

# Islamic versus Conventional Banks Performance during the Financial Crisis: Application to the UAE

Issam Tlemsani (Corresponding author)

Professor of Finance, IE Business School

Madrid, Spain

E-mail: itlemsani@faculty.ie.edu

Amani Al Nuaimi

Assistant Auditor, Business Risk Assurance, Abu Dhabi Accountability Authority

Abu Dhabi, UAE

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## Abstract

This research examines the financial crisis's impact on banks' performances in the UAE. Comparisons of the performance of Islamic and conventional banks pre/post the financial crisis are used to establish whether Islamic banks can better absorb a financial shock. This is achieved by analytical and comparative analysis using a set of profitability, liquidity, leverage, market share, and growth rate ratios for the period 2005 - 2011 for both Islamic and conventional banks in the UAE. Ten banks; four Islamic and six conventional were the data set for this research. Six hypotheses were formed to test the effect of crises on the banks. These hypotheses are tested through the banks financial ratios.

The research finding provides insight into the impact of the financial crisis on the performance of both Islamic and conventional banks in the UAE.

**Keywords:** Financial crisis, Islamic finance, Banking stability, Financial ratios

## 1. Introduction

The market for Islamic finance has grown briskly over the past number of years, this rapid growth is expected to continue at pace. Islamic finance has grown from a niche market to a

mainstream financial services segment. The total assets of Islamic financial institutions globally were valued at US\$1.6 trillion at the end of 2012 with a yearly growth rate of approximately 20.4 % (KFH, 2013). The expectation is that by 2020 Islamic financial assets will reach US\$6.5 trillion (WIFE, 2013). Islamic banking offers many lucrative opportunities. Alongside this growth is an increasingly competitive landscape [Khan (2002); Ahmad (1992); and Chapra (2000)], there are now more Islamic financial services institutions in than ever before. Established institutions and new entrants into the market face different conditions and must create new instruments, products and tools to broaden its customer base in order to remain successful [Zarqa (1983); Khan (1986); El-Gamel (2001)]. That being said a strategic plan that promotes and develops Sharia compliant products and services will not only satisfy the needs of Muslims internationally but may also attracts ethically motivated customers.

This research takes stock of the impact of the global financial crisis that began in late 2007 on the banking sector of the UAE, by exploring bank-level data provided by bank's financial statements. After the global financial crisis, the banking sector in the UAE faced difficulties such as decreasing wholesale funding availability, losses on securities portfolios and plummeting local real estate markets. The objectives of this research are to examine the banking sector in the UAE before, during and after the crisis and to assess the impact of the crisis on the performance of the banking sector. This research will compare Islamic and conventional banks performance, exploring which banking sector was most affected by the global downturn. This is achieved by using a set of profitability, liquidity, leverage, market share, and growth rate ratios for the period 2005 - 2011 for both Islamic and conventional banks in the UAE.

As the global financial crisis took hold, GCC countries, including the UAE, were affected through trade and financial channels. Various policy authorities in the UAE tried to reduce the severity of the crisis and restore public confidence by introducing some policy changes (Table 1) including lowering borrowing costs, encouraging investments, and improving liquidity in the economies (Ehab Zaki, 2012).

Table 1. UAE Policy Interventions in the wake of Global Crisis (2007-09) (Note 1)

UAE Government	Guaranteed all depositors and all banks will be protected
UAE Central Bank	Tightened capital adequacy ratio of financial institutions from 10% to 11% by June 2009, and 12% by June 2010
Abu Dhabi Government	Recapitalized 5 domestic banks by injecting AED 12 billion
UAE Central Bank + Federal Government	Supported domestic banks by injecting AED 120 billion as capital since Sept 2008
Dubai Government	Launched a US\$20 bn support fund to manage the proceeds of the US\$20bn bond program launched earlier in 2009 - 2010. Dubai Bank was rescued by the UAE's government and sold for just Dh10 to Emirates NBD bank, the biggest bank by total assets in the UAE (Note 2).

### 1.1 Islamic Banking Principles

Compliance with Sharia law covers all aspect of life, religious worship and business practices. Islamic banks are founded on the principle that there is no separation between the secular and religious, it encourages people to use their money in lawful (halal) projects, and not keep funds inactive.

Islamic finance encourages individuals to share business risks in return for reward with the understanding that the level of the expected reward is related to the level of risk. What is condemned in Islamic banking is the notion of a risk free reward or return, which is in contrast to conventional banking principles. Islamic banking principles do recognize the time value of money but provided that profit is earned through trade and not on lending money. The distinguishing factors between Islamic from conventional banking are:

- **Riba (Usury):** Riba is any return for the use/rent of money. Islamic banking, does not allowed charging for the use of money. Islamic financial institutions must “trade” in real assets or services.
- **Gharar (Uncertainty):** Any contract based on a future uncertain event within Islamic banking, is not generally allowable this includes dealing in conventional derivatives.
- **Maysir (Gambling):** Speculative transactions are not allowed in Islamic banking. Permissible trading or investment transactions that involve the risk of losses or earning profits are not included in this definition.

**Prohibition:** Sharia law prohibits dealing in some products or activities e.g. pork, pornography, interest based finance, debt, gambling, alcoholic liquor...etc.

**Mobilization of funds:** Islamic banks manage the funds of depositors based on the *Wakala* (agency) or *Mudaraba* (cost plus financing) contract. The fundamentals of the Mudaraba contract are a pre-agreed profit ratio, the depositor is the fund provider (rab al mal) and the Islamic bank is the mudarib (entrepreneur). In case no return the fund provider bares all financial losses, the entrepreneur will bear the loss of compensation for his skill, time and effort. In *Wakala* contract, the Islamic bank acts as an agent with a fixed fee. This concept is very compatible with the agency theory in modern finance system.

In the last few years, the market share for Islamic banks has increased as an alternative model of banking and finance after the financial crisis. The main reasons for the assumption that Islamic banking faired better during the crisis was the inherent nature of Islamic banks, which shun risky and much misunderstood financial products and the fact that it is asset backed banking.

## 2. Literature Review

Parashar (2010) compared selected conventional and Islamic banks on five performance parameters; capital adequacy, efficiency, profitability, liquidity and leverage. Their analysis suggests that during the crisis Islamic banking, suffered more in terms of capital adequacy and leverage while conventional banking suffered more in terms of return on average assets

and liquidity. For full year analysis, the study found that Islamic performed better than conventional banks for the period 2006 - 2009. The study suggests that Islamic banks did suffer during crisis in terms of lowering of *CAR*, *E/TA* and *ROAE*.

Loghod (2008) compared the financial performance (profitability, liquidity and structure) of Islamic and conventional banking from 2000 - 2005. The result of study found no significant differences in terms of profitability. However, Islamic banks are less exposed to liquidity risk. On the other hand, conventional banks depended more on external liabilities than Islamic banks. Furthermore, the GCC customer was more attracted to use financial instruments offered by Islamic banks. Finally, no statistical significant differences were found on internal growth rate for both types of banking, which implies that this largely depends on the management style and the general performance of the specific bank.

Shahid, Rehman, Niazi & Raof (2010) undertook a study, which compared the efficiency of conventional and Islamic banks in Pakistan. Conventional banks have a long history in Pakistan and are very affluent in comparison to Islamic banks, which by comparison are still in their infancy. For the study, a sample of five Islamic and five conventional banks from (2005 - 2009) was used. The result of this study showed there is no significant difference in mean efficiencies scores of conventional and Islamic banks except in 2008.

Zaki (2012) looked at the following two interrelated research issues: Identifying and explaining the determinants the financial turmoil in the UAE's financial markets and evaluating the impact of the UAE's government bailouts on the UAE's economy in the short and long run. The findings were that the government saved the troubled banks through bailouts and drawing down FXRES (Government economic activity). The timing of the increase in the ratio of leverage risk measures of the banking system and reserve adequacy (liquidity risk) of the UAE's economy is consistent with the model's prediction that the government's bailouts and foreign reserve policy played a crucial role in reducing the adverse reaction to the financial crisis in 2007 - 2008. These developments significantly contributed to the positive expectations in the market. The result was survival of the banking sector with the confidence of market participants intact.

Prasad (2012) looked at the global spillover effect on the UAE's financial system. The analysis of the impact of external financial conditions was structured in four main parts: the domestic equity market, sovereign risk, the banking system, and the corporate sector. Prasad's study divides the banks in the UAE into two segments Dubai and Abu Dhabi Banks. It concludes that although the financial vulnerability of the UAE has decreased since the 2008 global real estate collapse, given the UAE's interconnectedness, it remains exposed to global financial conditions. Regarding the banking system, Prasad (2012) finds that its level of capitalization and profitability provides some comfort. While moderately exposed to Europe, stress tests (Note 3) the aggregate banking system has adequate liquidity and capital buffers to withstand substantial shocks. However, these stress tests do reveal differences in liquidity between banks, and the strength of capital buffers is mitigated by some degree of concentration of risks in the system. They found that the default probabilities of Abu Dhabi banks are overall significantly lower when compared to those of Dubai banks across the

whole period.

Mehta's (2012) paper examines the financial performance indicators of all banks listed on Abu Dhabi Stock Exchange and identifies whether the financial performance indicators of the banks were impacted by the global economic crisis. The study covers the period from 2005 to 2010, which has been classified into before, during and after crisis. The performances of the banks were measured by financial ratios; Leverage, liquidity and profitability ratios and analyzed to draw interpretations. The results of the study concludes that 2008 financial crisis has impacted the UAE bank's financial performance especially the profitability measured by return on assets and on equity. All profitability ratios of banks have decreased during the crisis period. Liquidity of banks has also decreased during the crisis period especially in terms of cash and portfolio investments to deposits. On the contrary, the leverage ratios of the UAE's banking sector have increased during the crisis period as compared to the pre-crisis period.

### 3. Methodology

The data comprises a cross-section of 10 banks from the UAE spread over a time period of six years 2005 – 2011 in an annual frequency, the choice of number of years is based on the availability of the data. The six-year period has been divided into three parts; before crises (2005 - 2007), during crisis (2007 - 2009) and after crisis (2009 - 2011). Although it is difficult to say, what is the exact time for the start/end of crisis, as it varies in different parts of the world?

The study is based on the data obtained from the audited balance sheets and profit & loss accounts of the respective banks and Abu Dhabi Stock Exchange. The list of 10 banks studied in this research, are divided into two segments; Islamic and conventional banks. The six conventional banks are; National bank of Abu Dhabi (NBAD), Gulf First Bank (GFB), Abu Dhabi Commercial Bank (ADCB), Union National Bank (UNB), RAK Bank, and Bank of Sharjah (BoS). The four Islamic banks are; Abu Dhabi Islamic Bank (ADIB), Dubai Islamic Bank (DIB), Sharjah Islamic Bank (SIB) and Emirates Islamic Bank (EIB).

The performance measurement will be measured by using financial ratios and regression analysis to determine the underlying factors of Islamic and conventional bank's performance and market share. The main instrument for analysis of the data sources is statistical analysis.

The market value of the firms for the subsequent year is given in the Table 2 & 3.

The liquidity, leverage and profitability of the banks can be studied in various ways. The common way of measuring the financial performance of a bank is to calculate its ratios and compare it with the past to make interpretations (Oberholzer & Westhuizen, 2004) (Note 4). Moreover, using ratios as financial performance indicators for banks is the commonly used tool in the financial studies.

*Liquidity:* Liquidity ratios measure the ability of the bank to meet the short-term financial obligations. Most commonly three ratios are used to measure the liquidity of the banks; loan to deposit ratio, cash & portfolio investment to deposits and loan to total assets.

*Profitability:* The earnings ratios or the overall profitability ratios indicate how efficient the concern is in utilizing the assets. For measuring; profitability return of assets, return on equity and earning per share have been taken.

*Long term Solvency:* Solvency ratios are termed as gearing or leverage ratios. A higher leverage ratio indicates high bankruptcy and financial distress but enable the firm to enhance profitability by inserting the debt in the capital structure. In this research, debt to equity and total debt to total assets ratio have been used as a proxy for leverage or solvency position.

*Revenue growth:* Illustrates sales increases/decreases over time. It is used to measure how fast a business is expanding. More valuable than a snapshot of revenue, revenue growth helps investors identify trends in order to gauge revenue growth over time. A list of variables and the formula used for their calculation have been given in appendix 1.

### The study tests the following hypothesis:

- *H1:* There is a significant difference between before, during and post crisis profitability ratios of banks.
- *H2:* There is a significant difference between before, during and post crisis liquidity ratios of banks.
- *H3:* There is a significant difference between before, during and post crisis solvency and leverage ratios.
- *H4:* There is a significant difference between before, during and post crisis market share ratios.
- *H5:* There is a significant difference between before, during and post crisis revenue growth rate.
- *H6:* There is a significant difference between before, during and post crisis profitability ratios between Islamic and conventional banks.

Table 2. Conventional Banks Market Value (2005 – 2011)

	Pre-Crisis			Crisis		Post Crises	
	2005	2006	2007	2008	2009	2010	2011
<b>National Bank of Abu Dhabi</b>							
Price per share (AED)	14.7	6.79	9.65	4.52	6.96	7.25	8.11
Outstanding shares (000)	1,224,080	1,224,080	1,591,304	1,976,614	2,174,275	2,391,703	3,874,558
Market value (million AED)	17,993,976	8,311,503	15,356,084	8,934,295	15,132,954	17,339,847	31,422,665
<b>First Gulf Bank</b>							
Price per share (AED)	8.39	5.23	9.59	4.35	7.62	8.67	7.53
Outstanding shares (000)	1,250,000	1,250,000	1,250,000	1,375,000	1,375,000	1,375,000	1,500,000
Market value (million AED)	10,487,500	6,537,500	11,987,500	5,981,250	10,477,500	11,921,250	11,295,000
<b>Abu Dhabi Commercial Bank</b>							

Price per share (AED)	9.69	4.84	5.34	1.78	1.56	2.07	2.78
Outstanding shares (000)	2,000,000	2,000,000	4,000,000	4,000,000	4,000,000	4,810,000	4,810,000
Market value (million AED)	19,380,000	9,680,000	21,360,000	7,120,000	6,240,000	9,956,700	13,371,800
<b>Bank of Sharjah</b>							
Outstanding shares (000)	162,757,620	86,432,940	129,280,320	102,506,500	106,035,831	106,850,772	
<b>Union National Bank</b>							
Outstanding shares (000)	1,164,770,380	656,177,600	884,513,250	38,940,088,500	36,904,940,600	1,830,970,310	1,750,720,300
<b>RAK Bank</b>							
Outstanding shares (000)	12,112,500,000	6,050,000,000	6,675,000,000	2,447,500,000	2,145,000,000	2,846,250,000	4,170,000,000

Table 3. Islamic Banks Market Value (2005 – 2011)

	Pre-Crises			Crises		Post Crises	
	2005	2006	2007	2008	2009	2010	2011
<b>Abu Dhabi Islamic Bank</b>							
Price per share (in AED)	9.87	4.27	5.25	2.17	2.58	3.05	3.17
Outstanding shares (000)	1,000,000	1,500,000	1,500,000	1,500,000	3,000,000	3,000,000	3,000,000
Market value (million AED)	9,870,000	6,405,000	7,875,000	3,255,000	7,740,000	9,150,000	9,510,000
<b>Dubai Islamic Bank</b>							
Price per share (in AED)	9.15	8.08	11	1.66	2.29	2.18	1.93
Outstanding shares (000)	3,000,000	3,000,000	3,000,000	3,445,400	3,617,505	3,617,505	3,797,054
Market value (million AED)	27,450,000	24,240,000	33,000,000	5,719,364	8,284,086	7,886,161	7,328,314
<b>Sharjah Islamic Bank</b>							
Price per share (in AED)	3.81	1.91	3.07	0.83	0.9	0.93	0.84
Outstanding shares (000)	400,000	1,100,000	1,100,000	2,200,000	2,310,000	2,425,500	2,425,500
Market value (million AED)	1,524,000	2,101,000	3,377,000	1,826,000	2,079,000	2,255,715	2,037,420
<b>Emirates Islamic Bank</b>							
Outstanding shares (000)	4,060,240	21,142,800	62,018,580	172,250,690	9,155,580	1,483,500	74,011,080

(The ratios for conventional and Islamic banks are shown in the appendix section and the results of hypothesis testing are given in the results section)

#### 4. Results and Finding

It has been found in the analysis of market capitalization of conventional and Islamic banks that they have gone through many fluctuations in market values and in their financial position during the three different phases i.e. before, during and after the financial crisis. The findings of this study indicate that during global financial crisis, the banking sector of the UAE did not perform well a few banks in the UAE declared bankruptcy and many of them showed a slow

growth rate during the crises. In Figure 1, it is clearly evidence that during the financial crisis i.e. 2007 and 2008 the market value of Islamic banks decreases suddenly. As the banking sector came out of financial crisis their market value begins to increase as we can see in Figure 1 & 2 the slope is positive for the year 2009 to 2011.

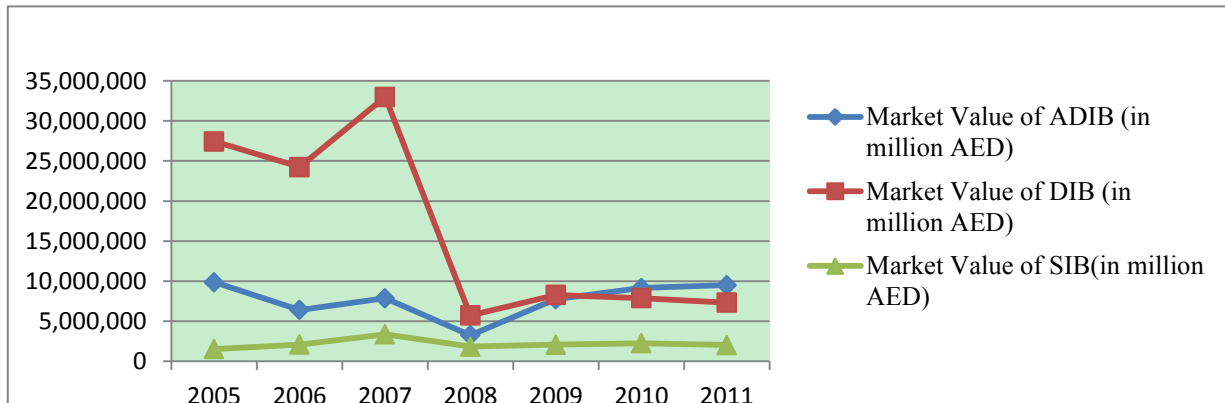


Figure 1. Market Value of Islamic Banks



Figure 2. Market Value of Conventional Bank (million AED)

Various ratios including; profitability, liquidity, solvency and market share are the basis of financial performance of a company are calculated and compared with predefined values. It was found that for both Islamic and conventional banks, that profitability ratio is stable before and during financial crisis its values decreases and again as crisis overcomes profitability ratio increases. A lower value of profitability ratio represents lower profit, thus during financial crisis the banking sector is not so profitable. For the banks under this study, it was found that liquidity ratios decreased during the financial crisis, as the crisis begins to ease the values of these ratios started to increase. It signifies that during the crisis liquidity of the banking sector decreased which is not a good sign for a company. Solvency and leverage



ratios of the banks also decrease during the crisis but they were stable before the crisis. These ratios also increase after the crisis, which indicates that, the value of solvency and leverage ratio is variable like other financial ratios i.e. decrease during the crisis and increases after the crisis.

The market value of the banks also decreased during the crisis. Before crisis market value of the banking sector is constant and after the crisis its values increases. Thus, market share ratio is also varied during and after the crisis, the revenue growth rate for all the banks decreased to a much lower level during crisis, it means that the banking sector is unable to earn sufficient value during the interval of the crisis. Thus, a significant variation in revenue growth ratios can be noticed during the different stages of financial crisis. It was also found from this study that both Islamic and conventional banks suffered the same effects of the financial crisis. During the crisis the performance of both banking sectors dropped. Thus it can be said that there is not any significant difference before, during and post crisis profitability ratios between Islamic and conventional banks.

#### 4.1 Hypothesis Testing

Estimations of unknown parameters obtained from regression analysis are the optimal solution as it uses data very efficiently. Good results can be obtained with relatively small data sets.

The theory associated with linear regression is well understood and allows for construction of deferent types of easily interpretable statistical intervals for predictions, calibrations, and optimizations.

**Hypothesis 1:** *There is a significant difference between before, during and post crisis profitability ratios of banks.*

This hypothesis can be tested on the following grounds: There is a significant difference found in the profitability ratios of the Islamic and conventional banks before, during and post crisis. The hypothesis can be tested based on the comparison of the profitability ratios of the four Islamic banks and six conventional banks. The regression analysis of the profitability ratios of the banks are given below:

Table 4. Islamic Banks - Profitability Ratios Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
Abu Dhabi Islamic Bank	0.805092	0.648174	-1.5	0.003134	1
Dubai Islamic Bank	0.79309	0.628992	-1.5	0.166003	1
Sharjah Islamic Bank	0.006145	3.78E-05	-1.5	62.85122	1
Emirates Islamic Bank	0.73204	0.535883	-1.5	1.612159	1

Table 5. Conventional Banks - Profitability Ratio Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
National Bank of Abu Dhabi	0.839121	0.704124	-1.5	0.135627	1
First Gulf Bank	0.975898	0.952376	-1.5	2823015	1
Abu Dhabi Commercial Bank	0.325249	0.105787	-1.5	0.290531	1
Bank of Sharjah	0.796519	0.634443	-1.5	1.264639	1
Union National Bank	0.963723	0.928763	-1.4	0.631607	1
RAK Bank	0.517625	0.267936	-1.4	2.024737	1

As the R square values of most of the banks are more than 0.6, only two banks (ADCB and SIB) have R square values less than 0.6, this implies that there is significant correlation between profitability ratios of banks during the three time periods; pre, during and post crises. So the given hypothesis is accepted. This means that there is a fluctuation in profits of these banks during and after financial crisis.

**Hypothesis 2:** *There is a significant difference between before, during and post crisis liquidity ratios of banks.*

This hypothesis is also tested based on the regression analysis of the liquidity ratios.

Table 6. Islamic Banks Liquidity Ratios - Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
Abu Dhabi Islamic Bank	0.928282	0.861708	-1.5	1.101491	1
Dubai Islamic Bank	0.653582	0.42717	-1.5	229.9545	1
Sharjah Islamic Bank	0.604096	0.364932	-1.5	1.909858	1
Emirates Islamic Bank	0.212766	0.045269	-1.4	2.312248	1

Table 7. Conventional Banks Liquidity Ratio – Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
National Bank of Abu Dhabi	0.523562	0.274117	-1.5	0.523094	1
First Gulf Bank	0.01317	0.000173	-1.66667	1.999308	1
Abu Dhabi Commercial Bank	0.27798024	0.07727302	-1.5	1.0532977	1
Bank of Sharjah	0.733829	0.538505	-1.5	1.420929	1
Union National Bank	0.514964	0.265188	-1.4	2.028534	1
RAK Bank	0.564025	0.318124	-1.4	1.9541	1

As the R square values of most of the banks is less than 0.6, only ADIB bank has R square values greater than 0.6, this implies that there is not significant correlation between profitability ratios of banks pre, crises and post crises. So the given hypothesis is rejected. This means that liquidity of these banks is not affected by the financial crisis.

**Hypothesis 3:** *There is a significant difference between before, during and post crisis Solvency and leverage Ratios.*

The hypothesis can be tested on the following grounds:

Table 8. Islamic Banks Leverage Ratios - Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
Abu Dhabi Islamic Bank	0.408931	0.167224	-1.5	0.371187	1
Dubai Islamic Bank	0.180977	0.032753	-1.5	1.800497	1
Sharjah Islamic Bank	0.002159	4.66E-06	-1.5	2952.663	1
Emirates Islamic Bank	0.335347	0.112457	-1.4	2.229403	1

Table 9. Conventional Banks Leverage Ratio - Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
National Bank of Abu Dhabi	0.618131	0.382086	-1.5	3.903373	1
First Gulf Bank	0.973053	0.946833	-1.66667	3.967556	1
Abu Dhabi Commercial Bank	0.860138	0.739838	-1.5	3.058337	1
Bank of Sharjah	0.33827	0.114426	-1.5	1.968346	1
Union National Bank	0.514964	0.265188	-1.4	2.028534	1
RAK Bank	0.9693	0.939543	-1.4	0.58186	1

In this case, the R square values of the 4 banks is less than 0.6, only two banks have R square value greater than 0.6, so there is no significant co-relation between the leverage ratio of banks during pre, during and post crises. So the given hypothesis is rejected. This signifies that financial crisis has no effect on the solvency and leverages ratios of these banks.

**Hypothesis 4:** *There is a significant difference between before, during and post crisis Market Share Ratios.*

The given hypothesis can be tested on the following ground:

Table 10. Conventional Banks Market Value - Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
Abu Dhabi National Bank	0.816097	0.666014	0.582517	5404485	6
First Gulf Bank	0.550771	0.303349	0.129187	2543499	6
Abu Dhabi Commercial Bank	0.160702	0.025825	-0.21772	6104276	6
Bank of Sharjah	0.492951	0.243001	0.053751	1.819855	6
Union National Bank	0.172905	0.029896	-0.16412	2.33079	6
RAK Bank	0.762761	0.581804	-1.4	1.530327	1

Table 11. Islamic Banks Market Value - Regression Analysis

	Multiple R	R Square	Adjusted R Square	Standard Error	Observations
Abu Dhabi Islamic Bank	0.558799	0.312257	0.140321	2113943	6
Dubai Islamic Bank	0.738747	0.545747	0.432183	8578284	6
Sharjah Islamic Bank	1	1	1	5.10E-16	6
Emirates Islamic Bank	0.147836	0.021856	-0.17377	2.340429	6

In this case, the R square values of the 4 banks is less than 0.6, only two banks have R square value greater than 0.6, so there is no significant co-relation between the leverage ratio of banks during pre, crises and post crises. So the given hypothesis is rejected. Market shares of these banks remains unchanged during the crisis as this hypothesis is rejected.

**Hypothesis 5:** *There is a significant difference between before, during crisis and post crisis Revenue Growth Rate.*

The given hypothesis can be tested on the following ground:

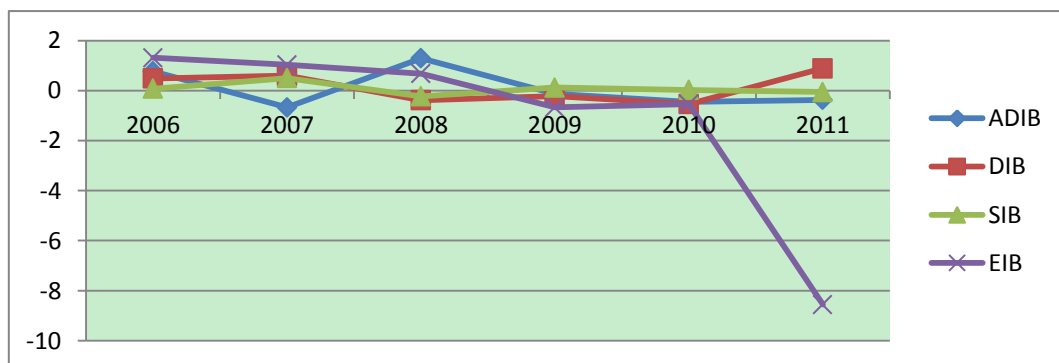


Figure 3. Islamic Banks Revenue Growth

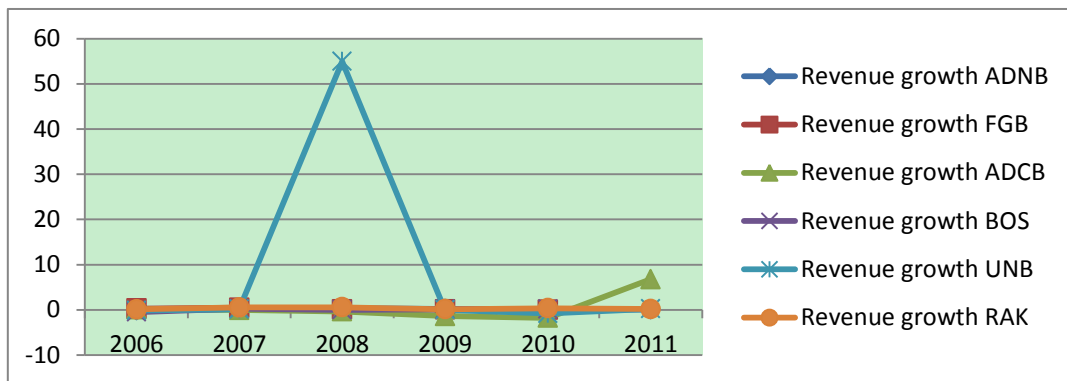


Figure 4. Conventional Banks Revenue Growth

These graphs represent the revenue growth and profitable ratio of Islamic and conventional banks, which indicates that during 2007 and 2008 both values decreased i.e. during the financial crisis. As this crisis was waning, both revenue growth and profitable ratio increased i.e. after the duration of the financial crisis. These graphs also indicate that before the financial crisis there was not much fluctuation in the both values. These signify that the selected hypothesis is true for the given results. Therefore, the hypothesis is accepted. It signifies that the revenue growth rate for these banks was affected during the financial crisis.

**Hypothesis 6:** *There is significant difference between before, during and post crisis Profitability ratios between Islamic and conventional banks.*

The given hypothesis can be tested on the following ground:

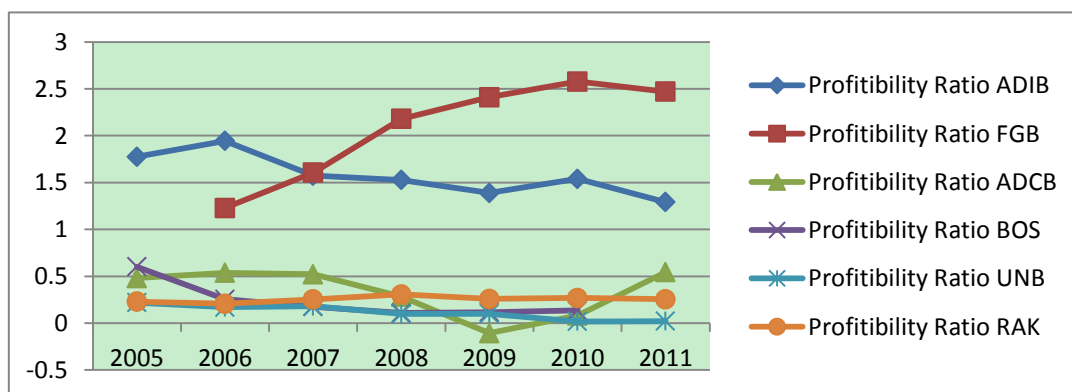


Figure 5. Profitability Ratio Comparison Conventional Banks

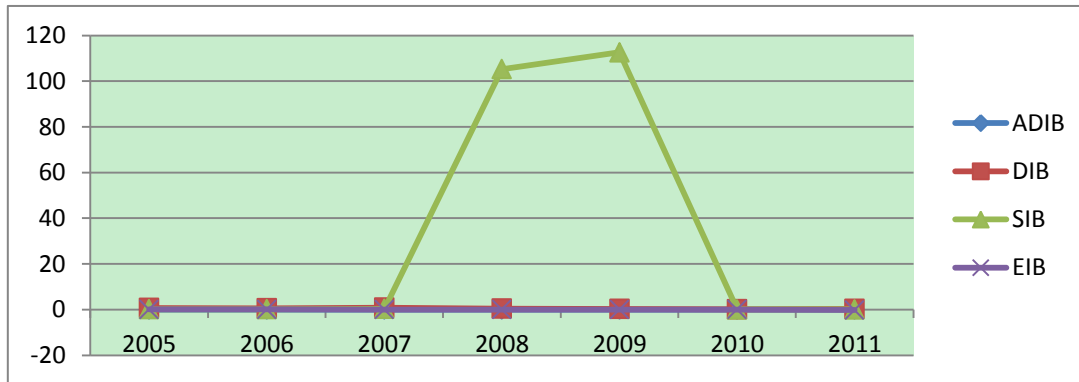


Figure 6. Profitability Ratio Comparison Islamic Banks

Both the graphs represent the profitability ratio of Islamic and conventional banks; according to the graph pattern, the profitability ratio is not same. During the financial crisis, profitability of conventional banks decreased but for the overall duration profitability of Islamic banks increased. This justifies the hypothesis that there is a significant difference before, during and post crisis profitability ratios between Islamic and conventional banks. So the given hypothesis is accepted. Acceptance of this hypothesis indicates that the Islamic and non-Islamic banks have different profit levels during the financial crisis.

## 5. Conclusion

This study describes how the banking sector of the UAE was affected by the global financial crisis. Variations in the market capitalization or market value were considered and its various patterns observed during the different time intervals and six hypotheses were tested for the effect of crises on the UAE's banks. After the analysis of extracted result, it was concluded that financial crisis directly affected the banking sector in the UAE. The effects of financial crisis on both Islamic and conventional banks were the same. During the financial crisis the banking sector did not perform well as their profitability, liquidity, solvency, growth revenue and market share value ratio decreased.

This research found that UAE banks offered better returns even during the crisis period, during the recession, when the US and European banks buckled, UAE's banks still showed a growth rate or a slight decrease in some cases. As the world has become more and more connected an interdependency of banks has also increased. Thus, a financial crisis in the US also has an impact on the financial system of the UAE. This research recommends that investors consider the UAE as it is better able to withstand shocks as evidenced in their performance during the financial crisis.

While the findings here are very useful, it must be considered that the time period studied is limited and more research needs to be undertaken to further deepen our understanding of the differences and sustainability of the two banking systems in the UAE.

To conclude the real area of division between Islam and the West lies in the issue of the dichotomy of religion and secular society that has grown up in the western tradition. Indeed

this dichotomy is not complete. Religious leaders have exercised significant influence upon Western history in the recent past. We can note many examples ranging from the influence of the religious right upon US policy and that of the late Pope on the demise of the Soviet Union. Again, it would be naive to maintain that Islam is divorced from the bending of religion to politics and to secular purposes. The essence of the division or the lack of it in the case of Islam lies in the notion that secular activities are inseparable from the religious. Clearly different value systems exist; issues of consumerism, forms of finance, and ways of life are a few examples. However, these issues are resolvable, under the tradition of toleration that has existed in many Western and Islamic societies.

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### Appendix 1. Key Indicators Used to Assess Banking Sector

	ROE
Return on Assets = Net profit / total assets	ROA
Earnings per share = Net profit / No of outstanding	EPS
Cash & Portfolio Investment to Deposits	CPID
Loan to Asset Ratio = Loans / Total Assets	LAR
Loans / Deposits	LDR
Debt Equity ratio = Total Debt / Shareholder Equity	DER
Total Debt to Total Assets Ratio = Total debt /Total Assets	DTAR
Revenue Growth = (Revenue this year / Revenue last year) - 1	

### Appendix 2. Conventional Bank's Ratios

	National Bank of Abu Dhabi								
	Profitability Ratio			Liquidity Ratios			Financial Leverage Ratio		
	ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to Equity	Total Debt to Total Assets	Revenue Growth
2005	1.7753204	0.0247868	1.72	0.8669113	0.0427027	0.0704907	65.4493121	22.7589786	
2006	1.9437780	0.0255560	2.11	1.2788290	0.0601080	0.1055720	69.2767400	31.1137800	-0.133560
2007	1.5742670	0.0179670	1.30	0.2377500	0.1850170	3.1620670	80.5732200	34.9782700	0.2402120
2008	1.5272253	0.0183338	1.54	0.3517485	0.1642288	3.9833400	76.0380535	28.3512330	0.4462233
2009	1.3889400	0.0153450	1.21	1.2185020	0.1563800	0.4186500	81.1150600	27.5613400	0.2070760



2010	1.5399730	0.0174200	1.20	0.1029590	0.1492300	0.4291880	78.3181900	26.0936400	0.1218110
2011	1.2918090	0.0145010	1.21	0.1105740	0.1556540	0.2494680	79.8866100	29.0930100	0.0978390

<b>First Gulf Bank</b>									
Profitability Ratio			Liquidity Ratios			Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to equity	Total Debt to Total Assets	Revenue Growth	
2006	1.22868	0.032158	1.23	14.02542	0.526827	0.730688	31.01887	0.811858	
2007	1.606544	0.027435	1.61	3.222228	0.606704	0.849839	50.46169	0.861738	0.307537
2008	2.179784	0.0278753	2.05	1.6079732	0.8406291	1.2220475	66.1106167	0.84543019	0.4924971
2009	2.409429	0.026404	2.06	2.858427	0.632513	0.91832	74.5962	0.817468	0.105352
2010	2.577708	0.02518	2.1	5.583379	0.679379	0.968464	84.4559	0.825011	0.069842
2011	2.470503	0.023532	2.37	1.162408	0.664971	1.012042	87.14215	0.830029	0.045539

<b>Abu Dhabi Commercial Bank</b>									
Profitability Ratio			Liquidity Ratios			Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to equity	Total Debt to Total Assets	Revenue Growth	
2005	0.4803855	0.0332876	0.52	0.2814009	0.7304258	1.2424077	12.2767252	0.8506995	
2006	0.5368	0.02648	0.49	0.238195	0.769835	1.43846	17.59105	0.867747	0.117435
2007	0.521233	0.01963	0.41	2.796809	0.056776	0.105498	23.70053	0.892559	-0.029
2008	0.2824268	0.0091957	0.26	0.5663808	0.1186531	0.2077791	27.4039621	0.8922673	-0.3484323
2009	-0.10661	-0.0032	-0.09	0.873541	0.727865	1.351221	29.3386	0.880842	-1.37748
2010	0.081209	0.002126	0.51	1.215984	0.668235	1.156761	32.99332	0.863776	-1.76173
2011	0.544198	0.017081	0.04	2.145345	0.699803	1.135295	28.88845	0.906754	6.795684

<b>Bank of Sharjah</b>									
Profitability Ratio			Liquidity Ratios			Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to equity	Total Debt to Total Assets	Revenue Growth	
2005	0.602806	0.1048582	0.27	54.480375	0.4352846	0.6726179	3.827073	0.6657202	
2006	0.256098	0.041976	0.27	43.73905	0.49259	0.775255	4.423819	0.725095	-0.46895
2007	0.175781	0.037445	0.32	18.29543	0.492352	0.83821	5.211456	1.110146	0.262022
2008	0.1079743	0.0259174	0.25	21.853441	0.6536071	1.0219444	3.1541186	0.7570937	0.0149133
2009	0.117663	0.026326	0.223	29.08809	0.633959	0.945282	3.455719	0.773185	0.159675
2010	0.135533	0.027421	0.189	23.42399	0.587207	0.842079	3.889149	0.786837	0.188962

<b>Union National Bank</b>									
Profitability Ratio UNB			Liquidity Ratios			Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to equity	Total Debt to Total Assets	Revenue Growth	
2005	0.2203599	0.0330135	1.01	2.9501782	0.5926593	1.1571802	0.7526523	0.1127598	
2006	0.170321	0.024284	0.65	5.041172	0.661492	0.904396	5.99682	0.855001	-0.12464
2007	0.179585	0.021266	0.75	12.06101	0.674014	0.929714	7.423712	0.879101	0.168248
2008	0.0979477	0.0158993	0.59	0.9172375	0.2942646	0.3825407	51.605034	8.3767560	54.9631102
2009	0.099363	0.014971	0.55	0.306596	0.297044	0.388346	5.537796	0.834362	0.016663
2010	0.018153	0.003129	0.13	0.266972	0.383057	0.527421	4.801315	0.827625	-0.7901
2011	0.022219	0.003872	0.1	0.452077	0.446257	0.607921	4.738132	0.825727	0.243022

<b>RAK Bank</b>									
Profitability Ratio RAK			Liquidity Ratios			Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Loan to Asset	Loan to Deposit	Debt to equity	Total Debt to Total Assets	Revenue Growth	
2005	0.2306148	0.0320134	0.45			6.2036770	0.8611820		
2006	0.20753	0.02927	0.42			6.090296	0.858962	0.107981	
2007	0.254526	0.036577	0.65			5.958638	0.856294	0.550898	
2008	0.3059557	0.0456817	0.66	4.5887514	0.7865578	1.1343369	5.6975503	0.8506916	0.5844619
2009	0.259619	0.042421	0.75	29.71771	0.784554	1.04511	5.120044	0.836602	0.141772
2010	0.269821	0.046901	0.72	19.26026	0.767155	1.001931	4.752931	0.826176	0.380916
2011	0.256243	0.049119	0.87	5.513761	0.749656	1.004281	4.216778	0.808311	0.200238

### Appendix 3. Islamic Bank's Ratios

<b>Abu Dhabi Islamic Bank</b>							
Profitability Ratio			Liquidity Ratios	Financial Leverage Ratio			
ROE	ROA	EPS	Current Ratio	Debt to Equity	Total Debt to Total Assets	Revenue Growth	
2005	0.013407	0.015525	2.42	0.654478	1.073578	0.909186	
2006	0.014496	0.01576	3.9	0.269292	0.496854	0.923682	0.76824
2007	0.003919	0.014836	0.7	0.549286	0.000673	1	-0.67191
2008	0.007736	0.016619	4	0.789747	0.732009	0.88993	1.295477
2009	0.005376	0.001218	4.32	2.60532	0.000752	0.888513	-0.13049
2010	0.002488	0.013601	3.82	6.05833	0.733107	0.892228	-0.45652
2011	0.001591	1.55E-05	4.38	5.802524	0.760301	0.884697	-0.36846

Dubai Islamic Bank							
	Profitability Ratio			Liquidity Ratios	Financial Leverage Ratio		
	ROE	ROA	EPS	Current Ratio	Debt to Equity	Total Debt to Total Assets	Revenue Growth
2005	0.708916	0.024731	0.7	0.772342	26.10605	0.910713	
2006	0.563515	0.024488	0.65	669.2023	19.8606	0.86305	0.483808
2007	0.838725	29.78691	0.83	2.188734	24.59773	873.576	0.592567
2008	0.451131	0.018339	0.43	1.899872	22.06049	0.89677	-0.38144
2009	0.335115	0.01438	0.33	8.013224	20.82194	0.893472	-0.22006
2010	0.147289	0.006222	0.15	2.550723	20.9666	0.885708	-0.53867
2011	0.27822	0.011666	0.26	3.196183	21.17818	0.887987	0.888941

Sharjah Islamic Bank							
	Profitability Ratio			Liquidity Ratios	Financial Leverage Ratio		
	ROE	ROA	EPS	Current Ratio	Debt to Equity	Total Debt to Total Assets	Revenue Growth
2005	0.186068	0.035122	0.17	3.590155	3.190014	0.602149	
2006	0.182407	0.026257	0.18	7.203713	5.029292	0.723965	0.078358
2007	0.27399	0.027692	0.27	2.527848	7.870139	0.795438	0.502078
2008	105.2632	0.014906	0.1	1.168842	5169.975	0.732108	-0.23163
2009	112.6126	0.016284	0.11	2.205624	5069.367	0.733056	0.12331
2010	0.109837	0.015984	0.11	2.83817	5.079075	0.739136	0.024118
2011	0.103534	0.014161	0.1	1.965024	5.494531	0.75153	-0.05739

Emirates Islamic Bank							
	Profitability Ratio			Liquidity Ratios	Financial Leverage Ratio		
	ROE	ROA	EPS	Current Ratio	Debt to Equity	Total Debt to Total Assets	Revenue Growth
2005	0.059026	0.010576	0.08	15.14077	4.581024	0.820821	
2006	0.12161	0.011215	0.18	26.34015	9.843828	0.907782	1.314346
2007	0.014069	0.014069	0.26	21.11319	0.921381	0.921381	1.030759
2008	0.015173	0.015173	0.43	26.08275	0.936589	0.936589	0.679361
2009	0.04704	0.005172	0.07	1922.241	8.062145	0.886402	-0.67349
2010	0.020272	0.001812	0.025	41.27605	10.18707	0.910611	-0.54631
2011	-0.18101	-0.02088	-0.165	30.11963	7.669511	0.884653	-8.55902

## Notes

Note 1. Source: Compiled from GCC Economic Monthly, NCB Capital, August 2009

Note 2. (Hunter, 2012)

Note 3. Stress testing is a useful method for determining how a portfolio will fare during a period of financial crisis. The Monte Carlo simulation is one of the most widely used methods of stress testing. A stress test is also used to evaluate the strength of institutions. For example, the Treasury Department could run stress tests on banks to determine their financial condition. Banks often run these tests on themselves. Changing factors could include interest rates, lending requirements or unemployment.

Note 4. M. Cornett, J. McNutt, P. Strahan, and H. Tehranian. (2011). Liquidity Risk Management and credit supply in the Financial Crisis. [Online]. Available: <http://ssrn.com/abstract=1601992>. vol. 101, issue 2, pp. 297–312.

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