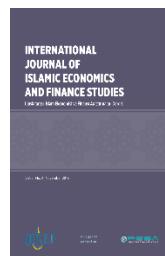


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**Developing Islamic Liquidity Management Instruments: Resolving the  
Impasse between Central Bank of Nigeria (CBN) and Jaiz Bank Plc**

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**ABSTRACT**

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**JEL Classification:**  
E5, G21, G32

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Despite tremendous growth of Islamic finance globally, the phenomenon is relatively new in Nigeria. The first full-fledged Islamic bank, Jaiz Bank Plc, was licensed as a regional bank by the Central Bank of Nigeria (CBN) in 2011 and it started its operations in January, 2012. Over 3 years now, the apex regulatory body is yet to develop robust shari'ah compliant instruments for liquidity management of Islamic banks in Nigeria. This paper assesses the predicaments of Jaiz bank Plc over the last 3 years of its operations in the face of this challenge on the basis of secondary data from the financial statements of the Bank. Evidences on the basis of CAMEL analysis show that while the Bank performs quite well in respect to capital adequacy, assets and management quality, the Bank, however, suffers most, on average, with respect to earning quality and liquidity. The paper recommends that the CBN should, while the shari'ah compliant instruments are being awaited, introduce a measure of deposit-free and loan-free for Jaiz Bank plc and consider lowering the statutory liquidity ratio, all with a view of easing financial constraints of the Bank.

## I. Introduction

Islamic banks like their conventional counterparts serve as a bridge between surplus and deficit spending units of the economy. As a unique banking model, Islamic banks operate on the principles of shari'ah, Islamic law. Most distinctively, for instance, while the conventional banks rely on *riba* (interest), as a beacon which influences their lending and credit behavior, Islamic banks hinge on profit and loss sharing (PLS) as enshrined in the shari'ah principles<sup>8</sup>. Islamic banks singularly attract deposits and lend under interest-free arrangements, likely entered into for religious reasons by depositors and borrowers (Baele, Farooq and Ongena, 2012; Khan and Khanna, 2012). Therefore, under the Islamic banking model, reconciling the attitude of savers and borrowers depend not on predetermined interest, but by a pre-agreed PLS ratio. Another distinct feature of Islamic bank is the fact that it discriminates on not only the applications of funds from the standpoint of the shari'ah, but the sources of the funds as well. Although this is critical to the Islamicity of the bank, the discrimination of the funds exposes it to greater danger in deposit mobilization and the battle of maintaining excess/unwarranted liquidity.

An ideal Islamic banking model therefore, is the one which staunchly adheres to the Islamic principles and whose operations reflects, through its balance sheet structure, the dominance of PLS transactions on both the assets and liabilities sides (Chapra, 1985 and 2000; Rosly and Bakar, 2003; Siddiqi, 1985 and 2001). Under this arrangement, it could safely be said that Islamic banks are less exposed to liquidity risk and therefore to instability than their conventional counterparts. In such arrangements, it is believed that the depositors share the risk with the bank on the liabilities side and therefore, naturally absorb any adverse outcomes on the assets side of the bank's balance sheet. According to Zaheer, Ongena and van Wijnbergen (2013) depositors in Islamic banks are, for all practical purposes, shareholders that receive no guarantee with respect to the face value of their deposits, but only share, in principle, profits or losses of the banks.

As the first full-fledged Islamic bank, Jaiz Bank Plc, was licensed as a regional bank by the Central Bank of Nigeria (CBN) in 2011 and started its operations in January, 2012. The Bank came at the peak of high hopes and burning desires for a shari'ah compliant alternative by the teaming Muslim population<sup>9</sup>, and for the policymakers, the hope that it would mitigate the

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<sup>8</sup> Other important principles include: avoidance of uncertainty (*gharar*), prohibition of gambling/speculation (*maysir*) and prohibition of trading in illegal (*haram*) products (e.g. alcohol, pork/swine, pornography, tobacco).

<sup>9</sup> The size of the Muslim population in the country is put at ...

high incidence of exclusion<sup>10</sup> in the banking industry in the country. Despite these stimulus, the ease with which Islamic banks manage their liquidity to avoid exposure to risks depends on the presence of a buoyant, effective and efficient Islamic money market for deployment of short term shari'ah compliant funds as catalyst to rush in the banks. The role of central monetary authority in this regards is crucial as lender of last resort, especially for Islamic banks that operate under a dual banking structure. Against this background, this paper seeks to assess the operations of Jaiz Bank plc since its inception in view of the protracted impasse, that is, non-development of shari'ah compliant instruments by the apex regulatory body, that is, Central Bank of Nigeria. In particular, the paper appraises the performance of the former over the last three years of its operations in the light this challenge.

## **II. Literature and Theoretical Issues**

The Central Bank as the apex regulator and lender of last resort employs a number of indirect monetary policy instruments to affect the supply of money, cost and availability of credits in line with its macroeconomic objectives; price stability, noninflationary growth, overall financial stability, and the like. Tools like open market operations (OMO), monetary policy rate (MPR), cash reserve ratio (CRR) are usually applied in the short term while government bonds/development stock, security papers, etc., have more long term effect on liquidity level in the economy. The interbank trading arrangements provide a middle bridge for banks to meet their short term financial needs without necessarily resorting to the Central Bank. No doubt, these outlets are all interest-based arrangements which are unsuitable for regulation of Islamic finance funds. For instance, Tariq (2009) posits that treasury bills or other such high quality (conventional) instruments are not acceptable under Shari'ah law. The challenge therefore is for the apex bank to develop these instruments which are in line with the shari'ah principles in order to place the banks in equal competitive position with their counterparts.

It is worthy to note that Islamic banks' assets and liabilities comprise of short and long term financial instruments/obligations of varying maturities over a given financial horizon. Profitability and other competing considerations influence the structure of the banks' portfolios. More than their conventional counterparts, Islamic banks face less liquidity risk. Liquidity risk is one of the several risks which banks, including Islamic ones, are exposed to. It results from the mismatch between maturities of assets and liabilities. The different maturity structure of assets (largely in the medium and long term,

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<sup>10</sup> According to a survey by Enhancing Financial Innovation & Access (Efina) in 2010 in Nigeria, up to 67.2% (56.9 Million people) of the adult population is unbanked. This was further disaggregated into 78.8% of the rural population and 76.8 of adult females are unbanked. Meanwhile, a total of 22.8 Million adults are likely to use Islamic banking products according to the survey.

and liabilities by and large, in the short term), generates the risk that the bank is unable to respond immediately to requests for payment or forces the bank to quickly dispose high volume of financial assets in its portfolio accepting the price much lower than the market value (Ruozi and Ferrari, 2013).

Dusuki (2007) posits that the importance of liquidity transcends the individual institution because it may invoke systemic repercussion causing harm to the whole financial stability of a country. Insufficient liquidity not only leads to the collapse of one bank but may cause the instability of the whole financial system (Llewellyn, 1999). That many of the incidences of bank failures could be blamed on improper liquidity risk management (Arena, 2008). Hartlage (2012) argues that following the hard lessons from the last financial crises, the Basel Committee was forced to introduce liquidity risk as the element of Basel III framework. Although insufficient liquidity could lead the bank to huge problems, excessive liquidity is not beneficial for the bank either (Sobol, 2013).

Excessive liquidity signals underutilization of financial resources which hurts income/ profitability, raises cost and lowers competitiveness. Thus, between high and low liquidity is a balance which matches banks desire for higher profit and safety by maintaining some degree of solvency necessary to forestall confidence in the entire financial system. Liquidity refers broadly to the ability to trade instruments quickly at prices that are reasonable in the light of the underlying demand/supply conditions through the depth, breadth and resilience of the market at the lowest possible execution cost (Pervez, 2000). Vento and Ganga (2009) opine that liquidity measures the ability of a financial firm to maintain a balance at all the times between its financial inflows and outflows. Liquidity management therefore, is the lifeline of confidence in the banking operation.

Conventional banks have an array of outlets for effective and profitable liquidity management; interbank deposits, foreign exchange swaps, repo operations, treasury bills and commercial papers. Above all, when due lack of trust banks do not want to lend money each other, they have access to the overall lender of last resort, that is, the Central Bank. On the contrary, Islamic banks face a number of challenges in managing its liquidity. Especially in the short term, there is the lack of a developed money market, and especially an interbank market, of the kind seen in conventional finance. The Dubai financial services Authority (DFSA, 2014) adds that the shortage of short term, or highly tradable, investment instruments with limited capital risk and, ideally, predictable returns. Currency risk especially in view of limited hedging instruments available to Islamic firms and location risk further limit the free flow of liquidity from within or between jurisdictions.

For Islamic liquidity management to flourish, analysts have recognized the need for a vibrant, efficient and effective Islamic Inter-bank Money Market (IIMM) for creation of a wide range of innovative Islamic financial instruments and the necessary infrastructure to promote active trading. The availability money market and inter-bank market would meet the short-term cash requirements of banks and other financial intermediaries (Dusuki (2007). In such markets as Rosly (2005) opines, maturities of loans normally range from overnight to one year.

Attempts by shari'ah scholars over the last decade have yielded breakthroughs on development of shari'ah compliant instruments. The Islamic Interbank Money Market (IIMM) first introduced short term instruments in January 3, 1994. Presently, there are twelve different liquidity instruments at IIMM: *Mudarabah* Interbank Investments (MII), *Wadiah* Acceptance (WA) Government Investment Issue (GII), Bank Negara Monetary Notes-I (BNMN-i), Sell and Buy Back Agreement (SBBA), Cagamas Mudarabah Bonds (SMC), When Issue (WI), Islamic Acceptance Bill (IAB), Islamic Negotiable Instrument (INI), Islamic Private Debt Securities (IPDS) *Ar Rahnu* Agreement-I (RA-i) and *Sukuk* Bank Negara Malaysia *Ijarah* (SBNMI). Islamic interbank rates are calculated as the day-to-day weighted average rates of the *Mudarabah* interbank investments at the IIMM. However, detailed description of the structure of these instruments is beyond the scope of this paper.

IRTI (2001) filters the wide range of conventional liquidity management instruments in the light of opinion of shari'ah experts. While it explores the need for developing the shari'ah complaint instruments, it at the end suggested wide range of instruments based on profit and loss sharing and deferred trade-based financing arrangements. A decade later, IRTI (2010) observes that 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.

The above challenge still holds despite the attempt by a long standing organization, the Islamic Financial Services Board (IFSB) which crystallizes the formation of the International Islamic Liquidity Management Corporation (IILM) in 2010. IILM composes of eleven central banks and two multilateral organizations whose main mandates are: (a) enhance and coordinate initiatives to develop instruments and procedures for the efficient operations and risk management of Islamic finance institutions; and (b) encourage cooperation amongst member countries in developing the Islamic financial services industry. IILM has the following membership: Iran, Indonesia, Luxembourg, Malaysia, Mauritius, Nigeria, Qatar, Saudi Arabia,

Sudan, Turkey, United Arab Emirate, Islamic Development Bank and Islamic Corporation for the Development of the Private Sector.

Kahf and Madami (2014) lament that although Islamic banking has reached around 24% of the banking sector in Qatar, yet the Qatar Central Bank (QCB) has not developed a Shari'ah compliant financier of last resort. While the authors appraised and distilled existing instruments in the context the shari'ah standards, they proposed three alternative Shari'ah compliant liquidity management instruments for the financier of last resort, as well as the interbank market. These are: short-term *mudharabah* deposits, sell of Islamic banks' leased assets to the Central Bank and open market operations on the basis of tradable sukuk.

Empirical studies show that Islamic financial institutions are almost 50% more liquid as compared to conventional financial institutions. Aijazi (2007) reveals that out of US\$ 13.6 billion total assets of Islamic banks US\$ 6.3 billion were found to be in liquid assets. Identifying the challenges facing IFIs in portfolio management, Munawar, Ahmad and Khan (1998), discover that up to 67% of their assets were in *murabahah* products, while *mudharabah*, *mudharabah* and *ijarah* each accounted for less than 10%. This is despite the fact that *murabahah* transactions are characterized by higher costs, lack of clear standardization, higher counterparty risk due to its bilateral nature, absence of secondary market, and the like.

Evidences in the literature have shown that that on the basis of financial ratios and trend analysis, Islamic banks perform quite well (Deloitte, 2010; Akhter, Raza, Orangzab, and Akram, 2011; The liquidity ratios Net loans to total asset ratio, liquid asset to deposit ratio, short term fund ratio is used for comparison of Islamic and conventional banks of Pakistan for the period 2006-2010. Ismal (2010), for instance, indicates that with respect to liquidity management, the Islamic banks in Indonesia are evaluating themselves on the basis of three factors such as, banks liquidity management policy, liability side and asset side, and they stands in the index of 'good' grade.

Ansari and Rehman (2011) assess the performance of Islamic and conventional banks in Pakistan between 2006 and 2009 by employing 18 different financial ratios among which are: profitability, liquidity, risk and solvency, capital adequacy. Results show that in comparison to conventional banks, Islamic banks were highly liquid and less risky. Similarly, using a sample of 5 banks between 2005 and 2009, study by Jaffar and Manarvi (2011) reveals that Islamic banks performed well in capital adequacy and liquidity while conventional banks performed better in earning and management quality. Asset quality remained the same in Islamic banks and conventional banks.

In a related study in the GCC, Merchant (2012) correlates the performance of Islamic and conventional banks using CAMEL testing factors. Results show that while conventional banks increased their LOAN LOSS RES / GROSS LOANS (LLR) and EQUITY / TOT ASSETS (EQTA) between 2008 and 2011, Islamic banks possessed adequate capital structure but have recorded lower ROAE and poor management efficiency. Asset quality and liquidity for both the modes of banking system have not recorded any significant difference. Other studies on performance analysis of Islamic and conventional banks in the GCC include: Olson and Zoubi (2008) Parashar and Venkatesh (2010), Zeitun (2012).

Zaheer, Ongena and van Wijnbergen (2013) report that until 2008, Islamic banks in Pakistan were forced to hold their cash only to fulfil the statutory liquidity requirement (SLR) which pose higher opportunity cost than in conventional banks. The authors observed that although shari'ah compliant instruments were introduced by the State Bank of Pakistan in 2003, the appetite of the banks could not be met due to high demand.

More recently, Ara and Haque (2014) reveal in their empirical analysis of asset-liability mismatch of some nationalized banks in Bangladesh that while some banks suffer high negative liquidity gap, others like Agrani Bank Ltd, the gap was, in addition highly volatile. Findings also show statistically significant difference among the banks in terms of variation in their liquidity.

A recap of the review of literature reveals that at the operational level, regulatory instruments have array of instruments for effective liquidity management in the economy. Theoretically, excessive profit derive could result in insufficient liquidity and generate huge problems – collapse of the financial system, excessive liquidity is not beneficial for the bank either. Comparatively, Islamic banks, conceptually, are less likely to suffer liquidity problem than their conventional counterparts – a body of empirical literature supports this position. While some studies reveal that Islamic banks outperformed their conventional counterparts in capital adequacy and liquidity others show that conventional banks performed better in earning and management quality. Some others report otherwise and or mixed results in other ratios.

### **III. Research Methodology**

A number of empirical studies have employed ratio analysis to gauge the financial strength or otherwise of financial entities or make comparison between a number of entities over a given financial horizon. The performance parameters usually employed under the ratio analysis are summed up by the acronym known as CAMEL, which stands for the following: capital adequacy, asset quality, management quality, earnings and liquidity.

In line with applications by Ansari and Rehman (2011); Akhter, Raza, Orangzab, and Akram, 2011; Merchant (2012) and Iqbal (2012) in assessing the relative performance of Islamic and conventional banks, this paper employs ratio analysis to analyze the performance of Jaiz bank plc over the 3 years of its operations, that is, from 2012 to 2014. The financial statements of Jaiz Bank Plc were the main sources of information for the analysis. Although the framework does not provide for cropping up of alternative scenarios for analysis of with-and-without effects Islamic liquidity management instruments, inferences would be drawn from the outcome of the analysis. The ratios are interpreted as follows:

**a) Capital Adequacy:**

This is measured by using equity to total assets ratio (EQTA) – Vong and Chan, (2009). EQTA is gauged as the degree of capital adequacy and reflects the safety and financial reliability of the bank. EQTA ratio aids the bank in providing a strong cushion to increase its credit undertakings and lowers the unanticipated risks.

**b) Asset Quality:**

This is measured by loan loss reserves to total loans (LLR), where the LLR is the amount of funds that are set aside/reserved by the banks in event of bad loans. It is therefore a provision made against bad and doubtful loans of the bank. High provision for bad loans signals towards future losses and vice versa.

**c) Management quality:**

The quality of management is measured in terms of its ability to increase productivity at minimum cost. A number of studies have used cost to income ratio (COSR), as a proxy for management quality. COSR is defined as the cost incurred by the organization to generate a naira of income. By controlling the cost, it is meant to control the overhead cost that is sustained to run a bank.

**d) Earnings quality:**

This paper employs two measures for earnings/ profitability and were directly computed from the financial statements of Jaiz Bank Plc. These are return on assets (ROA) and return on equity (ROE). ROA is calculated as net profit of the banks to total assets. This helps to indicate how much a bank generates profit through efficient employment of its resources. ROE on the other hand measures the ratio of net income to total equity. The high ratios indicate the better return to the investments of the shareholders.

### e) Liquidity:

This aids the banks and establishments to evaluate the risk they face in the event of an unprecedented and unforeseen circumstance that could result in insolvency. To assess the liquidity of the banks, the paper uses net loan to total assets (NLTA). NLTA is defined as the amount of assets that have been engaged in loans. Hassan and Bashir (2003) caution that the NLTA should be as low as possible. High NLTA results in inferior liquidity standards, high exposure to risk of insolvency by banks and loan delinquency. Lower ratio although safer for the bank but adversely affects profitability.

## IV. Results and Discussions

This paper seeks to assess the operations of Jaiz Bank plc in the face of lack of shari'ah compliant instruments by the Central Bank of Nigeria. Consequently, on the basis of the methodology outlined in the last section, the paper computes the relevant ratios. However, due to non-availability of 2014 financial statement of the Bank. The analysis, therefore was based on 2012 and 2013 financial statements and is presented in the Table 1 as follows:

**Table 1:** CAMEL Testing Factors

Variable	2012	2013	2014	Average
Capital Adequacy (AC)	77.0%	71.0%	63%	70.3%
Asset Quality (AQ)	0.0%	1.0%	0.0%	0.33%
Management Quality (MQ)	1.01%	3.0%	1.0%	1.67%
Earnings Quality (EQ)	9.11	2.52	0.95	4.19
Liquidity (L)	24%	43%	0.71%	22.6%

**Sources:** Computed by the author using information from the Audited Financial Statements of Jaiz Bank Plc for 2012, 2013 and 2014.

Results from the above show that the Bank's capital adequacy ratio for the two periods records an average of 70.3% which is quite impressive although, comparatively, the Bank performs better in the year 2012 with capital adequacy ratio of 77% and subsequently declined to 71% and 63% in 2013 and 2014, respectively. Generally, Jaiz Bank plc operates as a regional bank in the country until 2015 when it secured an approval in principle from the CBN to operate as a national bank following its strong performance over the years. The ratio is a standard measure used to protect depositors and promote the stability and efficiency of financial systems around the world. Iqbal (2012) discovers that on the average between 2007 and 2010, Islamic banks maintain higher (10%) CAR in Pakistan than their conventional counterparts. This implies that they had abundant capital to manage any shock to the balance sheet. Using a sample of 17 Islamic banks and 10 conventional banks in the Gulf Cooperation Countries (GCC), Merchant (2012) shows that between 2008 and 2011, taking into account the effects of crisis and the

recovery phase, Islamic banks were well capitalized with EQTA of 24.4% as against 13.9% recorded by conventional banks.

The Bank's asset quality in line with evidences in the literature was measured as the ratio of loan loss reserves to total loans. A lower, preferably zero ratio, is desired. Result from the Table shows that while the ratio was 0% in 2012, it slightly inched up to 1% in 2013 and returns back to naught percent in 2014 and an average of 0.33% for the three periods. This is also very remarkable. It is worthy to note that Islamic Banks grant *qard hasana loan*, that is, gratuitous loan to its customers which is only unique to it. Using somewhat different measure, Iqbal (2012) shows that while Islamic banks record an average of 3.5% of non-performing loan ratio (NLR) between 2007 and 2010, conventional banks' ratio soars on an average of 11%. Merchant (2012) found no statistically significant difference in NLTA, LLR and ROAA of Islamic banks and conventional banks in the GCC. However, high COSR for Islamic banks – 53.6% as against 34.9% for conventional banks, was reported. This indicates that Islamic banks have not been able to control the cost which can be seen as one of the management inefficiencies.

The ratio of loans to total deposits was employed as a measure of management quality in the absence of appropriate indices for measurement of cost and income of Jaiz Bank Plc. This was especially so because the Bank, in succession, closed its financial statements with losses in two out of the three periods under review. Result shows that the ratio for the 2012 stood at an impressive level of 1.01% which is better than that of 2013 at 3.0%. The ratio was 1.0% in 2014, when for the first time, the Bank declared a positive profit. The average was 1.67% for the three years. Lower ratio signifies better management quality and vice-versa. Furthermore, the quality of Jaiz Bank's earnings quality was gauged using ratio of total expenses to total revenue and result shows that the Bank recorded the least ratio of 0.95% in 2014 followed by a ratio of 2.52% in the year 2013 while the highest was 9.11% in the year 2012. The result shows that over the three years, the Banks earning quality improved consistently in the period under review. This indicates that the Bank is more capable of controlling its cost and increasing productivity which results in higher profitability as evidenced by the Bank in 2014. Empirical studies in the area, however, employed double barrel measure; return on assets (ROA) and return on equity (ROE), which due to lack of information could not be computed. Merchant (2012), in the GCC, reports lower ROA of 0.89% and 1.7% and ROE of 6.6% and 11.8% for Islamic and conventional banks, respectively. Iqbal (2012) reports similar results using a sample of both Islamic and conventional banks in Pakistan.

Liquidity as the most critical variable was measured using ratio of net loans to total assets. By its position, Jaiz Bank is barred from operating in the interbank transactions with other conventional banks. Coupled with lack of shari'ah compliant investment instruments, the Bank, all things being equal, is expected to be faced with excess liquidity, which although is safer, but delivers lower profit. Accordingly, the ratio was higher in the year 2013 at 43% than in 2012 which stood at 23%. However, the ratio falls to as low as 0.71%. This follows the Bank's strong desire to open more branches in the Northern region, its investment in the Osun State *Sukuk* to the tune of N2.4billion, and its strong derive towards achieving positive profit. In comparison with conventional banks Becl, Demirguc-Kunt and Merrouche (2013) found that Islamic banks have higher fraction of their assets in cash and balances with Treasury (shari'ah compliant) instruments and are less likely to disintermediate during crises. Zaheer, Ongena and van Wijnbergen (2013) reported similar findings in Pakistan and added that in view of the opportunity cost of holding excess cash, State Bank of Pakistan (SBP) lowered the statutory liquidity rate (SLR) to 9% which is 10% lower than the ratio observed by conventional banks. Jaiz Bank in the contrary still face 30.0% liquidity ratio in 2014. Notwithstanding, the Bank still faces non-availability of desired liquidity management instruments in the market, (Nurul Islam, 2014).

## V. Conclusion and Recommendations

The paper on entitled developing Islamic liquidity management instruments: resolving the impasse between Central Bank of Nigeria (CBN) and Jaiz Bank Plc assesses the impact of lack of shari'ah compliant liquidity management instruments on the operations of latter covering the periods of 2012, 2013 and 2014.

Evidences on the basis of CAMEL analysis show that while the Bank performs quite well in respect to capital adequacy, assets and management quality, the Bank, however, suffers most, on the average, with respect to earnings quality and liquidity. These explain, to a large extent, why the Bank, except for the year 2014, suffered huge losses in the 2012 and 2013 financial years. These findings fall within the purview of other empirical studies in the area especially in Asia and the GCC.

In the light of the foregoing, the paper recommends the followings:

- a) The CBN should, while the instruments are being awaited, introduce a measure of deposit-free and loan-free in order to ease financial constraints of Islamic banks in the country in general, especially during period of stress;
- b) The CBN should consider lowering the statutory liquidity ratio of Islamic banks in line with what was reported in the case of State Bank of Pakistan (SBP), and

- c) Ultimately, CBN should strive to finalize and bring to full implementation, the proposed shari'ah compliant instruments without further delay.

## References

- Akhter, W., Raza, A., Orangzab & Akram, M. (2011). Efficiency and performance of Islamic Banking: The Case of Pakistan. Lahore: *Far East Research Centre*
- Ansari, A. and Rehman, A. (2011) "Financial Performance of Islamic and Conventional Banks in Pakistan: A Comparative Study", *8th International Conference on Islamic Economics and Finance - Doha*. 1 (1), pp. 1-19 4.
- Ara, U.H.A. and Haque, E. (2014). Asset Liability Mismatch- An Empirical Study on Nationalized Commercial Banks in Bangladesh, *Asian Business Review*, 4(2), (Issue 8), ISSN 2304-2613 (Print); ISSN 2305-8730 (Online).
- Baele, L., M. Farooq, and S. Ongena. (2012). "Of Religion and Redemption: Evidence from Default on Islamic Loans." *Mimeo*, Center – Tilburg University.
- Becl, T., Demirguc-Kunt, A. and O. Merrouche (2013). Islamic vs. Conventional Banking: Business Model, Efficiency and Stability, *Journal of Banking and Finance*, vol. 37(2), pp. 433-447.
- Dusuki. A.W. (2007). Commodity Murabahah Programme (CMP): An Innovative Approach to Liquidity Management, Paper presented at the *5th International Islamic Finance Conference*, organized by Monash University, Kuala Lumpur, 3rd – 4<sup>th</sup> September 2007.
- Hassan, M. and Bashir A. (2003), "Determinants of Islamic Banking profitability", *Paper Presented at the Economic Research Forum (ERF) 10th Annual Conference*, Marrakesh, Morocco, 16-18 December. 5.
- Iqbal Munawar, Ausaf Ahmad & Tariqullah Khan (1998), Challenges Facing Islamic Banking, *Islamic Research and Training Institute (IRTI)*, Jeddah, Kingdom of Saudi Arabia.
- Jaffar, M., & Manarvi, I. (2011). "Performance comparison of Islamic and Conventional Banks in Pakistan", *Global Journal of Management and Business Research*. Vol. 11(1), pp 1-7 6.
- Kahf, M. and Madami, C. (2014). An Attempt to Develop Shari'ah Compliant Liquidity Management Instruments for the Financier of Last Resort: With Reference to Qatar Development Plan, *Islamic Economic Studies* Vol. 22, No. 1, May, 2014 (109-138), DOI No. 10.12816/0004132
- Khan, A. K. (2010). "God, Government and Outsiders: The Influence of Religious Beliefs on Depositor Behavior in an Emerging Market." *Mimeo*, Harvard.
- Khan, O. (2012) "An Examination of the Underlying Rationale of the Profit and Loss Sharing System, With Special Emphasis on the Mudarabah and Musharakah Within the Context of Islamic Law and Banking", *Journal of Finance, Accounting & Management*, 3(1), pp. 23-31 7.

- Khan, A. K., and T. Khanna. (2012). "Is Faith a Luxury for the Rich? Examining the Influence of Religious Beliefs on Individual Financial Choices." In *Building Bridges across Financial Communities: The Global Financial Crisis, Social Responsibility, and Faith-Based Finance*, ed. S. N. Ali. Cambridge, MA: Harvard Law School.
- Mohamad, S., Hassan, T. & Bader, M. (2008) "Efficiency of conventional versus Islamic Banks: International Evidence using the Stochastic Frontier Approach (SFA)", *Journal of Islamic Economics, Banking and Finance*, 4(2), pp. 107-130. 8.
- Merchant, I.P. (2012). Empirical Study of Islamic Banks versus Conventional Banks of GCC, *Global Journal of Management and Business Research*, 12(20), Version 1.0, pp. 32-42, Online ISSN: 2249-4588 & Print ISSN: 0975-5853
- Nurul Islam, M. (2014) Jaiz Bank Annual Report and Accounts, a publication of Jaiz Bank Plc. [www.jaizbankplc.com](http://www.jaizbankplc.com)
- Olson, D. and Zoubi, T. (2008). Using Accounting Ratios to distinguish between Islamic and Conventional Banks in the GCC Region, *The International Journal of Accounting*, 43, pp 45-65 9.
- Ruozi, R. and Ferrari P. (2013). Liquidity Risk Management in Banks, *Economic and Regulatory Issues*, Springer, Heidelberg.
- Samad, A. (2004) "Performance of Interest-Free Islamic Banks vis-a-vis Interest-Based Conventional Banks of Bahrain", *IIUM Journal of Economics and Management*, 12(2), pp. 1-15 11.
- Sobol, Iwona (2013). Liquidity Management Practices in Islamic Banking, *Journal of Management Finance*, 11(2/1), pp. 566-76, ICID 1101337
- Tariq, M. (2009). Treasury Management in an Islamic Financial Institution, *Treasurer Islamic Development Bank*, Jeddah, KSA, 14 April, 2009.
- Vento, G.A. and Ganga, P.L. (2009). Bank Liquidity Risk Management and Supervision: Which lessons from Recent Market Turmoil? *Journal of Money, Investment and Banking*, (10), pp. 79-126.
- Zaheer, S., S. Ongena, and S.J.G. van Wijnbergen (2013). The Transmission of Monetary Policy through Conventional and Islamic Banks, *International Journal of Central Banking*, Vol. 9(4), pp. 175-224.
- Zeitun, R. (2012). Determinants of Islamic and Conventional Banks Performance in GCC Countries Using Panel Data Analysis, *Global Economy and Finance Journal*, 5 (1), pp. 53-72

## Appendix I:

Measurements used to present the Explanatory Variables/Ratios

<b>Variables</b>	<b>Measurements</b>
Capital Adequacy	Total Equity/Total assets (ETAR)
Asset Quality	Loan Loss Reserves/ Total Loans (LLR)
Management Quality	Loans/Deposits (LDR)
Earnings Quality	Total expenses/Total revenue (COSR)
Liquidity	Net loans/Total Assets (NLTA) or liquid assets to total deposits (including <i>mudarabah</i> funds in the case of Islamic banks)