The Efficiency of Liquidity Management in Islamic Banks (Conservative vs. Profit)

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Abstract

The aim of this paper is to explain and examine the liquidity efficiency in Islamic Banks. The paper attempts to bridge the gap in the empirical literature on Islamic Banks by building model to measure liquidity efficiency, where measurement of liquidity management efficiency helps in the planning of liquidity, besides it helps in the anticipation of liquidity needs and also to build defensive intervals. This procedure well helps the Islamic banks to know exactly the needs of liquidity for building profit and to avoid the liquidity risk at the same time. The core of present paper is the question of whether the liquidity management in Islamic banks is efficient or not, the primary dependent variable is the z-score as a measurement of Islamic banks liquidity management soundness.

Keywords: Islamic Banks; liquidity management; efficiency; measure model.

I. Introduction

Liquidity and cash flows managment is the basic subject for contnous and steady development of any bank , where liquidity managment goal is to enable bank to finance the surplus of asset to face- off obligations at maturity date. So the soundness of liquidity managment is a very important bank function to avoid risk (Ismal Rifki, 2009)

The financial management in bank isn't an easy task, , but competitive markets where banks rivalry concerning increased sales as a result of found availability, push them to ignore this aspect. The bank or the firm may be strong and well managed according to up – to –date strategies, never the less, it has to declare bankruptcy or sell to others. The clear reality later business days, point out that only high income dose not ensures bank's success, without obtaining free cash flows (FCF).

The liquidity management is the first task as financial planning. Recently though management of banks profits is important, has become more important in view of recent financial crisis. Briefly, liquidity crisis is a result of the lack of financial harmonization.

Islamic banks are important institutions in the banking system, Islamic banks emerged in 1971. Islamic banks contribute fundamentally to financial growth in many countries; in many countries, the number and reach of Islamic financial institutions worldwide has risen from one institution in one country in 1975 to over 300 institutions, operating in more than 75 courtiers in the middle east, south east Asia, Europe and united state. Total assets of Islamic banks worldwide are estimated to bet $250 billion, and are expected to grow by 15% a year, (Cihak and Hesse, 2008).

The success of Islamic bank is a result of many factors, but the important one is liquidity management which encourages customers to deposit their funds or to borrow funds for investment.

The Islamic banks approach to business is the reverse of conventional commercial banks. Islamic banks do not give cash loans but they finance the assets required for invest and in turn sell them to the investor. Thus Islamic banks are compelled to keep a big part of their assets in current assets, and current assets constitute 9.45% to total assets more than conventional banks (Kamal,Omar 2009).

Consequence the mushroom and thriving of Islamic banks role in economy, the Islamic banking literature has augment. Islamic banks have not yet reached full maturity but are quite interesting as they offer different kinds of product. Many of literatures searched into comparison of the instruments used in Islamic and commercial banking, and then discuss the systematic and supervisory challenges connected with Islamic banking (IMF2008). Unfortunately there are very limit qualitative (not qualitative inquisition about the assessment of liquidity management in Islamic banks (Rifki Ismal 2010); (Kahf, monzer 200), however it is in the conventional banks. The present paper attempt to bridge the gap in the empirical literature on Islamic bank by build measuring model to analyze the efficiency of liquidity management of Jordanian Islamic banks (Jordan Islamic bank for finance and investment and Islamic international Arab bank), where measurement of liquidity management efficiency (LME) help in the planning of liquidity, beside it help in the in the anticipation of liquidity needs and also to build the defensive interval. This procedure will help the banks to know the exactly need of liquidity for building profit and to avoid the liquidity risk in the same time.

Studying liquidity management issues is a critical but complex subject and is more unique due to sharia'a compatible.

II. Peculiarity of Islamic Bank Liquidity Management

Islamic bank offer much solution around charging interest that mean Islamic banks not trade in debt and not deal with Reba (interest) which is not allowed according to the teaching of Qur'an, Muslim's holy book. Reba it is most basic form is the repayment of a loan with hire amount. Denote, it is the charging of interest on a loan.

One of the most advanced arguments against Reba is that charging interest without any services rendered doesn't promote social justice (Sowaan, 2001; Ajlony 2008). Instead of interest which is prohibit profit and loss shring strategy (PLS), by and resale of goods and services, and the allowance of services for fees from the basic of contract. The PLS financing transfer the direct credit risk from banks to their investment depositors, but it also increases the overall degree of risk on the assets side of bank balance sheet, as it make Islamic banks impressible to risks normally born by equity investors rather than holders of debt(Sundarajan and Errico 2002).

Martin Cihak and Heiko Hesse(2008) mentioned "that addressing the unique risks of Islamic banking requires adequate capital and reserve, appropriate pricing and control of risks, strong rules and practice for governance, disclosure, accounting, and auditing rules and infrastructure that facilitates liquidity management".

The approaches of Musharaka financing (participation in profit and loss), and Mudaraba arrangement (speculatation) make Islamic banks able to be less vulnerable to risk, were Musharaka on the assets side and mudaraba to the investment depositors, these approaches make difficult access to liquidity management, the put pressure on Islamic banks to be more precautious of which pay them holding a relatively larger portion of there assets than commercial banks in reserve accounts.

The Islamic banks develop the following new financial instruments based on Islamic sharia'a (legislation), especially Islamic financial services are described by prohibition against the payment and receipt of interest at fixed rate.

1. Sharia'a sukouk instead of interest bonds. Sharia'a sukouk is : " marketable securities with limit value which issue versus of money by Islamic banks " in the name of holders in order to execution of investment projects. The rights of sukouk holders are:
    - sell the sokouk in the second market
    - dividends

The sukouk issue in many sorts (Mahmood Irshied 2001):

a- sokouk of mutual funds
b- sokouk of mudaraba (profit loss sharing)
c- sukouk of Murabaha (cost-plus financing)
d- sukouk of Musharaka (depend on participation ratio of each of the bank and customer in project according to the agreement between the two parties). The bank participate in the part of financing with unfixed revenue (participate in loss-profit), but the customer share in manage of the project versus the percent of net profit, the dividend of profit or loss between the two parties depend on their sharing ratio in project financing.

e- Sukouk of Al Igara(lease), where as three kinds, first is Igara come to cession (hire-purcase lease), second is financing lease and the last is operating lease.

2. Securitization Sukouk(Abdul Rahman Al Ahmad2007); (Foad Mhysin2008). Term of securitization mean transfer the cash flows to marketable securities, is to protect the liquidity from dryness and also protect financial markets from financial crisis.
   This instrument has many aspects:
   - Transferable the debt (sokouk) to shares.
   - Trade off the debt into commodities (cars, instruments ...etc).
   - Issue of equity-bonds which be rentable (with limited earning) to encourage creditors for trade-off their debt.
   - Transfer debt to bank shares (convertible debt).

3- Marketing capability, where the high security in Islamic banks lead to liquidity surplus in short- term, but for treatment surplus of liquidity Islamic banks follow up the following stages:
   - Establish special fund for investment in commodities.
   - Direct invest in trade operation by using Al Mudaraba method (cost-plus financing).

4- Rate of return (instead of interest according to Sharia'a), are divided to:
   - Return on financial assets which founded on Mushraka.
   - Return on differed sale contracts.

The core of present paper is the Question of whether the liquidity management in Islamic banks is efficient or not, the primary dependent variable is the z-score as a measure of Islamic banks liquidity management soundness. A review of many Islamic banks literatures does not provide answer to the above question and using theoretical argument rather than a formal empirical analysis.

III. Methodology and Data's

Measurement of Islamic banks Management Efficiency:

The z- score listed as a measure or trusty indicator of proper bank risk, it is widely known measure of bank rightness (Maechler, Mitra and Worell, 2005).

The present paper makes use of z-score equation to measure liquidity efficiency in Islamic banks. The z-score in the equation is the dependent variable which determined by independent variables, if z-score will be 3.5 or upon. Indicate of liquidity management soundness. But if will be mines 3.5 indicates there is liquidity risk at bank in long term. The z-score can be briefing as:

$$Z = (C+ L+ F+ R) / SD$$

Where:

C= Net Cash Flows from Operating (NCFO) / Debt
L= Equity Capital and Reserve / Risky Assets
F = Cash Flows from Operating (CFO) + Cash and Balances with Central bank / Current Liabilities.
SD = Standard Deviation

The z-score is an objective measure, because it focuses on bank risk especially in liquidity. Herein, the present paper tries to adapt the z-score model to examine the efficiency of liquidity management in Islamic bank.

The form of regression model as follow:

$$Z = a+b1C+b2L+b3F+b4R+U$$

Where, dependent variable is the z-score. Where the independent variables are: C= (liquidity ratio); L= (Capital risk ratio); F= (Cash ratio); R= (ROA ratio), and U is the residual.

Data's

The present paper calculations are based on the two Islamic banks; Islamic International Arab Bank and Jordan Islamic Bank, Data's drawn from the financial statements for the year 2004-2008.

To capture the importance of the financial ratios on the efficiency of liquidity management, the present paper show the result of each of variables, the main result of our analysis are sensitive with respect to C ratio; L ratio; and R ratio in the regression model.

Results

For inquire about the liquidity management soundness in Islamic banks, the present paper tried to apply the sensitive of z-score approach (Table I) as alternative of the standard deviation of z-score, because the SD of z-score gives only a part of the information about the behavior of z-score, especially when examine the efficiency of islamic bank management. The present paper is more much heedful in the relation of NCFO / DEBT Ratio and z-score than other ratios in the z-score model.

The results shown in the Islamic bank (A) and Islamic bank (B), *there is no soundness* (efficiency) of liquidity management. The sensitive z-score volatility must be between (3.5) to (-3.5) points. The present paper defines the downward (upward) SD of z-score, the sample average of the different between the z-score per year and it mean of the z-score, if the z-score is below (above) the bank mean. Again Islamic bank (A) and (B) are characterized by larger down load SD of the z-score indicates to liquidity trouble in long-term.

Table1. Sensitivity of z-score 2004-2008

Volatility of z-score (%points)	Downward	Upward
Islamic Bank (A)	- 5.31	5.93
Islamic Bank (B)	- 5.76	6.12

Source: Calculated based on financial statements of Islamic Banks

Regression Analysis

The present paper also examine the robustness of independent variables on dependent one(z-score), the paper as well use the regression analysis following the methodology described in section III, to explain the variation in z-score.

Relating to the z-score model and the data's available, the present paper has arrived at the following results (Table 2) of each of International Arabic Islamic Bank and Jordan Islamic Bank.

Table 2. Regression Analysis Results
(Dependent variable: z-score)

Independent variables	Bank (A)	Bank(B)
NCFO / DEBT	- 4.238 (0.020)**	-3.635 (0.022)**
Equity Capital & reserve / Risky Assets	- 3.224 (0.019)**	-3.528 (0.023)**
ROA	- 3.469 (0.081)**	-4.243 (0.085)**
CFO / CL+ Cash and Balance with Central Bank	1.283 (0.647)	1.420 (0.766)
Constant R- squared	48.632 0.78	43.406 0.69

** Significant at 5%

The regression analysis support the result for the simple comparison of z-score that the two Islamic Banks appear liquidity problem in future, that mean the liquidity management in theses banks is not efficient. As to the independent variables (C, L, R), they have generally expected.

In accurate, Islamic banks with lower NCFO/Debt ratio tend to have lower z-score, this result agree with Equity Capital & Reserved ratio (Risky Assets) and ROA ratio also. The slope coefficient is negative with one exception; it is significant in the two banks.

Conclusion

The results obtained in the present paper have shown that:

a- Islamic banks liquidity management efficiency is not as must be.
b- Each of variables C,L,R in model are useful in anticipation of the efficiency of liquidity management in Islamic banks, specially the C variable (NCFO/ DEBT), the result of this ratio was weakness. The result of applied the ratio was very low in the years (2004, 2005, and 2007) and negative in the years (2006, 2008). This result is indicator for liquidity problem in long term.
c- The analysis result shown there is risky of equity capital and reserves, besides, the ROA was not efficient during the period of study (0.6%, 1.6%, 2.13%, 3.7%, and 1.3%).
d- The F ratio in the model was not significant

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