Risk Management in Islamic Financial Institutions

Rifki Ismal

Sesric Training Program
Turkey, 3-5th June 2013
DAY TWO
Risk in *Sharia* Jurisprudence and *Sharia* Mechanism in Risk Management
• 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.
• 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.
DAY TWO
Risk Management in Islamic Banking Contracts
Musharakah is a partnership (joint venture) contract where two parties (Islamic bank and business partner) combine their capital in an investment to share profit and loss whereby they have similar right and liabilities.

- There are permanent and diminishing Musharakah.
• Credit, Operational, Market and Liquidity risk exposes both permanent and diminishing Musharakah.

• Permanent Musharakah faces operational risk in determination of profit and loss sharing. Profit is shared related/unrelated to capital contribution while loss sharing is precisely based on capital contribution.

• When business fails to produce income, it bears credit risk. This might interrupt payment of PLS to depositors and invite liquidity risk.
• Finally if the business can not be continued, value of final capital faces market risk.

• Diminishing Musharakah exposes operational risk when business partner fails to buy share of diminishing capital.

• Since expected income can’t be fulfilled, credit risk appears.
RISK MANAGEMENT IN MUSHARAKAH

• When it disturbs payment of PLS to depositors, liquidity risk comes into the bank.

• At the end of diminishing Musharakah, when value of total equity investment is different with market value, banks bears market risk.

• To handle both operational risk and credit risk, bank must take part in company’s management, do monitoring and insure the business.
• Bank may have right to sale its share to third party in diminishing Musharakah contract to avoid credit risk.

• Stop the loss of a business is one of the solutions to mitigate market risk.

• Gradually selling bank’s share to business partner is also another solution for credit and market risk. Finally, reserving capital might hinder bank from liquidity risk.
• Mudarabah is a partnership where one party provide capital and another party provide skill. Any profit will shared but loss will be borne by owner of capital only.
External events like catastrophic and internal business failure might invite operational risk ending with business losses which should be covered by the bank.

Following it, liquidity of the bank is disturbed (failure to provide cash to depositors) which is liquidity risk.

Specifically, if mudarib is not capable (skillful) enough to run the business, it can cause credit risk to the bank and because value of the project dropped in the market equity price risk appears.

Because management of the project can’t be controlled by bank, transparency risk exists.
RISK MANAGEMENT IN MUDARABAH

- To mitigate, bank should be sure the eligibility and capability of the mudarib (business partner).
- Monitoring business performance and balance sheet of company might lessen credit risk.
- Accurately measuring, predicting and anticipating market risk are some ideas to tackle market risk issue in this case.
- Providing capital adequacy and internal reserve are also tools to prevent liquidity risk in Mudarabah contract.
Mudarabah stands for a sale of good on a mutually agreed profit and deferred payment. The seller was obliged to declare his cost and the profit to the buyer (transparency).
• Client promises to buy asset under wa’ad contract (unbinding) so it might lead to operational risk or asset risk if he/she declines to buy.

• Before asset being sold to client, bank is responsible for any risk of the asset such as market risk, risk of loss, damage, etc.

• If mark up price is not accurately determined, it may cause mark up risk.
• At the end or during payment period of Murabahah, the bank faces commodity price risk and market risk.

• When client (buyer) fails to pay the installment, credit risk comes and if he/she is default, price and market risk bear the bank when the asset is sold to market.

• Further, such difficult situation will end up with credit liquidity risk, withdrawal risk and bank rush.
• Bank may require client to put collateral to minimize operational risk, credit risk and moral hazard risk.
• Complete documents should follow this complicate contract such as guarantee, collateral, value of the asset, installment period, etc.
• Total payment of Murabahah uses formula of:

\[ R = \sum_{i=1}^{n} (r_i + p_i) \]

• Hence, total repayment should be greater that the above formula or:

\[ R \geq \mu \sum_{i=1}^{n} (r_i + p_i) \]
In Salam, a bank buys a specific good from a producer to be delivered in the future (known) date. The bank later on sales that good to an agreed buyer for profit.
RISK MANAGEMENT IN SALAM

- External events may cause the seller fail to deliver the good in an agreed date. Operational risk occurs.

- Mismatching between specification of the good requested and the one being made may lead to delay of the finished good. This brings business risk and reputation risk.

- Even though salam price is fixed but the final price of the good still has mark up risk and market risk because of fluctuation in price of commodity.

- In the selling time, if buyer delay/fail to buy the salam good from bank, credit risk and liquidity risk hamper the bank.
To avoid operational risk, bank may ask the seller to follow standard procedure in making the good and insures the salam object.

Choosing the respected, well-performed, skillful seller can also be adopted by bank.

Using quantitative and qualitative approaches to predict probability of seller’s default to deliver the good in agreed time.

Predicting future market price can minimize mark up risk, price risk and market risk. Technically Value at risk can be employed for such purpose.

To minimize asset risk (damage risk, loss, etc), bank can (i) ask the seller to directly deliver the good to buyer or; (ii) ask the seller to find candidate buyer.
Istishna has the same mechanism with Salam except it applies mainly for manufacturing/industrial goods; no obligation to pay full cash in advance by bank and having specific quality/quantity to be fulfilled by seller.

**Diagram:**
- Bank's Client (Producer)
- Islamic Bank
- Good's Market

1a: Bank's Client (Producer) to Islamic Bank
1b: Islamic Bank to Bank's Client (Producer)
2: Bank's Client (Producer) to Good's Market
3: Good's Market to Bank's Client (Producer)
During the construction, it is possible to have disruption in supply of raw material, undesirable construction, wrong construction, etc. This is operational risk which may end up with credit risk.

In such case, when seller asks for extra time, bank faces business risk, reputation risk and liquidity risk.

If seller finally can not make the ordered good, default risk, credit risk, liquidity risk are some potential risks to be borne.

When actual price of the ordered good fluctuates, it causes price and market risk when the bank receives the good and want to resell it to the buyer.
Carefully and precisely choose the contractor (seller) is one possible action to prevent operational risk, default risk, moral hazard risk, etc.

Insuring the manufactured good can also be taken into account.

During the construction process, coordination, intensive monitoring, effective communication, and cooperation are among activities which can minimize risk of product defect, failure, etc.

Reserving some capital (internal liquidity) for the sake of managing liquidity withdrawal from depositors is another policy to solve liquidity risk.

Join contract among Islamic banks to order a good under Istishna basis will also lessen risk of default, etc.
Ijarah is hiring or leasing physical asset. The bank owns the asset and leases it for a fee. There are operational ijarah and financing ijarah.
• Any default of payment by the lessee may generate credit risk and operational risk.
• There is also commodity price risk and market risk to the asset being rented.
• Any damage/defect in the asset is under responsibility of the bank. It can invite moral hazard risk and personal risk.
• Rate of return risk appears when determination of ijarah fee is not appropriately calculated.
• In ijarah muntahia bitamlik/ ijarah tumma al baik/ijarah wa iqtina, the lessee and lessor bear market risk when settling the asset at the end of ijarah period.
• Accurately measuring the value of the asset and rental rate. Since rental rate can be adjusted, bank has to determine it precisely.

• Insuring the asset and monitoring the usage of the asset might be lowering moral hazard risk, credit risk, operational risk, etc.

• Estimating future market price may allow Islamic bank to anticipate market risk.

• Financing lease by mechanism prevents Islamic bank from asset risk (damage, loss, defect, etc) but it needs more effort compared to operational lease.
DAY TWO
Liquidity Risk in Islamic Banking
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.
• 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.
• 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 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 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.
• 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. On the liability side, it emerges in:
  – under developed banking products;
  – specific time deposit concentration;
  – reliance on big investors;
  – rational depositors consequences.
On the 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.
• 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).
End of the Day