

An Attempt to Develop Sharī'ah Compliant Liquidity Management Instruments for the Financier of Last Resort: With Reference to Qatar Development Plan

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Abstract

In 2011, Islamic banking reached around 24% of the banking sector in Qatar, yet Qatar Central Bank (QCB) has not developed a Sharī'ah compliant financier of last resort. This paper investigates to which extent the available liquidity management instruments for Islamic banks are Sharī'ah compliant. Each instrument is analyzed in the context of Sharī'ah standards. Findings of this analysis suggest that the available instruments some Sharī'ah issues, such as ribā, tawarruq, and ijārah ʿīnah. We propose three alternative Sharī'ah compliant liquidity management instruments for the financier of last resort, as well as the interbank market. The first instrument is short-term muḍārabah deposits. The second, is to sell Islamic banks' leased assets to the central bank. Whereas, the third is open market operations utilizing tradable ṣukūk.

Keywords: Liquidity Management Instruments, Islamic Banks, Central Bank, Financier of Last Resort

JEL Classification: G21, E59.

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1. Introduction

The share of Islamic banking in Qatar reached around 24% of the total banking sector in 2011.² However, Qatar Central Bank (QCB), like many other central

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banks, lacks Shari'ah compliant instruments to enhance liquidity management in Islamic banks. Although managing liquidity is a fundamental component of sound management in all financial institutions, the responsibility of liquidity management is shared by commercial banks and central banks. In general, banks need liquidity to meet their commitments, satisfy required reserves, and seize investment opportunities. Thus commercial banks are concerned about maintaining their liquidity position to an extent that keeps the banks solvent and allows them to maximize profit. Nevertheless, liquidity and solvency are twin aspects of banking: an illiquid bank can rapidly become insolvent, and an insolvent bank is illiquid. If either of these happened, it may lead to financial instability. Central banks are also concerned about liquidity management to ensure a sound and efficient banking system on one hand. On the other hand, they keep track of the level of liquidity within the banking system as a part of their responsibility of ensuring the smooth operation of the interbank payment settlement system, as well as the implementation of monetary policy. In this context, central banks are expected to maintain a desirable level of liquidity. This level can be thought of as the level that is consistent with the monetary authority's policy targets, whether these relate to monetary aggregates, the exchange rate or inflation (Ganley, 2003, p. 4). Islamic banking, like any other banking system, must be viewed as an evolving system. Islamic scholars and practical bankers have taken up that challenge and have made commendable progress.

Yet in many jurisdictions, Islamic banks suffer from a shortage of Shari'ah compliant interbank instruments. In addition, arrangements for instruments for a financier of last resort for Islamic financial institutions are still unclear in both normal circumstances as well as for emergency periods of stress (Islamic Research and Training Institute, 2010, p. 38).

As long as the central bank has agreed to license Islamic banks, it is responsible for providing them with a level playing field to achieve equal treatment and provide for fair competition. This paper investigates to which extent the common liquidity management instruments used by Islamic banks as well as central banks are Shari'ah compliant. Each instrument is being analyzed in the context of the Shari'ah standards set by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), as well as the resolutions of the Fiqh Academy of the Organization of Islamic Conference (OIC). Furthermore, the authors attempt to develop Shari'ah compliant liquidity management instruments for the financier of last resort. The remainder of this paper is organized as follows: in Section II, we

² Authors' calculation using banks' balance sheets

review the related literature; in section III we describe selected liquidity management instruments available for Islamic banks; in Section IV, we provide our analysis and findings; in Section V, we propose three Sharī'ah compliant instruments for the financier of last resort; finally, in Section VI we summarize our conclusions.

2. Literature Review

Traditionally, in conducting their role as the financier of last resort, central banks have three tools which they can use to influence the availability of liquidity in the financial system. The first is conducting open market operations, where the central bank may influence the level of aggregate reserves but not a specific institution. It is usually used during settled (normal) periods and at the discretion of the central bank. The second involves the outright purchase/sale of assets, mainly sovereign bonds. This tool affects the central bank's money (reserves) permanently and deals with specific financial institutions. The third tool also involves central bank transactions directed at a specific institution. Unlike open market operations, this third tool can be used at the discretion/initiative of the central bank or the financial institution. (Cecchetti & Disyatat, 2010, p. 32). Notwithstanding, these conventional instruments involve interest (*ribā*), which is not accepted in Sharī'ah. Thus, some central banks have developed Islamic liquidity management instruments. A survey that include the experience of the Central bank of Sudan, the Central Bank of Malaysia, and Bahrain Central Bank is provided hereunder.

The Central Bank of Sudan (Bank of Sudan)

Hassan (2004) describes the Bank of Sudan's experience in developing Sharī'ah compliant *ṣukūk* to be utilized in liquidity management and the conduct of open market operations. These *ṣukūk* include central bank *mushārah* certificates, government *mushārah* certificates, government investment certificates and central bank *ijārah* certificates.

Central Bank Mushārah Certificates (Shamam)

In order to issue this type of certificates, the Bank of Sudan, together with the Ministry of Finance, started a partnership company called the Sudan Financial Services Company (SFSC). The Central Bank allocated its shares in the ownership of the five nationalized commercial banks to this company. SFSC plays the role of

an open market operation fund (OMOF). Central bank *mushārah* certificates were issued to represent ownership in this fund.

Government Mushārah Certificates (Shahamah)

Shahamah certificates represent ownership of equal shares in a basket of public economic enterprises sold by the SFSC. Meanwhile, privatization of government units may result in losing the assets that may be securitized and represented by *Shahamah* certificates.

Central Bank Ijārah Certificates (Shihab)

Shihab certificates represent ownership of leased assets, such as real estate, which were originally owned by the central bank. This type of certificates is tradable. However, it is limited to the availability of the central bank's assets, which are usually very few.

Government Investment Certificates (Sarh)

Sarh certificates represent ownership of pooled investments based on various contracts (*ijārah*, *murābahah*, *istiṣnā'*, *salam*).

Salam Securities

Salam government securities represent assets that are sold for advanced payment against future delivery. These certificates are kept until the delivery date. *Salam ṣukūk* are not tradable as per AAOIFI Sharī'ah standards on tradability and redemption of *ṣukūk*. (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 244).

The Central Bank of Malaysia (Bank Negara Malaysia)

The basic strategy to introduce Islamic banking was a kind of *replication*. It is essentially a transform methodology of the funding products of conventional banks into Islamic products (Bacha 2008, p. 10). A brief description of the instruments developed by Bank Negara Malaysia (BNM) is given below:

Wadī'ah Acceptance

Wadī'ah acceptance refers to a mechanism whereby the Islamic banking institutions place their surplus fund, with BNM based on the concept of al *wadī'ah*. The BNM is not obliged to pay any return on the funds placed with it. However, it may pay a dividend as a “*hibah*” or “gift”. *Wadī'ah* account in the Central Bank is a guaranteed liability on the bank. Thus the structure of *widī'ah* under the mechanism described above has different names for the concept of a ‘guaranteed time deposit for increment’ in conventional banking system as follows: a deposit account renamed a *Wadī'ah* account that is being paid a return regardless of whether any funds are invested. The interest is declared to be a dividend and is being paid under the name of being a *hibah* (gift).

Ar-Rahnu Agreements I

Under *ar-rahnu* agreements (RA-I), the financier provides a loan to the borrower against securities that are pledged by the borrower as collateral. Returns from an RA-I are determined based on the average interbank money market rate and are taken by the BNM in the form of a gift (*hibah*). This is exactly the mechanism of interest determination in a repo that is undertaken in conventional central banking.³ However, the interest paid against the conventional loan is renamed as being a gift (*hibah*).

In addition, BNM has introduced liquidity management instruments on the basis of the concept of *bay' al-ṭinah*; these include:

BNM Istithmar Notes

Sale and Buy Back Agreement

Islamic Negotiable Instruments of Deposit (INID)

Negotiable Islamic Debt Certificate

Ṣukūk Bank Negara Malaysia Ijārah

The Central Bank of Bahrain

The Central Bank of Bahrain (CBB) issues short and long-term debt instruments on behalf of the government of Bahrain. They are issued for liquidity management in Islamic financial institutions (Bahrain Central Bank, 2011, p. 4). In addition, the CBB has developed an Islamic repo instrument.

³ For example see QCB’s instructions to banks. (Qatar Central Bank, 2011, pp. 33-34).

Salam Şukūk

Salam şukūk are issued on the basis of *salam* contracts, whereby the government of Bahrain promises to sell aluminum to the buyer at a specified future date in return for a full price payment in advance. However, they are not tradable as per AAOIFI Sharī'ah standard No.17, para.5/2/14 (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 244).

Şukūk Al-Ijārah

The CBB, on behalf of the Ministry of Finance issues *ijārah şukūk*. They represent assets that are leased back to the Ministry, which also undertakes to buy the assets back upon maturity of *ijārah* period. This is *ijārah īnah*. (The OIC Fiqh Academy, Islamic Economics Research Institute, Islamic Training and Research Institute, 2010, p. 6).

Islamic repo

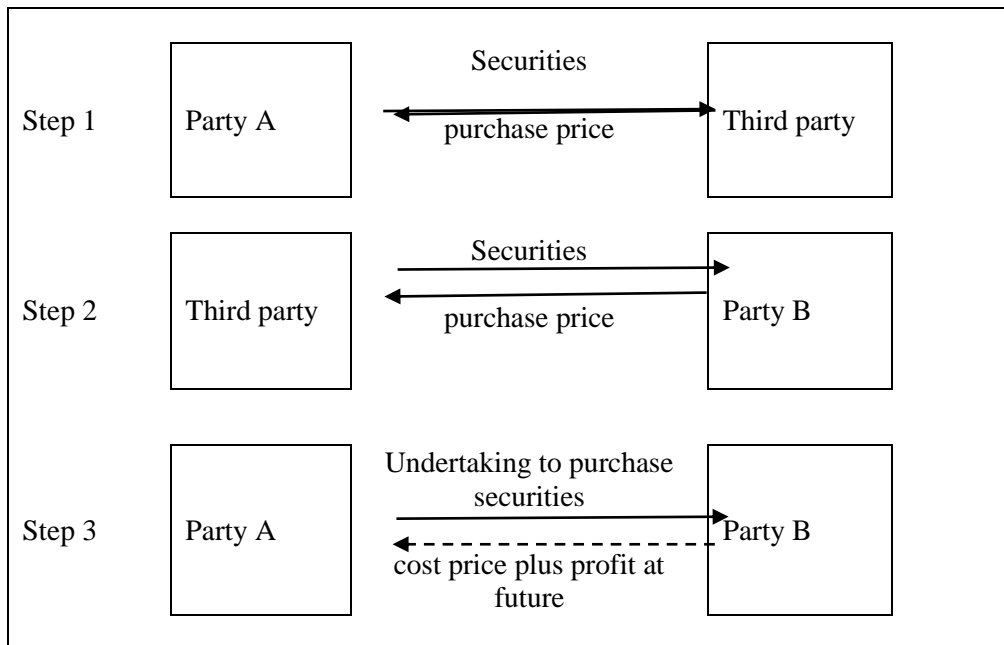
The *ijārah şukūk* holders are eligible for the CBB 1-week standing facility under the mechanism of the sale and purchase of government *ijārah şukūk*. /the International Islamic Financial Market (2010) describes the mechanism of Islamic repo. The mechanism involves three separate *şukūk* sale and purchase transactions between three parties, namely, the *şukūk* owner (the bank in need of liquidity), an intermediary bank (market maker), and the CBB (the liquidity provider). It is also called three-party *i'aadat al shira'* (three party buy-back), which is structured as follows:

The structure of the three-party Islamic repo represents organized or banking *tawarruq*, which refers to the transaction of buying a good for a specified deferred payment and selling it for a lower spot price in order to get liquidity (cash). The result of this transaction is the acquisition of cash now for a higher debt that is due at a future date. There are two facts that highlight *tawarruq* in this transaction:

- 1- The good (in this case, the security) is not purchased for its own sake; rather, it is just an intermediary to get cash.
- 2- The pre-arrangement (collusion) between the parties to conduct an operation that results in acquisition of cash for a higher debt to be paid in future.

The OIC Fiqh Academy in its resolution No. 179, adopted in its 19th session in 2009 resolved that organized *tawarruq* is prohibited in Sharī'ah, as it is a practice that is used to obtain cash for a higher debt. That is what *ribā* is. The resolution states that banking *tawarruq* is not permissible because of the pre-arrangement—regardless of explicit or implicit— between the parties to obtain cash now for a higher debt that is due in the future, which is *ribā*. (Resolutions of the OIC Fiqh Academy, 179/19). In addition, resolution No. 157, adopted in 2006, states that “any pre-arrangement that leads to *ribā* such as *īmāh*, and sale combined with loan is prohibited in Sharī'ah” (Resolutions of the OIC Fiqh Academy, 157/17).

Figure-1
Structure of the CBB's Three-Party Islamic Repo



Source: (International Islamic Financial Market (IIFM), 2010), p.20

3. Description of Selected Liquidity Management Instruments

In order to meet their liquidity demand, Islamic banks have two options; the first is to utilize interbank instruments, while the second is to approach the Central Bank as a financier of last resort.

Islamic Interbank Instruments

Wakālah Agreement

A *wakālah* agreement is between two parties, namely the *muwakkil* "principal", and the *wakīl* "agent". *muwakkil* agrees to assign the *wakīl* to invest a certain amount of money for a specified period of time, usually one year. The *wakīl* is entitled to receive a *wakālah* fee from the *muwakkil* on the contract's starting date. Under *wakālah* contract, the *muwakkil*—as the principal—bears all the risks associated with the acts of the *wakīl*, except risks resulting from misconduct or negligence on the part of the *wakīl*. In *wakālah* contract—as used as a financial contract in Islamic banks—the *wakīl* specifies the expected return on investment, where in most cases, any amount exceeds the expected return shall be an incentive payment to the *wakīl*. The term of *wakālah* ranges between three months and six months, renewable up to one year. The object in the *wakālah* contract is to invest in short-term banking activities similar to short-term *muḍārabah* deposits.

The *wakālah* agreements are used as interbank instruments between Islamic banks. They have also been used between Islamic and conventional banks, provided that the Islamic bank is the user of the funds in such a transaction, but not the provider of the fund.

Commodity Murābahah

Islamic banks use commodity *murābahah* to perform their interbank liquidity transactions between two Islamic banks, as well as interbank transactions between an Islamic bank and a conventional bank. (IFSB, 2008, p.15, 17). The *modus operandi* of commodity *murābahah* is described below:

- 1) Bank A orders Bank B to buy a specified amount of a commodity and signs a promise to buy the same for an agreed price.
- 2) Bank B purchases a metal at spot prices from London Metal Exchange through a -third party—broker.
- 3) Bank B sells the metal to Bank A on a deferred payment basis at an agreed price that includes the cost plus profit margin. This is a *murābahah* transaction.
- 4) Bank A sells the commodity to a broker at spot price to realize cash immediately.
- 5) At the due date, Bank A pays the total agreed amount to bank B.

Some Liquidity Management Instruments Offered by Central Banks

In order to fulfill their responsibility to supervise banking system and to carry out its monetary operations, central banks deploy several tools for liquidity management as follows.

Required Reserve Ratio

Required reserve ratio is an indirect monetary policy instrument used by most central banks. It is a percentage of the total deposits in the depository institutions. Central banks calculate this ratio based on the daily average of total deposits during a one-month period.

Central Bank Standing Facilities

Money Market's Lending and Deposit Facilities

Central Banks offer deposit and lending standing facilities to banks in order to manage liquidity in the banking system, as well as to navigate short-term money market rates. Lending facility intends to satisfy the day-to-day requirements of primary liquidity. The deposit facility, by contrast, aims to absorb excess primary liquidity in the banking system. Interest on deposited or borrowed funds is settled in the banks' clearing accounts. .

With regard to Islamic banks, the returns on their deposits and interest on their loans are accrued to a specified period. At the end of the period, settlement is undertaken within a mechanism of clearing between the debit and credit interest for each Islamic bank. If the net interest is a debit, the Islamic bank does not take the difference. On the other hand if the net balance is a credit, then the Islamic bank has to pay the difference to the central bank2-b. *Automatic Clearing Lending Facility*

The Automatic Clearing Lending Facility (ACLF) is a standard standing lending facility offered by a central bank to licensed banks in the country. At the end of each monetary policy day, the central bank extends overnight funds to deficit banks to ensure a flexible supply of primary liquidity in the banking system. By the day's end, a bank's debit position on its settlement account is considered by the central bank as a request for a loan via this facility. This facility is also offered by central banks to licensed Islamic banks but rarely used by the latter because it is also based on interest.

Repurchase Operations

Central Banks offer a lending facility via repurchase operations (Repos). Banks are entitled to get loans with a maturity of two weeks or one month with a pre-announced interest rate. The size and timing of the repurchase agreement is initiated by the banks. Domestic government securities, i.e., loans backed by domestic assets, are used as collateral to conduct any repo transaction.

Certificates of Deposit

Central banks introduce certificates of deposits as an instrument of monetary operations and liquidity management. They are issued at different short term maturities such as 14 days, 28 days, 91 days, etc. Certificates of Deposit are issued by central banks to confirm that a sum of money has been deposited by a licensed bank for a limited term and at a fixed or variable interest rate. The certificate holder shall receive, on maturity date, the principal amount plus accrued interest. (see for instance Qatar Central Bank Web page). The issuance procedure is done via an auction mechanism on the amount and interest. At the maturity date, the certificate of deposit's holder receives its principal plus the accrued interest.

Credit Facilities

With a view to alleviate the liquidity stress on banks in 2008, central banks sometimes introduce an emergency lending window in the form of a collateralized loan through which banks can borrow at a given interest rate.

Government Securities

Governments usually issue securities to finance their projects. In 2010, the Ministry of Finance in Qatar issued securities (bonds and *ijārah šukūk*) for the purpose of liquidity management. Bonds and *šukūk* offer a fixed coupon (rent for *šukūk*) rate of 6.5% and tenure of eight years, starting from June 2010. Subsequently, in 2011, another issue of *ijārah šukūk* took place at the amount of Qatari Riyal (QR) 33.00bn with a fixed rent of 3% paid on a semiannual basis for a tenure of three years. (QCB Web page).

Treasury Bills

Treasury Bills (T-Bills) are government debt instruments issued with maturity not exceeding one year; therefore, these are generally considered as money market instruments. T-Bills are usually sold at a discount, i.e. at a lower price than its nominal value. On the due date, the government is committed to pay the nominal value of the T-Bill. T-Bills are fully negotiable instruments which could be bought and sold, pledged as collateral or used in repurchase transactions. (QCB Web page) Islamic securities may issued as short term *murābahah sukūk*. Some central banks issue *Murābahah* securities on the basis of Tawarruq using spot commodity contracts of London Metal Exchange.

International Islamic Liquidity Management Corporation

Established on 25 October 2010, the International Islamic Liquidity Management Corporation (IILM) has 14 founding members consisting of central banks, monetary authorities, and multilateral international organizations. The objective of the IILM is to create and issue short-term Sharī'ah-compliant financial instruments to facilitate effective cross-border Islamic liquidity management. (International Islamic Liquidity Management Corporation Web Page).

4. Analysis and Findings

In this section each of the above described instruments is analyzed in the context of Sharī'ah standards offered by AAOIFI, as well as the resolutions of the OIC Fiqh Academy in order to find out the suitability of each instrument in liquidity management from Sharī'ah point of view.

Analyzing Islamic interbank instruments

Wakālah Agreement

This is a Sharī'ah compliant contract and it is recognized by the AAOIFI in its Sharī'ah standards.⁴ The object in the *wakālah* contract is to invest in short-term banking activities similar to short-term *muḍārabah* deposits. However, *wakālah* contract may also be used as a camouflage for a hidden interest when the rate of profit is pre-fixed.

⁴ For more details on *wakalah* contracts, see (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, pp. 326-330).

Commodity Murābahah

The structure of the commodity *murābahah* transaction involves *tawarruq*, which are not permitted by Shari‘ah according to the OIC Fiqh Academy.

Tawarruq refers to a transaction where one party purchases a commodity for a specified price, the payment of which is deferred (buy now; pay later), and selling it for a lower spot price in the market in order to get liquidity (cash). The result of this transaction is that one party obtains cash now in exchange for a larger debt that is due at a future date. That is what “*ribā al nasi’ah*” refers to. Introducing a commodity as a mere intermediary vehicle in *tawarruq* does not make it a real rational sale or trade. In fact, goods are normally bought so they can be consumed or traded, i.e., sold for a higher price in the market. Rational behavior does not warrant a person buying a commodity to resell it at a lower price. Furthermore, such a behavior violates the objective/implication of the purchase/sale contract *عقد البيع مقتضى* and the objective of Shari‘ah in protection of property.⁵

Arranged *tawarruq* is a mechanism in which the seller is a bank which arranges to buy a commodity to sell to its customers at a higher and deferred price, and reselling it again for cash at a lower price than that charged to the customer, so that the customer gets this cash against a future debt. It usually involves several agency and sale agreements. (Alsuwailim, 2009, p. 380).

The OIC Fiqh Academy in its resolution No 179 adopted in its 19th session in 2009, considers *tawarruq* to be prohibited in Shari‘ah as a practice that is used to obtain cash while incurring a higher debt and described it as pure *ribā*, which is prohibited in Islam. Pre-arrangements that hides *ribā* were also discussed and outlawed by the OIC Fiqh Academy in its resolution No. 157 in 2006, which states: "Any pre-arrangement that leads to *ribā* such as *‘inah*, and sale combined with loan is prohibited in Shari‘ah". (The website of The OIC Fiqh Academy, resolutions of sessions 17 and 19)

Analyzing liquidity management instruments offered by Central banks

Required Reserve Ratio

Many central banks do not differentiate between conventional banks and Islamic banks with regard to the imposed required reserve ratio, although

⁵ For more details on *Tawarruq* see (Alsuwailim, 2009, pp. 312-451).

muḍārabah-based deposits represent a significant part of total deposits in Islamic banks.⁶ In fact, this is still one of the unresolved issues in Islamic finance in general. The argument against this practice is summarized as follows:

- a- Investment accounts in Islamic banks are different from the conventional time deposits in their nature. The agent (an Islamic bank) in a *muḍārabah* contract has no right to exclude a part of the *muḍārabah* amount from an investment without appropriate authorization from the depositor.
- b- Investment accounts are placed with the bank on the basis of *muḍārabah*, and hence, as a principle, might be considered as being similar to the bank's capital in their liability to loss. Therefore, this fact should be taken into consideration when applying required reserve ratio on Islamic banks.

Standing Facilities

Money Market Lending and Deposit Facilities

With regard to Islamic banks, as mentioned above, clearing between the debit and credit interest for each Islamic bank is settled at the end of the period. In this context, it is worthwhile to distinguish between two issues. The first is clearance between debts and the second is clearance between interests. An Islamic bank may agree with a conventional counterpart on the clearance of loans between each other provided that they are interest-free loans. To illustrate this distinction, let us first differentiate between a mutual understanding among different parties about how to deal with interest-free loan, and the concept of 'loan for loan'. Muslims always give loans without interest to each other, as a loan (*qarḍ*) is categorized as a *tabarru'āt* contract. It is an act of benevolence. However, 'loan for loan' implies that the lender will lend only if there is a benefit or compensation for him/her. This is *ribā* as per the Fiqh standard: "Any loan from which a benefit accrues is *ribā*". Contemporary applications include a loan for a loan of the same amount and maturity, a loan for a loan of a lower amount and higher maturity to balance the complementary loan, etc. Clearance between debts may be carried out through a bill of exchange. It is similar to what is known as *suftajah*, a mechanism via which one party may pay his/her debt to another party by a third party, who is a debtor to the first party.

Clearing debit and credit interest is totally different from the aforementioned loan transactions. First of all, credit and debit interest are the result of dealing with interest-based loans, which results in *ribā* and are prohibited in Sharī'ah. Under a

⁶For example in Qatar it represents 82% as calculated by the authors for the year 2011.

clearance agreement, interest accrues to the Islamic bank on its deposits with the conventional bank but the Islamic bank abstains from acquiring this interest. Instead, interest gained is used to offset interest due from the Islamic bank when its account is overdrawn. The overall transaction is a result of interest-based transactions which are not permissible in Sharī'ah. Secondly, any haram (non-permissible) earning is not actually earned according to the tenets of Sharī'ah and should go to charity rather than being used to pay any expenses or discharge of any obligations. Thirdly, depositing sums with conventional banks is discouraged by Sharī'ah. Notwithstanding, if interest is accrued, it should not be left for the conventional bank for the following reasons:

- a. Muslims who initiate an interest-based contract are responsible for it and leaving the interest does not exempt them from their responsibility.
- b. The bank is not entitled to the amount of interest due.
- c. This behavior subsidizes conventional banks and supports their *ribā*-based activities.

Rather, as discussed before any interest should go to charity. (Albaz, 1998, pp. 173-182). Finally, the loans in the money market transactions are interest-based, i.e., the loan is offered against agreed compensation, which is offset by the Islamic bank's deposit with a central bank for an equal amount/day. Taking into consideration that any loan from which a benefit accrues is *ribā* loan, this contractual relationship is invalid in Sharī'ah. In this regard AAOIFI Sharī'ah standard No.4 states that clearance of a debt is permissible in Sharī'ah and can be done automatically or by agreement. However, the standard states that a swap is prohibited because it is, in fact, done by clearance between interests! (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 39).

Automatic Clearing Lending Facility

Central banks treat conventional and Islamic banks equally in this regard. However, the interest due from Islamic banks is settled via the same above-mentioned interest clearing mechanism, and the same above analysis is applicable to this instrument.

Repurchase Operations

This instrument involves interest (*ribā*), which is prohibited in Islam. However, there is a need for offering counterpart instruments that are Sharī'ah compliant to Islamic banks.

Certificates of Deposit

The certificates of deposit offered by central banks involve interest (*ribā*), and there should be alternative instruments offered to Islamic banks. In addition to the issue of interest, trading the certificates of deposits in a secondary market involves sale of debts, which is also prohibited in Islam.

Credit Facilities

This instrument also involves *ribā*, which makes it inaccessible to Islamic banks.

Government Securities

Although *ijārah sukūk* are recognized in the AAOIFI Shari‘ah standards, the abovementioned *sukūk* are issued on formula of already existing assets sold to investors and leased/purchased back from them.” This formula involves the Shari‘ah issue of *‘īnah*, as the purchased asset being handed back to the originator at the maturity of the *ijārah sukūk*.⁷

The recommendation of the OIC seminar on Islamic *sukūk* held in Jeddah, May 2010, considers this kind of *ijārah sukūk* as *‘īnah*, which is prohibited in Shari‘ah.⁸ (The OIC Fiqh Academy, Islamic Economics Research Institute, Islamic Training and Research Institute, 2010, p. 6). The rationale of this consideration is that the asset is being sold to the *sukūk* holders for a certain tenure, after which the same asset is redeemed by the originator. The price difference that represents *ribā* is being paid as rent. Apparently, the OIC Fiqh Academy discarded any argument that resale to the seller done after a period of time that allows for changes in the asset itself. It also discarded the argument that *ijārah* for which rent is paid is a sale of usufruct which does not exist at the time of the contract and therefore the *‘īnah* does not apply to the difference of repayment called rent!

Treasury Bills

Treasury bills for Islamic banks are issued as *murābahah sukūk*. This type of *sukūk* is recognized by AAOIFI. However, limited information on the structure of

⁷*Bay‘ al-‘īnah* refers to buying a commodity for a cash payment and selling it back for a higher price payable at a future date.

⁸ This was confirmed by the OIC Fiqh Academy in its 20th meeting in Algeria, September 2012. The resolution states that it is prohibited in Shari‘ah to sell an asset, with a condition that allows the seller to lease purchase back the same for a total amount that exceeds the selling value. This condition transforms the transaction to *‘īnah* which is prohibited in Shari‘ah.

murābahah sukūk prevents deep analysis for this instrument. Notwithstanding, they are not tradable in the secondary market (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, pp. 238-244).

International Islamic Liquidity Management Corporation

Until the time of writing this article the IILM has not yet begun operating.

Findings

Our analysis suggests the following:

- 1- The available Islamic liquidity management instruments for Islamic banks are not considered Sharī'ah compliant in the context of Sharī'ah standard offered by AAIOFI, as well as the resolutions offered by the OIC Fiqh Academy.
- 2- Common liquidity management instruments offered by central banks can be categorized as follows:
 - Conventional instruments which involve *ribā*
 - Invalid Arrangement for Islamic banks because it involve Sharī'ah issues, such as clearing between interest in a money market mechanism and *Ijārah 'īnah* in government *Ijārah sukūk*.
 - Islamic instrument with limited information, such as *Murābahah sukūk*

5. Sharī'ah Compliant Instruments for the Financier of Last Resort

In what follows three alternatives Sharī'ah compliant financier of last resort instruments are proposed.

The First Alternative: Short-term Muḍārabah Deposits

The central bank may finance Islamic banks on the basis of *muḍārabah*, which refers to a special kind of partnership, whereby an investor or a group of investors provides capital to an agent, who invests it for a certain period of time. The profit is shared according to pre-agreed proportions, while the losses are incurred by the principal investor.

Short-term *muḍārabah* deposit works according to the mechanism described below:

- 1- The central bank signs a master agreement with Islamic banks who wish to participate. The master agreement contains the following:
 - a- The profit-sharing ratio between the central bank as the *rub al mal* (principal), and the Islamic participant bank as the *mudarib* (agent) or at least the principles according to which this ratio can be determined for each *muḍārabah* transaction at the time of its undertaking.
 - b- When the Islamic bank asks for a *muḍārabah* deposit, it shall reveal its expected rate of return, which is supposed to be known to the central bank anyway. However, this rate is not guaranteed.
 - c- If the actual rate of return exceeds the declared expected rate of return, the central bank forsakes this excess and the Islamic bank is entitled to keep the difference. Alternatively, this excess profit may be allocated to a special profit equalization reserve at the central bank to supplement occasions of low profit.
- 2- Upon request, the central bank can place a *muḍārabah* investment deposit with an Islamic bank which faces a liquidity shortage.
- 3- The maturity of central bank deposits may be any term from overnight to a week or so. The central bank is recommended to restrict this instrument to very short-term such as overnight, one day or up to two weeks, as it is not a healthy sign to approach the financier of the last resort for longer periods.
- 4- Upon maturity, the Islamic bank pays the principal and distributes the declared profit to the central bank as per the pre-agreed profit-sharing ratio.
- 5- The central bank may accept a rate of return lower than the declared rate only if the Islamic bank can prove with strong and hard evidence, as specified in the master agreement, that the actual profit in reality less than the declared/expected profit.

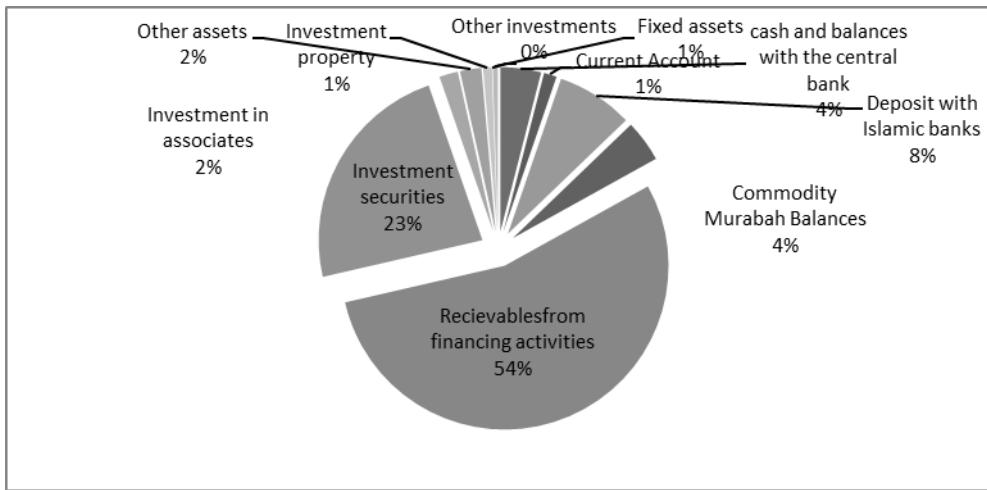
In addition of being suitable as an instrument for the financier of last resort, short-term *muḍārabah* deposits can be used in interbank transactions. However, if it becomes known that the bank is acquiring direct finance from the central bank, this may send a negative signal to the market about the bank's soundness, causing depositors to withdraw their deposits. In this regard, (Lumsdaine, 2010) highlights that the announcement that Northern Rock had sought liquidity assistance from the Bank of England triggered an immediate run on its deposits. Thus this instrument is more suitable during the normal periods.

The Second Alternative: Selling Islamic Banks' Assets

Under a master agreement, the central bank and Islamic banks may agree on:

- a) The types and quality of assets that may be accepted for discounting at the central bank. These assets have to be tradable, from the Shari'ah point of view, and have a high rating.
- b) The discounted asset is being used in the central bank's open market operations.

Figure-2
Islamic Banks' Assets



Source: Authors' calculations using the four Qatari Islamic banks' financial statements for 2011

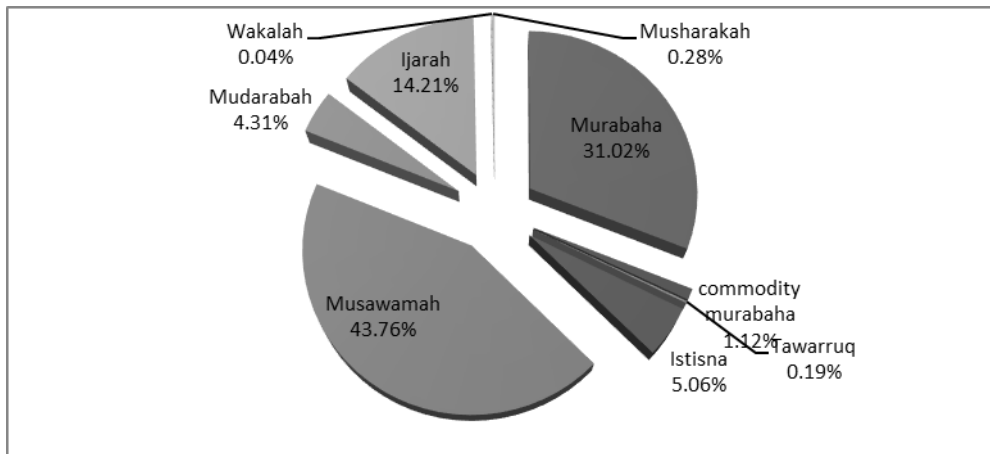
Figure 2 shows the composition of Islamic banks' assets in Qatar at the end of 2011.⁹ As can be seen, around 54% of their assets are receivables from financing activities; investment deposit with other Islamic banks make up 8%, whereas commodity *murābahah* balances and cash represent 9%. Fixed assets make up a small proportion of the total. Financial investments are mostly made up of non-tradable certificates. Thus a sale of the banks' assets implies sale of debts or, in other words, receivables from financing activities.

Figure 3 gives the breakdown of receivables from financing activities shown in Figure 2. This indicates that 75% of the receivables cannot be sold as per the Shari'ah position on the sale of debt because they are the result of *murābahah* and *musawamah* sales. However, 19% of receivables come from *ijārah* and

⁹ Islamic banks' assets in Qatar are used as an example, but the instrument is not limited to Qatar.

muḍārabah financing activities. Both can be sold such a way to meet liquidity needs. Specifically, leased assets usually have a fixed rate of return, which makes selling them more appealing. The mechanism of selling an Islamic bank's lease contracts is described below.

Figure-3
Islamic Banks' Financing Activities



Source: Authors' calculations using the four Qatari Islamic banks' financial statements for 2011

The financial lease contracts of all Islamic banks in Qatar are *ijārah muntahiyah bittamlik* contracts, under which the Islamic bank keeps ownership of the asset until all the installments are settled. If the bank needs liquidity, it may sell the leased assets, because their sale amounts to transfer of rights and liabilities with regard to the relevant assets. When the Islamic bank sells the leased assets, the asset's ownership is transferred to the central bank. As the new owner, the central bank is entitled to the periodic rent, which has been predetermined.

An agency agreement shall be signed between the central bank and the Islamic bank, as a part of the master agreement of this instrument. The central bank assigns the Islamic bank as the agent that collects the rent and the purchase part of the installments of the lease/purchase contract with the retail lessee on behalf of the central bank. Furthermore, under the master agreement, the Islamic Bank may opt, to sell the corpus of the asset to the central bank and lease it from the central bank at a rate that is negotiated between the two parties. This is different from the rental rate payable to the Islamic Bank by customer in the retail contract.

Like short-term *muḍārabah* deposits, this instrument can also be used for interbank transactions during settled periods. However, during times of crisis, when there is uncertainty about an asset value, a bank's assets can be discounted at the central bank as a financier of last resort. When the central bank purchases the assets, it can offer it for sale to all Islamic banks including the one who sold it, provided that this has not been pre-arranged between the central bank and the Islamic bank who sold the asset, thus making it a sort of repo.

The Third Alternative: Open Market Operation Using Tradable Ṣukūk

Description of the instrument proposed in this section can be developed in two stages. The objective of the initial stage is to develop tradable sovereign *ṣukūk* to qualify its holders (Islamic banks) to obtain financier of last resort facilities. In addition, such *ṣukūk* are considered instruments to sterilize the monetary effects of expansionary fiscal policy. They will also help the government finance its developmental projects. In the second stage, the proposed *ṣukūk* are used to conduct open market operations. It may also be discounted at the central bank as a way of providing a standing finance facility to Islamic banks, and perhaps to conventional banks as well.

The initial stage begins with coordination between the central bank, the Ministry of Finance and other government and semi-government entities. For example, article 44 of QCB's law empowers the central bank to initiate a coordination plan between QCB and government entities. It states the following:

The bank and the Ministry shall lay out a mechanism for coordination between monetary and fiscal policy. The bank shall coordinate with other government authorities in order to implement its objectives (Qatar Central Bank, 2006).

This coordination will help the Ministry of Finance and other government entities to acquire finance to achieve their five year development plan, which is outlined in the Qatar National Development Strategy 2011—2016 (QNDS 2011—2016). The programs and projects identified in the QNDS 2011-2016 are from 14 sector strategies developed by various government entities (Qatar General Secretariat for Development Planning, 2011).

Together with QCB, the relevant government entities may establish a special purpose vehicle (SPV) as a concerned body to raise finance, and to implement, and

follow up the projects to achieve the targets of QNDS 2011—2016. To raise finance for different projects, the SPV may issue *şukūk* to Islamic banks and perhaps to conventional banks also. In this context, the *şukūk* serves three different aims: they are a means of finance, an instrument to sterilize of expansionary fiscal effects and a tool for the financier of last resort.

It is worthwhile in this context to mention that on 1 July 2012, Qatar issued decree No3 of 2012, authorizing the Ministry of Economy and Finance to establish two shareholding companies and to sign agreements with them for issuing *şukūk*. The Ministry may transfer government properties to these firms for the purpose of issuing *şukūk* up to USD 4bn (Ministry of Economy and Finance Web Page, 2012).

Şukūk as a Mean of Finance

The planned investment over the period covered by the QNDS 2011—2016 is expected to exceed 25% of GDP over the period. Table 1 shows some key projects to be achieved over 2011—2016. As can be seen from Table 1, the projects consist of infrastructure development, capacity expansion of existing projects, construction and services. Accordingly, different tradable types of *şukūk* can be structured.¹⁰ Here, we suggest a few types of such *şukūk*:

Table-1
Key Projects of the QNDS 2011—2016

Project	Cost
Residential and business construction projects	QR 130bn.
Infrastructure projects including: Power and water improvement New Doha port Information technology	USD 65bn
Additional infrastructure for sustainable resource management such as a treated sewage effluent distribution system	USD 8.5bn to USD 12.5bn
Digitization project in which hundreds of books, maps and manuscripts will be available via an online repository	N/A
Expanding the capacity of hydrocarbon-related industries	QR 88bn.

Source: (Qatar General Secretariat for Development Planning, 2011)

¹⁰ For more details on Sukuk types see (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 238).

1.a. Hybrid Istiṣnā' -Ijārah Ṣukūk/Istiṣnā' Ijārah Muntahiyah Bittamlīk

The structure of this type of *ṣukūk* begins as *istiṣnā' ṣukūk*. Upon completion of the project, the *ṣukūk* are transformed into *ijārah ṣukūk* or *ijārah muntahiyah bittamlīk*.

Project financing can be undertaken through an *istiṣnā'* contract when the projects relates to manufacturing, construction and buildings. From Table 1, for example, the following projects can be financed by *istiṣnā'-ijārah* (or *ijārah muntahiyah bittamlīk*) *ṣukūk*: residential and business construction projects, power and water improvement (as these need cables installed) and development of power stations, the new Doha port, sewage effluent distribution system. *istiṣnā'-ijārah* (or *ijārah muntahiyah bittamlīk*) *Ṣukūk* can be structured as follows:

- 1- The SPV signs *ijārah* (or *ijārah muntahiyah bittamlīk*) contract with the originator (the government entity in charge of developing the project).
- 2- The SPV signs a services agency agreement with the originator to undertake maintenance during the lease period.
- 3- The SPV signs an agency agreement with the originator to enable the originator to conclude the contract and receive the asset directly from the contractor upon completion.
- 4- The SPV issues *ṣukūk* for the value of the *istiṣnā'* contract and sells them to potential investors (in this case, Islamic banks have priority to be the investors and conventional banks may cover in the case of a shortage of financing).
- 5- The originator (the government entity) signs an undertaking to buy the project, gradually along with rental payments, or at the end of the lease, from the *ṣukūk* holders.
- 6- Proceeds from the *ṣukūk* are used to settle payments to contractors and consultants as the work progresses.
- 7- Upon completion, the contractors deliver the completed asset to the originator.
- 8- The originator starts to pay periodic rentals and payments to buy fractions of the project as per the *ijārah muntahiyah bittamlīk* contract. If it is an *ijārah* contract, it can be made for a given period that is renewable with no need for amortization or exit (no payments for gradual purchases). Investors then can sell their holding in the market at market prices like a perpetual bond with a fixed return meaning that the buyer will be eligible to get return as applicable for the *Ijārah Ṣukūk*.

- 9- After deducting their commission and any maintenance costs, the SPV delivers periodic payments to the *ṣukūk* holders.

To distinguish between *istiṣnāʿ-ijārah* and *istiṣnāʿ-ijārah muntahiyah bittamlik ṣukūk*, we must review the purpose for which the *ṣukūk* is issued and used. In the context of the present paper, this instrument is mainly designed to serve as an instrument for the financier of last resort. In addition, it serves to finance the government's developmental expenditure and as a tool to mop up excess liquidity resulting from expansionary fiscal policy. The second and third objectives can be achieved by both *istiṣnāʿ-ijārah* and *istiṣnāʿ ijārah muntahiyah bittamlik*. However, the first objective can be accomplished by both types for a certain period, which ends at the maturity of *istiṣnāʿ-ijārah muntahiyah bittamlik contract*. Thus the *istiṣnāʿ ijārah ṣukūk* dominates the *istiṣnāʿ-ijārah muntahiyah bittamlik ṣukūk* from the point of view of being an instrument for the financier of last resort, as the former is a revolving instrument, whereas the later ends at its maturity date.

As per the AAOIFI Sharīʿah standards on the trade and redemption of *ṣukūk*, the *istiṣnāʿ ṣukūk* are tradable only when the asset starts to be manufactured or constructed (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 244). This is because the tradability of *ṣukūk* depends on what they represent. At the initial stage, during the *wakālah* stage, *istiṣnāʿ ṣukūk* represent debt, which is not a tradable asset, but its ownership can be transferred at its face value. This makes it mandatory that the originator should attempt to synchronize the assignment of the subscribed *ṣukūk* with the physical start of the project. Notwithstanding, as construction starts, the *istiṣnāʿ ṣukūk* represent the project under construction and are tradable. Upon completion of the project, the *istiṣnāʿ ṣukūk* are transformed into leased-asset *ijārah* or *ijārah muntahiyah bittamlik ṣukūk*, representing assets tied to a lease contracts which are also tradable.

Ijārah Ṣukūk

These are certificates of equal value issued by the owner of an asset or a financial intermediary on the owner's behalf. The basis of issuing this type of *ṣukūk* is that the issuer sells an existing leased asset to the *ṣukūk* holders, who are the buyers of the asset. The proceeds of the *ṣukūk* are the purchase price of the asset. *Ṣukūk* holders are jointly entitled to their benefits and bear the associated risks. This type of *ṣukūk* can be suitable for financing some projects in Table 1, specifically information technology projects and expanding the capacity of hydrocarbon-related industries. Such projects are capital-intensive. For example,

hydrocarbon capital includes heavy machinery such as refineries, drilling equipment, liquid to gas technology, etc. These are imported standardized capital assets. Thus they can be bought and leased to the industry/project. The structure of the *ijārah sukūk* to finance capital-intensive industries is described below:

- 1- Under a master lease agreement, the SPV signs a long-term lease contract with the originator, where the SPV, on behalf of the *sukūk* holders, leases an asset (machine, equipment, etc.) from the originator as a lessee for a fixed rent. (The master agreement may indicate rent to be periodically adjusted according to the inflation rate over a certain period of time.) The term of the *sukūk* is determined by the economic useful life of the leased asset(s).
- 2- The SPV signs an agency agreement with the originator to import the required asset that is specified in the master agreement. This may also be done through a *wakālah* given to the originator.
- 3- The SPV issues *sukūk* with a total value that is equal to the purchasing price of the asset to be leased, whereby proceeds from *sukūk* are used to purchase the asset.
- 4- Periodic rental payments are distributed to the *sukūk* holders after deducting the SPV's commission and any additional expenses that are specified in the master agreement.

In order to guarantee a fixed real rate of return (rent) and continuity, the SPV may establish some reserves such as inflation adjustment reserves and depreciation reserves, as well as maintenance and renovation reserves. The maintenance reserve is used for the periodic maintenance and renovation of assets. Thus the rent received by the *sukūk* holder can be thought of as the net value after deducting reserves for maintenance and adjusting for inflation. At the end of the asset's useful life, the SPV uses the asset's residual market value, in addition to the depreciation reserves to replace the asset or to make a final balloon payment to *sukūk* holder, which is a sort of capital refund. Alternatively, the SPV may issue more *sukūk* depending on the price of the new asset.

Sukūk as an Instrument to mop up excess liquidity resulting from Expansionary Fiscal Policy.

Monetary stability is a crucial challenge for QCB. Because the Riyal is tied to the US dollar and Qatar operates an open capital economy, Qatar cannot run a fully independent monetary policy. Furthermore, QCB faces the challenge of managing

the monetary outcomes of fiscal spending aligned with QNV 2030 combined with the cost of hosting the FIFA 2022.

In order to absorb structural monetary effects, QCB may use outright sales. This refers to selling eligible assets outright in the market. Such operations are executed for structural purposes only. The legal nature of these transactions implies a full transfer of ownership (European Central Bank, 2011, pp. 22-23). A similar instrument was developed by the Reserve Bank of India in 2004 to differentiate the liquidity absorption of a more enduring nature by way of sterilization from normal day-to-day liquidity management operations. (Reserve Bank of India, 2005, p. 223); (Gray, 2006, p. 34).

In the case of Qatar, the proceeds from *ṣukūk* will not be circulated into the banking system; instead, the SPV will maintain its account with QCB. Notwithstanding, when the entity pays its dues to the contractors and sellers, QCB may conduct open market operations at the time of each payment to absorb any undesirable excess liquidity from the banking system. Hence the monetary effect of spending is sterilized.

Ṣukūk as a Shari'ah Compliant Instrument for the Financier of Last Resort

In the very short initial stage, *istiṣnā' ijārah ṣukūk* are not tradable as they represent cash. Hence they cannot be discounted at the central bank. Even though this period of non-tradability can be shortened to a minimum, these *ṣukūk* can be transferred to the central bank at face value. In this case, QCB would take the role of investor and would keep the *ṣukūk* until they become tradable, i.e. when the asset starts being constructed. The central bank may accept to transfer *istiṣnā' ijārah* (or *ijārah muntahiyah bittamlik*) *ṣukūk* to its ownership as the project financier, provided that the total outstanding *istiṣnā' ṣukūk* owned by QCB does not exceed 5% of the average revenue of the budget for the last three years as per Article 49 of QCB law (2006), which states:

Ministries, government organs, public corporations and authorities and companies owned or managed by the state shall not borrow from the bank whatever the form, maturity and amount of such borrowing.

As an exception from the above, the bank may grant the government, upon application of the minister, a sum not exceeding 5% of the average revenue of the state budget for the last three years, and for a term not exceeding four months (Qatar Central Bank, 2006).

The bank who initially discounted the *ṣukūk* may buy them, provided that the sale takes place in the open market via an auction mechanism, rather than being done by pre-agreed mutual consent. The difference between the two sale mechanisms is that buying back the discounted *ṣukūk* in the open market does not involve *ʿīnah*, whereas if it is pre-arranged between the QCB and an Islamic bank, the transaction then involves *ʿīnah*.

As mentioned above, upon completion of the asset, *istiṣnāʿ ṣukūk* are transformed into *ijārah ṣukūk*, which are tradable as per AAOIFI Shariʿah standards. (Accounting and Auditing Organization for Islamic Financial Institutions, 2010, p. 244). In this case, banks may discount their *ijārah ṣukūk* at the central bank to get the liquidity they need. However, using this instrument may result in a long-term shift in the central bank's monetary liabilities, particularly high powered money. In order to avoid an undesirable expansion in high powered money, the discount may be accompanied by open market operations.

At the time of a liquidity shortage, the central bank may purchase the *ṣukūk* via open market operations, in order to inject liquidity into the banking system.

Overall, this instrument can be used by the financier of last resort during normal times and at time of crisis. In addition, it has the following merits:

- 1- This instrument can be considered as a part of a wider program of fiscal reform. For example, when revenues are squeezed by unanticipated falls in hydrocarbon price, the government may issue *ṣukūk* to finance its development expenditure.
- 2- The proposed coordination and issuance of *ṣukūk* help to mop-up the excess liquidity resulting from the expansionary fiscal policy.
- 3- The proposed instrument in this paper can be considered as a milestone in the development of Islamic interbank money markets and capital markets. It will help in achieving the targets for 2014 set in the QNDS 2011—2016. The targets include:
 - a. introducing an extended range of instruments to help manage domestic liquidity;
 - b. preparing a strategy to guide broader domestic capital market development. (Qatar General Secretariat for Development Planning, 2011, p. 80).

6. Conclusion

Commercial banks are concerned about their liquidity position and maintaining it to an extent that keeps the bank solvent and allows it to maximize profit. On the other hand, central banks keep track on the liquidity in the banking system in order to ensure a smooth payment settlement system, as well as to maintain a level of liquidity that is consistent with the target of monetary policy, to achieve the central bank's ultimate objectives.

In order to manage their liquidity, Islamic banks use interbank instruments, as well as central bank instruments. Finance contracts that are used by Islamic banks in their interbank transactions include commodity *murābahah* and *wakālah* agreements. Analyzing these instruments reveals that the commodity *murābahah* agreement is done as a *tawarruq* transaction, and the *wakālah* agreement is restricted to short-term deposits. Furthermore, most of central banks' instruments are conventional instruments based on *Ribā*. Notwithstanding that some of available Islamic instruments involve Sharī'ah issues such as *ijārah ṭinah*. For Islamic banks to utilize conventional deposit/lending facilities for clearing between interests and agreements on interest-based loans is not valid in Sharī'ah. In addition, these mechanisms contradict the *Fiqhī* standard that "any loan from which a benefit accrues is *ribā*."

Three Sharī'ah compliant instruments are proposed in this paper. The first instrument is the short-term *muḍārabah* deposit. A very short term (overnight or one day) is recommended, whereby the rate of return can be easily predicted. The second instrument is based on discounting Islamic banks' assets. The third instrument is open market operations using tradable *ṣukūk*. The recommended *ṣukūk* are *istiṣnā' -ijārah ṣukūk* and *ijārah ṣukūk*. These two types of *ṣukūk* are tradable. They can be developed by coordination between the central bank and the government entities that are concerned with developmental projects to achieve the goals of QNDS 2011—2016.

Recommendations for central banks

- It is important to set a strategic plan to enhance Islamic finance. The plan may include the priority of designing Sharī'ah compliant instruments for interbank markets, central bank operations and government budget financing.
- Central banks should start using the open market operations to manage liquidity after proper forecast for the potential short-term and long-term liquidity position.

- A high level of coordination between the central bank and government entities is needed to enhance liquidity management and government budget finance. Establishing a special purpose vehicle to implement the coordination and issue the required *ṣukūk* may be of high priority if the proposed coordination is desired.
- Appropriate Sharī'ah advice is needed at the central bank level for consultation on the permissibility of different *ṣukūk* structures, Islamic contracts, and Islamic instruments for liquidity management.

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