Assessment of Liquidity Risk Management in Islamic Banking Industry (Case of Indonesia)

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Outline of Presentation

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  - Indonesian Islamic Banking industry.
- Liquidity Risk Assessment.
  - Liquidity Risk Management Index.
  - Criteria Examining The Result of the Survey.
- Assessing Indonesian Islamic Banking Industry.
  - Liability Side.
  - Asset Side.
  - Liquidity Risk Management (LRM) Policy.
- Conclusion and Policy Recommendation.
Liquidity Risk Management and Islamic Banking Industry

Liquidity Risk in Islamic Perspective

- Sound liquidity risk management is conducted throughout real business transactions. Liquidity risk, if it occurs, comes from disharmony of all parties doing business or unfavorable business condition leading to liquidity problem.

- Islamic banking takes roles as financial intermediaries, supporter and facilitator all together. Liquidity problem is managed through coordination with its counterparts.

- Islamic bank ties its financing with real asset (Kahf, 2000:2) so liquidity risk can happen if there is changes in commodity prices, asset loss, etc.
Liquidity Risk Management and Islamic Banking Industry

Indonesian Islamic Banking Industry

- The industry has been growing promisingly since the establishment of the first Islamic bank in 1992.
- Up to end of 2007, there are 3 Islamic Banks, 25 Islamic Banking Unit (UUS) and 114 Islamic Rural Banks (BPRS) with total 683 offices.
- FDR is between 100%-120% (2001-2007) and NPF is around 2%-4%.

<table>
<thead>
<tr>
<th>BANKING INDICATORS</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islamic Banks (unit)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Islamic Banking Units</strong> (unit)</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>15</td>
<td>19</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Islamic Rural Banks (unit)</td>
<td>79</td>
<td>81</td>
<td>83</td>
<td>84</td>
<td>88</td>
<td>92</td>
<td>105</td>
<td>114</td>
</tr>
<tr>
<td><strong>Total Offices</strong> (unit)</td>
<td>146</td>
<td>182</td>
<td>229</td>
<td>337</td>
<td>443</td>
<td>550</td>
<td>567</td>
<td>683</td>
</tr>
<tr>
<td>Total Asset (trillion Rp)</td>
<td>1.79</td>
<td>2.72</td>
<td>4.05</td>
<td>7.86</td>
<td>15.33</td>
<td>20.88</td>
<td>26.72</td>
<td>36.53</td>
</tr>
<tr>
<td><strong>Total Financing</strong> (trillion Rp)</td>
<td>1.27</td>
<td>2.05</td>
<td>3.28</td>
<td>5.53</td>
<td>11.49</td>
<td>15.23</td>
<td>19.53</td>
<td>27.94</td>
</tr>
<tr>
<td>Total Deposit (trillion Rp)</td>
<td>1.03</td>
<td>1.81</td>
<td>2.92</td>
<td>5.72</td>
<td>11.86</td>
<td>15.58</td>
<td>20.67</td>
<td>25.65</td>
</tr>
</tbody>
</table>
Liquidity Risk Management and Islamic Banking Industry

Indonesian Islamic Banking Industry

- Less competitive, positioning of Islamic banks in people’s mind and lack of synergy with other financial institutions are some weakness of the industry (Blue Print of Indonesian Islamic banking, 2005).
- Some fundamental problems leading to liquidity risk problem the industry are:
  - Depositors’ investment motives;
  - Under developed financial market;
  - Limited banking instruments;
  - industry’s fragility on macroeconomics issues; etc.
Liquidity Risk Assessment

Liquidity Risk Management Index

- The survey takes 3 Islamic banks (X,Y,Z) dominating 82% of the market share.
- Aspects being valued are Asset side, Liability side and Liquidity risk management (LRM) policy.
- In asset side: bank’s efforts to monitor financing; arrange its allocation; tackle the default & unpleasant economic condition; and handle liquidity distress from asset side.
- In liability side: setting portfolio deposit; arranging depositors’ withdrawal; tracing potential of liquidity run from rational depositors, etc.
- LRM policies: covering corporate eyes on building healthy liquidity management practices.
Liquidity Risk Assessment
Liquidity Risk Management Index

- Asset side (A) and liability side (B) are given 35 points index while (LRM) policy 30 points. Total 100 points.
- There are points and 0 point in yes and no questions (m). There are points (no 0 point) in every option of multiple choice questions (n). Finally there are points for every combination of ranking questions (p).

\[ L = \sum_{t=1}^{n} A_i + \sum_{t=1}^{n} B_i + \sum_{t=1}^{n} C_i \]

\[ \sum_{t=1}^{n} A_i = \sum_{t=1}^{9} m_i + \sum_{t=1}^{22} p_i \]

\[ \sum_{t=1}^{n} B_i = \sum_{t=1}^{7} m_i + \sum_{t=1}^{14} n_i + \sum_{t=1}^{3} p_i \]

\[ \sum_{t=1}^{n} C_i = \sum_{t=1}^{13} m_i + \sum_{t=1}^{3} n_i + \sum_{t=1}^{12} p_i \]
Liquidity Risk Assessment
Criteria Examining the Result of Index

- Finally we gain 3 index values for bank X, Y, Z: (i) index value of asset (A); (ii) liability (B); and (iii) LRM policies (C).
- To evaluate and judge it, four criteria of examination are set: (1) Excellent; (2) Good; (3) Satisfactory and; (4) Poor.
- Interval value of the index for every criterion just adopts 25% range from 0 value to 100 value.
- Indonesian Islamic banking industry is graded excellent if its liquidity risk management index lies between 75 – 100; good if 50 – 74; satisfactory if 25 – 49; and poor if below 25.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Total points</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Excellent</td>
</tr>
<tr>
<td>Asset Side</td>
<td>35</td>
<td>26 - 35</td>
</tr>
<tr>
<td>Liability Side</td>
<td>35</td>
<td>26 - 35</td>
</tr>
<tr>
<td>LM* Policies</td>
<td>30</td>
<td>22 - 30</td>
</tr>
<tr>
<td>Total Index</td>
<td>100</td>
<td>75 - 100</td>
</tr>
</tbody>
</table>

* Liquidity Management
Assessing Indonesian Islamic Banking Industry

Liability Side

- 50% of total deposit is a rolled over 1-month deposit owned by cooperative non individuals.
- A penalty is charged for liquidating immature deposit and a requirement for prior notice to big depositors before withdrawal.
- Planning to design new banking instruments; attracting international investor to strengthen the capital; and realigning tenor of deposit from short-term into long-term deposit.
- Meanwhile, the purpose of depositors to take their money out of the bank is mostly driven by daily transaction motive and no indication of huge deposit switching from Islamic bank into conventional bank.
Assessing Indonesian Islamic Banking Industry

Asset Side

- Monitoring and evaluating financing; matching financing planning with deposit by polling it and advance it based on its maturity date.
- However, macroeconomics shocks might increase NPF and it becomes difficult to find profitable and prospective business proposal.
- Mitigating liquidity pressure through repurchasing SWBI or reselling Islamic securities in 2nd secondary market.
- Preferring debt-based financing (Murabahah, Salam, Istishna, Ijarah) to equity-based (Mudarabah, Musharakah) or service-based (Wakalah, Hiwalah, Kafalah).
- In future, all of them still concentrate of boosting revenue from debt-based financing rather than equity-based financing because of difficulties in finding profitable business proposal, trusted entrepreneurs and volatile business condition.
Assessing Indonesian Islamic Banking Industry

Liquidity Risk Management (LRM) Policy

- Having risk management division/team liquidity risk.
- Balancing asset and liability through portfolio planning; building quantitative model; and insuring it with government's owned insurance deposit (LPS).
- Setting up a communication with big depositors about their deposit withdrawal planning.
- Issuance of sukuk strengthens liquidity management plus a benchmark for all Islamic securities.
- Keep stabilizing economic condition and socializing Islamic banking are their future planning.
## Assessing Indonesian Islamic Banking Industry

### Liquidity Risk Management Index of Bank X

<table>
<thead>
<tr>
<th>Assessment of Bank X</th>
<th>Total points</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Excellent</td>
</tr>
<tr>
<td>Asset Side</td>
<td>22</td>
<td>26 - 35</td>
</tr>
<tr>
<td>Liability Side</td>
<td>26</td>
<td><strong>26 - 35</strong></td>
</tr>
<tr>
<td>LM* Policies</td>
<td>22</td>
<td>22 - 30</td>
</tr>
<tr>
<td>Total Index</td>
<td>70</td>
<td>75 - 100</td>
</tr>
</tbody>
</table>

* Liquidity Management

### Liquidity Risk Management Index of Bank Y

<table>
<thead>
<tr>
<th>Assessment of Bank Y</th>
<th>Total points</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Excellent</td>
</tr>
<tr>
<td>Asset Side</td>
<td>22</td>
<td>26 - 35</td>
</tr>
<tr>
<td>Liability Side</td>
<td>22</td>
<td><strong>26 - 35</strong></td>
</tr>
<tr>
<td>LM* Policies</td>
<td>23</td>
<td>22 - 30</td>
</tr>
<tr>
<td>Total Index</td>
<td>67</td>
<td>75 - 100</td>
</tr>
</tbody>
</table>

* Liquidity Management

### Liquidity Risk Management Index of Bank Z

<table>
<thead>
<tr>
<th>Assessment of Bank Z</th>
<th>Total points</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Excellent</td>
</tr>
<tr>
<td>Asset Side</td>
<td>24</td>
<td>26 - 35</td>
</tr>
<tr>
<td>Liability Side</td>
<td>14</td>
<td>26 - 35</td>
</tr>
<tr>
<td>LM* Policies</td>
<td>19</td>
<td>22 - 30</td>
</tr>
<tr>
<td>Total Index</td>
<td>57</td>
<td>75 - 100</td>
</tr>
</tbody>
</table>

* Liquidity Management
Conclusion and Policy Recommendation

- The survey comes up with a “good” grade. They occupy very short-term anticipative actions to gain high short-term and sustainable profit in line with maintaining liquidity risk.

- Some recommendations to improve liquidity risk management:
  - Intensifying communication with depositors and entrepreneurs to realign deposit, control the liquidity withdrawal and make a long term profitable financing;
  - Designing new deposit and financing scheme to support liquidity risk management.
  - The survey result is not the optimal result. As new players in the industry, the resiliency of the industry has to be proven later on.