Liquidity Management Practices in Islamic Banking

Introduction

In the last few decades the increasing significance of Islamic finance has been observed. Among all the Islamic financial institutions, banks emerged at the earliest. The first Islamic bank, Mit Ghamr Savings Bank, was founded in 1963. Up to now banks have been playing a dominant role in Islamic financial industry. The value of their assets accounts for over 90% of assets of all Islamic financial institutions. According to Ernst & Young assets of Islamic banks amounted to $1.3 trillion in 2011 and estimations indicate that this figure will reach over $2 trillion in 2014 [The World Islamic Banking..., 2012]1. Islamic banks operate in over 75 countries, not only Muslim ones but also those where Muslim minority live, such as the UK, the USA or France.

A distinctive feature of Islamic banks is the obligation to conduct operations in accordance with principles of sharia, which is the religious law of Muslims. The basic sharia principle applied by Islamic financial institutions is the prohibition of usury (arab. *riba*2). This principle has its origins in the holy book of Muslims – Koran. The hadiths, which describe the life and actions of Muhammad, the Messenger of Allah, also state that *riba* is condemned. However, neither the Koran nor the hadiths define what *riba* is. According to most Islamic economists *riba* is any sort of increase over the principal amount [Hasanuz Zaman, 2001]. So it has a different meaning than in contemporary Western civilisation, where usury is defined as the practice of charging excessive, unreasonably high interests on loans3.

The prohibition of *riba* has huge implications on operations conducted by Islamic banks since none of them can be based on interest.

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1 The numbers are given according to a short scale system, used in most English and Arabic speaking countries.
2 Other important principles include: avoidance of uncertainty (*gharar*), prohibition of speculation (*maysir*) and prohibition of trading in illegal (*haram*) products (e.g. alcohol, pork, pornography, tobacco).
3 It is worth mentioning that there are Islamic economists that are opposed to treating usury as interest. In their opinion only excessive *riba* should be prohibited. However, their opinion is not shared by majority of Islamic scholars.
Hence one of many challenges Islamic banking industry has been facing since its inception is the creation of instruments which have to serve the same needs as conventional products but have to be constructed in a different way. Those instruments include money market operations, which are essential for managing the bank’s liquidity.

The purpose of this paper is the investigation of the problems of Islamic banks with regard to liquidity risk and analysis of selected instruments which are used by Islamic banks as liquidity management tools.

1. Problem of liquidity risk in Islamic banking
1.1. Concept of liquidity risk

Liquidity risk is one of the several risks to which banks, including Islamic ones, are exposed. It results from the mismatch between maturities of assets and liabilities. The different maturity structure of assets (mainly medium and long-term) and liabilities (mostly short-term) generates the risk that the bank is unable to respond immediately to requests for payment or forces the bank to quickly sell a high volume of financial assets in its portfolio accepting the price much lower than the market value [Ruozi, Ferrari, 2013, p. 4]. As a result the bank may have problems with solvency. The statement that a lot of bank failures could be blamed on improper liquidity risk management is supported by the research [Arena, 2008].

It should also be added that problems with insufficient liquidity can lead not only to the collapse of one bank but may cause the instability of the whole financial system [Llewellyn, 1999]. It is worth mentioning that it is the reason why after the last financial crises the necessity of liquidity risk management forced the Basel Committee to introduce that risk as the element of Basel III framework [Hartlage, 2012].

There are no objections that insufficient liquidity can lead the bank to huge problems, but it should be stressed that excessive liquidity is not beneficial for the bank either. It hurts its probability, thus has a negative impact on its competitiveness. Given the risks of low liquidity and costs associated with too high liquidity, creating a proper balance between safety on one hand and profitability on the other should be the objective of liquidity management process in the bank.

4 Apart from typical risks, that conventional banks are exposed to, such as credit risk, liquidity risk, operational risk and market risk, Islamic banks are also exposed to other risks, such as rate of return risk or sharia non-compliance risk [Ariffin et al., 2009].
Conventional banks have access to a number of tools, enabling liquidity management. Those tools include interbank deposits, foreign exchange swaps, repo operations, treasury bills and commercial papers. Interbank market where banks lend each other their liquid reserves has the most significant meaning for banks in managing their liquidity. It should also be noted that in critical situations, when because of lack of trust banks do not want to lend money each other, they have possibility to approach a central bank for help. In this case a central bank plays a role of a lender of last resort.

1.2. Liquidity risk in Islamic banks

All the above-mentioned instruments are based on interest rate and that is why they are not accessible to Islamic banks. Thus the problem with the access to liquidity management instruments constitutes one of the most serious problems and largest challenges for Islamic banks.

It is claimed that in comparison with conventional banks, Islamic institutions should not suffer from the shortage of liquidity, but their problem is actually excessive liquidity. This conclusion can be drawn from the analysis of the main models of Islamic banking, based on Profit and Loss Sharing – PLS. The basic principle of PLS modes of finance is that instead of lending money at interest, the bank forms a partnership with the borrower, sharing in a venture’s profits and losses. Hence, unlike interest-based products, in the case of PLS modes of finance, there is no guaranteed rate of return on the investment since income depends on the profit earned by the partnership company and may possibly result in losses. The most common partnership contracts include musharaka and mudaraba [Sobol, 2012].

*Musharaka* can be defined as a form of joint venture where two or more parties combine their capital and labour together to share the profits, enjoying similar rights and liabilities. The profits resulted from such a venture are shared according to a pre-agreed ratio between the parties of *musharaka* while losses are borne in proportion to contributed capital.

In *mudaraba* contract one party of the agreement, called *rabb-ul-maal*, provides capital finance for a specific venture indicated by the other party, called *mudarib*. *Mudarib*’s contribution to the venture is professional and technical expertise. He is also responsible for the management of the business. If the venture brings profits, they are shared according to a pre-agreed ratio between *rabb-ul-maal* and *mudarib*. Losses however are entirely borne by the *rabb-ul-maal*, with the exception of the cases when
such losses are the outcome of the managerial negligence or misconduct of *rabb-ul-maal*.

In the past PLS contracts used to be present just on the assets side of the balance sheet of the bank. However in modern times new models have been introduced and adapted by Islamic financial institutions. One of the most common models is called two-tier *mudaraba* model (TTMM). In the case of TTMM two *mudaraba* transactions are used in one scheme and three parties are included in the contract: the depositors as financiers, the bank as an intermediary and the entrepreneur who needs capital. The first *mudaraba* is conducted between depositors (*rabb-ul-maal*) and a bank (*mudarib*) while the second one between the bank (*rabb-ul-maal*) and a borrower (*mudarib*). The parties of the first *mudaraba* share the bank’s profit while those of the second *mudaraba* share the profit of the borrower [Shinsuke, 2012].

It can be concluded from the above that at least according to theory Islamic banks should not suffer from the lack of liquidity. In Islamic banking model PLS operations dominate both sides of the balance sheet – the assets and the liabilities. As a result it is believed that the depositors who share the risk with bank on the liabilities side absorb any shocks that occur on the assets side of the balance sheet of the bank. The value of depositors’ funds thus represents the real value of bank assets [Dusuki, 2007]. However the practice much differs from the theory. First of all PLS transactions are not often conducted by Islamic banks. The reason for such a situation lies in the fact that there are many problems associated with those modes of finance. Most of the problems result from the information asymmetry which may lead to moral hazard behaviour of the borrowers. As a consequence of problems associated with PLS transactions, other methods of finance such as *murabaha*, *salam*, *istisna* and *ijara* are much more often used by Islamic banks [Sobol, 2011, p. 192-194].

PLS operations are even less present on the liabilities side of the balance sheet of Islamic bank. Islamic banks so as to stay competitive with conventional institutions, offer some gratification to depositors even if they incur losses on the assets side of the balance sheet. So for instance instead of *mudaraba*, deposits are based on contracts such as *qard* and *wadi’ah yad dhamanah* which guarantee principal irrespective of the bank’s profitability on the assets side. Moreover, the practice of giving *hibah* (gift) to the depositors equivalent to the rate of return offered to their clients by conventional banks, further distorts the ideal structure of Islamic banking.
[Dusuki, 2007]. Thus in practice the nature of balance sheet of the Islamic bank is quite similar to the balance sheet of the conventional bank. Both institutions are characterised by illiquid assets and relatively liquid liabilities. Judging from the above it is not surprising that a lot of Islamic banks just like their conventional counterparts must be very careful about maintaining the proper level of liquidity. Otherwise, they risk insolvency. For instance, in 2001 in Turkey due to liquidity problems, Islamic financial institution, Ihlas Finans House, was closed down [Ali, 2006-2007].

2. Selected instruments used by Islamic banks in liquidity management

As it was mentioned in the previous part of the paper, Islamic banks, just like their conventional counterparts, are exposed to liquidity risk. However, in contrast to conventional banks, they have much larger problems with managing it. They do not have access to instruments based on interest, and the number of sharia-compliant liquidity management instruments is limited. Islamic interbank money market is underdeveloped and the secondary markets for most short-term instruments are illiquid. Moreover, Islamic institutions cannot rely on the help of a central bank acting as a lender of last resort. It should be also added that because of different interpretation of sharia, in different jurisdictions other instruments are permitted which makes it very difficult to develop international money market.

According to a survey on liquidity risk management practices of Islamic banks conducted by Islamic Financial Services Board [Technical Note, 2008] commodity murabaha, interbank placement of funds under various profit sharing arrangements and Islamic mutual funds are the most common instruments used for liquidity management by Islamic financial institutions. The survey also shows that reliance on central banks for liquidity management remains low. Islamic mutual funds, Islamic government investment certificates and short-term sukuk al-ijarah are usually conducted between central banks and Islamic banks.

Commodity murabaha is the most common instrument used for liquidity management purposes in Islamic banking (almost 50% of the institutions surveyed indicated this method). It is commonly used by banks in Bahrain, Saudi Arabia, Qatar, Malaysia, Kuwait and United Arab

\[\footnote{See more about those instruments [Dusuki, 2011, p. 304-307].}\]
Emirates [Technical Note, 2008]. Commodity *murabaha* can be defined as a deferred sale or instalment credit sale which uses commodity as an underlying asset for the transaction. Commodities chosen as underlying assets should be non-perishable, freely available and can be uniquely indentified. Most of commodity *murabaha* transactions use metals, traded on London Stock Exchange (LME) as an asset since they meet all above mentioned criteria required from a commodity [Schoon, 2010, p. 74]. In Malaysia a special trading platform, the Burssa Suq Al-Sila’ was established for commodity *murabaha* transactions. On this exchange crude oil palm (COP) is used as the underlying asset [Dusuki, 2011, p. 367].

The intention of commodity *murabaha* is to replicate conventional interbank deposit transactions. Thus this instrument may serve as both: a deposit placement facility and instrument which helps to increase liquidity. In the first case an investing bank purchases an underlying asset from a broker at cost in the spot transaction and sells it to the investee bank at cost-plus on deferred payment basis. Then the investee bank sells the commodity to another broker at cost on spot basis [Dusuki, 2011, p. 367]. The whole process is shown in Figure 1. The reverse transaction can be made if a bank has a problem with insufficient liquidity.

**Figure 1. Commodity *murabaha***

![Diagram of commodity murabaha transaction](image)

Source: [Dusuki, 2011, p. 367].

It should be also added that commodity *murabaha* can be conducted between a bank and a central bank. Bank Negara Malaysia is the example of a central bank which is engaged in such transactions. It is worth adding that Bank Negara Malaysia conducts commodity *murabaha* transactions
not only with banks operating in Malaysia, but with foreign Islamic financial institutions as well, for instance with Saudi Hollandi Bank and CIMB Bank Berhad [Bank Negara Malaysia, 2012].

In the case of commodity murabaha, the mark-up, the delivery date and repayment date are agreed up front. It should be added that the banks engaged in commodity murabaha usually do not possess the underlying commodity. The commodities are purchased and sold solely to manage illiquidity in accordance with sharia principles [Shoon, 2011, p. 73]. This is one of the reasons why commodity murabaha provokes disputes among scholars about its permissibility [Rais, Majid, 2003]. According to sharia, uncertainty (gharar) should be avoided in financial contracts. And selling of the product which the seller does not own is considered gharar. Commodity murabaha is also criticised because although it provides Islamic banks with a solution to invest their short-term funds, it leads to an insufficient use of funds due to its low returns. [Rais, Majid, 2003]. The other drawbacks of commodity murabaha include illiquid secondary market and its construction that does not allow to manage overnight liquidity.

Short-term ijara sukuk is another commonly used liquidity management tool in Islamic banking. In this way liquidity is managed in Bahrain, Brunei, Singapore, Malaysia and Pakistan [Abdullah, 2010]. The sukuk is the Islamic alternative for the conventional bonds. The basic difference between those two instruments lies in their construction. In the conventional financial system of bond issuance and trading, the interest rate is at the core of all transactions. In contrast, the structure of sukuk is based on the exchange of an underlying asset [Mirakhor, Zaidi, 2007, p. 53]. The construction of the sukuk can be based on different Islamic commercial contracts such as musharaka, mudaraba, salam, ijara and murabaha. Among them, ijara sukuk, especially those issued by governments, are the most frequently used in liquidity management of the bank. Ijara sukuk are certificates backed by lease agreements of land, buildings, equipment, etc.

In a typical ijara sukuk structure (Fig. 2), the originator (e.g. government) sells assets to the sukuk issuer, which is a special purpose vehicle (SPV) created to act as a trustee for investors acquiring the sukuk. The SPV securitizes assets, purchased from the originator and sells sukuk certificates to the investors. The proceeds from the sale enable SPV to pay for the purchased assets. The assets are leased back to the originator who as a lessee is responsible for rental payments which can be set as fixed or variable.
Subsequently the rentals are passed to investors. These returns along with low risk are the incentives for the investors to buy sukuk.

Figure 2. *Ijara sukuk*

If the Islamic bank wants to manage its liquidity through *ijara sukuk*, it purchases sukuk from the government at par at the time of primary issue and earns rental. If the bank suffers from shortage of liquidity, it may sell the sukuk in the secondary market to another bank to generate the cash. If the problem of the bank is excessive liquidity it can purchase sukuk from the market. Such transactions resemble repo operations of conventional banks. If the market is not liquid (which is often the case), the Islamic bank can sell the sukuk to the central bank to obtain liquidity [Ayub, 2010, p. 374-375].

Similarly to commodity *murabaha*, *ijara sukuk* transactions are not universally approved by Islamic scholars. They are contested from sharia point of view since the value of rentals is benchmarked to the conventional interbank rates, such as LIBOR instead of return from the underlying assets [Jabeen, Javed, 2007]. The secondary market of *ijara sukuk* is also not sufficiently developed.

**Conclusion**

The problem of liquidity risk and its management has been a pressing issue for Islamic banking industry. As it was shown in this paper Islamic banks, just like their conventional counterparts, may have problems with insufficient liquidity mainly due to financing the long-term assets with the short-term liabilities. Unlike them however, Islamic banks do not have access to conventional money market instruments used
for liquidity management since those are based on interest. In Islamic finance conventional tools such as interbank deposits, repo operations, commercial papers or treasury bills are substituted by sharia-compliant structures.

Two examples, namely commodity murabaha and short-term ijara sukuk, were presented in the paper. Both those instruments, though commonly used by Islamic banking, have a big disadvantage in comparison with conventional liquidity management tools. They do not have liquid secondary market and as a consequence must be held by investors until maturity. Moreover, those instruments are not universally approved. There are some scholars who consider them illegal from a sharia perspective. And that is one of the major obstacles in the way of establishment of a global Islamic money market which, according to Islamic financial organisations, regulators and direct participants, is very needed. Some initiatives have been already taken aiming at closer collaboration between different Islamic countries, such as establishment of International Islamic Liquidity Management Corporation (IILM), International Islamic Financial Market (IIFM) and Liquidity Management Center. Those bodies are expected to play a key role in the process of harmonisation and standardisation of transactions across the Islamic countries which would facilitate the creation of cross-border money market. The activities of the above mentioned entities should concentrate on increasing liquidity of the secondary markets and development of instruments which would be approved across different Islamic jurisdictions. Without the sufficient supply of short-term instruments and well-developed secondary market, liquidity risk management in Islamic banking will remain ineffective in comparison with techniques adopted by conventional institutions and this will affect negatively the competitiveness of Islamic finance industry.

Bibliography
Liquidity Management Practices in Islamic Banking (Summary)

In the last few decades the increasing significance of Islamic banking has been observed. A distinctive feature of Islamic banks is the obligation to conduct operations in accordance with principles of sharia, which is the religious law of Muslims. The prohibition of usury (arab. riba), understood as any sort of increase over the principal amount, is considered to be the most fundamental sharia principle that Islamic banks must follow. As a result transactions conducted by Islamic banks cannot be based on interest. This principle applies also to money market operations which are essential for managing the bank’s liquidity. Islamic banks create their own instruments such as commodity *murabaha* or *ijara sukuk* to manage liquidity risk. Those instruments, however, have many drawbacks. First of all, they are hardly traded in the secondary market. Secondly, they are not universally approved by Islamic scholars which results in inability to trade them across the countries.

Keywords
liquidity risk, Islamic banks, usury