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PERFORMANCE OF INTEREST-FREE ISLAMIC BANKS *VIS-À-VIS* INTEREST-BASED CONVENTIONAL BANKS OF BAHRAIN

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ABSTRACT

This paper examines the comparative performance of Bahrain's interest-free Islamic banks and the interest-based conventional commercial banks during the post Gulf War period with respect to (a) profitability, (b) liquidity risk, and (c) credit risk. Nine financial ratios are used in measuring these performances. Applying Student's *t*-test to financial ratios for Islamic and conventional commercial banks in Bahrain for the period 1991-2001, the paper concludes that there is no major difference in performance between Islamic and conventional banks with respect to profitability and liquidity. However, the study finds that there exists a significant difference in credit performance.

JEL classification: G20, G21

Key words: Banks, Comparative performance, Bahrain

1. INTRODUCTION

Bahrain is a small state, but an important financial centre in the Gulf region in the Middle East. Currently there are a total of 15 interest-based commercial banks. At the same time, there are 6 interest-free Islamic commercial banks operating along with the century old interest-based commercial banks. Of them, two locally incorporated banks, Bahrain Islamic Bank and Faysal Islamic Bank are prominent. Since their incorporation in Bahrain (in 1999), Islamic banks are not only a

major source of Islamic banking products, but also offer a variety of banking services such as foreign exchange, business, money transfers, documentary trade finance, portfolio management and underwriting of capital market issues.

Conventional commercial banks have been in operation in Bahrain for about 80 years. They have dominant shares in almost all products of banking markets. For example, Islamic banks own only 3.27 percent of the total market assets as compared to 96.7 percent of conventional banks. In terms of deposits, Islamic banks hold only 2.64 percent of the total market deposits. Interest-free Islamic banking is a newcomer to the financial market of Bahrain, being in operation only since 1979. In terms of profits, Islamic banks share a small percentage of the total profits; only nine percent.

Many are sceptical about Islamic banks' performance as newcomers to the market. There are several reasons for this. First, Islamic banks are non-conventional financial institution. Interest, the cornerstone of conventional banks, is completely prohibited under Islamic banking. Second, Islamic banks operate under dual constraints. While operating as a commercial bank, Islamic banks obey not only conventional business laws of the land, but also the Islamic laws. They have to sacrifice many profitable investment opportunities because those are not permitted under the divine laws of Islam.

Thus, it is natural that Islamic banks, as new competitors, face steep challenges in sharing deposit and credit markets. As such, it is hypothesized that Islamic banks may not be on par with the conventional banks in terms of profit, liquidity risk, and credit risk. The main focus of this paper is to look into whether the performance of the interest-free banks is different from that of the interest-based conventional banks with respect to liquidity risk, credit risk and profitability during the period 1992-2001. This study of comparison is useful in providing valuable information to relevant parties: bank customers, bank management and bank regulators.

The paper is organized as follows: Section 2 introduces structural differences between Islamic and conventional banks. Section 3 provides a survey of literature along with methodology, tools and data used in this study. Section 4 describes the performance measures. Section 5 contains empirical results and Section 6 concludes.

2. STRUCTURAL DIFFERENCES BETWEEN ISLAMIC AND CONVENTIONAL BANKS

In order to understand the strength and weakness of Islamic banks with regard to its performance, it is essential to know the basic environment in which Islamic banks operate. It is the difference in environment that makes the Islamic bank unique and distinguished. According to the *Shar¥ªah*, Islamic financial institutions must be based strictly on four basic principles:

a. All transactions must be interest free, i.e., free from *ribŒ*.
b. Activities or transactions involving speculation (*gharar*) must be avoided.
c. The implementation of *zakŒt*, the compulsory Islamic tax.
d. No involvement in the production or consumption of goods and services which are *úarŒm* (i.e., illegal from the Islamic point of view).

The following is a discussion of these four principles that make the Islamic banking unique.

i. *RibŒ*

The *Qur'Œn* explicitly prohibits *ribŒ* but does permit trade (*al-Qur'Œn*, 2: 185). It does not clearly mention whether *ribŒ* is interest or usury. The lack of clarity led to a controversy among the Muslim scholars in the past. However, there now seems to be a general consensus that the term *ribŒ* includes any amount charged over and above the principal. The payment of interest or receiving of interest, which is the fundamental principle of conventional banking and financing, is explicitly prohibited in Islamic banking and finance. Thus, the prohibition of interest, in payment or receipt, is the nucleus of Islamic banking and its financial instruments, while the charging of interest in all modes of transaction whether it is in loan, advances or leasing is the core in the conventional banking. The Islamic banking is not simply interest-free banking. It takes into account issues of *gharar*, *úarŒm*, *zakŒt* and *qarè al-úasan*.

ii. *Gharar*

Gharar is speculation or gambling and is forbidden in Islam. Islam allows risk-taking in business transactions, but it prohibits speculative

activity and gambling. Any transaction involving the element of speculation like buying shares at a low price and selling them at a higher price in the future is considered illegal. Conventional banks, on the other hand, have no constraint in financing investment involving speculation.

iii. *Zakœt*

Zakœt is a compulsory religious payment or tax on the wealth of the rich payable to the poor. It is a built-in mechanism in Islam for ensuring the redistribution of wealth and the protection of a fair standard of living for the poor. *Zakœt* is one of the five pillars of Islam. Each Islamic bank must establish a *zakœt* fund and pay *zakœt* on the profits earned. The payment of *zakœt* is in addition to any conventional tax imposed (if the government is non-Islamic). Thus, the Islamic bank pays 'dual' taxes – *zakœt* and corporate business tax. The interest-based conventional banks, on the other hand, are subjected to only corporate business tax, and thus have special advantage over the Islamic bank.

iv. Islamic ethics of investment

In Islam, investment in production and consumption is guided by strict ethical codes. Muslims are not permitted to invest in production, distribution and consumption enterprises involved in alcohol, pork, gambling, illegal drugs, etc., even though these enterprises may be profitable. Providing financing for such activities is illegal in Islam. Hence, it is forbidden for an Islamic bank to finance activities or items that are not permitted by the *Shar¥c ah*. The limitation of investment and financing is extended to cover any activity or business which may be harmful to the individual or the society. Thus, financing investment for the production or consumption of tobacco, alcohol or pornography is also prohibited. This restriction provides limitation on the profitability of the Islamic banks. On the other hand, conventional banks do not face any such constraint in their financing investments.

Thus, Islamic banks face constraints and operate in a non-friendly environment in most of the Muslim countries. One should keep the underlying differences in mind in order to make a fair comparison between the Islamic and the conventional banks.

2.1 ELEMENTS OF ISLAMIC BANKING AND FINANCING

The key element of Islamic banking is not just the interest-free receipt and use of funds. One of the most important elements of Islamic banking or finance is the concept of profit- and loss-sharing. Based on the profit- and loss-sharing principles, there are various types of Islamic financial instruments available in the market. Some of the instruments are equity-like contracts and some of them are debt-like contracts.

MushŒrakah (partnership) and *muèŒrabah* (trust financing) are the equity-like products. On the other hand, the debt-type contracts/ products are *murŒbaúah* (cost-plus financing), *ijŒrah* (leasing), *bay^c bithaman Œjil* (deferred payment financing), *isti§nŒ^c* (progressive payment) and *qarè al-úasan* (benevolent loan). There is a large literature available as to how these financial products work and can replace the provision of interest (Siddiqi, 1983a; Ahmad, 1984; Iqbal and Mirakhor, 1987; Ahmad, 1987).

3. LITERATURE REVIEW

The extent of literature on Islamic banking may be divided into theoretical and empirical dimensions. The earliest works dealing with the potential of Islamic banking include Mannan (1968), Siddiqi (1983b), Ahmad (1984), Iqbal and Mirakhor (1987), Khan (1987), Ahmad (1987), Zineldin (1990) and Saeed (1996). These authors discussed a wide range of institutional issues including concepts and principles that are subject to interpretation. Haron and Shanmugam (1997) comprehensively documented the workings of the *Shar¥^cah* or Islamic laws in the Islamic banking system in various Muslim countries, such as Egypt, Iran, Malaysia, Pakistan, Sudan and Turkey. They also elaborated the various concepts of Islamic financial products such as *muèŒrabah*, *mushŒrakah* and *qarè al-úasan* along with the issue of monetary policy. They advocated *muèŒrabah*-type instruments to replace the current interest-based discount rate as an important tool of monetary policy. Financial instruments used by Islamic banks were examined by Aggarwal and Yousef (2000), and they found that Islamic banks rarely offer long-term financing to entrepreneurs seeking capital. The majority of the Islamic banks' financial transactions are towards retail or trade financing, and their model suggests that it was a rational response for the banks.

Zineldin (1990) examined Islamic banks from the angle of theory and practice, and found that Islamic banking is a viable alternative to existing conventional banking. Although few empirical studies are available, Ali (1996) compared the relative efficiency of Islamic banking with conventional banking in Bangladesh. He found that the Islamic banks are relatively more efficient than conventional banks. Kazarian (1993) compared Islamic banking with conventional banking in Egypt, with emphasis on the innovativeness of the Islamic bank's financial products.

Arif (1989), Wong (1995), Samad (1999), and Samad and Hassan (2000) conducted studies on Bank Islam Malaysia. Arif (1989) found that the track record of Bank Islam Malaysia during the first six years of its establishment was fairly impressive. He also suggested that Bank Islam Malaysia should institute research and development to serve the *Ummah*.

Samad (1999) evaluated the relative efficiency position of the Islamic bank during 1992-1996, and compared it with the conventional banks in the country. His finding was that Bank Islam Malaysia enjoyed relatively higher managerial efficiency than the conventional banks. Samad and Hassan (2000) evaluated inter-temporal and inter-bank performance for the period 1984-1997. They found that Bank Islam Malaysia was more liquid and therefore exposed to less liquidity risk. Hassan (1999) studied the performance of Islamic banks in Bangladesh and found that the key Islamic financial products, *muèŒrabah* and *mushŒrakah*, were not developed. No studies have dealt with the banking performance in Bahrain.

3.1 METHODOLOGY

In evaluating banks' performance, this study uses ratio measures. The use of ratio measures is not a new method in the literature. O'Connor (1973) and Libby (1975) had used this method in the early 1970s. Since then, it has been found in many studies such as Chen and Shimerda (1981), Ross (1991), Spindler (1991), Sabi (1996), Hempel and Simonson (1998) and Samad (1999). The use of ratio method has many advantages. The most important benefit is that it compensates bank disparities. Banking firms are not equal with respect to sizes. The use of ratio removes the disparities in sizes and brings them at par.

In order to examine whether there is a difference in performance between Islamic banks and conventional banks of Bahrain, equality of mean test is performed. The equality of mean test for comparing statistics

from two or more samples of numeric data drawn from two or more populations is most widely used in the literature of performance and the standard text in statistics. The assumption is that the performance ratios are normally distributed. The null hypothesis of the equality of mean of the conventional banks and Islamic banks is tested against not-equality of mean.

3.2 DATA

In this study, six Islamic banks and 15 conventional commercial banks are considered. The aggregate data of the Islamic and conventional banks for the period 1991-2001 are obtained from Bank Scope Database. The various performance variables are calculated from the above data.

4. PERFORMANCE MEASURES

This study uses internal factors, those related to items of balance sheet and income statement of banks and well within the control of the bank management. After examining the income statement and balance sheet of Islamic banks and conventional commercial banks of Bahrain, this study utilizes eight financial ratios for evaluating the financial performance of Islamic *vis-à-vis* conventional of bank of Bahrain. These financial measures of performance are placed under three categories as given below:

a. Profitability Performance
b. Liquidity Performance
c. Credit (loan) Risk Performance

4.1 PROFITABILITY PERFORMANCE

There are several financial measures for evaluating profitability performance of a firm. This study uses the following basic three. They are:

a. Return on Assets (ROA)[1] = net profit/total assets. ROA is a good indicator of a bank's financial performance and managerial

efficiency. It shows how competent the management is in allocating asset into net profit. The higher the ROA, the higher is the financial performance or profitability of the banks.

b. Return on Equity (ROE) = net profits/equity. It shows a rate return on base capital, i.e., equity capital. The higher the ROE, the more efficient is the performance.

c. Cost to Income Ratio (COSR) = total cost/total income. Cost incurred per dollar generation of income or in other words, income generated per dollar cost. It is indeed considered to be one of the best indices for measuring economic efficiency or profit performance. The lower the COSR ratio, the better is the profitability performance of a bank.

4.2 LIQUIDITY PERFORMANCE

Liquidity is the life of a commercial bank. Liquidity means cash availability: how quickly a bank can convert its assets into cash at face value to meet the cash demands of the depositors and borrowers. The higher the amount of liquid asset for a bank, the greater is the liquidity of the bank. Among the various liquidity measures, this study uses the following:

a. Net Loans to Asset Ratio (NetLTA) = net loans/total assets. NetLTA measures the percentage of assets that are tied up in loans. The higher the ratio, the less liquid the bank will be.

b. Liquid Assets to Deposit and Short-term Fund Ratio (LdASF) = liquid asset/customer deposit and short term funds. LdASF is a deposit run off ratio. It indicates the percentage of deposit and short term funds that are available to meet the sudden withdrawals. The higher the LdASF, the more liquid is a commercial bank and less vulnerable it is to a run on the bank.

c. Net Loans Deposit and Borrowing (LDBR) = net loans/total deposit and borrowings. It indicates the percentage of the total deposit locked into non-liquid asset. The higher the LDBR, the higher is the liquidity risk.

4.3 CREDIT RISK PERFORMANCE

Three financial ratios are used for measuring loan/credit risk performance of a bank. These are:

a. Equity to Asset ratio (EQTA) = common equity/assets. It measures equity capital as a percentage of total assets. EQTA provides percentage protection afforded by banks to its investment in asset. It measures the overall shock absorbing capacity of a bank for potential loan asset losses. The higher the ratio of EQTA, the greater is the capacity for a bank to sustain the assets losses.

b. Equity to Net Loan ratio (EQL) = total equity/net loans. It measures equity capital as a percentage of total net loans. EQL provides equity as a cushion (protection) available to absorb loan losses. The higher the ratio of EQL, the higher is the capacity for a bank in absorbing loan losses.

c. Total Impaired Loans to Gross Loan ratio (IMLGL) = impaired (non-performing loans)[2] loans/gross loans. This is one of the most important criteria to assess the quality of loans or asset of a commercial bank. It measures the percentage of gross loans which are doubtful in banks' portfolio. The lower the ratio of IMLGL, the better is the asset/credit performance for the commercial banks.

5. EMPIRICAL RESULTS

5.1 TERMS OF VOLUME

Table 1 shows means and standard deviation (SD) for selected items of the balance sheet and income statement for 6 Islamic and 15 conventional banks. It is seen from the table that conventional commercial banks in Bahrain have a larger volume of operations compared to that of Islamic banks. In all respects – loans, assets, deposits, profits and equity – conventional banks have a much larger volume of dollar business as compared to those of Islamic banks. The mean asset, deposit and loan of Bahrain's conventional banks are $44906.1 million, $36774.1 million and $19886.2 million, respectively,

compared to those of Islamic bank of $1469.6 million, $974.2 million and $757.8 million, respectively. This difference of operation in volume is statistically significant. Similarly, average profit before tax and net income of conventional banks are much larger compared to those of Islamic banks. The mean profit before tax and the mean net income of the conventional banks were $385.44 million and $349.77 million, respectively, as compared to Islamic banks' mean profit before tax of $32.4 million and mean net income of $31.66 million. This difference is statistically significant at 5 percent. A similar result is also found for equity. In summary, Islamic banks own 3.27 percent of the total market assets, 2.64 percent of the total market deposits and earn 9 percent of the total market profits as compared to 91 percent earned by conventional banks.

Thus, in terms of volume (average dollar business), the performance of Islamic banks is far below the conventional banks in Bahrain. This is expected since firstly, conventional banks in Bahrain have the advantage of an age old extensive network of branches and more staff compared to Islamic banks who are newcomers to the market. Secondly, the management of Islamic banks, although in the hands of staff who are well-trained and experienced in running conventional banks, have not acquired adequate experience to run Islamic banks which are substantially different in their mode of operation.

TABLE 1
Performance Measures in Terms of Volume (million $)

	Islamic Bank		Conventional Bank		
Variable	Mean	Standard Deviation	Mean	Standard Deviation	*t*-value
Total Loans	757.8	523.66	19886.2	11349.48	-5.55
Total assets	1469.6	1131.85	44906.1	27016.53	-5.28
Total deposits	974.2	883.6	36774.1	22139.71	-5.28
Profit before tax	32.4	21.37	385.44	202.84	-6.80
Net Income	31.66	17.88	349.77	187.92	-6.54
Total equity	385.2	239.29	4472.1	2729.00	-5.16

5.2 TERMS OF RATIO

Financial measures expressed in terms of various ratios have greater advantage than volume measures. The greatest advantage is that ratio analysis compensates the disparities created by differences in bank size with regards to assets, deposits and loans. Both Islamic banks and conventional banks are placed on equal footing under ratio measures irrespective of the bank's size. Table 2 provides the financial performance of Islamic and conventional banks in terms of the various ratios. Student's *t*-test is applied in assessing the statistical difference between the two types of the banks.

All measures of profitability (ROA, ROE, COSR) and deposit risk shown in Table 2 indicate that there exists no significant difference between conventional and Islamic banks in Bahrain. The average ROA and ROE of Islamic banks, are respectively, 2.22 percent and 7.1 percent, compared to 0.9 percent and 8.57 percent of the conventional banks. Similarly, for cost-to-income ratio, there is no significant difference between the two banks. The average COSR of Islamic banks is 43.38 percent compared to 51.77 percent of conventional banks.

TABLE 2
Financial Performance of Islamic and Conventional Banks

Performance Measures	Islamic bank mean	Conventional bank mean	*t*-value
A. Profitability			
1. ROA	2.26	.92	2.13
2. ROE	7.15	8.57	-0.53
3. COSR	43.38	51.77	-1.18
B. Liquidity			
4. NetLTA	47.05	47.53	-0.07
5. LdADSF	23.76	16.11	1.62
6. NetLD&B	78.75	50.63	4.31
C. Credit			
7. EQTA	40.91	11.02	4.16
8. EQL	147.33	23.43	1.64
9. IMLGL	1.75	10.40	-11.94

With regard to credit performance, the study finds that Islamic banks' performance is superior to that of conventional banks. This is mainly because Islamic banks maintain much more equity per capita (equity per dollar asset and per dollar loans) than conventional banks. All financial measures of credit risk shown in Table 2 shows significant differences between Islamic banks and conventional commercial banks. The higher equity ratio of Islamic banks indicates that Islamic banks are cautious about its credit advancement. In addition, the Islamic banks' management is aware that they cannot afford a bank failure due to bad credit. As newcomers in the market, Islamic banks must establish good reputation otherwise it would not be able to attract new customers. Any Islamic bank's failure due to imprudent decision would undermine the reputation of Islamic banking in general. Thus, they are very cautious and conservative in selecting investments in which their long term loans are a small percentage of the total. This is evident from the study where the Islamic banks' long term loans in terms of equity financing five year lending are only 0.9 percent of the total loans. At the same time Islamic banks maintain substantially higher equity ratio than that of conventional banks.

All measures of liquidity other than net loans to deposit and borrowing (NetLD&B) show that there is no significant difference in performance between Islamic banks and conventional commercial banks in Bahrain. With regard to loan deposit ratio (NetLD&B), the difference is statistically significant. This implies that Islamic banks are much more liquid and thus exposed to less liquidity risk than conventional commercial banks.

The higher liquidity ratio of Islamic banks compared to that of conventional banks stems from several factors:

a. Unlike conventional banks, the scope of Islamic banks' investment is limited by the *Shar¥ªah*, the Islamic Law. Islamic banks are not permitted to invest in un-Islamic investment opportunities such as gambling, pornography, alcohol and related projects, even though these investments may be highly profitable. The restricted set of investment opportunities helps Islamic banks to hold higher liquid assets.

b. Most loans and investments of Islamic banks are of short term nature. *MurŒbaúah* financing constitutes a shorter term and a lower risk investment for a bank. There is practically no risk involved in

murŒbaúah financing where it is fully collateralized by the asset. On the other hand, *muèŒrabah* and *mushŒrakah* which are a longer term investment constitute a small percentage of the total financing. It is only 0.9 percent of the total loans and advances. There are several reasons mentioned in our previous study (Samad and Hassan, 2000) as to why *muèŒrabah* and *mushŒrakah* are not popular. An additional reason could be is that entrepreneurs are, in general, free-spirited people who do not like to share proprietary information. Since joint management and supervision are important characteristics of the *muèŒrabah* and *mushŒrakah* financing, such requirements may not be viewed positively by entrepreneurs.

c. Islamic banks' lending attitude is conservative. As newcomers to the market, Islamic banks cannot afford to incur losses, and undermine the general reputation of Islamic banking system.

6. CONCLUSION

This paper examines the financial performances of Islamic and conventional banks of Bahrain after the first Gulf War in 1991. The comparison of financial measures expressed in terms of various financial ratios indicates that there is no major difference in profitability and liquidity between Islamic banks and conventional banks. The findings also indicate that Islamic banks as newcomers to the financial market are doing as well as conventional banks. In addition, Islamic banks are exposed to less credit risk compared to conventional banks. Their credit performance is superior to that of conventional banks.

ENDNOTES

1. Hempel and Simonson (1998), Ross (1991), Samad (1999), Sabi (1996) and Samad and Hassan (2000) used this index.

2. The loan that is past due in six months is considered as non-performing loans.

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