Liquidity Risk Management in Islamic Banking

Executive Development Program
Islamic Treasury & Liquidity Management
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Dr. Rifki Ismal
Bank Indonesia
Outline

- What is risk management & How it is important
  - General idea and Types of risk in Islamic Banking (IB).
  - Problems in Handling Risk in Islamic bank and IFSB Guide.
  - Risk in Sharia Jurisprudence and Sharia Mechanism in Risk Management.

- Liquidity Risk in IB and Sharia Approaches on Liquidity Risk
  - Characteristics of IB Facing Liquidity Risk
  - Challenges Related to Liquidity Risk Mgt and IFSB Guide
  - Investors Involvement and IB Roles in Managing Liquidity Risk

- Sharia Techniques to Mitigate Liquidity Risk
  - Organizational Approach & Occupying Liquid Instruments

- Facts in the Industry
  - Industrial Analysis
  - A Comprehensive and integrated program
What is Risk Mgt and How Important:
General Ideas of risk management

- Risk management determines the **successfulness** of financial institution in managing fund and providing well-expected return to stakeholders.
- It **prevents** a bank from financial failure, insolvency, liquidity distress, etc and build a good communication/coordination with stakeholders.
- It **measures and explains** every type of risk which will allow a bank to take necessary actions to anticipate and mitigate any risk.
- In general it is necessity for the **robustness** of the overall financial system and economic stability at the end.
- Risk management unexceptionally becomes **part of Islamic banking institution** with its unique characteristics and operations.
- Risk in financial terms is usually **defined** as the probability that the actual return may differ from the expected return (Howells and Bain, 1999:30). There are in fact three broad categories of risk namely (1) Financial risk, (2) Business risk and lastly (3) Operational risk.
### What is Risk Mgt and How Important:

#### Types of Risk in Islamic Banking

#### Financial and Business Risk

<table>
<thead>
<tr>
<th>Financial Risk</th>
<th>Business Risk</th>
<th>Operational Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Risk</strong></td>
<td><strong>Management Risk</strong></td>
<td><strong>People Risk</strong></td>
</tr>
<tr>
<td>Default Risk</td>
<td>Planning Risk</td>
<td>Relationship Risk</td>
</tr>
<tr>
<td>Down Grade Risk</td>
<td>Organization Risk</td>
<td>Ethics Risk</td>
</tr>
<tr>
<td>Counter party Risk</td>
<td>Reporting Risk</td>
<td>Processes Risk</td>
</tr>
<tr>
<td>Settlement Risk</td>
<td>Monitoring Risk</td>
<td>Legal Risk</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>Market Risk</strong></th>
<th><strong>Strategic Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Price Risk</td>
<td>R &amp; D Risk</td>
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<tr>
<td>Equity Price Risk</td>
<td>Product Design Risk</td>
</tr>
<tr>
<td>Interest Rate Risk</td>
<td>Market Dynamic Risk</td>
</tr>
<tr>
<td>Exchange Rate Risk</td>
<td>Economic Risk</td>
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<td>Reputation Risk</td>
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<thead>
<tr>
<th><strong>Liquidity Risk</strong></th>
<th>Followed by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset-Liability Imbalance</td>
<td>Insolvency Risk</td>
</tr>
<tr>
<td>Maturity Mismatch Risk</td>
<td>Gov't Taken Over Risk</td>
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Source: Tariqullah Khan, 2006 (modified)
What is Risk Mgt and How Important:
Types of Risk in Islamic Banking

- Risk can be expressed within a casual and interactive system, as the impact of each risk can’t be seen isolated, since they correlate and influence each other.

- Financial risk is the exposures that result in a direct financial loss to the assets or liabilities of a bank. Besides credit, market risk and liquidity risk, Islamic banks face equity investment risk.

- Credit risk relates to the performance of entrepreneurs: failure to fulfill their payment obligations, settlement, clearing, etc.

- Market risk happens due to unfavorable price movement or economic/financial condition such as RoR risk, exchange rate, inflation, etc. Unlike conventional one, Islamic banks bear risk of tradable, marketable, leaseable asset and mark up risk.

- Liquidity risk consists of 2 part: (i) Liquidity of financial instruments in financial market and; (ii) Liquidity related to solvency.
What is Risk Mgt and How Important:
Linkage between Risk & Business/non Environment

Linkage between Risks and Business/non Business Environment
What is Risk Mgt and How Important:
Problems in Handling Risk in Islamic Banking

- Every Sharia contract connects/relates with performance of real sector. Interest rate disconnects financial sector with real sector.
- **Market risk** applies directly or indirectly in every Islamic contract.
- Due to its **early stage of development**, Islamic banking industry faces lack of infrastructure, technology, regulation, lack of eligible human resources, lack of product innovation, etc. All of them might invite risk into the operation of Islamic bank.
- Islamic banks are **free from interest rate risk** but indirectly impacted by it.
Risk is close to definition of *gharar* in sharia.

*Gharar* is any uncertainty or ambiguity created by the lack of information or control in contract.

By *size*, there are gharar fahish (big gharar) and gharar yasir (small gharar). The former should be controlled and minimized while the latter has characteristics of (i) Negligible (ii) Inevitable (iii) Unintentional; and could be borne or ignored.

In gharar fahish, by *behavior*, there are natural gharar and created gharar.

*Natural gharar* happens without any intervention of any party like business loss, natural disaster, asset destruction, etc. Islamic banks may or may not avoid this risk but cannot transfer it to other parties.
Sharia Framework on Risk Mgt:
Risk in Sharia Jurisprudence

- Created gharar occurs because of human interventional like gambling, impermissible contracts, fake contracts, invalid contracts, etc. Types of intervention are taghrir al fi’li (fraudulent acts); taghrir al qawli (fraudulent statement); taghrir kithman (fraudulent concealment).

- Islamic banks **may not do and must avoid** this created gharar because created gharar means creating problem of uncertainty or playing with uncertainty condition.

- Risk management in Islamic banking deals with **minimizing lack of information and maximizing control** through sharia approaches such as profit and loss sharing, al ghunmu billa ghurmi, al kharaj bid daman, positive or negative sum game, cooperation and coordination and sharia compliance business activities, etc.
Sharia Framework on Risk Mgt: General Operation of Islamic Banking
Sharia Framework on Risk Mgt: Sharia Mechanism in Risk Management

Islamic Way of Mitigating Risk in Banking

**DEPOSIT/SOURCE OF FUNDING**
- Withdrawal risk
- Displaced commercial risk
- Liquidity Risk

**BANKING AUTHORITY**
- Legal risk
- Supervisory risk
- Systemic risk
- Monitoring risk

**ISLAMIC BANK**
- People risk
- Legal risk
- Reputation risk
- External risk
- Equity investment risk

**REAL SECTOR FINANCING**
- Credit risk
- Default risk
- Counterparty risk
- Settlement risk

**ECONOMIC & FINANCIAL MARKET**
- Exchange rate risk
- RoR risk
- Inflation risk
- Price risk

**Coordination and Regulation**

**Risk Sharing**
Islamic contracts require depositors to fully understand consequence of dealing with Islamic bank particularly: no guarantee/fixed return on deposit, no return on demand deposit, periodical withdrawal on long term time deposit and risk/return sharing.

Islamic bank mitigates its risk through risk sharing with depositors and entrepreneurs particularly profit and loss sharing (PLS) or return sharing scheme.

Economic / financial market risks are pure risk that can not be hindered by all parties but have to be minimized, avoided and handled properly. Islamic bank does not eliminate risk (interest based) but sharing/handling risk.

Regulator coordinates and designs proper legal and regulatory standard to control and manage performance of Islamic banking as well as preventing any unfavorable economic/business condition.
Liquidity Risk in Islamic Banking (IB): Characteristics of IB Facing Liquidity Risk

- Liquidity risk in IB is theoretically a reflection of the real economic condition.
- The probability of liquidity risk is reduced internally throughout sharia principles and externally through Islamic financial market mechanism, spurred by regulators and connected with real sector under sharia compliance.
Liquidity Risk in Islamic Banking (IB):
Characteristics of IB Facing Liquidity Risk

- Islamic bank ties its financing contract with real asset and this is typically another unique attribute of its operation.
- As a result, they face commodity risk such as price risk, asset loose, amortization, etc that could all interrupt asset side and end up with asset liability imbalances.
- Therefore, in Islamic banking, liquidity risk can happen as a result of attaching financing contract with real asset, which is not a typical conventional business transaction.
Liquidity Risk in Islamic Banking (IB):
IB Risk Related to Liquidity Risk Management

- IB is expected to see its liquidity risk from holistic perspective (IFSB) due to current economic condition and interconnection among financial and business risk.

- Financing risk in IB exposes direct loss to asset or liabilities followed by asset liability mismatch risk and liquidity run risk. As Islamic bank replaces lending with investment and partnership terminology. Credit risk (part of financing risk) becomes another problem to be anticipated.

- Market risk and commodity risk such as mark up risk, price risk, leased asset value risk, securities price risk and foreign exchange risk.

- Business risk, which incorporates rate of return risk, displaced commercial risk, withdrawal risk and treasury risk.
Liquidity Risk in Islamic Banking (IB):
IB Risk Related to Liquidity Risk Management

- Liquidity run risk is partly triggered by asset and liability imbalances; and another part from uncontrollable factors: (1) Macroeconomic imbalances; (2) Low trust on banks by investors leading to redemption and; (3) Abnormal financial market behavior.
Liquidity Risk in Islamic Banking (IB):

IB Risk Related to Liquidity Risk Management

- Reputation risk arising from failure in governance, business strategy and process; government takes over risk; up into the risk of religious consequences.

- Persistent asset liabilities mismatches should be traced seriously. In liability side, it emerges in under developed banking products; specific time deposit concentration; reliance on big investors; rational depositors consequences.

- In asset side, if there are disturbances in both certainty and uncertainty financing. Certainty income, for example, Murabahah financing is very sensitive to its long term deferred payment; Ijarah has problems of assets being leased; Bay Salam and Bay Istisna have problems of non-deliverable objects or drop of objects’ price risk.
Liquidity Risk in Islamic Banking (IB): IB Risk Related to Liquidity Risk Management

- Uncertainty income is determined by business risk such as changes in market, counter parties, product and economic/political environment.

- Fortunately, sharia equips Islamic bank with the profit and loss sharing concept that potentially reduces a deep loss of liquidity risk when it occurs (Alsayed, 2007:1).
Sharia Approaches on Liquidity Risk: Challenges Related to Liquidity Risk Management

- From liability side: the requirement to maintain adequate liquidity as a standby reserve. It contains two modes of reserves, namely cash reserve requirement in the central bank and statutory liquidity requirement in the bank itself.

- Another type of liquidity reserved for such purpose is placement in money market instrument essentially the very short-term basis. Usually, the instruments take form of debt based such as Murabahah inter bank or equity based such as Musharakah and Mudarabah inter bank and ready to be liquidated whenever the bank needs.
Sharia Approaches on Liquidity Risk: Challenges Related to Liquidity Risk Management

- From asset side: Islamic bank tends to allocate fund in just short-term investment basis (Gafoor, 1995:8). Even, in the short investment period, Islamic bank prefers debt based Islamic financing to equity based.

- The necessary challenge appears in the case of default by business partners because Islamic bank is prohibited from charging any accrued interest or imposing any penalty.

- The other challenges are lack of easily liquidated long-term investment, immature financial market, etc.
What is Risk Mgt and How Important:
IFSB guides on Risk Management

- IFSB Principles of Liquidity risk:
  - Principle 5.1: IFI shall have in place a liquidity management framework taking into account separately and on an overall basis their liquidity exposure in respect of each category of current accounts, unrestricted and restricted investment accounts.
  - Principle 5.2: IFI shall undertake liquidity risk commensurate with their ability to have sufficient recourse to sharia compliant funds to mitigate such risk.
Sharia Approaches on Liquidity Risk: Best Practices in IBs

**Investors Involvement in Liquidity Risk Mitigation**
- Understanding of Islamic banking principles.
- Understanding of Islamic banking operations and consequences.
- Understanding of non-Islamic activities (speculation, riba, etc).

**Risk Sharing**
- Types of product adjusted to projects to be financed.
- Balancing of financing needed and amount of fund to be collected.
- Managing maturity date of deposit products and projects financing.

**Islamic Bank's Involvement in Liquidity Risk Mitigation**
- Liquidity risk management (quantitative and qualitative).
- Prudential financing allocation and decision.
- Supporting information from credit bureau and credit rating company.
- High profit orientation of portfolio allocation (for consumer's confidence).

**Risk Sharing**
- Characteristics of deposit fitted to types of financing.
- Matching projects return with PLS executing date.
- Partners' selection (due dilligent): behavior, ethics, business prospects, etc.
- Joint financing to minimize risk.
- Monitoring and cooperative business management.

**Business Partners, Stakeholders and International Involvement in Liquidity Risk Mitigation**
- Liquid instruments preparation.
- External fund for emerging liquidity risk (central bank, government, money market).
- Insurance / Takaful.
- Default mitigation policy (guarantee in asset, third party guarantee, rescheduling, etc).
- Reserve in capital.
- International intervention (IDB, IIFM, etc).

**Sharia Compliance, Islamic Rules and Regulations, Religious Responsibility**
Sharia Approaches on Liquidity Risk:
Investors Involvement in Liquidity Risk Management

- Sharia ties investors of the bank to be responsible and aware of liquidity risk. Their engagements are ultimately in forms of their deep understanding of Islamic banking principles, operations and business consequences.
- The most important one is their unwillingness to entail in the prohibited business activities such as speculation, interest rate return seeking, etc besides their willingness to share the risk and responsibility with the bank.
- The mature investors will be ready to accept risk sharing, no periodic return in certain types of the banks’ products, and all other following consequences. Meanwhile, for business partners, the understood investors will indirectly guarantee the availability of fund for business.
**Sharia Approaches on Liquidity Risk:**

**IB Roles in Liquidity Risk Management**

- IB develops internal sharia approaches facing liquidity risk problem:
  - Liquidity risk management policy that includes policy related to liability and asset side. It is established by Board of Director and followed up by special task body and continued by senior management in a very technical level.
  - Measuring and monitoring liquidity risk. Islamic bank is obliged to maintain adequate liquidity as its standby reserve and regularly review its limit.
  - Prudential and sharia compliance banking operation that deals with the bank’s financing decisions, business partners’ selection, and possibility of joint operation with other Islamic banks.
Sharia Approaches on Liquidity Risk: IB Roles in Liquidity Risk Management

- Sharia based liability management. IB follows three approaches, (a) Adjusting types of deposit products into projects to be financed; (b) Balancing of financing needed and amount to be collected and; (c) Managing maturity date of both deposit products and projects financing.

- Sharia based asset management. IB approaches are, (a) Fitting characteristics of deposit and projects financing; (b) Matching the flow of projects’ return with the due date of PLS payment; (c) Selecting business partners through due diligence; (d) Employing joint financing with other Islamic banks to share the risk and; (e) Monitoring and conducting cooperative business
Sharia Techniques to Mitigate Liquidity Risk: Organizational Approaches & Liquid Instruments

Organizational approaches captures policies of:
- Regulating redemption time;
- Mitigating of default in equity;
- Mitigating of default in debt based financing, and;
- Determining parent company internal liquidity agreement.

Liquid Instruments as follows:

**SOURCES OF LIQUIDITY**

**Internal Sources of Liquidity**
- Placement through Islamic Financing
  - Mudarabah Redeemable CD
  - Islamic Bankers Acceptance
  - Private Asset Securitization
  - Commodity Murabahah
  - Wakalah
  - Double Currency Exc Depo
- Placement in External Instruments
  - Central Bank’s Instrument
    - Financing
    - Pooling Fund
  - Government Securities
    - GII and ILIF
    - Sukuk

**External Sources of Liquidity**
- Central Bank Facility
- Government Intervention
- Islamic Money Market
- Overseas Investors

Placement through Islamic Financing
Placement in External Instruments

Internal Sources of Liquidity

External Sources of Liquidity
To know: (i) Location of funds and, (ii) liquidity risk potential.

Liability side: (a) bank deposits (demand, saving and time deposits) and, (b) non bank deposits (obligation to BI, interbank, issuing Islamic securities, received financing etc).
Facts in the Industry: Industrial Analysis

- Assets side: (i) ST financing (Murabahah, Ijarah, Istishna, Salam dan, Qardh), (ii) LT financing (Mudarabah dan Musyarakah), (iii) indirect financing (securities, placement di PUAS, BI, equity participation).
Facts in the Industry: Industrial Analysis

Important points:

- ST financing absorbs all liquid deposits (short term deposits) even it includes less liquid deposits (long term deposits). Only 24% of less liquid deposits is used for LT financing.

- This portfolio is less potential to lead to liquidity risk. It is because ST financing is still higher than the potential of short term liquidity withdrawals (liquid deposits).

- The Economic impact of the Islamic banking operations will be optimal if the less liquid deposits are occupied to finance the LT financing.
# Liquidity Management Techniques: Characteristics and Segments of Stakeholders

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<thead>
<tr>
<th>General Behaviors/Characteristics</th>
<th>Consideration/Expectation When Depositing Funds</th>
<th>Segments</th>
<th>Ending the Relation with Islamic Bank</th>
</tr>
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<tbody>
<tr>
<td>High understanding about Islamic deposit contracts</td>
<td>IB's revenue sharing</td>
<td>Sharia driven</td>
<td>IB is found not sharia compliant</td>
</tr>
<tr>
<td>Low understanding about Islamic financing contracts</td>
<td>IB's operational income</td>
<td>Profit driven</td>
<td>Economic condition causes them to leave IB</td>
</tr>
<tr>
<td>Low involvement in the Islamic financing schemes</td>
<td>SBI rate</td>
<td>Transaction driven</td>
<td>IB ever delays any withdrawal request</td>
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<td>No intensive monitoring on IB performance</td>
<td>IB's cost of operation</td>
<td></td>
<td>IB ever needs emergency liquidity from Bank Indonesia</td>
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<td>Holding cash if economy is unstable</td>
<td>Prior position of deposit</td>
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<td>IB doesn't have proper facilities/networks</td>
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Liquidity Management Techniques: A Comprehensive and Integrated Program

I. Institutional Deepening

a. A continuous socialization of Islamic banking principles and operations to the public.
b. A cooperation with the stakeholders and government to expand the public understanding towards Islamic banks.
c. An intensive education on Islamic banking principles to the existing depositors/entrepreneurs.

II. Restructuring the Liquidity Management on the Liability and Asset Sides

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<thead>
<tr>
<th>II. 1. Restructuring the Liability Side</th>
<th>II. 2. Restructuring the Asset Side</th>
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<tbody>
<tr>
<td>a. Developing more varieties of the deposit products.</td>
<td>a. More financing to the equity based financing.</td>
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<tr>
<td>b. Redirecting the tenor of placement into the longer term.</td>
<td>b. Intensifying a joint (syndicated) and gradual financing.</td>
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<td>c. Fostering the Mudarabah muqayadah deposit contract.</td>
<td>c. Investing the funds in the SBSN.</td>
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<tr>
<td>d. Attracting the investment funds from government/big depositors.</td>
<td>d. Strictly matching tenor of the funds and financing.</td>
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II. 3. Improvement on the Policy to Balance the Asset and Liability

a. Implementing the profit and loss sharing concept instead of revenue sharing concept.
b. Paying deposit return purely based on the performance of the real business and not influenced by the interest rate.
c. Calculating and analyzing the patterns of liquidity withdrawal should count on the impacts of unstable economic conditions.

III. Revitalizing the Usage of the Islamic Liquid Instruments

a. Minimizing any barrier (segmentation) which occurs among BUS/UUS in Islamic money market.
b. Diversifying the placement of the funds into various tenors of SBI sharia.
c. Utilizing SBSN (purchase or repurchasing) and domestic/foreign sukuk market to optimize liquidity management.
Thank You, Question & Answer