Comparative Analysis of Qatari Islamic Banks Performance versus Conventional Banks Before, During and After the Financial Crisis

Elsayed Elsiefy

Associate Professor Finance

Qatar Faculty of Islamic Studies

Hamad Bin Khalifa University

Qatar foundation and faculty of commerce in Alexandria University

Egypt

Abstract

The objective of this study is to provide an empirical assessment of the performance of Islamic banks (IBs) in Qatar in comparison with their conventional counterparts (CBs) over the period 2006-10 using financial ratio analysis. In our analysis we try to address two broad questions. First, have Islamic banks been able to maintain sustainable growth rates and efficiently compete with conventional banks? Second, have Islamic banks been affected differently than the conventional banks before during and after the financial crisis in 2008? To answer the first question, the paper tries to highlight growth trends pre and post the financial crisis of the two groups of banks' profitability, total assets, credit, and deposits. In an attempt to address the second question, we try to examine the overall performance of the two groups of banks using 5 sets of financial ratios measuring specific performance areas related to profitability, asset quality, efficiency, liquidity, and risk and solvency. Our analysis suggests that IBs have maintained stronger total assets, credit, and deposits growth rates than CBs pre and post the crisis, but less sustainable profitability rates. Asset quality indicators imply that IBs have sustained lower Non-performing Loans NPLs ratio, however had underprovided for NPLs compared to CBs. Efficiency indicators show that IBs were more efficient in utilizing assets than CBs. Furthermore, liquidity indicators reveal that IBs are less liquid than CBs. Interestingly, CBs have constantly maintained higher ratio of liquid assets to total assets than IBs, which is inconsistent with the general view that IBs suffer from excess liquidity. Finally risk indictors demonstrate that IBs are more adequately capitalized and less leveraged than CBs.

Keywords: *Islamic Finance, Islamic Bank, performance evaluation, financial ratios*

Field: Finance and Banking

1. Introduction

The global expansion of Islamic finance in recent years has been spectacular. Prior to the financial crisis, according to the International Financial Service London (IFSL), Shariah compliant assets were estimated to have grown by over 10% a year from about $150bn in the mid-1990s to $531bn at end-2006, with balance sheet assets of Shariah compliant banks totaled $463bn in 2006. In the aftermath of the global financial crisis, the global expansion of Islamic finance has continued and its development has remained

dynamic. The global market for Islamic financial services has continued to experience an annual growth rate of 10%, with total assets estimated to have reached $1,041bn at end-2009, from $947bn in 2008, and the balance sheet assets of shariah compliant banks have grown 8% from $800bn in 2008 to $862bn in 2009. Furthermore, the prospects for Islamic finance appear even brighter than ever. Islamic assets are estimated to reach about $1.600 trillion by 2012,

The recent global financial crisis has raised concerns about the stability and solidity of global financial systems. A number of causes were identified to have contributed the most to the crisis. These include the financial innovation and increasingly sophisticated financial engineering techniques, which were developed in pursuit of short-term gains and market share and which led to excessive leverage and imprudent risk-taking practices. Most of these banking techniques and practices, in fact, are based on speculations and projections by market participants of future price movements of the underlying assets of these newly devised banking products. Most of the time, market values of these products were not a reflection of the performance of the real economy, but an outcome of distorted information and misguided signals about the fundamentals of the economy sent to the market participants by the few big players who have always dominated the market. Inevitably this led to the creation of a parallel market detached of the real market and whose size have grown to several times the size of the real market producing as a result market bubbles. Of course, all of this was made possible by means of excessive expansion of credit, which was encouraged by imprudent market practices based mainly on risk transfer techniques to diversify risk and hedge vulnerable positions.

The unique about Islamic banking is that it is founded on rules and principles that prevent speculation and all trade transactions involving unduly amount of uncertainly in a way that is considered harmful to market participants and the whole society. This reason amongst others have surely provided Islamic banks with some protection during the financial crisis and have proven that fundamentals on which Islamic banking is founded can contribute to the stability of financial systems in which Islamic banks operate and the global financial system at large. Other primary features of Islamic banks which set huge difference between Islamic banks and their conventional counterparts are the profit and loss sharing structure of Islamic banks' balance sheet and the treatment of debt-based assets. Firstly, under Islamic banking, deposit holders of active types of deposit accounts, so called profit loss sharing accounts (PLSAs), are treated as investors and accordingly treated as quasi-equity holders. One major consequence of this feature of Islamic banking is that any loss arising from assets funded using these deposits would be borne by account holders. In principle, this provided Islamic banks with inbuilt stabilizer, which according to the value of Islamic banks' liabilities; adjust automatically in response to any value change in the price of assets. On one hand, this made Islamic banks immune from any shocks that would have typically eroded banks' capital under traditional banking environment; on the other hand, it imposed more disciplined approach on Islamic banks practices that faced fiduciary responsibility towards deposit account holders. However, the same feature exposes Islamic banks to a number of unique risks, such as displaced commercial risk, and fiduciary risk.

Secondly, Islamic finance prevents trade of debt and hence limits lending activities only to real assets. This approach of Islamic banking has not only guaranteed restricting Islamic banks' lending capacity to the real economy which consequently ensure prevention of creation of bubbles, but as well encourages Islamic banks to seek out new productive investment opportunities. Accordingly, Islamic banks have modes of financing that differ to a great extent to those available to conventional banks, which expose Islamic banks to different kinds of credit risks as compared to conventional banks.

Though these features have helped minimize the impact of the financial crisis on Islamic banks, and hence renewed the focus on the relationship between Islamic banking and financial stability and, more specifically, on the resilience of the Islamic banking industry during crises, it is acknowledged by all parties within the industry that there are important challenges the industry will need to focus on and vulnerabilities which need to be urgently addressed in order for Islamic finance to sustain growth going forward. Islamic Financial Service board (IFSB) in its last report issued on April 2010 on "Islamic finance and global financial stability" has pointed out a number of challenges that need to be attended to ensure strengthening financial stability in the Islamic financial system. Some of these challenges identified were; development of a liquidity management infrastructure, development of a set of comprehensive cross sectoral prudential standards and supervisory framework covering Islamic banking, takaful and capital market, effective crisis management and resolution framework enhance, financial reporting to facilitate the effective monitoring and assessment of Islamic financial institutions and development of the macro prudential surveillance framework and financial stability analysis.

The financial system in Qatar presently has well established Islamic banks with a significant branch network that fulfils the local demand on Islamic products, in addition to conventional banks which operate the so-called Islamic 'windows or Islamic 'branches. Interestingly, the size of Islamic banking operations managed by conventional banks through their Islamic branches, have grown remarkably during the past couple of years since their inception in 2006.

In 2010 total assets of Islamic branches stood at QR 43bn as of December 2010 to represent 9% of total market share, and 41% of total sharia'h compliant bank assets. Similarly, total credit equaled around 12% of total market share and around 48% of aggregate sharia'h compliant finance activities. However, because of Islamic finance is characterized by certain risks of a more complex nature than conventional financing, particularly with regard to credit and market risks as illustrated above and due to other operational risks related to financial reporting, capital adequacy, and financial stability, Qatar central bank QCB, In a step considered the first of its kind, has undertaken a reform procedure under which providing of Islamic banking operations would be confined to fully fledged Islamic banks. On the one hand, this step is expected to open new opportunities for Qatari Islamic banks, and on the other hand is as well likely to bring more stability and improve the efficiency of banking operations.

In light of the new opportunities as well as challenges facing Islamic banks, the objective of this paper is to assess using the financial ratio analysis the performance of Islamic banks in Qatar as compared to conventional banks during the period 2006-10. The paper looks at the impact of the crisis on the two groups of banks' balance sheet growth, profitability, asset quality, efficiency, liquidity, and risk and solvency. The remaining of the papers is organized as follows. Section 2 discusses the previous literature on the subject of this paper. Section 3 provides an assessment of the impact of the recent global crisis on both groups of banks' profitability, balance sheet growth. Section 4 outlines the problem of the research. Section 5 describes the sample and analysis methodology. Section 6 provides interpretations for the empirical results, and finally section 7 summarizes the main conclusions.

2. Literature Review

Islamic finance has emerged significantly in recent years and considerable advancement has been seen taking place in Islamic banking sector all over the world. On the back of the recent global financial crisis the entire world's interest in Islamic finance has gathered even more momentum than ever before as

Islamic banking fundamentals were found to have provided the industry with solid foundation that made it possible for Islamic banks to withstand the aftermaths of the crisis more robustly than could their conventional counterparts. This has driven a number of empirical studies to attempt analyze the efficiency and effectiveness of Islamic banks and examine their performance in the midst of the financial crisis in comparison with conventional banks.

In a recent study by the International Monterey Fund (IMF) in 2010, Hasan & Dridi examine the impact of the crisis on the profitability, credit and asset growth, and external ratings of 120 Islamic and conventional banks in eight countries covering the period (2007−10) and document that Islamic banks have been affected differently than conventional banks. They find that factors related to Islamic banks' business model helped limit the adverse impact on profitability in 2008, while weaknesses in risk management practices in some Islamic banks led to a larger decline in profitability in 2009 compared to conventional banks. Furthermore, the paper reveals that Islamic banks' credit and asset growth rates were higher than that of conventional banks in 2008–09, contributing to financial and economic stability and that external rating agencies' re-assessment of Islamic banks' risk was generally more favorable. In an earlier study by the IMF in 2008, Cihak and Hardy provide a cross –country empirical evidence on the role of Islamic banks in financial stability in 18 banking system and find that the market share of Islamic banks does not have significant impact on the financial strength of other banks. They further find that the bank's size has a bearing on its financial strength. They present evidence that small Islamic banks tend to be financially stronger than larger Islamic banks and small commercial banks, whereas large conventional banks were found to be stronger than large Islamic banks.

In another study by the World Bank (WB) in 2010, Beck et al. claim that few significant differences in business orientation, efficiency, asset quality, and stability were found between the Islamic banks' business model and the conventional banks' business model. However, higher capitalization of Islamic banks accompanied with higher liquidity reserves explain the relatively better performance of Islamic banks during the recent crisis. They also argue that conventional banks that operate in countries with a higher market share of Islamic banks are more cost-effective but less stable. Similarly Abedifar et al.,2010 present new evidence that ,in practice, Islamic banks partially deviate from the principles of Islamic finance as they tend to pay a relatively competitive rate of return to account holders regardless of actual realized profit or loss, and apply the non-PLS modes of Islamic finance which is in nature similar to conventional finance. They also conclude that despite that Islamic banks still face extra operational risks because of the complexity of Islamic modes of finance and limitations in investment activities, they are as stable as conventional banks. They find that loan risk of large Islamic bank is not significantly different from that of large conventional banks, though empirical analysis shows some evidence that small Islamic banks have less risk loans than small conventional loans.

Some other studies employ region specific data to examine the performance of Islamic banks as compared to conventional banks in the GCC region. For example, Alkassim F. (2005) investigates using the Ordinary Least Square (OLS) whether or not a bank's internal characteristics may explain the difference in profitability between Islamic and conventional banks in the GCC over the period 1997-2004. The results indicate that conventional banks were less profitable than Islamic banks, and higher capital ratios favored Islamic banks profitability. Furthermore, the results show that whereas customer deposits impact Islamic banks profitability negatively and contribute to conventional banks profitability, total loans for both types of banks have had a positive impact on profitability indicating that expansion of lending helped improving profitability for both types of banks. The paper further concludes that total expenses in

conventional banks are higher as compared to Islamic banks which negatively affected conventional banks' profitability and lower non-interest (overhead) expenses boosted both Islamic and conventional banks profitability. More recently, Parashar & Venkatesh (2010) compare using ratio analysis conventional and Islamic banks performance in the GCC before and during the recent global financial crisis, and find that over the four-year period analysis from 2006 to 2009, Islamic banks performed better than conventional banks in respect of profitability as indicated by higher average return on total assets and equity, and were higher capitalized as indicated by higher CAR ratio and higher equity to total assets ratio. Interim analysis before and during the crisis, however shows that Islamic banks suffered more in terms of capital adequacy and leverage while conventional banks suffered more in terms of liquidity and return on average assets. Both groups of banks had higher return on equity before the crisis than after the crisis. IMF in its 2009 World Economic and Financial Survey finds that though almost all GCC banks' profitability fell substantially during the financial crisis, Islamic banks were less affected by the initial impact of the global crisis in 2008, but suffered slightly larger than conventional banks during the first half of 2009 as the second-round effect of the crisis hit the real economy, especially real estate. Moreover, the analysis proves that Islamic banks within GCC countries were affected relatively differently due to variations in relative exposures to risky assets. In particular, the weaker performance of Islamic banks in 2009 was largely driven by the United Arab Emirates and Qatar, where they had a considerably higher exposure to the real estate and construction sectors. IMF analysis concludes that with larger capital and liquidity buffers, the region's banking system's risk outlook indicates that Islamic banks are better-positioned to withstand adverse market or credit shocks. On average, Islamic banks' capital adequacy ratio (CAR) in the GCC is higher than that for conventional banks (except in the United Arab Emirates).

Another line of research examines country specific data and provides another set of results about the performance of Islamic banks before the financial crisis. For example, Samad A.(2004) examines using ratio analysis the financial performances of six Islamic banks and 15 conventional banks of Bahrain during the period 1991-2001, and concludes that there is no major difference in profitability and liquidity between Islamic banks and conventional banks. However, with regard to credit performance, he finds that there exists a significant difference. Islamic banks performance was found to be superior to that of conventional banks. Islamic banks maintained substantially higher equity ratio than conventional banks and smaller exposure to long term credit to total assets ,which reflects cautious policy towards credit expansion by Islamic banks. Saleh and Zeitun (2006) also evaluate the Jordanian experience with Islamic banking , in particular , the experience of the first and second Islamic banks in the country, Jordan Islamic Bank for Finance and Investment (JIBFI), and Islamic International Arab Bank (IIAB, and present some evidence that the efficiency and the ability of both banks have increased and both banks have expanded their investment and activities and played an important role in financing important projects in the market. Among other findings is that these two Islamic banks have had high growth rates in credit facilities and profitability, and have focused on short-term investments rather than on long run investments. Also, the paper comes to the conclusion that the high profitability witnessed by JIBFI had encouraged other banks to enter into the financial Islamic banking.

Banking efficiency ,which measures the relative ability of banks to efficiently utilize their resources to generate output, is another measure applied and documented in the banking literature to evaluate the performance of Islamic banks. Yudistira (2003) uses the non-parametric frontier approach, Data Envelopment Analysis, to analyze the technical and scale efficiencies of Islamic banking and provides new evidence on the performance of 18 Islamic banks from 12 countries over the period 1997-2000. The

overall efficiency results suggest that inefficiency across 18 Islamic banks is small, but considerable compared to many conventional counterparts. The results also suggest that Islamic banks suffered slight inefficiencies during the global crisis 1998-9 but performed very well after the crises. The findings further indicate that there are diseconomies of scale for small-to medium Islamic banks which suggests that mergers and acquisitions should be encouraged. Islamic banks within the Middle East region were found to be less efficient than their counterparts outside the region. Additionally, the paper presents some evidence that market power, which is common in the Middle East, was found to have had no significant impact on efficiency. The reason is that Islamic banks from outside the Middle East region were relatively new and very much supported by their regulators. Furthermore, it was found that publicly listed Islamic banks were less efficient than their non-listed counterparts. Moktar et al. (2006) using the same method investigate the efficiency of the fully fledged Islamic banks as well as Islamic windows in Malaysia over the 1997-2003 period, and find that on average, the efficiency of the overall Islamic banking industry and that the fully fledged Islamic banks were more efficient than the Islamic windows, but were still less efficient than the conventional banks. Furthermore, Islamic windows of the foreign banks were found to be more efficient than Islamic windows of the domestic banks.

3. Objective of the Research

As one of the fastest growing sectors in the global financial services in the past three decades, Islamic finance has become noticeably significant in many countries, and consequently has gained enormous recognition and credibility worldwide. This evolution and widespread practice of Islamic finance has generated interest and discussions among both economists and policy makers about the practicality and viability of Islamic banking model especially on the back of the current financial crisis which banks were one of its major players. As a result, many countries began to reevaluate their financial systems and search for alternatives. One of the proposed systems is the current Islamic financial model. However, it is yet acknowledged that this model is still in its infancy and many research and empirical studies are indeed required to assess its fundamentals and, therefore, its viability and sustainability especially in light of the lack of necessary financial performance measurement tools similar to those used by conventional banks.

The objective of this study is to provide an empirical assessment of the profitability, efficiency, and overall performance of Islamic banks in Qatar in comparison with their conventional counterparts over the period 2006-10 using financial ratio analysis. In our analysis we try to address two broad questions. First, have Islamic banks been able to maintain sustainable growth rates and efficiently compete with conventional banks? Second, were Islamic banks affected differently than conventional banks during and after the financial crisis in 2008? To answer the first question, the paper highlights growth trends pre and post the crisis of the two groups of banks' profitability, total assets, credit, and deposits. To address the second question, we attempt to examine the performance of the two groups of banks using 5 sets of financial ratios measuring specific performance areas related to profitability, asset quality, efficiency, liquidity, and risk and solvency.

4. Data and Methodology

Financial management theories provide various indices for measuring a bank's performance. One of them is financial ratio analysis . Financial ratios have been used quite commonly and extensively in the literature. For example Rosly and Abu Bakar (2003), Samad (2004), Saleh and Zeitun (2006), Badreldin

(2009), Parashar and Venkatesh (2009). In order to observe how Islamic banks in Qatar have performed in comparison with conventional banks during the period 2006-10, the paper uses 18 financial ratios broadly categorized into five groups; (1) profitability ratios, (2) asset quality ratios,(3) efficiency ratios, (4) liquidity ratios, and (5) risk and solvency ratios. Data for each year have been compiled from the year-end audited reports of respective banks available at the Qatar Exchange (QE) website. The calculation of the ratios, however, was carried out on the aggregate data of each group of banks. Banks in the sample include 3 Islamic banks and 5 conventional banks; the all of which represents the whole domestic Qatari banking system.

4.1 Profitability Ratios

Earnings constitute the first source of internal liquidity that protects creditors from default risk. With strong and stable earnings based on sound business fundamentals, capital can grow and be sustained at an adequate level to protect creditors from default risk. In contrast, with weak earnings trends, even a strong capital base can be eroded and eventually become inadequate to cushion creditors from potential losses. Profitability ratios are one of the most frequently used ratios in financial analysis as they quantify operational performance and management efficiency.

Profitability ratios used in this study to evaluate IBs' profitability as compared to CBs include:

- Profit Before Extraordinary Items and Tax (PBEIT) / Risk Weighted Assets (RWAs)
- Operating Expenses (OE)/Operating Income (OI)
- Loan Loss Provision (LLP)/ Profit Before Extraordinary Items and Tax (PBEIT)
- Profit Margin= Profit Before Tax (PBT) / Operating Income
- Return on Equity (ROE)

Profit Before Extraordinary Items and Tax (PBEIT) / Risk Weighted Assets (RWAs)

We use this ratio as an alternative measure for profitability as compared to the standard return on assets (ROA) ratio, which traditionally has been used as a common measure of banks' profitability. profitability (see, for instance, Khizer Ali et al 2011, Ahktar et al 2011, Samad ,2004; Iqbal, 2001; Rosly and Abu Bakar,2003; Parasher& Venkatesh 2010; and Turen S.,1996). We believe that ROA ratio suffers from a number of flaws which would impede fair cross-bank comparison. First, the numerator used in the ROA calculation, net profit, may bedistorted by a number of factors, which make cross-bank comparison of net profit difficult. For instance, non-recurring gains or losses such as income from discontinuing operations and gains or losses from disposal of properties and equipment held for the use of the bank. The PBEIT calculation adjusts for these factors to measure core earnings power more consistently across banks and make year-on-year comparison more meaningful. Second, the denominator in the ROA formula, total assets, does not take the asset risk profile factor into account and could unfairly favor those banks taking higher risks to boost earnings and penalize those banks taking lower risk to generate consistent earnings. Because of these flaws in the ROA ratio, the PBEIT /RWA ratio is considered a better choice over ROA.

Operating Expenses (OE)/Operating Income (OI)

This ratio is an indicator of operating efficiency as measured by the percentage of non-interest expenses over total operating Income. This ratio measures the amount of operating income for each Riyal of operating expense, hence indicates the management efficiency in controlling operating expenses to maximize profitability and the value of shareholders' investment in the bank. A lower ratio suggests better cost control and possibly lower fixed costs and thus a better chance to weather a challenging

economic cycle when total revenues may decline. The calculation of this ratio adjusts as well for non-recurring income and expenses as explained above. This ratio as a measure used for evaluating profitability performance was used by Samad ,2004; Rosly and Abu Bakar,2003; and Iqbal, 2001.

Loan Loss Provision (LLP)/ Profit Before Extraordinary Items and Tax (PBEIT)

This ratio measures the adequacy of banks' core earnings to absorb potential losses from non performing loans. The ratio as well serves as an indicator of the amount of credit losses that the bank could withstand in times of financial stress given its earnings power. The lower the ratio, the better the coverage for potential future provisioning requirements. This ratio is also considered a risk-adjusted profitability measure. That is because when a bank takes additional risk to increase earnings, its loan loss provision may also need to increase to cover higher credit losses in assets, which could well offset higher earnings. As a result, its loan loss provision/PBPT coverage may not improve from such a risk taking strategy. However, because of the discretionary nature of the loan loss provision, this ratio may not reflect the earnings power of a bank when it keeps its provision artificially low to inflate its net earnings, therefore, the interpretation of this ratio should be done with caution.

Profit Margin (PM)

Profit margin is a measure for profitability calculated as profit before tax over total operating income. This ratio measures how much out of every Riyal of income a bank actually retains in earnings. Therefore, it reflects the effectiveness of the bank's management in controlling cost and pricing of banking services. in effect, banks may increase their earnings and eventually returns to shareholders by either productively controlling operating expense or raising the yield on assets by carefully allocating the bank's available resources to the highest yielding loans and investments while avoiding excessive risks. A higher profit margin as compared to competitors indicates higher productivity and better control over cost.

Spread or Net Interest Margin (NIM)

This ratio aims to analyze the net impact of the bank's average funding cost of its customer deposits and the average yield on its customer loans. The ratio is calculated as the difference between the ratio of total credit interest income from customer loans over gross customer loans and the ratio of total debit interest paid on customer deposits over total customer deposits. The analysis of NIM aims to examine whether the high margin is the result of low funding costs of deposits or high risk-taking in the customer loans portfolio, or both. A bank with stable and growing NIM is viewed more profitable than competitors.

Interest Income (II) / Operating Income (OI)

This ratio examines the diversity of income generating sources of a bank and how sustainable the earnings power of the bank is . Given that interest income is regarded as the major source of income, the volatility of this ratio reveals one of two implications. First, it reflects the vulnerability of the bank's profitability to adverse movement in interest rates. Second, it exposes the concentration of interest earning assets on the bank's balance sheet. The higher the ratio, the less diversified are the income generating sources, and hence the higher the vulnerability to interest rate changes.

Return on Equity (ROE) = Profit Before Extraordinary Items and Tax (PBEIT) / Total Shareholders' Equity

This ratio is a primary indicator of a bank's profitability widely used in the literature (see, for instance, Khizer Ali et al 2011, Ahktar et al 2011, Parasher& Venkatesh 2010; Badreldin, 2009;Samad, 2004; and Iqbal,2001). It measures the percentage return on each Riyal of equity. In order to achieve a complete and comprehensive outlook of a bank's performance and insights into the causes of a bank's ROE or any changes in it, the DuPont analysis is usually utilized. DuPont analysis divides the ROE ratio into three component ratios that relate the bank's profitability to three different performance aspects of a bank related to the bank's operating efficiency ,asset use efficiency, and financial leverage.

DuPont model is calculated as follows :

ROE = (Profit margin)*(Asset turnover)*(Equity multiplier) where:

- Profit margin = Profit Before tax (PBT) /Operating Profit (OP)
- Asset Turnover = Operating Profit (OP) / Total Assets (TA)
- Equity Multiplier = Total Assets (TA)/ Total Equity (TE)

4.2 Asset Quality

Assets quality analysis helps to understand how asset performance could impact a bank's future profitability and capital adequacy. Therefore, asset quality analysis is regarded as an integral part of a bank 's quantitative performance assessment. For banks, asset quality is measured by reported levels of non-performing Loans (NPLs) (See, e.g., Ariss Rima Turk, 2010, Parasher& Venkatesh, 2010; Alkassim,2005). Consistently low levels of NPLs and adequate amount of provisions against NPLs increase the risk absorbing capacity of a bank arising from the NPLs problem.

The ratios that we employ to measure the level of NPLs and charge-off levels relative to total loans are as follows:

- Non-performing Loans (NPLs) / Total Loans (TL)
- Coverage Ratio = Non-performing Loans (NPLs) / Loans Loss Provisions (LLP)
- Non-performing Loans (NPLs) / Operating Income (OI)
- Non-performing Loans (NPLs) / Total Equity (TE)

Non-performing Loans (NPLs) / Total Loans (TL)

This ratio is an indicator of the NPLs level in the loan portfolio and is often used as the standard proxy for bank credit quality.

Coverage Ratio = Loan Loss Provisions (LLP) /Non-performing Loans (NPLs)

Loan loss provisions are provided to cover expected losses in the loan portfolio. This ratio therefore, represents a provision adequacy ratio measuring how well a bank's profitability and capital are cushioned from future credit losses. The higher the provision adequacy ratio, the lower the probability that NPLs may hamper future profitability and/or impair core capital base, particularly when asset quality deteriorates in a market downturn and a significant increase in provision is required.

Non-performing Loans (NPLs) /Operating Income (OI)

This ratio measures the potential impact of a bank's asset quality problems on core earnings. Specifically, it estimates how much the pre-provision operating income of a bank could be reduced in the case that all NPLs have to be fully charged off. As losses on NPLs will be first absorbed by loan loss provisions before impacting earnings, the nominator in this ratio, NPLs, includes only excess NPLs losses over loan loss provisions.

Non-performing Loans (NPLs) / Total Equity (TE)

This ratio measures the potential impact NPLs may have on equity adequacy. Specifically, it estimates how much the core capital or (tier 1 capital) of a bank could be reduced in the case that all NPLs have to be fully charged off. The larger this ratio, the greater the impact credit losses from NPLs may have on capital and the less cushion the capital provides to creditors to protect them from future potential losses. As losses on NPLs will be first absorbed by loan loss provisions before impacting core capital, the nominator in this ratio, NPLs, includes only excess NPLs losses over loan loss provisions.

4.3 Efficiency

Efficiency ratios reflect the productivity of a bank in terms of how efficient and effective the bank's management is in managing its assets to generate the highest possible return in light of the bank's risk profile.

The ratios that we apply to measure the bank's efficiency are as follows:

- Operating Income (OI)/ Total Assets (TA)
- Operating Income (OI) / Staff Cost (SC) (times)

Operating Income (OI)/ Total Assets (TA)

This ratio measures the assets utilization (AU) rate by banks and indicates how efficient banks are in utilizing their pool of assets to generate income. A bank may be said to have attained optimum efficiency if it has been able to employ total available asset base in such a way that the return on assets is maximized without assuming excessive risk that would jeopardize the bank's viability and stability. A lower rate of return on a bank's assets as compared to competitors implies inefficiency on the part of the bank's management, the matter which warrants a review of existing policies geared to maximizing efficiency or that the bank disposes of some of its assets.

Operating Income (OI) / Staff Cost (SC) (times)

This ratio evaluates banks' workforce efficiency measured as net operating income achieved per a unit of staff cost. The higher the contribution per unit of staff cost the higher the efficiency.

4.4 Liquidity ratios

Lack of access to funding sources and weak liquidity management are typical factors that lead to bank failures. The liquidity and quality of a bank's assets play a major role in its ability to manage a liquidity crisis. A bank that has lower quality assets that are illiquid and/or whose market value is highly volatile will clearly face greater liquidity challenges than a bank with high quality easily quantifiable assets. Without adequate cash resources to meet short-term liquidity requirements, a bank will find it impossible to continue its operation even if its capital or solvency remains acceptable. Banks with a strong, stable, and well balanced deposit base along with substantial investments in liquid assets have a greater ability to weather short-term setbacks.

We have employed three ratios as indicators for banks' liquidity as follows:

- Gross Loans (GL)/ Total Customer Deposits (TCD)
- Loans to Total Assets Ratio (LTA)
- Cash & Balances with CB / Total Assets (TA)

Gross Loans (GL)/ Total Customer Deposits (TCD)

This ratio examines the percentage of bank's loan portfolio which is funded through customer deposits. A high level of this ratio indicates banks overreliance on specific sources of funding, which raises the risk that a bank might face liquidity pressure at less favorable points in the economic cycle, which subsequently hinders banks' prospects for growth as banks encounter challenges in meeting customers' demands for loans. However, this ratio does not consider the concentration structure and quality of the deposit mix.

Loans to Total Assets Ratio (LTA)

This ratio measures the percentage of assets that are tied up in loans. The higher the ratio, the less liquid the bank is deemed. However, this ratio does not consider the bank's policy in diversification between the different business lines or the maturity distribution of the loan portfolio.

Cash & Balances with central bank/ Total Assets (TA)

Cash is the most liquid asset on a bank's balance sheet. The higher the cash to total assets ratio, the more liquid is the bank when compared to banks with lower cash ratios. However, higher cash ratio could possibly suggest inefficient use of available resources. Caution should be used in interpreting this ratio as it takes into consideration cash liquid assets only whereas it leaves out other items of liquid assets which may also provide high quality source of liquidity to banks.

4.5 Risk and solvency ratios

The risk and solvency ratios have long been viewed as valuable tools for assessing the financial strength and soundness of banks, as they provide signs to the present and future outlooks of the financial stability of banks. Therefore, they are significantly used as useful tools to predict bank failures.

The ratios we have employed to assess the solvency risk of banks are:

- Capital Adequacy Ratio (CAR)
- Equity / Loan Ratio
- Equity Multiplier (EM) = Total Assets / Equity

Capital adequacy ratio (CAR)

This ratio measures a bank's core capital in relation to its risk weighted assets (RWAs) calculated according to Basel Accord rules. Capital adequacy is the ultimate line of protection against any expected losses from credit risk, market risk, operation risk, or other sources of risks. However, capital by itself is not an effective predictor of future financial difficulty, and therefore, capital adequacy should be judged against relative profitability, the bank risk profile, and asset quality. Higher capital ratio indicates capital strength and provides sufficient cushion to protect creditors from future potential losses.

Equity / Loan Ratio

This ratio measures the adequacy of shareholders equity to absorb potential losses arising from credit risk associated with banks' loan portfolio. The higher the ratio, the higher banks' capacity to absorb loan losses.

Equity Multiplier (EM) = Total Assets / Equity

This ratio measures the bank's total assets relative to stockholders' equity. The higher the equity multiplier, the higher the financial leverage of the bank, which means that the bank relies more on debt to finance its assets than on equity.

5. Growth Analysis Pre, During and After the Financial Crisis.

5.1 Profitability

Profitability is an indicator of strong performance. It reflects how efficient a bank's management is, in allocating available resources to high yields assets in light of a bank's risk profile. Moreover, sustained profitability levels provide a buffer against capital erosion during adverse economic conditions hence provides protection to the shareholders' equity and creditors alike.

A closer look at the profitability trend over the 4-year period from 2007 to 2010, as outlined in table 1, it is evident that Islamic banks (IBs) have been affected differently than conventional banks (CBs) before and after the financial crisis. from table 1, it can be observed that the 4-year average profitability for CBs is higher at 26% compared to 22% for IBs. For both groups of banks the change in profitability was significant, on average, after the crisis compared to before and during the crisis. CBs' profitability has declined, on average, from 33.4% during the crisis to around 18% after the crisis. whereas IBs' profitability averages have declined from 30.2% during the crisis to around 13.4% after the crisis.

Table 1: Yearly Profitability Growth Rate* (2007-2010)

Year	IBs	CBs
2007-06	49%	34%
2008-07	11%	33%
2009-08	9%	-1%
2010-09	18%	37%
4-year average	22%	26%

*** Profit before tax adjusted for extraordinary income items**

In 2007, IBs had reported a significant positive growth rate of 49% as compared to 34% for CBs. In this regard, it is worthwhile to highlight two important points which might have a bearing on the assessment

of the performance of the two groups of banks. First, the entry of a new Islamic bank into the market constituted the primary underlying reason for the significant growth rate of 49% for IBs. The new bank's share in the profit for the year 2007 amounted 17% and estimated to have made around 52% of the growth witnessed for the year. Second, over the same period, the individual CBs in the sample have recorded a double-digit growth rate in the range between 23 % and 60% as compared to a range between 20% and 25% for the individual IBs in the sample.

In 2008, in the midst of the global financial crisis, CBs have continued to witness sustainable growth trend and registered a growth rate of 33% as compared to 11% for IBs. The picture is reversed in 2009, with CBs faring clearly worse than IBs. Though had continued to witness a declining trend, IBs had remained firm and reported a positive growth rate of 9% as compared to a negative growth rate of 1% for CBs. The two groups of banks appeared to have recovered in 2010 and both have reported a double-digit growth rate. Nevertheless, CBs seemed to have come out more stronger than IBs with profitability rate of 37% as compared to 18% for IBs. Furthermore, all CBs in the sample have experienced a double-digit growth rate while the recovery of IBs was supported by the outstanding performance of only one bank in the sample.

Figure 1- part (a): Profitability Trend (2007-10)

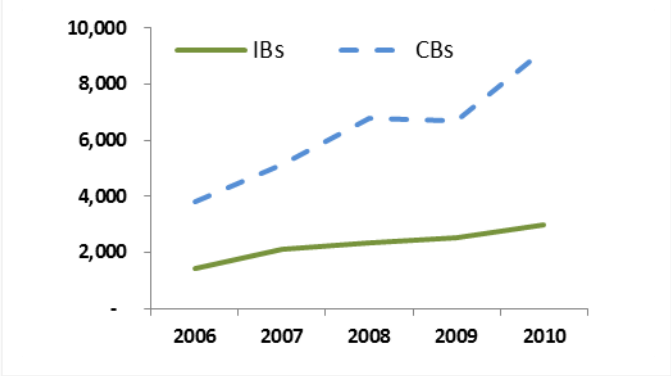
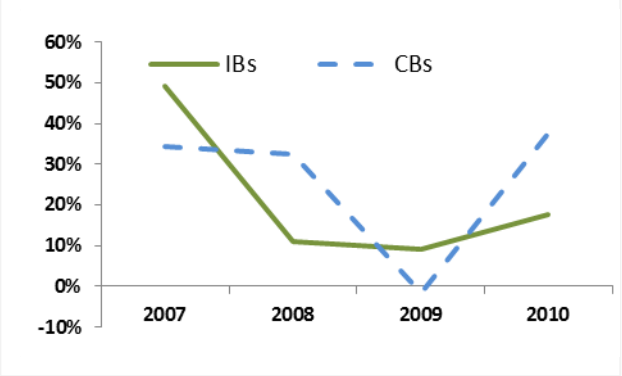


Figure 1- part (b): Yearly Percentage Change in Profitability (2007-10)



More details are going to be examined in the following section were we attempt a comprehensive profitability analysis utilizing financial ratio analysis. Figure 1 above shows the profitability trend (part a) and yearly percentage change in profitability (part b) of the two groups of banks before and after the crisis.

5.2 Asset Growth

Table 2 below, shows that IBs have maintained stronger growth rate in total assets as compared with CBs before and after the crisis, though lagged behind in 2008. The 4-year average is higher for IBs at 47% compared to 30% for CBs. Both groups of banks, yet, fall behind the significant growth rates they witnessed before the crisis. Total assets growth rate had dropped, on average, from 46% and 65% before and during the crisis to 15% and 29% after the crisis for CBs and IBs respectively. From figure 2, part a, it can be observed that the declining rate in growth was steeper during the crisis for IBs than was for CBs. Both groups of banks have taken on an increasingly upward trend after the crisis, which, however, remained below the level achieved during the period before the crisis.

Table2: Year-on-Year Total Assets Growth Rate (2007-2010)

Year	IBs	CBs
2007-06	78%	34%
2008-07	52%	58%
2009-08	25%	13%
2010-09	33%	17%
4-year average	47%	30%

Figure 2- part (a): Total Assets Growth Trend (2007-10)

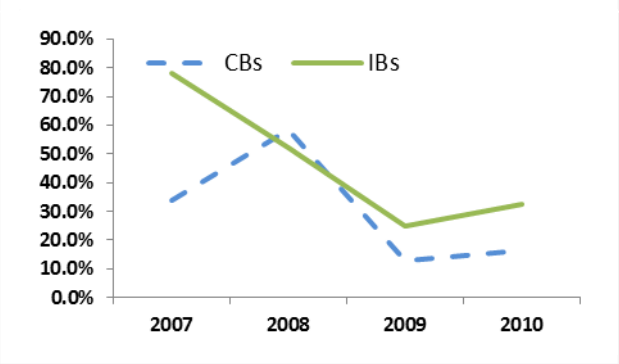
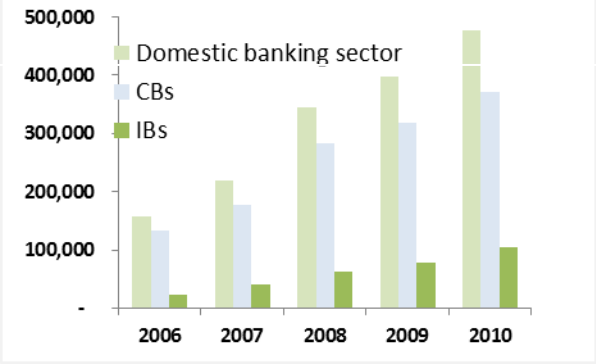


Figure 2- part (b): Total Assets Market Share (2006-10)



IBs' market share also have increased to represent 22 % share of the domestic market in 2010 compared to 18.3% and 19.6% in 2008 and 2009 respectively . Figure 2, part b, shows both groups of banks market share over the period 2006-10.

5.3 Credit Growth

Table 3 shows that IBs have maintained stronger growth rate in credit as compared to CBs before and after the crisis. The 4-year average is higher for IBs at 57% compared to 28% for CBs. Both groups of banks, yet, fall behind the significant growth rates they witnessed before the crisis. Total credit growth rate had dropped, on average, from 45% and 87% before and during the crisis to 12% and 28% after the crisis for CBs and IBs respectively. From figure 3, part b, it can be observed that the declining rate in credit growth was as steeper during the crisis for IBs as was for CBs. Both groups of banks have taken on an increasingly upward trend after the crisis, which, however, remained below the level achieved during the period before the crisis.

Table 3: Yearly Credit Growth Rate (2007-2010)

Year	IBs	CBs
2007-06	99%	44%
2008-07	74%	46%
2009-08	28%	9%
2010-09	28%	14%
4-year average	57%	28%

IBs' market share have increased to represent 24 % share of the domestic market in 2010 compared to 20% and 22% in 2008 and 2009 respectively. Figure 3, part a, shows both groups of banks market share over the period 2006-2010.

Figure 3- part (a): Credit Market Share (2007-10)

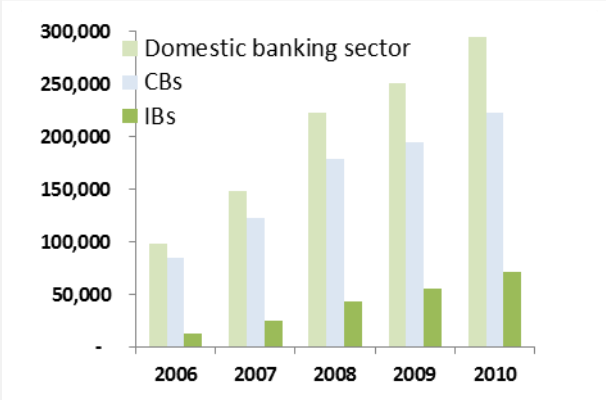
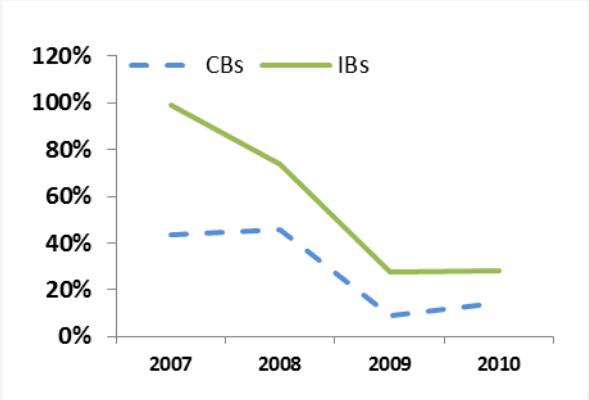


Figure 3- part (b): Credit Growth Trend (2007-10)



Lending to the public sector continues to be the highest amongst the sectors accounting, on average, for 32% after the crisis compared with 24 % before the crisis. The second largest sector exposure is to the private corporate sector, which makes ,on average, 25 % of total credit before and after the crisis. The most evident phenomenon in recent years has been the sharp decline in lending to the retail sector. Retail market share of total credit has declined, on average, from 26 % before the crisis to 16% % after the crisis. The third largest sector exposure is to the real estates and construction market, which has increased, on average, to 23% after the crisis as compared to 21% before the crisis.

Though the bulk of the credit (68% on average after the crisis compared to 76% before the crisis) continued to go to the private sector, the concentration trend within the private sector changed considerably. Real estate and construction sector has dominated higher market share recently than ever as it increased from 28% of total private lending before the crisis compared to 34% thereafter. Given the economic growth witnessed over the last few years and the greater role the local banks played in financing private sector's projects, corporate lending has soared to make on average 37 % of total private lending after the crisis compared to 32% before the crisis. In contrast, retail lending experienced a

declining trend to reach on average 24% of total private lending after the crisis compared to 34% before the crisis.

Sect oral concentration among the two groups of IBs and CBs , however, takes different pattern over the period from 2006-10 as follows :

- Exposure to private lending is higher in IBs (81% on average) compared to CBs (70 % on average),
- Corporate lending dominates almost equal market share of 25% on average in both groups of banks,
- IBs are more exposed to real estate market than CBs. Real estate lending in IBs makes up, on average, 34% of total credit whereas it makes up only 19 % of total credit in CBs,
  Retail lending assumed declining trend in both groups of banks. Nevertheless, CBs have higher exposure to retail sector 23%, on average, as compared to 19% for IBs.

Figure 4 - part (a) : Deposits Market Share (2007-10)

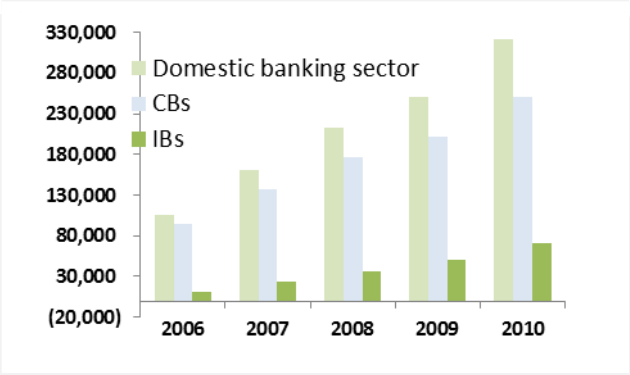
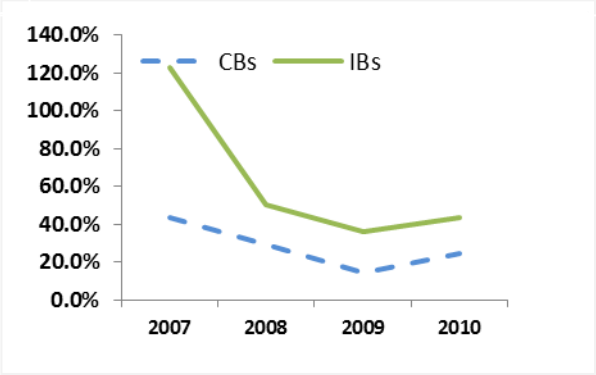


Figure 4 - part (b): Deposits Growth Trend (2007-10)



5.4 Deposits growth

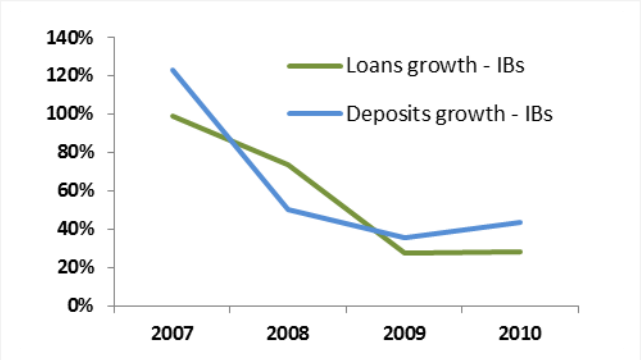
Table 4 shows that IBs have maintained stronger growth rate in deposits as compared to CBs before and after the crisis. The 4-year average is higher for IBs at 63% compared to 28% for CBs. Both groups of banks, yet, fall behind the significant growth rates they witnessed before the crisis. Total deposits growth rate had dropped, on average, from 36% and 87% before and during the crisis to 19% and 40% after the crisis for CBs and IBs respectively.

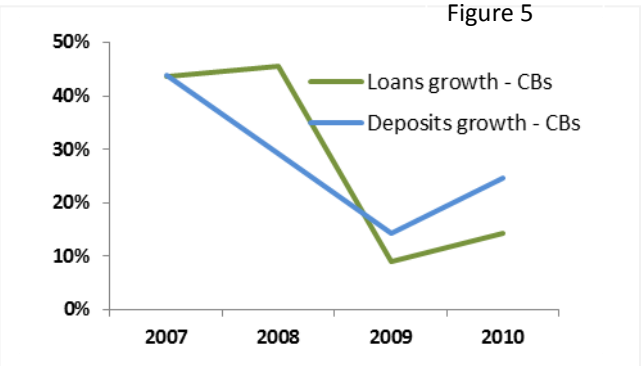
Table 4: Yearly Deposits Growth Rate (2007-2010)

Year	IBs	CBs
2007-06	123%	44%
2008-07	50%	29%
2009-08	36%	14%
2010-09	43%	25%
4-year average	63%	28%

IBs' market share of deposits have increased to represent 22 % share of the domestic market in 2010 compared to 17.2% and 19.8% in 2008 and 2009 respectively. Figure 4 (Part a &b), show both groups of banks market share and deposits' growth trend respectively over the period 2006-2010. Figure (5) below shows customer deposits growth relative to customer loans for both groups of banks. It is noticed that all banks have tightened its credit policies after the crisis as deposits have continued to grow at a faster pace than credit.

Figure 5





6.1 Profitability

Profitability indicators demonstrate that CBs have maintained more sustainable and steady growth rates in profitability than IBs. Though profit before tax to RWAs has been higher for IBs throughout the period before 2010 since 2006 as compared to CBs, however, it has been on the decrease along the way towards 2010 at which return on risk weighted assets decreased from a significant height of 6.7% in 2006 to 3.6 % in 2010. In contrast, CBs revealed a steady upward trend since 2008 and achieved return on risk weighted assets of 3.9 % in 2010, the highest over the period 2006-10. Figure 6, part a. This result is consistent with the results reached by Al kassim ,2005 in which he finds that due to higher capital, Islamic banks in the GCC region were more profitable than conventional banks over the period 1997-2004. Though our analysis covers the 5-year period commencing 2 years later, this consistency in results show that this superior profitability performance by Islamic banks was prevalent since 1997. Parasher& Venkatesh 2010, also confirm the same results for the period 2006-2009. Both studies, however, have not highlighted profitability trend of any groups of banks which in our analysis is detected to have been decreasing for Islamic banks as compared to conventional banks as explained above. Finaly Hassan Taufiq et al 2010 , investigate the differences in mean cost, revenue and profit efficiency scores of conventional versus Islamic banks. They found no significant differences between the overall efficiency of conventional and Islamic banks.

Figure 6 – part (a): Return on Risk Weighted Assets

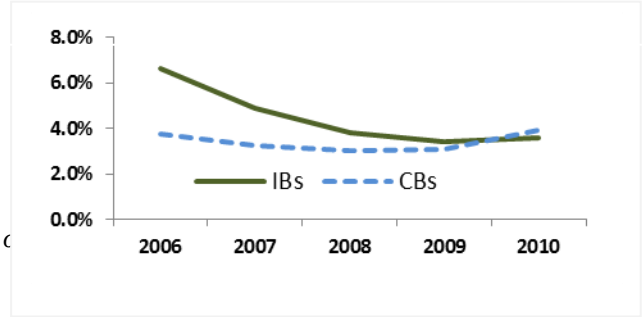


Figure 6, part b & c, reveal two reasons behind the declining return on risk weighted assets for IBs. First, the spread between credit interest on customer loans and debit interest on customer deposits is smaller for IBs as compared to CBs. Whereas much of the difference in the spread is mostly attributed to poor returns on lending activities of IBs, which averaged 4.1% as compared to 6.1% for CBs over the period (2006-10), the cost of funds (debit interest on customer deposits) was relatively close among the two groups of banks, 2.6% & 3% for IBs and CBs respectively. Nevertheless, IBs have succeeded in achieving higher spread rates after the crisis, where it averaged 2.3% compared to 1% before and during the crisis. Consequently, this has helped resisting further decline in returns for IBs.

Figure 6 – part (b): The Spread

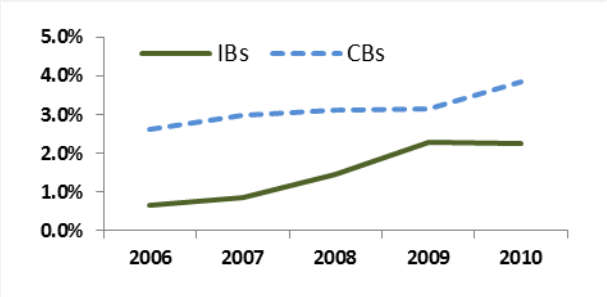
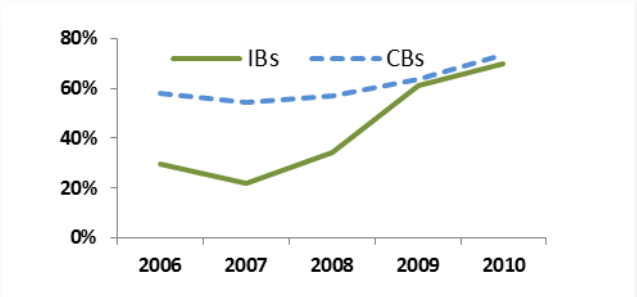


Figure 6 – part (c): Interest Income to Total Operating Income



Second, higher impairment charges realized for the investment portfolio by IBs after the crisis, which as well explain the changeover in allocation of resources by IBs from investment activities to lending activities notwithstanding its low returns as explained above. This change in allocation of resources was also evident through the huge shift in income generating sources of IBs. Whereas net interest income (profit) accounted for, on average, 29% of total operating income during the period (2006-08), it has increased to make on average 65% during (2009-10).

Figure 6, part d & e, reveal other two findings which were detected to have had an impact on each group of banks' profits. First, the high returns reported by IBs before the crisis was accompanied with low operating cost, which averaged 20% compared to 36% for CBs. Second, satisfactory return rates of IBs after the crisis, in light of return rates achieved by CBs, were attributed to low loan loss charges, which averaged only 2.2% to profit before tax and provisions (PBTP) compared with 12.2% for CBs. Interestingly, none of the findings carries with it indications, which reflect strengthening earnings power of IBs. All of this has justified the higher profit margin for IBs relative to CBs.

Figure 6 – part (d): Operating Expenses to Operating Income

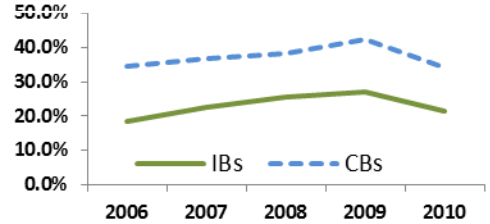
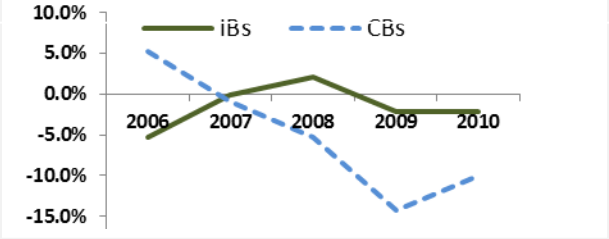


Figure 6 – part (e): Loan Loss Provision/ Profit Before Provisions and Tax (PBPT)



- Downward trend for rates of return on RWAs were detected for IBs as compared to stable trend for CBs,
- Exceptionally lower returns on customer loans for IBs compared to CBs which had a bearing on IBs' profitability,
- Better control over costs maintained by IBs as compared to CBs,
- Lower loan loss charges booked by IBs relative to CBs, and
- Higher profit margins, on average, for IBs compared to CBs.

6.2 DuPont Analysis

We have employed DuPont analysis in order to achieve a complete and comprehensive outlook of the profitability of both groups of banks and gain insights into the causes of ROE or any changes in it. The DuPont analysis, as explained earlier, divides ROE ratio into three ratios which relate the profitability of a bank to three different performance aspects of a bank related to the bank's operating efficiency ,asset use efficiency, and financial leverage

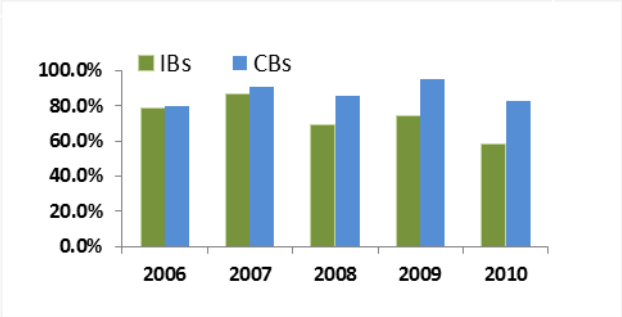
. The analysis revealed the following findings:

- Both groups of banks have maintained higher ROE before the crisis than post the crisis,
- Both groups of banks have experienced a declining ROE since 2006 , though the declining trend was steeper for IBs as compared to CBs,
- Both groups of banks have recovered in 2010 to almost the same levels achieved in 2008 during the outbreak of the crisis,
- CBs have higher ROE than IBs predominately because of higher leverage and sustainable assets use efficiency. Both indicators , leverage , asset use efficiency , for CBs were maintained in 2010 at almost the same average level that prevailed over the period 2006-10, which reflects sustainability and stability. This finding is different from what has been arrived at by (Parasher& Venkatesh,2010) in which they find that ROE for Islamic banks in the GCC region was higher than that of conventional banks. However, it is worth to mention here that this difference could be due to using different parameters in calculating the ROE. In our analysis we have applied a number of adjustments to banks' net profit to reflect banks' core earnings capacity.
- IBs' sustainable level of ROE is attributed to the increased level of leverage in 2010 to 5.14 times .This level of leverage is the highest over the period (2006-10),as well as well beyond the average of 4.14 prevailed over the same period.

6.3 Asset Quality

Both groups of banks maintain satisfactory level of asset quality as measured by nonperforming loans (NPLs) relative to total loans. IBs ,however maintained lower NPLs ratio as compared to CBs and lower ratio during and post the crisis (the period 2008-10) than before the crisis(the period 2006-07). In contrast, CBs have booked higher NPLs after the crisis than before the crisis, which suggests that as far as asset quality is concerned, CBs were affected differently (less satisfactory) during the crisis compared to IBs. See figure 7 below.

Figure 7 : Coverage Ratio



To reflect more on the potential impact of asset quality problems on core earnings and the ability of both groups of banks to absorb losses from impaired assets without impairing the capital, two ratios have been calculated to quantify such an impact. These ratios are; 1) NPLs to operating income, and 2) NPLs to total equity. The results can be summarized as follows:

- In an extreme scenario under which all NPLs would have to be fully charged off, 6% of CBs' operating income in 2010 would have been slashed as compared to 7% for IBs. For both groups of banks, this level is considerably beyond the level prevailed at the outbreak of the crisis in 2008 where it stood at 2.7% for IBs and 3.5% for CBs. It is also the highest during the analysis period 2007-10
- Under the same scenario as above, the core capital of IBs would have been impaired by 1.8% in 2010 as compared to 2.3% for CBs. This level is the highest for CBs since 2006 and almost two times the level prevailed in 2006 for IBs. In both groups of banks capital adequacy ratio (CAR) calculated according to Basel standards, would have remained intact.

The severity of such hypothetical scenarios, however, depends on how well a bank's profitability and capital are cushioned from future credit losses. We have utilized provision adequacy ratio to evaluate both groups of banks position. Figure 7 shows that CBs are more adequately providing for NPLs than IBs .Coverage ratio for CBs is 83% in 2010 compared to only 58.5% for IBs.

6.4 Efficiency

In our earlier analysis of profitability indicators, results have shown that CBs have demonstrated more sustainable trend than IBs which have experienced a declining trend and a number of reasons were identified to have had a bearing on the profitability trend of both groups of banks. In this section, however, we try to highlight how efficient both groups of banks were in utilizing available resources.

Figure 8, part a, which depicts operating income to total assets, a measure used to determine efficiency, shows that IBs have been more efficient in utilizing assets than CBs. IBs have though experienced a declining trend as compared to a rather stable trend witnessed by CBs. Furthermore, IBs were more severely affected by the crisis in 2008 than were CBs. In 2010, operating efficiency ratio for IBs stood at 4%, far below the level in 2008 (5.9%), whereas for CBs the ratio fully recovered to the same level prevailed during the crisis (3.7%). The reason behind this could be attributed to IBs' strive to expand their lending activities and gain bigger market share, which entail offering credit facilities at more attractive prices than CBs. This attempt by IBs were manifested as well in the significant growth in the loan portfolio and lower spread as have been discussed earlier.

Another reason which might have had an impact on IBs' efficiency was increasing staff cost relative to total administrative cost compared to CBs. Staff cost fir IBs post the crisis was on the rise compared to pre the crisis for. It increased on average from 53.2% in (2006-07) to 55.2% in (2009-10). Interestingly, IBs have incurred even higher staff cost during 2008 (57.5%) and yet had higher returns on total assets (5.9%) compared to 2010 where staff cost amounted to 55.4% and returns on total assets was 4%. This possibly again demonstrates the temporary change of priorities of IBs towards gaining larger market share over profitability. On the other hand, CBs have experience a declining trend of staff cost relative to total administrative cost. Staff cost decreased on average from 54 % in (2006-07) ,to 51.6% in (2009-10). Figure 8, part b.

Figure 8 - part (a) : Operating Income to Total Assets

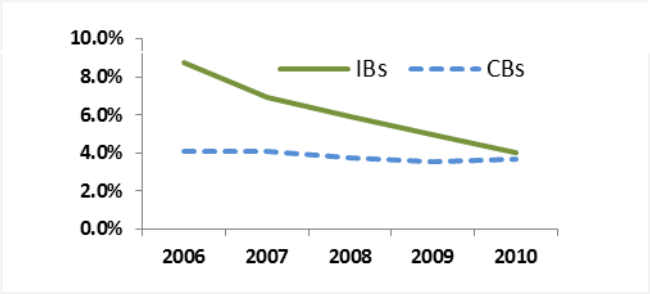
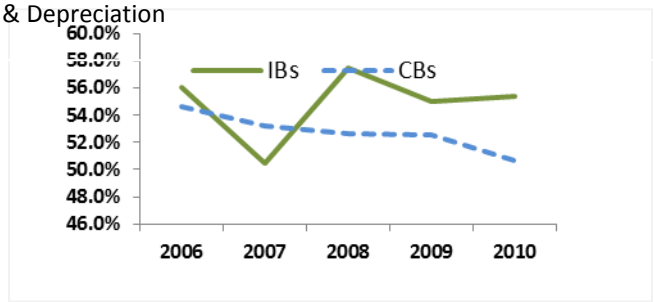
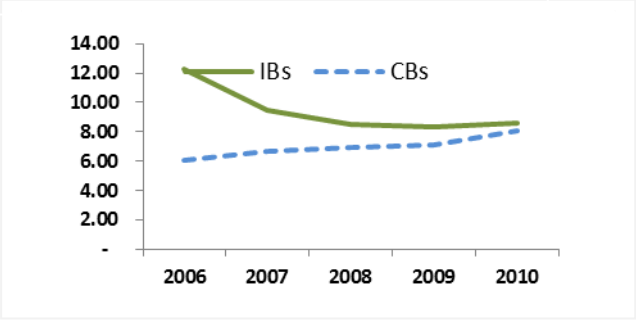


Figure 8 - part (b): Staff Cost to Administrative Cost & Depreciation



A third indicator used to analyze efficiency is operating income to staff cost ratio. It evaluates employment efficiency of both groups of banks by measuring net operating income achieved per a unit of staff cost. Operating income indicator reflects higher efficiency for IBs pre the crisis compared to post the crisis . In contrast, CBs' efficiency continued to increase along the way to 2010 where the two groups of banks become almost close. Again this possibly is ensued naturally by IBs' attempt to grow their market share. What is most importantly, however, is for IBs to maintain an upward, or at least steady level of efficiency in line with their CBs counterparts. Figure 6, part c.

Figure 8 - p(c) : Operating Income to Staff Cost (times)



Qatar Central Bank (QCB) mandates that customer loans to customer deposits (LDR) ratio should not exceed 90%. Whereas IBs consistently have breached the ratio limit, CBs have maintained a more tolerable level of the ratio. This indicates that IBs are comparatively less liquid than CBs. In 2010, LDR

ratio stood at 88.7% for CBs down from 101% during the financial crisis in 2008, the highest over the period(2006-10), which implies slowing credit on the back of the financial crisis. On the other hand, IBs have maintained a considerably higher ratio in 2010 at 101%. Though being the lowest over the period (2006-10), it remains far above the statutory ratio stipulated by QCB and as well higher than that of CBs. Nevertheless, the ratio has assumed a decreasing trend since the outbreak of the crisis in 2008 where it stood at 120%.

Excessive dependence on customer deposits for customer loans funding is certainly going to pose threats on the future growth prospect of IBs. On one hand this indeed puts downward pressure on the growth of credit facilities and hence curbs IBs ability to take active part in financing the country's future ambitious infrastructure development plans. On the other hand, if this trend turned out to be persistent, it is ought to cause an increase in cost of funding which consequently puts pressure on IBs' credit spread and margins .Much of the impact of such a scenario is going to reflect in diminishing market share and profitability of IBs. Another challenge faced by both groups of banks as a result of overreliance on customer deposits for funding sources is mismatch between loans and funding sources. While the average maturity of personal loans extends to five years and beyond for corporate loans, the deposits maturity averages between three months and three years. Figure 9, part a & b.

Figure 9 - part (a) : Gross Loans to Total Customer Deposits- IBs

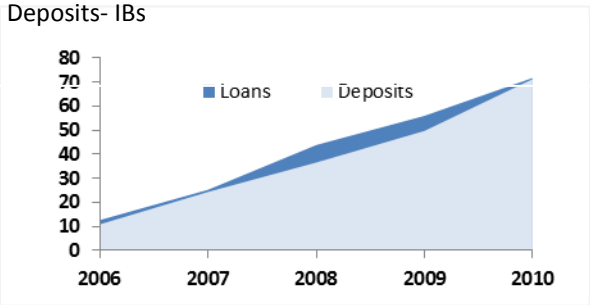


Figure 9 - part (b) : Gross Loans to Total Customer Deposits -CBs

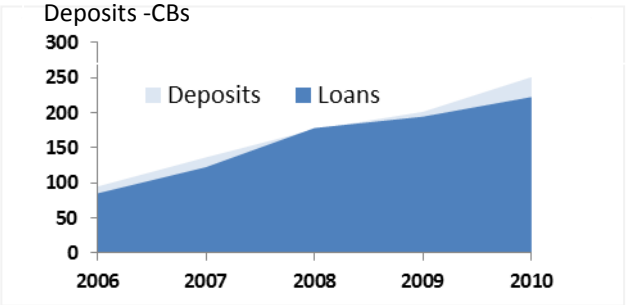


Figure 9, part c depicts loans to total assets (LTA) ratio and reveals that though IBs are more heavily weighted towards loans than CBs, their liquidity position is improving. LTA ratio declined from 64% in 2008 to 61% in 2010. However ,it still remains significantly higher than CBs' ratio of 56.6% in 2010. Another liquidity indicator, which measures cash balances and balances maintained with central banks to total assets, confirms as well higher liquidity positions for CBs as compared to IBs. figure 9, part d.

Figure 9 - part (c) : Loans to Total Assets Ratio

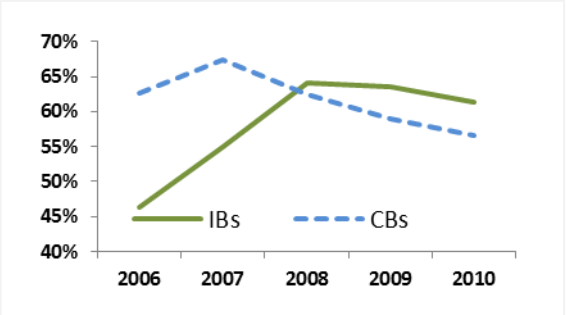
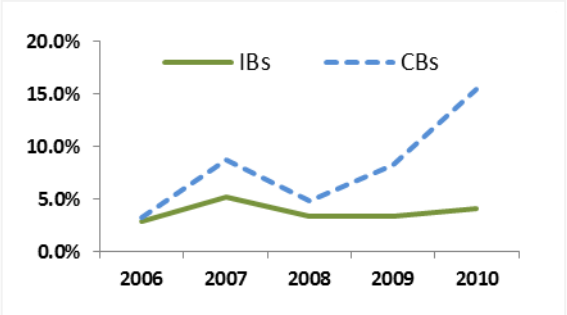


Figure 9 - part (d) : Cash & Balances with CB to Total Assets



6.5 Risk and Solvency

6.5 Risk and Solvency

Capital adequacy ratio is one of the most important ratio in any analysis of a bank's performance. On one hand, it reflects the safety and soundness of a bank and determines its capacity to meet its liabilities in situations of economic crises. Also, adequacy of banks capital create the necessary cushion to protect banks against unexpected losses and failure. For this reason, banking regulators in most countries require a minimum amount of banks capital to maintain confidence in the banking system. According to QCB, Qatari banks must maintain a minimum capital ratio of 10%, and according to the Basel Committee on Banking Supervision banks must comply to a minimum capital ratio of 8% of total risk weighted assets. On the other hand, the amount of equity capital invested in a bank affects the rate of return on equity investments. The smaller the bank's equity capital, the higher the rate of return to the bank's equity shareholders. Hence the natural inclination of shareholders to keep lower capital/asset ratios. However, the higher capital/asset ratio the higher the banks' ability to survive financial crises and maintain their competitive positions, and profitability during and after such crises.

Figure 10, part a shows that IBs maintained higher capital adequacy ratio than CBs. This finding is in line with IMF 2009 economic and financial survey reprot and Parasher& Venkatesh, 2010 which both find that Islamic banks in the GCC region reported higher CAR ratio than conventional banks. Moreover Ariss, Rima Turk, 2010, find that Islamic banks allocate a greater share of their assets to financing activities compared to conventional banks, and they are also better capitalized. . Nonetheless, IBs have been experiencing a declining trend in the capital adequacy ratio post the crisis as compared to an increasing trend for CBs. This can be explained by lower profitability of IBs post the crisis than pre the crisis as explained earlier and as well due to the increasing base of risk weighted assets of IBs as compared to CBs. Risk weighted assets have increased ,on average, by 17 % post the crisis during the two year period (2009-10) for IBs as compared to 2.5% for CBs over the same period. This compares ,on average, to 73% and 48% for IBs and CBs respectively for the period during the crisis. Examining equity to loans ratio, IBs appear to be riskier than CBs. This is because the lower the ratio of capital relative to the loan portfolio the higher the risk of capital impairment resulting from deteriorating quality of loans during adverse economic conditions. Asset quality analysis of IBs as demonstrated earlier, however, has proved high quality loan portfolio with tolerable level of capital impairment risk in case of difficult financial conditions. Additionally, the ratio trend appears to take on a declining trend which reflects improving risk outlook as far as capital impairment resulting of deteriorating asset quality problems is concerned. See figure 10, part b.

Figure 10 - part (a) : Capital Adequacy Ratio

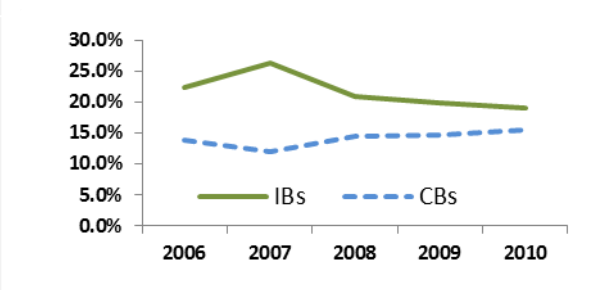
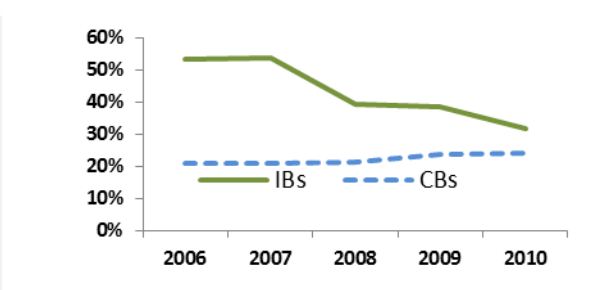
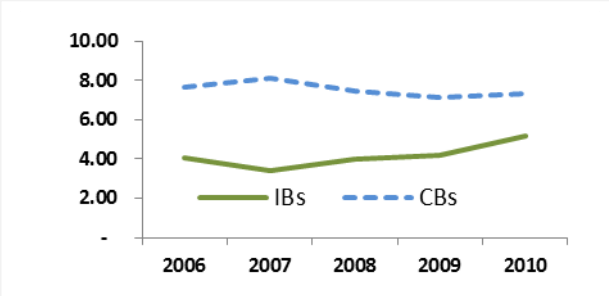


Figure 10 - part (b) : Equity to Loan Ratio



Balance sheet leverage (measured as total assets to equity) was higher though slightly for CBs during the two years preceding the global financial crisis than following the crisis. In contrast, almost an opposite trend is being observed for IBs. The Implications of balance sheet leverage for both groups of banks have been illustrated earlier in our analysis of ROE. See figure 10, part c.

Figure 10 - part (c) : Equity Multiplier (EM) = Total Assets to Equity



7. Conclusion

The trend analysis provided in this study reveals a number of insights on the performance of Islamic banks as compared to conventional banks as follows :

- IBs' market share has increased to represent 22 % share of the domestic market in 2010 compared to 19.9% in 2009 % and 18.3% in 2008.
- Slowdown in the profitability of Islamic banks after the crisis and significantly low performance over most of the analysis period compared to conventional banks.
- IBs have maintained stronger asset growth as compared to CBs before and after the crisis, but both groups of banks fall behind the significant growth rates witnessed before the crisis .However, declining growth rate was slower and less steeper for IBs as compared to CBs.
- IBs have maintained stronger credit growth as compared to CBs before and after the crisis, however, both groups of banks yet fall behind the significant growth rates witnessed before the crisis.

Furthermore, Sect oral analysis of credit portfolio over the period 2006-10 suggests quite different concentration risk and growth trends between the two groups of banks as follows

- IBs have higher exposure to private lending than CBs, (on average 81% for IBs as compared to 70% for CBs).
- Corporate lending dominates almost equal market share of 25% on average in both groups of banks,
- IBs are more exposed to real estate market than CBs ,(on average 34 % of total credit for IBs as compared to 19 % for CBs).
- CBs have higher exposure to retail sector (on average 23% of total credit for CBs as compared to 19% for IBs.

The evaluation of the performance of Islamic banks using a number of key financial ratios reveals a number of findings as follows:

- Profitability indicators suggest that IBs maintained less sustainable and steady profitability growth rates than IBs as RORWAs declines from 7.6% in 2006 to 3.6% in 2010. This compares with RORWAs of 3.7 % and 3.9% for CBs in 2006 and 2010 respectively. Furthermore, ROE was consistently higher for CBs compared to IBs. IBs were found to operate at significantly lower spread than CBs and maintained stricter control over operating expense as compared to CBs.
- Asset quality indicators suggest that IBs maintained lower NPLs ratio as compared to CBs. However, CBs are more adequately providing for NPLs than IBs .Coverage ratio for CBs is 83% in 2010 compared to only 58.5% for IBs.
- Efficiency indicators show that IBs have been more efficient in utilizing assets CBs. However IBs were more severely affected by the crisis in 2008 than were CBs as indicated by operating income indicator which reflected higher efficiency for IBs pre the crisis compared to post the crisis.
- Liquidity indicators reveal that IBs are less liquid than CBs as they maintained higher loans to deposits ratio and are more heavily weighted towards loans than CBs. Interestingly, CBs constantly maintained higher liquid assets than IBs, which is inconsistent with the general view that Islamic banks suffer from excess liquidity.
- Risk indictors reveal that IBs are more sufficiently capitalized and less leveraged than CBs .
- Finally, CBs seem to have benefited more as compared to IBs from the intervention of the authorities in the banking sector, which included in part of it the purchase by the government of the troubled loans in the real estate sector. This is evident through the reduction in the ratio of CBs' real estate exposure relative to IBs' real estate exposure which has declined from 2.9 times- on average- before the crisis during 2006-07 to 1.9 times-on average- post the crisis during 2009-10. This can be interpreted as one of the reasons contributed to higher profitability reported by CBs after the crisis as compared to IBs.

References

Abdeifar P., Molyneux P., and. Tarazi A,(2011) " Risk and Stability of Islamic Banks: A Cross Country Empirical Investigation". Working paper.

Abdel-Hameed M. Bashir ,(2000). Assessing the Performance of Islamic Banks: Some Evidence from the Middle East , Grambling State University.

Abdus Samad ,(2004)"Performance of interest-free Islamic banks vs. interest-based conventional banks of Bahrain ",Journal of Economics and Management 12, no.2,

Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). "Liquidity Risk Management: A comparative study between Conventional and Islamic Banks of Pakistan". Interdisciplinary Journal of Research in Business, 1 (1), 35-44.

Ali Salman Saleh and Rami Zeitun (2006), Islamic banking performance in the Middle East: A case study of Jordan , WP 06-21.

Alkassim, A. Faisal, (2005),The profitability of Islamic and conventional banking in the GCC countries: A comparative study.

Al-Salem, Faoud , (2008) , "Size and Scope of the Islamic Finance Industry", The International Journal of Management.

Ariss , Rima Turk, (2010),Competitive conditions in Islamic and conventional banking: A global perspective, Review of Financial Economics Volume 19, Issue 3,pp. 101-108

Audited annual reports of banks in the sample available at QE website (www.qe.com.qa).

Badreldin, A. Mohamed, (2009) , "Measuring the performance of Islamic banks by adapting conventional ratios" , German university in Cairo , faculty of management technology , WP No. 16.

Beck. T, Demirgüç-Kunt,A.,Merrouche Q.," (2010), Islamic vs. Conventional Banking Business Model, Efficiency and Stability", The World Bank ,Development Research Group Finance and Private Sector Development Team, WPS5446,

Cihak M. and Hesse Heiko,(2008) " Islamc Banks and Financial Stability: An Emprical Analysis", IMF , WP/08/16,.

Donsyah Yudistira ,(2003) , "Efficiency in Islamic banking: an empirical analysis of 18 banks ".

Hassan Taufiq, Shamsher Mohamad and Bader Mohammed Khaled (2009) "Efficiency of conventional versus Islamic banks: evidence from the Middle East", International Journal of Islamic and Middle Eastern Finance and Management, Vol. 2 Iss: 1, pp.46 – 65

Hassan, Maher and Dridi, Jemma ,(2010) " The effect of the global crisis on Islamic and conventional banks, comparative study " , IMF WP 10-201.

International Financial Service London (IFSL) (2008), research ,Islamic finance

Islamic Financial Service Board (IFSB), 2010 " Islamic Finance and Global Financial Stability.

Khizer Ali, Akhtar Muhammad Farhan and Ahmed Hafiz Zafar. (2011) Bank-Specific and Macroeconomic Indicators of Profitability - Empirical Evidence from the Commercial Banks of Pakistan International Journal of Business and Social Science Vol. 2 No. 6;

Parashar S.P. and Venkatesh Jyothi, (2010)"How did Islamic banks do during global financial crisis" , Banks and Banks System, V.5, issue 4.

Saiful Azhar Rosly and Mohd Afandi Abu Bakar, (2003)"Performance of Islamic and mainstream banks in Malaysia" , International Journal of Social Economics Vol. 30 No. 12, pp. 1249-1265

Shehzad Moin, Muhammad,(2008) Performance of Islamic banking and conventional banking in Pakistan: A comparative study , university of Skovde , school of technology and society.

The City UK, " Financial Market Series: Islamic finance ", May, 2011, Website: http://www.thecityuk.com

Appendix

Profitability indicators

Islamic Banks (IBs)	2006	2007	2008	2009	2010	Average (2006-10)
Profit before tax (PBT) / risk weighted assets (RWA)	6.7%	4.9%	3.8%	3.4%	3.6%	4.5%
Operating expenses (OE)/operating income (OI)	18.4%	22.5%	25.4%	26.8%	21.5%	22.9%
Loan loss provision/ Profit before provisions and tax (PBPT)	-5.3%	-0.1%	2.1%	-2.2%	-2.2%	-1.5%
Profit Margin= Profit before tax (PBT) / operating income	68.6%	72.6%	62.4%	65.8%	71.9%	68.3%
Income from financing activities to average financing activities	4.3%	3.6%	3.8%	4.7%	4.1%	4.1%
Profit paid on investment account holders to average deposits	3.7%	2.7%	2.3%	2.4%	1.9%	2.6%
Spread (5-6)	0.6%	0.9%	1.5%	2.3%	2.3%	1.5%
Interest income (II) / total operating income	30%	22%	34%	61%	70%	43.4%

Conventional Banks (CBs)	2006	2007	2008	2009	2010	Average (2006-10)
Profit before tax (PBT) / risk weighted assets (RWA)	3.7%	3.2%	3.0%	3.0%	3.9%	3.4%
Operating expenses (OE)/operating income (OI)	34.5%	36.6%	38.1%	42.4%	34.0%	37.1%
Loan loss provision/ Profit before provisions and tax (PBPT)	5.2%	-1.0%	-5.2%	-14.3%	-10.1%	-5.1%
Profit Margin= Profit before tax (PBT) / operating income	70.1%	70.2%	64.4%	61.6%	67.5%	66.8%
Interest from customer loans to average loans	6.3%	6.2%	6.1%	6.2%	5.8%	6.1%
Interest paid on customer deposits to average deposits	3.2%	3.2%	3.0%	3.0%	2.5%	3.0%
Spread (5-6)	2.6%	3.0%	3.1%	3.2%	3.8%	3.1%
Interest income (II) / total operating income	58%	54%	57%	64%	74%	61.4%

DuPont analysis

Islamic Banks (IBs)	2006	2007	2008	2009	2010	Average (2006-10)
Net operating margin (1)	68.6%	72.6%	62.4%	65.8%	71.3%	68.2%
Assets turnover (2)	8.8%	6.9%	5.9%	4.9%	4.0%	6.1%
Leverage (3)	4.05	3.38	3.96	4.16	5.16	4.14
ROE (1*2*3)	24.4%	17.1%	14.6%	13.4%	14.7%	

Conventional Banks (CBs)	2006	2007	2008	2009	2010	Average (2006-10)
Net operating margin (1)	70.1%	70.2%	64.4%	59.1%	67.1%	66.2%
Assets turnover (2)	4.1%	3.6%	3.7%	3.6%	3.7%	3.7%
Leverage (3)	7.64	8.14	7.48	7.16	7.33	7.55
ROE (1*2*3)	21.9%	20.3%	18.0%	15.0%	18.2%	

Assets quality indicators

Islamic Banks (IBs)	2006	2007	2008	2009	2010
Nonperforming loans (NPLs) / total loans (TA)	3.4%	1.5%	1.0%	0.8%	1.0%
coverage ratio = Loan loss provisions / Nonperforming loans (NPLs)	78.7%	86.3%	68.8%	74.4%	58.5%
Nonperforming loans (NPLs) / operating income (OI)	4.5%	1.9%	3.5%	3.0%	6.9%

Conventional Banks (CBs)	2006	2007	2008	2009	2010
Nonperforming loans (NPLs) / total loans (TA)	1.7%	1.2%	1.1%	1.5%	2.2%
coverage ratio = Loan loss provisions / Nonperforming loans (NPLs)	79.9%	91.0%	85.3%	94.7%	83.0%
Nonperforming loans (NPLs) / operating income (OI)	2.0%	0.5%	1.0%	0.8%	1.8%
Nonperforming loans (NPLs) / total equity (TE)	2.1%	0.7%	0.9%	0.5%	2.3%

Efficiency indicators

Islamic Banks (IBs)	2006	2007	2008	2009	2010	Average (2006-10)
Operating income (OI)/ total assets (TA)	8.8%	6.9%	5.9%	4.9%	4.0%	6.1%
Operating income (OI) / staff cost (SC) (times)	12.28	9.46	8.47	8.32	8.57	941.8%

Conventional Banks (CBs)	2006	2007	2008	2009	2010	Average (2006-10)
Operating income (OI)/ total assets (TA)	4.1%	4.1%	3.7%	3.6%	3.7%	3.8%
Operating income (OI) / staff cost (SC) (times)	6.03	6.65	6.90	7.13	8.09	696.0%

Liquidity indictors

Islamic Banks (IBs)	2006	2007	2008	2009	2010
Gross loans to total customer deposits	116.2%	103.7%	119.8%	112.6%	100.7%
Loans to total assets ratio	46.3%	55.0%	64.0%	63.5%	61.3%
Cash & balances with CB to total assets	2.9%	5.2%	3.4%	3.4%	4.1%

Conventional Banks (CBs)	2006	2007	2008	2009	2010
Gross loans to total customer deposits	89.8%	89.7%	101.2%	96.6%	88.7%
Loans to total assets ratio	62.7%	67.5%	62.4%	58.9%	56.6%
Cash & balances with CB to total assets	3.3%	8.7%	4.8%	8.3%	15.4%

Risk and solvency indicators

Islamic Banks (IBs)	2006	2007	2008	2009	2010
Capital adequacy ratio	22.3%	26.2%	20.9%	19.9%	19.0%
Equity to loan ratio	53.4%	53.8%	39.4%	38.3%	31.6%
Equity multiplier (EM) = total assets to equity	4.05	3.38	3.96	4.16	5.16

Conventional Banks (CBs)	2006	2007	2008	2009	2010
Capital adequacy ratio	13.8%	11.9%	14.4%	14.8%	15.4%
Equity to loan ratio	20.9%	21.0%	21.4%	23.7%	24.1%
Equity multiplier (EM) = total assets to equity	7.64	8.14	7.48	7.16	7.33

Key financial highlights as of period end – Islamic banks in QAR's million

Description	2006	2007	2008	2009	2010
Total Assets	23,286,450	41,478,447	63,154,701	78,917,412	104,702,413
Gross customer loans	12,682,610	25,267,039	43,884,549	56,032,296	71,781,124
Net customer loans	10,775,762	22,805,547	40,444,358	49,483,955	64,193,487
Nonperforming loans million	436,600	391,500	420,500	455,031	696,793
Customer loans impairment provisions	343,716	337,707	289,348	338,693	407,361
Customer deposits	3,989,492	6,823,513	7,837,834	10,640,492	12,859,016
Unrestricted customer accounts	6,929,483	17,538,133	28,790,982	39,104,820	58,449,125
Total liabilities	17,536,117	29,216,315	47,311,344	59,957,484	84,425,108
Total equity	5,750,333	12,262,132	15,933,357	18,959,928	20,277,305
Risk weighted assets	21,081,442	42,920,391	61,247,649	74,353,820	83,937,716
Tier-1 Capital	4,690,699	11,261,173	12,808,542	14,769,682	15,921,231
Net Interest Income	604,638	819,539	1,537,055	2,463,396	2,989,241
Commission and fees income	493,230	233,082	395,660	535,817	478,014
Total Operating Income *	2,042,396	2,879,402	3,725,707	3,853,535	4,184,365
General and administrative expenses	(277,841)	(579,156)	(724,445)	(780,879)	(815,456)
Depreciation	(19,218)	(23,886)	(40,909)	(60,794)	(66,198)
Customer loans impairment charges for the year	(78,945)	(1,416)	47,750	(56,092)	(67,520)
Other impairment provisions	(11,047)	(42,890)	(224,775)	(136,090)	(40,308)
Other provisions	11,555	-	(2,477)	-	91,250
Staff cost	(166,381)	(304,415)	(440,030)	(463,267)	(488,154)
Profit before income tax **	1,402,063	2,091,450	2,324,898	2,534,296	2,984,603

Key financial highlights as of period end – Conventional banks in QAR's million

Description	2006	2007	2008	2009	2010
Total Assets	133,273,588	205,392,529	282,182,538	318,616,116	371,472,911
Gross customer loans	85,327,376	122,630,168	178,500,567	194,742,616	222,747,388
Net customer loans	83,510,789	120,331,412	176,111,346	187,601,446	210,405,147
Nonperforming loans	1,468,749	1,440,654	1,937,863	2,968,794	4,858,306
Customer loans impairment provisions	1,173,275	1,310,391	1,652,725	2,811,049	4,030,415
Customer deposits	90,056,495	129,020,938	161,451,999	179,194,611	218,402,426
Unrestricted customer accounts	4,936,770	7,649,258	15,015,852	22,355,951	32,596,461
Total liabilities	115,234,384	180,164,529	244,461,758	270,096,661	320,826,222
Total equity	17,443,591	25,229,000	37,720,780	44,519,455	50,646,689
Risk weighted assets	101,840,989	158,043,237	223,334,749	219,464,411	234,256,943
Tier-1 Capital	14,034,745	18,818,352	32,087,953	32,394,607	36,125,082
Net Interest Income	3,171,036	3,983,356	6,057,441	7,312,403	10,103,097
Commission and fees income	1,151,601	1,794,555	2,393,166	2,297,296	2,233,017
Total Operating Income *	5,442,015	7,302,480	10,552,768	11,330,777	13,694,414
General and administrative expenses	(1,530,848)	(1,909,804)	(2,648,583)	(2,717,254)	(2,995,329)
Depreciation	(121,659)	(155,353)	(256,307)	(303,700)	(343,232)
Customer loans impairment charges for the year	188,601	(50,150)	(375,236)	(1,163,197)	(1,036,488)
Other impairment provisions	(236,817)	(185,247)	(747,653)	(598,975)	(281,755)
Other provisions	(178,289)	(371,660)	2,381	(17,471)	2,214
Staff cost	902,086	1,098,878	1,530,110	1,588,357	1,691,934
Profit before income tax **	3,815,847	5,126,044	6,793,581	6,692,149	9,193,510

* , ** Adjusted for extraordinary items