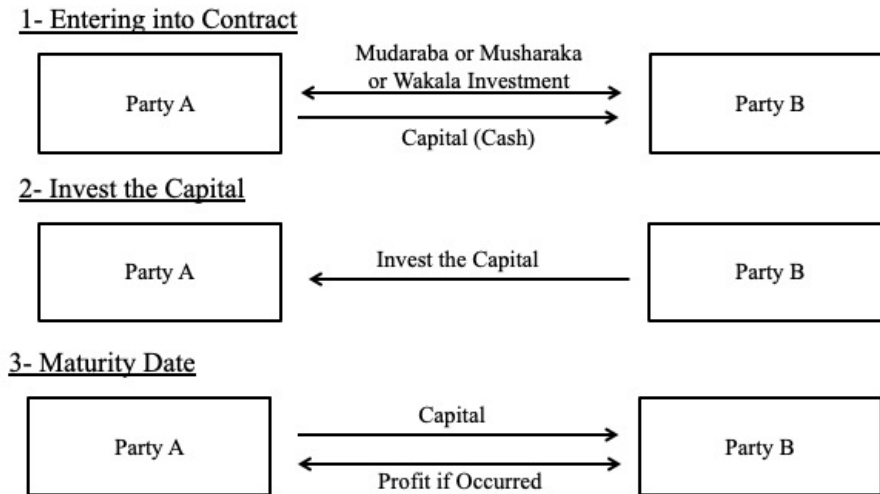


Figure 13- Wakala investment Structure in case the Institution with liquidity excess

4.3.2. Sharia Compliance Analysis

The basis for Wakala Investment is permissible, and the contract can be structured either as Mudaraba or Musharaka. If the bank participates with some of its own funds in the investment account, the contract is considered Musharaka. On the other hand, if the bank does not participate with its own funds, the contract is considered Mudaraba.

It is definitely prohibited for the agent to guarantee the profit or capital for the owner of the funds and there is no disagreement among scholars upon this ruling. Stipulating a guarantee on the Mudarib or Wakeel is a void condition as stipulated in AAOIFI Sharia Standard number 56. This is because stipulating such a guarantee would render the contract invalid and akin to a loan that bears Riba.

In some Wakala Investment contracts, a performance incentive may be stipulated for the Agent. This means that if the profits exceed a predetermined

threshold, the excess portion is allocated solely to the Agent as a reward for their performance. This practice is generally considered permissible. The permissibility of performance incentives is supported by narrations from Ibn Abbas and Ibn Sirin, which indicate that it is acceptable to structure a contract where the Agent receives a portion of the excess profit as a reward for their efforts. The performance incentives do not negate the underlying partnership between the Principal and the Agent in sharing the profits. The agreed-upon profit-sharing ratio remains in effect, and the Agent's performance incentive is applied to the excess profits generated beyond that threshold. The initial uncertainty regarding the exact amount of the performance incentive is not considered problematic. This is because the incentive is treated as a form of gift, and uncertainty in the amount of a gift is permissible as long as it does not hinder the fulfillment of the contract.

4.4. Applications of Islamic Alternatives of Repurchase Agreement (Repo) in Several Countries

4.4.1. Application in the Kingdom of Bahrain

The Kingdom of Bahrain has solidified its position as a leader in global Islamic finance, ranking second in the MENA region and fourth globally according to the 2021 Islamic Corporation for the Development of the Private Sector (ICD) Report, as highlighted by the Economic Development Board of Bahrain. Aligned with the previously discussed three-party IS structure proposed by the IIFM, Bahrain has implemented the Islamic Sukuk Liquidity Instrument (ISLI). Introduced by the Central Bank of Bahrain (CBB) in June 2008, the ISLI serves as a Sharia-compliant tool for Islamic banks to manage their liquidity.

The ISLI operates through a series of Sale and Purchase transactions involving three distinct parties: the Sukuk owner (the Islamic bank needing liquidity), the intermediary bank (acting as a market maker to facilitate the transaction), and the Central Bank of Bahrain (CBB) which provides the liquidity. This Islamic alternative to a Repo transaction, as identified by the Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS) in their "Payment, clearing and settlement systems in the Kingdom of Bahrain" Report, allows direct members of the Scripless Securities Settlement (SSS) system to access liquidity by utilizing their holdings of eligible Islamic securities (currently limited to Sukuk-al-Ijara) within the SSS system.

The ISLI transaction itself is a multi-step process involving three key elements. First, it requires the participation of three distinct parties: the Sukuk owner, the intermediary bank, and the CBB. Second, it involves a series of three separate Sales and Purchases. The Sukuk owner sells their Islamic securities to the intermediary bank acting as a market maker. The intermediary bank then concurrently sells the same securities to the CBB, which injects liquidity into the system for the Sukuk owner. Finally, a repurchase agreement is established between the Sukuk owner and the CBB, outlining the terms for buying back the Islamic securities at the end of the defined Repo period. To ensure smooth execution, the ISLI utilizes a dual-level matching and confirmation process involving all three parties: the direct member (original deliverer), the market maker (first receiver and second deliverer), and the CBB (ultimate receiver). Importantly, before submitting an ISLI request, all three parties must agree on a unique deal reference number used to process the matching and settlement of the transaction.

4.4.2. Application in United Arab Emirates (UAE)

Leveraging its advantageous geographical position at the crossroads of Africa, Europe, and Asia, the United Arab Emirates, particularly Dubai, has ascended to a prominent role as a global hub for Islamic finance. This leadership can be attributed to a confluence of factors: a well-developed regulatory framework specifically designed for Islamic financial institutions, fostering stability and predictability within the sector; and a commitment to innovation in Sharia-compliant financial products and services, which caters to a broad audience encompassing both Muslim and non-Muslim countries (Jivraj, 2023).

In alignment with the Islamic International Financial Market (IIFM), the United Arab Emirates has adopted the Collateralized IS structure as a Sharia-compliant alternative to the conventional Repo transaction. This structure is realized through the Collateralized Murabaha Transaction, a Murabaha trade with specific steps. First, an Eligible Counterparty purchases commodities/goods from the Central Bank of UAE (CBUAE) for immediate delivery. This sale is conducted under a Murabaha contract with deferred payment terms and a predetermined profit margin. Second, to secure the deferred payment obligation, the Eligible Counterparty provides the CBUAE with "Eligible Collateral" through a security arrangement (CBUAE, 2022).

The CBUAE established the Collateralized Murabaha Facility (CMF) to facilitate CMT transactions. This Sharia-compliant funding facility allows Eligible Counterparties to access CBUAE reserves for overnight settlements by pledging securities as collateral via a Collateral Management Agreement or a foreign exchange swap (CBUAE, 2022).

4.4.3. Application in Malaysia

Malaysia has positioned itself as a vanguard in the development of Islamic finance, encompassing Islamic banking, Islamic capital markets, and takaful. This leadership is demonstrably supported by a robust and comprehensive Islamic financial system, underpinned by a business-oriented regulatory regime and a well-established legal framework. As a result, Malaysia has ascended to the ranks of the leading global hubs for Islamic finance as highlighted by Malaysia International Islamic Financial Centre.

Malaysia application to Islamic Repo is alike to the Bilateral IS structure proposed by the IIFM. As stated in the Guidance Notes on Sell and Buy Back Agreement that was issued by Bank Negara Malaysia, this Sharia-compliant instrument serves a dual purpose, enhancing liquidity within the Islamic Interbank Money Market (IIMM), and providing Islamic banking participants with additional avenues to source funding.

The rapid growth of Islamic banking necessitated the development of new instruments for the IIMM to cater to the evolving needs and expanding requirements of Islamic banks. The SBBA emerged as a key solution, mirroring the conventional repurchase agreement (Repo) but with modifications to ensure compliance with Sharia principles. The National Shariah Council for Islamic Banking and Takaful of Bank Negara Malaysia (BNM) has officially sanctioned the SBBA mechanism.

The Sell and Buy Back Agreement (SBBA) functions as a Sharia-compliant alternative to the repurchase agreement (Repo) within the Islamic

Interbank Money Market (IIMM). This instrument is structured as a two-part transaction. In the first agreement, the SBBA Seller transfers ownership of Islamic securities to the SBBA Buyer at a pre-determined price with a set settlement date. A subsequent agreement establishes a promise-based obligation. The SBBA Buyer commits to resell the purchased securities back to the SBBA Seller on a future date at another agreed-upon price.

To maintain the integrity and smooth operation of the IIMM, both parties are obligated to fulfill their respective promises at the SBBA's maturity date. Furthermore, SBBA transactions must adhere to a fixed maturity, not exceeding one year, with a minimum transaction value of RM50,000.00.

5. Chapter Five: Conclusion & Recommendations

5.1. Conclusion

This study investigated Repurchase Agreements (Repos), a cornerstone of conventional short-term financing. Repos involve the temporary sale of securities with a pre-determined repurchase agreement, akin to a secured loan. They serve a vital role for institutions and investors, allowing them to address liquidity needs without selling long-term investments, and for institutions with excess cash to earn returns. The central banks also utilize Repos to manage the money supply and short-term interest rates. Despite their benefits, Repos are prohibited in Islamic finance due to their inherent interest-based nature, which constitutes *riba* (usury) under Sharia law.

To address this gap, Islamic scholars have proposed several Sharia-compliant alternatives. The International Islamic Financial Market (IIFM) proposed four structures, with two deemed non-compliant due to characteristics resembling "Aks Al-Ayna" (sale with a promise to repurchase). The remaining two structures, the three-party *I'aadat Al Shira'a* and the Collateralized *I'aadat Al Shira'a*, offer Sharia-compliant solutions adopted in Bahrain and the UAE, respectively. Additionally, scholars advocate for reciprocal loans with equal ratios in terms of amount and duration, and *Wakala* Investment based on either *Mudaraba* or *Murabaha* structures.

In conclusion, this study explored the limitations of Repos in Islamic finance and highlighted the diverse Sharia-compliant alternatives available. Further research could delve deeper into the practical implementation and comparative risk-return profiles of these Islamic alternatives to inform the strategic decisions of IFIs navigating the short-term financing landscape.

5.2. Recommendations

This research underscores the need for several key actions to strengthen Sharia-compliant alternatives to Repurchase Agreements (Repos) within Islamic finance. Firstly, ongoing research and collaboration between Islamic jurisprudence councils, academic institutions, and Sharia Supervisory Boards are crucial. This collaborative effort should identify the most suitable and legitimate Sharia-compliant alternatives that align with the established goals of Islamic financial institutions.

Secondly, comprehensive Sharia compliance training programs for staff working in Islamic financial institutions are essential. Equipping staff with a deep understanding of permissible practices will help them avoid unintentional non-compliance.

Thirdly, fostering transparency and clarity within institutions is critical. Measures to ensure accurate and reliable information dissemination are necessary, along with consistent application of Sharia principles in the practical implementation of Islamic financial instruments across banks and the central banks.

Finally, advocating for the standardization of Sharia-compliant financial regulations across different countries is crucial. Standardized regulations will enhance the competitiveness and overall strength of Islamic finance globally, even though many countries currently utilize the AAOIFI Sharia standards. Finally, encouraging research and development of new Sharia-compliant financial instruments beyond the existing instruments like Murabaha, Wakala,

and Mudaraba, is vital. Diversifying the range of instruments will foster development and innovation within the Islamic finance sector.

By implementing these recommendations, Islamic finance can further develop robust Sharia-compliant alternatives to Repos and contribute to a more vibrant and competitive Islamic financial landscape.

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ملخص البحث

توفر اتفاقيات إعادة الشراء (الريبو) أداة فعالة للمؤسسات تتيح لها إدارة السيولة على المدى القصير. تساعد الريبو هذه المؤسسات على تلبية احتياجات السيولة بدون الحاجة إلى بيع الاستثمارات طويلة الأجل، ومن ثم تحقق عائدات للمؤسسات التي لديها فائض في السيولة، وتمكين البنوك المركزية من إدارة المعروض النقدي وأسعار الفائدة على المدى القصير. ولكن التمويل الإسلامي يمنع تطبيق اتفاقية إعادة الشراء لطبيعتها التي تنطوي على أسعار الفائدة (الربا)، حيث أنها لا تتوافق مع الشريعة الإسلامية. هذا البحث يتناول فجوة هامة في المعرفة من خلال البحث في البدائل المتوافقة مع أحكام الشريعة الإسلامية والقادرة على تلبية احتياجات السيولة للمؤسسات المالية الإسلامية على المدى القصير. ومن خلال تطبيق كذا منهج، منه المنهج الوصفي، المنهج الفقهي المقارن والمنهج التطبيقي، تبحث هذه الدراسة كل من اتفاقية إعادة الشراء في الصيرفة التقليدية، وبدائلها المتوافقة مع أحكام الشريعة الإسلامية والمقترحة من قبل الفقهاء والهيئات الشرعية المتخصصة في القطاع. هذا البحث يحدد ويحلل مجموعة من هذه البدائل المقبولة شرعاً، بما في ذلك هيكل إعادة الشراء بين ثلاثة أطراف، هيكل إعادة الشراء المضمونة، القروض المتبادلة بشرط تساوي حساب النقاط، والوكالة بالاستثمار المكيفة على عقد المضاربة أو المرابحة. وبالنظر إلى المستقبل، فإن هذا البحث يمهّد الطريق نحو مزيد من الدراسات الرامية إلى تعزيز الاستفادة من التطبيق العملي لهذه الأدوات، بهدف تحسين الكفاءة وتطوير الأدوات الجديدة المتوافقة مع أحكام الشريعة الإسلامية، بما يساهم في تعزيز قطاع التمويل الإسلامي ودعم أنشطته.

جامعة البحرين

قسم الصيرفة الإسلامية



كلية ادارة الاعمال

تطبيقات البدائل الشرعية لاتفاقية إعادة الشراء (الريبو) في المصارف الإسلامية

أطروحة مقدمة كجزء من متطلبات الحصول على درجة الماجستير في الصيرفة والتمويل الإسلامي

اعداد

زينب عمار عبدالله الكوهجي

٢٠١٥٧١١٢

اشراف

د. عبدالرحمن عبدالله السعدي

أستاذ مشارك

جامعة البحرين

مملكة البحرين

سبتمبر ٢٠٢٤م