Liquidity Risk Management in Islamic Banking

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Islamic Banking (IB) Market - Global overview

• More than 300 IBs globally spread over 51 countries

• IB market – Total assets of US$580 bn in 2008

• Overall growth in 2008 – 30%.

• Large, established IBs grew by 15% - still impressive

• Apparently unaffected by the Global financial crisis
Typical IB products

Assets – IB’s investments

- Murabaha – very popular for short-term credit
- Salaam contracts – also used for short-term credit and Forex purchase deals.
- Ijarah Contracts – for term lending, residential and commercial mortgage financing
- Istisna contracts – for project financing in infrastructure, lending, construction sectors
- Musharaka investments – PE & venture capital type investments for SMEs & large LBOs.
- Mudarabah – investments made by IB (as a Mudarib) using funds from its PSIAs.
- Mudarabah contracts are also used for syndicated financings.
Typical IB products

Liabilities – what an IB owes

• Mudarabah accounts – Parallel to time deposit in conventional bank.
• Mudarabah accounts are PSIAs – of both restricted and Unrestricted variety.
• Commodity Murabaha – often used for for short-term borrowing in the inter-bank market. Also used for deposit taking.
• Salaam contracts – used for Currency purchases in the forward markets.
• Amanah or Qard – used for accepting deposits for safe-keeping with no returns. Capital has to be protected.
Objectives

At the end of this workshop, you will be able to:

- define the main elements of, and factors that impact, liquidity risk
- describe how Islamic banks and their regulators assess liquidity risk
- explain how liquidity risk is managed at large financial institutions
Introduction

- Various perspectives of liquidity
  - Macroeconomic perspective: relates to money supply, interest rates and cost of credit
  - Financial markets perspective: relates to the ability to sell securities without material loss of value
  - Banking perspective: Ability to meet obligations at a reasonable cost when they fall due

- Liquidity of IBs are increasingly reliant on financial market liquidity
- Liquidity is crucial to ongoing viability of IBs
- Managing liquidity is among the most important activities conducted by IBs
- Sound liquidity risk management is critical to avoiding serious problems
Liquidity Risk

- Current & prospective risk to earnings & capital from an IB’s Inability to meet its obligations when they are due, without incurring unacceptable losses or excessive costs.

- The key phrase in this sentence, which has been learned the hard way in recent times, is “without incurring losses or excessive costs.”
Scope of Liquidity Risk

Traditional components of liquidity risk

- Funding liquidity risk
- Market liquidity risk
- Structural Liquidity Risk
- Contingent Liquidity Risk
- Term Liquidity Risk
Importance of Liquidity Risk

- Directly impacts the brand franchise of the IB and customers’ trust with the bank
- Access to liquidity and its terms are primarily dependent on market and customer confidence with the IB.
- Consequently liquidity affects ability of the IB to remain solvent.
- Despite adequate capital, IB can face poor profitability due to strained liquidity risk.
- Failure to address liquidity risk, will lead to weak balance sheet and potential default.
- Essential for an IB to assess, plan and manage its liquidity needs
Liquidity Risk in Islamic Banks

- Islamic Banks face the same level and nature of liquidity risk as Conventional banks.
- IBs are naturally vulnerable to liquidity risk due to the maturity transformation they achieve. (similar to banks)
- A large portion of IB’s assets are long-term and/or illiquid whereas a large portion of their liabilities are shorter-term deposits.
- IB’s are therefore exposed to potential 'runs' whenever they face an erosion of market confidence.
Liquidity management in Islamic Banks

- IBs keep excessive cash levels due to dearth of liquid, shari’a-compliant investment options in short-term end.
- Growth and profitability of IBs not affected – probably because the customers are bearing the costs or opportunity losses
- IBs use commodity Murabahah extensively for liquidity management
Factors Affecting Liquidity Risk

- Reliance on Wholesale Funding and Collateral
- Wholesale Financial Instruments
- Optionality and Funding Risk
- Use of Derivative instruments
  - Cumulative Effects of Settlements of Derivative deals
  - 'Unexpected' Events and Credit Derivatives
- Structured Products and Other Services
  - Worldwide Cash Management Services and Liquidity Risk
- Cross-border, Cross-currency and Cross-affiliate Liquidity
  - Cross-border Liquidity Risk
  - Cross-Currency Risk
  - Cross-Affiliate Risk
Assessing Liquidity Risk

- Approaches used to assess banks’ liquidity exposures are
  - Cash-flow matching
  - Liquid assets
  - Modelling cash-flows
Issues with assessing Liquidity Risk

- Estimation of cash-flows from assets, liabilities and commitments.
- Estimation of expected and unexpected cash flows
- Liquidity risk assessments are difficult and involve numerous assumptions
- Aspects which need assumptions are
  - Demand Deposits: behavioural assumptions
  - Commitments: probabilities based on historical drawdowns
  - Liquidity Facilities and Securitization Transactions
  - Amortizing Loans: Bullets & pre-payment options
Approaches used to assess Liquidity Risk

- **Cash Flow Matching, Maturity Ladders and Assumptions**
  - Traditional tool for comparing cash inflows and outflows over specified time buckets.

- **Liquid Assets Approaches**
  - Maintaining sufficient liquid assets to meet liabilities and other obligations as they come due under both normal and stressed conditions.

- **Modeling Cash Flows**
  - Statistical in nature and complex.
  - Involve modeling future cash flows from both existing business and future transactions to determine the bank's forward liquidity exposure.
Managing Liquidity

- Aim is to ensure that sufficient funds are available to meet expected and unexpected funding requirements.
- Most IBs have dedicated units called ALM units to manage liquidity risk.
- The main responsibilities of this risk management function are:
  - Liquidity planning
  - Implementing liquidity ratios
  - Defining liquidity and asset growth limits
  - Reducing liquidity risk
Liquidity Management function

- Continuous process of raising funds and/or investing excess funds to match assets and liabilities
- ALM function provides the policy framework for the bank's treasury and prescribes the techniques and instruments for day-to-day use by treasury.
- Objective is to optimize IB's cash flows in terms of funding costs and its volatility.
- At some IBs, ALM function may also manage day-to-day liquidity for the main business units.
- Various Forms: Centralized versus Decentralized Liquidity Management
Liquidity Management – under stressed conditions

- Managing liquidity under normal conditions - this 'day-to-day' liquidity management

- Managing liquidity under extraordinary conditions - when the bank is under stress.
  - Liquidity contingency planning
  - Stress testing
Liquidity Action Steps

- Excess cash and projected cash flow
  - *Timeframe > Immediate*

- Sell marketable assets
  - *Timeframe > Days to weeks*

- Raise money market funding
  - *Timeframe > Weeks*

- Sell non-marketable assets
  - *Timeframe > Months*

- Raise capital market funding
  - *Timeframe > Several months*
Liquidity Risk - in the financial crisis

- Crisis was triggered by asset illiquidity and market illiquidity
- Effect of illiquidity manifested in lower mark-to-market valuations.
- Pressure for short-term earnings meant larger risky portfolios and less liquid assets
- Core funding sources dried out as funds chased attractive investment options
- Increasing reliance on wholesale markets for funding needs
- Structural mismatch in funding
Liquidity risk trends in IBs

- Traditionally less maturity mismatch in IBs than in conventional banks
- Commodity Murabahah deals are shifting the IBs toward greater maturity mismatch.
- Funding strategy and products used by an IB impacts on the liquidity risk profile of that IB.
- IBs raising funds through restricted PSIA facing distinct liquidity management issues vis-à-vis unrestricted PSIA or current accounts.
- Move of the IBs from unrestricted to restricted PSIA can help reduce the maturity mismatch and liquidity risk.
Current Regulations

- Liquidity Risk - most jurisdictions treat IBs with same rules as conventional banks.
- MAS and DFSA are two examples
- Requirement to have in place risk management systems and controls
- DFSA has mandated limits for Cumulative negative mismatches over S-8 and S-30 days
- As a percentage of relevant liabilities
Proposed Regulations

- BCBS has proposed new regulations for liquidity risk management
- will form the basis for liquidity risk management guidelines for IBs
- Short-term Liquidity Funding Ratio under a stressed scenario
- Long-term Net Stable Funding Ratio to address structural liquidity issues
- A set of ratios for monitoring liquidity risk management
Thank You