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# Islamic Banking and Economic Growth — A cointegration Approach

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*This paper explores empirically the relationship between the development of Islamic finance system and economic growth and its direction in Qatar. Using econometric analysis, annually time-series data of economic growth and Islamic banks' financing from 1990 to 2008 were used. We use Islamic banks' financing funds given by Islamic banks as a proxy for the development of Islamic finance system and Gross Domestic Product (GDP), and Gross Fixed Capital Formation (GFCF) as proxies for real economic growth. For the analysis, the unit root test, cointegration test and Granger causality tests were done. The empirical results generally signify that in the long run, Islamic banks' financing is positive and significantly correlated with economic growth in Qatar which reinforces the idea that a well-functioning banking system promotes economic growth. Furthermore, the results show that Islamic banks' financing has contributed to the increase of investment in the long term and in a positive way in Qatar. It is one of the first pioneering studies on Islamic Banking and economic growth in Qatar, and the first to be conducted in Middle East as well, thus it has a significant contribution to the body of knowledge*

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*The findings of research will be of interest to western and Islamic finance practitioners, policy makers and academicians, who are interested in Islamic finance industry.*

*Keywords: Islamic finance, Economic growth, Causality, Qatar*

*JEL Classifications: O16, C32*

### **1. Introduction**

With global markets suffering from extreme turbulence in the wake of the credit crunch and subsequent banking crisis, it is the time to examine the merits of an alternative banking model which adopts a different attitude to risk and finance, based on the principles of Shariah<sup>3</sup>. Islamic Banking had grown substantially in the decade. The recent financial shocks and volatility will provide a good opportunity for the sector as Non-Muslim bank customers opt for the relative safety of institutions based on the principles of Islam. Islamic banking and finance is well and truly established as one of the world's fastest-growing economic sectors. Islamic banks provide a variety of products, including Murabaha, Ijara, Mudaraba, Musharaka, Al Salam and Istitsna'a, restricted and unrestricted investment accounts, syndications and other structures.

Islamic finance essentially promotes financial transactions with links to the real economy and abstains from financing activities that are detrimental to society. It supports financial inclusion by offering instruments suited to different socioeconomic groups. Apart from

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<sup>3</sup> The Path", term of Islamic law consists of Islamic instructions based on the Holy Quran and Sunnah).

Islamic banking that meets the normal retail needs of consumers (e.g. mortgage and automobile financing, savings accounts), it also serves small and medium-sized enterprises. Moreover, there are institutions that help improve the livelihoods of low-income groups by offering Shariah-compliant microfinance products based on profit-sharing.

Islamic finance is ultimately founded on the principle of partnership and cooperation, which calls for a system of equity participation and risk-sharing. Such a system should promote equal distribution of risk and cooperation between the providers of funds (investors) and the users of funds (entrepreneurs). Islamic finance is community-oriented and entrepreneur-friendly, emphasizing productivity and the physical expansion of economic production and services. Hence, it shifts the overall focus from financial collateral or the financial worth of a borrower (the current predominant practice) to the entrepreneur's trustworthiness and the project's viability and usefulness. This feature has important implications for the distribution of credit risk as well as systemic stability. Islamic finance, therefore, falls under ethical finance. Both are concerned with the impact of financial decisions on society and attract ethically-sensitive investors.

The 2008 financial crisis led to difficulties in many conventional banks across the globe. Islamic banks, in contrast, were largely insulated from the crisis their highly regulated operational environment guided by Shariah principles prohibited investment in the type of instruments which adversely affected conventional banks and which prompted the crisis. The impressive growth rate of Islamic finance and its stability during financial crisis attracts the attention of many policy makers and financial experts worldwide.

Islamic finance will grow with rapid pace in the year 2014 and its volume will pass through US \$ 2 trillion where Islamic banking keeps 78%, Sukuk 16%, Takaful 1%, Islamic Funds 4% and Islamic Microfinance has 1% share in the Islamic Finance industry. In the year 2014, Dubai and London will be in competition to be the global hub of Islamic Banking and Finance while Kuala Lumpur will also attempt to be in this contest but the Islamic finance industry can be grown more through synergizing approach and alliance with industry stakeholders rather than setting any competition.

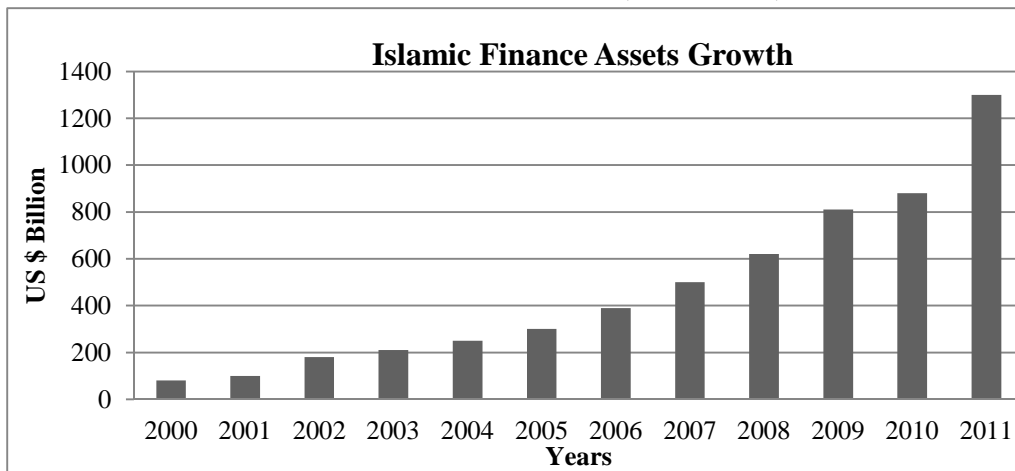
These views were expressed by Islamic Finance expert, Mr. Muhammad Zubair Mughal, CEO – Al-Huda Centre of Islamic Banking and Economics (CIBE) during an analysis on Islamic finance industry in the beginning of year 2014. He said that the Islamic finance industry growth will go on double digit in 2014 which will turn the US \$ 1.6 trillion volume of Islamic finance industry in December 2013 to US \$ 2 trillion by the end of 2014 including North African countries (Tunisia, Libya, Morocco, Senegal and Mauritania etc), rising trends of Islamic finance in Europe and UK, also the rising and substantial share of international market of Sukuk shall contribute to it. It is anticipated that India and China may step towards the Islamic finance in 2014 where more than 200 million Muslim populations are in search of a compatible financial system with their religious beliefs and thoughts. He said there is no doubt that international financial crisis will not hit the Islamic finance industry but due to the Arab Spring, Islamic finance

industry has faced recession in some countries of MENA but there are chances of their revival in 2014( Zawya report,2014)<sup>4</sup>.

Despite the financial crisis which has plagued the economies of both industrialized and developing nations, the Islamic finance industry has been flourishing, and has enjoyed a 29 percent growth in assets to reach more than U.S.\$ 600 billion in 2008 (Figure1).

**Figure 1**

**Islamic Finance Assets (2000-2011)**



**Source:** Deutsche Bank, (2011)

Despite there are many studies examining the relationship between conventional finance and economic growth, the studies that examine the relationship between Islamic finance and economic growth are not too many. The present study tries to assess empirically the

<sup>4</sup> The report can be reached through the website  
[http://www.zawya.com/story/2014\\_will\\_be\\_promising\\_for\\_Islamic\\_Finance\\_Industry-ZAWYA20131231113149/](http://www.zawya.com/story/2014_will_be_promising_for_Islamic_Finance_Industry-ZAWYA20131231113149/).

relationship between the development of Islamic finance system and economic growth in case of Qatar.

The paper is organized as follows. Section one gives a general introduction about the current stage of Islamic finance. Section two presents the growth of Islamic finance in Qatar. Section three explains the research problem, Importance and questions. Section four illustrates the methodology of the research. Section five includes the literature review on the relationship between Finance and economic growth, and in particularly Islamic finance and economic growth. Section six explores the results and the analysis of the paper. Finally, section seven gives the conclusions of the paper.

## **2. Islamic Banking in Qatar**

Qatar has the highest GDP per capita in the world as of 2012, according to World Fact book (CIA report, 2012) .The economic growth of Qatar has been almost exclusively based on its petroleum and natural gas industries, which began in 19405. The banking sector in Qatar benefited from rapid economic growth. As a result, Islamic banks posted strong results over the past few years. During the period expanding from 1990 till 2008, combined assets of full-fledged Islamic banks of Qatar including Qatar Islamic Banks, Qatar International Islamic Bank, Qatar Islamic Bank, Masraf Al Rayan and First Finance Company, generated a impressive increase from less than U.S. \$ 1,000 million in 1990 to more than U.S \$ 30,000 million in 2008 with a cumulative increase up to 0.98 percent as shown in figure 2.

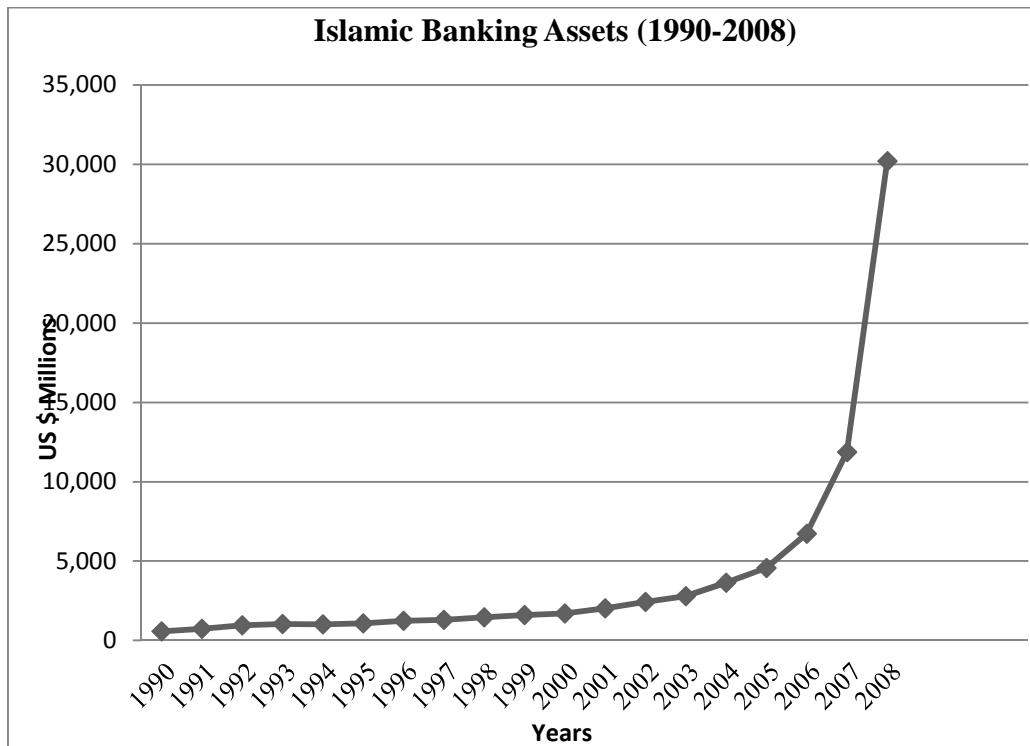
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5 This information can be reached through the website [www.onlineqatar.com/info/tourist-info.aspx](http://www.onlineqatar.com/info/tourist-info.aspx)

The Banking industry in Qatar consists of 11 local banks registered with the central bank and 1 foreign bank with branches in Qatar. Under the list of local banks, there are 4 Islamic banks fully operating under Shariah principles, 3 conventional banks with Islamic windows and 1 conventional bank with no Islamic banking operations. Despite the fact that the Qatari banking sector is one of the smallest in the GCC in terms of total assets, loans and deposits, it achieved significant growth over the past years. On the whole, Qatari banks are enjoying stellar financial performance, adequate capitalization, as well as good asset quality. Besides that, banks enjoy government support, which is continuously working on regulating and improving the efficiency of the financial services sector (Blominvest report, 2009).

Over the last years, financial performance has been supported by fast increasing volumes, despite pressure on net margins, due to mounting price competition. Some leading players have started to diversify geographically to gain scale. At the end of 2001, only three Qatari banks operated in full compliance with Shariah principles, namely Qatar Islamic Bank, Qatar International Islamic Bank and Masraf Al Rayan. However, since the change in QCB regulation on Islamic windows in 2001, some conventional Qatari banks created Islamic subsidiaries or branches.

**Figure 2**  
**Islamic Banks' Assets in Qatar (1990-2008)**



**Source:** Developed by the researchers.

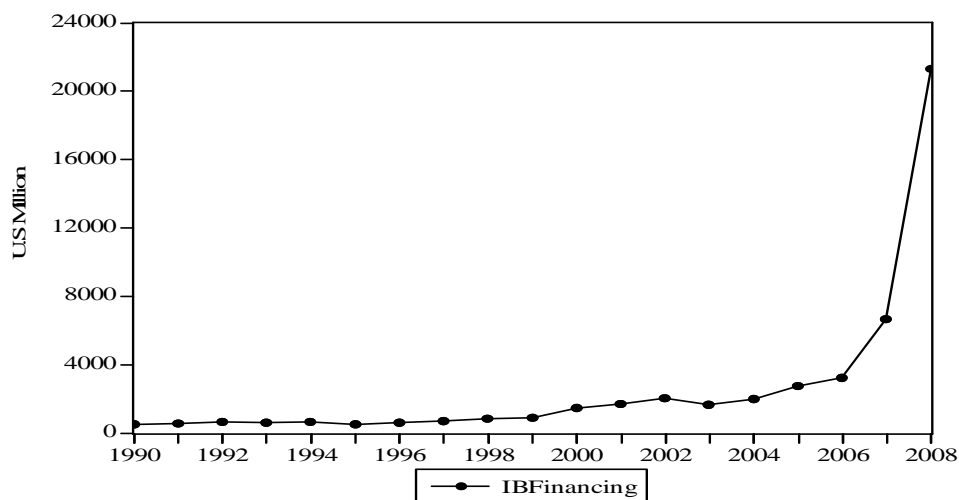
This is notably the case for the three leading banks: Qatar National Bank (QNB), Commercial Bank of Qatar (CBQ), and Doha Bank (DB). Shariah-compliant assets, offered by both fully Islamic banks and Shariah-compliant windows (or branches) of conventional banks, experienced strong growth of more than 91% in 2006. This trend is likely to continue as banks see Islamic banking as an opportunity to attract new clientele. Islamic banking assets in Qatar witnessed a strong growth over the last couple of years, mainly driven by robust economic



growth, increased demand for Shariah-based products and government willingness to promote the Islamic banking industry.

Many underway projects, including petrochemical, housing and construction projects are demanding Shariah-based products and this is likely to act as a future driver for Islamic banking. Qatar Islamic Bank (QIB) is the largest Islamic Bank in the country, accounting for 8.1% of the total lending market share. The bank has international presence in collaboration with the Arab Finance House in Lebanon, the Asian Finance Bank in Malaysia and Durat Al Doha in the Cayman Islands. The bank is seeking opportunities in Egypt, Turkey and Kazakhstan for potential expansion of its Shariah-compliant banking operations. The product portfolio in the industry includes Murabaha, Ijara, Istisna, and Mudaraba. During the period expanding from 1990 till 2008, Islamic banks' financing of all full- fledged Islamic banks of Qatar generated an impressive increase from less than U.S. \$ 110 million in 1990, to more than, U.S \$ 21,313 million in 2008 with a cumulative increase up to 110 91.60 % as shown in figure 3.

**Figure 3**  
**Islamic Banks financing Growth in Qatar from (1990- 2008)**



**Source:** developed by the researchers

Shariah-compliant assets, offered by both fully Islamic banks and Shariah-compliant windows (or branches) of conventional banks, experienced a strong growth of more than 91% in 2006 (Blominvest report, 2009). This trend is likely to continue as banks see Islamic banking as an opportunity to attract new clients.

The Islamic Banking industry in Qatar has a great potential for growth backed by a booming economy, new line of projects and people's increasing acceptance of Shariah-based products. Compared to Saudi Arabia and Kuwait, Islamic banking in Qatar still claims a small share in the total banking assets. With the increased awareness, the Islamic banking industry in Qatar is expected to grow well in the near future.

### 3. Research Problem, Questions, and Importance

It is clear that Islamic financial development sector plays an important role in the overall development of an economy. Although, there are many empirical studies that examined the relationship between finance and economic growth, but specific empirical studies on the relationship between Islamic finance and economic growth, are not too many. To help in filling this gap in literature, this study tries to examine empirically the relationship between Islamic finance and economic growth, and its direction in Qatar. Further, the study gives an answer to the following research questions.

- I. *Does Islamic financial development have a significant relationship with economic growth in the long-term in Qatar?*
- II. *Does Islamic financial development lead to economic growth in Qatar?*
- III. *Does economic Growth lead to Islamic financial development in Qatar?*

The importance of this study emanates from the fact that it addresses an important sector in the World economy and particularly in Middle East economies, namely the Islamic finance industry. It touches everyone in the society, and has a great effect on any economy positively or negatively. Muslims represent about a quarter of the world's population, and there is greater awareness of and demand for Islamic-based financial products by Muslim and Non-Muslim consumers.

#### 4. Research Methodology

The qualitative and quantitative methods have been used. The data set is extracted from World Trade organization, Global Development Finance and Islamic Banks and Financial Institutions Information (IBIS) database for all Islamic banks' financing in Qatar<sup>6</sup>. To serve our purpose, appropriate variables were established and the long term relationships between those variables are determined by using econometric estimation methods. We use annually time series data from 1990 to 2008 for the variables.

To serve our purpose, appropriate variables were established and the long term relationships between those variables are determined by using econometric estimation methods. We use annually time series data for the variables- Islamic banks' financing through modes of financing as a proxy for financial sector and two variables representing real economic sectors namely Real Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF) as proxies for economic growth.

GDP is a common statistic to represent the income level of a particular country within a certain time range. Study about finance-growth nexus always uses GDP as the principal variable reflecting economic growth. We use gross fixed capital formation (GFCF) as a representation of investment, as it is economic indicators of the level of business activity

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6 The Islamic Banks and Financial Institutions Information (IBIS) database is built to help researchers and finance professionals working in the area of Islamic economics and finance. It seeks to provide comprehensive data and information on the activities of Islamic finance institutions, up-to-date research and literature. It can be reached through the website <http://www.ibisonline.net/IBISHomepage.aspx>

that measure net new investment by enterprise in the domestic economy in fixed capital assets during an accounting period.

The first step of the study is to determine the relationship between financial deepening and economic growth, and whether the series are stationary or not. In a model, for a correct evaluation, time series should be separated from all effects, and the series should be stationary. Thus, logarithms of time series were taken. Augmented Dickey Fuller (1981) and Phillips Perron (1988) tests are used. After that, Johansen co-integration test was used to examine the long-term relationship between financial deepening and economic growth. And then, the Granger causality test is used to test the causality between Islamic bank financing and economic growth. We use Eviews7 software to test and analyze the results.

### **5. Literature Review:**

The nexus between, and the importance of financial development towards economic growth have received much attention in the literature of development economics. From the many research works carried out in this field, there are at least three types of causal relationships between financial development and economic growth that have been found:

- (1) supply-leading
- (2) demand-following

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<sup>7</sup> Eviews is a statistical and econometric software package, which provides data analysis, regression, and forecasting tools. It is produced by Quantitative Micro Software (QMS) in Irvine, California, USA.

(3) bi-directional causal relationships.

Supply-leading relationship is the creation of financial institutions and instruments in advance of demand for them in an effort to stimulate economic growth. Demand-following relationship, on the other hand, appears as a consequence of the development of the real sector. This implies a continuous widening of markets and a growing product differentiation which makes necessary more efficient risk diversifications as well as better control of transaction cost (Hermes and Lensink, 1996).

Out of the extensive research carried out in this field, there are no sufficient works conducted within the Islamic financial framework. The main objective of this chapter, therefore, is to narrow the gap in literature by examining the long-run relationship between Islamic financial development and economic growth, particularly in the context of Qatar, using econometric analysis.

Huang et Lin (2009) re-examined the dynamic relationship between financial development and economic growth on the dataset used in Levine et al. (2000). Using a novel threshold regression with the instrumental variables approach, they support a positive linkage between financial development and economic growth, and found that financial development has an important effect on growth in low-income countries.

Gries, Kraft, and Meierrieks (2009) have tested for the causality between financial deepening, trade openness, and economic development. This study focuses on 16 Sub-Saharan African countries, using 20 annual time series observations. For the purpose of

establishing the causal relationships, the Granger Angel method, the Vector Auto-Regression (VAR), and the Vector Error Correction Model (VECM) were used. This study shows support for the hypothesis of finance-led growth. It, however, suggests that the adoption of a more balanced policy approach may reduce financial system deficiencies among the Sub-Saharan Countries.

Kar, Nazlioglu, and Agir (2011) focused on developing countries and also introduced new indicators of financial development with a view to establishing the causal relationship between financial development and economic growth. Using countries, which constitute the Middle East and North Africa (MENA) for the period 1980 to 2007, the study uses a simple linear model. This model defines economic growth as a function of financial development. Six new indicators of financial development was introduced and these include; the ratio of narrow money to income, ratio of broad money to income, ratio of quasi money to income, ratio of deposit money bank liabilities to income, ratio of domestic credit to income, and ratio of private sector credit to income. On the other hand, the real income was employed as a proxy for economic growth. The Granger Causality test was employed to establish the causal relationship between financial development and economic growth. The study concludes that the direction of causality is bi-directional, but it is country or financial development indicator specific. This study, however, suggests that a strong link may exist between financial development and the real sector.

Bangake and Eggoh (2011) also supported the view of an existing two-way directional causality between financial development and economic growth among developing countries. This study focuses on seventy-

one countries, which included eighteen developing countries, for the period 1960 to 2004. The study carried out its empirical analysis using both the Panel Cointegration tests and the Panel cointegration estimation (i.e. Dynamic OLS and panel VECM approach). It establishes that both financial development and economic growth have influence on one another, but suggests that a long-run policy approach may prove beneficial among the developing countries.

Hassan, Sanchez and Yu (2011) focused more on the low- and middle-income countries from 1980 to 2007. This study comprises 168 countries, which are classified by geographic regions, and uses the panel estimation techniques (i.e. the VAR models). The study came up with two important findings. These include; a strong long-run linkage between financial development and economic growth, and two-directional causality exist between financial development and economic growth among the Sub-Saharan African countries, the East Asian countries, and the Pacific countries. This study emphasized the need for the adoption of long-run policy measures among the developing countries.

Ibrahim, A. (2012) has examined the impact of financial intermediation on economic growth in Nigeria. Time series data from 1970 to 2010 were used and were gathered from the CBN publications. For the analysis, the unit root test and cointegration test were done accordingly and the error correction model was estimated using the Engle-Granger technique. The growth rate of the real gross domestic product is used as a proxy for this variable. For financial intermediation, two indicators commonly used in the literature are used as proxy. These are the ratio of broad money supply (M2) to nominal gross domestic product (NGDP) and the ratio of domestic credit to



the private sector (CPS) to the nominal gross domestic product (NDGP). While the former measures the capability of the banks to mobilize funds for investment purposes, the latter measures the financial opportunities available to firms, most especially new firms. The paper established that financial intermediation has a significant impact on economic growth in Nigeria.

With regard to the relationship between Islamic financial development and economic growth, Abduh and Omar (2012), Furqani and Mulyany (2009) and Majid and Kassim (2008) are among the limited studies in this area. Abduh and Omar (2012) identifies that the relationship is bi-directional. Therefore, the government policies in supporting the development of Islamic finance in Indonesia are strongly needed in order to support the economic development.

However, using different time span of quarterly data, findings from Furqani and Mulyany (2009) and Majid and Kassim (2008) are different in terms of the direction of the relationship. Furqani and Mulyany (2009), on the one hand, states that the relationship between Islamic financial development and economic growth is following the view of “demand-following” which means that growth in real sector economy stimulates Islamic banking institutions to change and develop.

On the contrary, finding from Majid and Kassim (2008) is in favour of the supply-leading view. In this study, we examine the relationship between Islamic banking and economic growth in case of Qatar. This study has some advantages compared to other Islamic finance studies, for example, the data for all full-fledged-Islamic banks are used. More variables for economic growth are utilized and more data is collected, since time series data from 1990 to 2008 is used.

## 6. Results and Discussions

### 6.1 Descriptive Statistics

Table (1) presents summary statistics about the variables used in the econometric analysis for Qatar. Figure 4 and 5 show the relationship between Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF).

**Table 1**

**Summary Statistics (U.S \$ Million)**

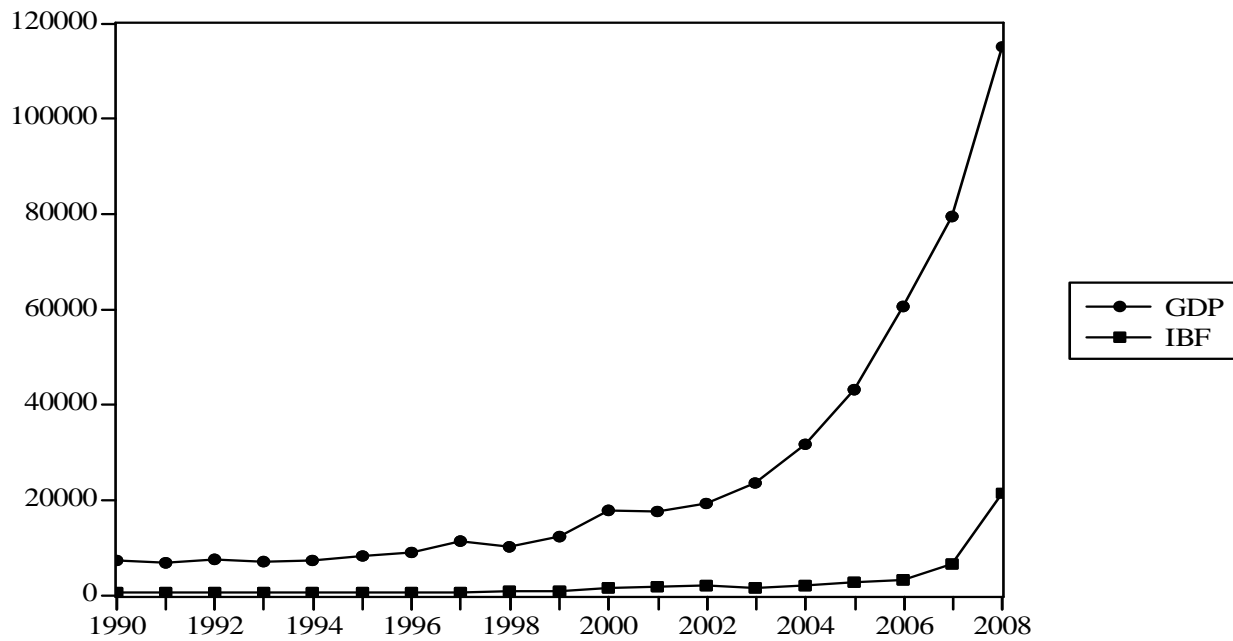
Statistics	GDP	GFCF	IBF
Mean	26,081.03	10,169.18	2189.131
Median	12393.13	4098.080	861.0000
Maximum	111019.8	43369.10	21313.00
Minimum	6883.120	1806.320	0,110.0000
Std. Dev.	29341.49	11961.62	4161.294
Observations	19	15	19

**Source:** Developed by the researchers

Figure 4

**GDP and IBF Growth (1990-2008)**

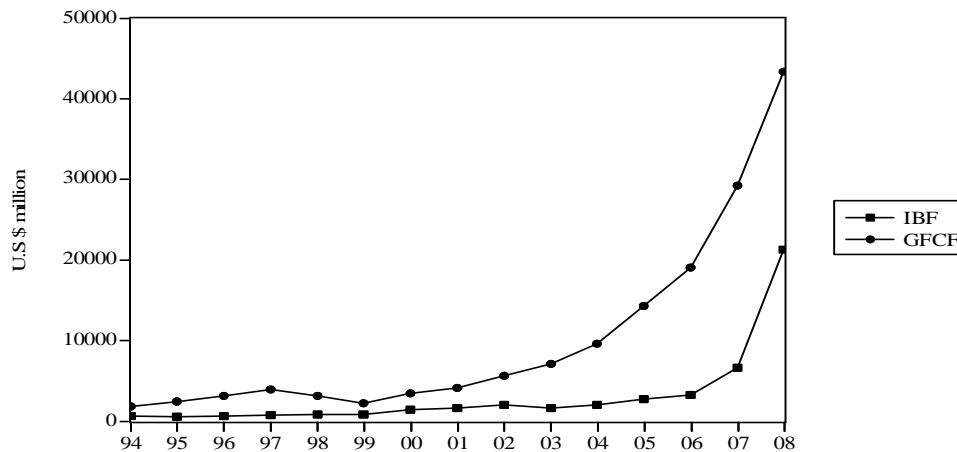
Source: Developed by the researchers



Source: Developed by the researchers

Figure 5

## GFCF and IBF Growth (1994-2008)



From table 1 and figures 4 and 5, we observe that the maximum value for IBFinancing in 2008 reached to (21,313.00) from (0,110.000) in 1990 with standard deviation of (4,161.294). This gives us an indication of high growth of the Islamic finance industry in the recent years. The statistics show that the median for GDP, GFCF, and IBFinancing is less than the mean, which indicates that the values are positively skewed.

## 6.2 Unit Root Test

Results of ADF and PP Tests applied to time series show that all series belong to economic growth and financial deepening indicators are not stationary at level. To make that series stationary, first differences of series have been taken. Failure to reject the null hypothesis of unit

roots implies that the linear combination of the variables is non-stationary; hence we cannot pursue for the cointegration tests.

Table 2

## Unit Root Test

		ADF Test		Phillip-Person Test	
		Level 1	First difference	Level 1	First difference
Country	Variable	t- statistic	t- statistic	t- statistic	t- statistic
		P value	P value	P value	P value
Qatar	GDP	-2.008418 0.1618	-4.889116** 0.0011	-2.016949 0.0011	-1.039912*** 0.0038
	GFCF	-0.494621 0.9690	-4.116133 0.0369	-0.638820 0.911	-4.624110** 0.0149
	IBFinancing	-2.3914 0.3688	-4.1212** 0.01	-2.4421 0.31	-11.8241 0.0001***

\*, \*\*, \*\*\* Significant at 1%, 1%, 10% level of significance

Source: Developed by the researchers

The results of the Table (2) indicate that the data at the first difference is stationary at  $\alpha$  1%, 5%, and 10% level of significance respectively. For GDP variable, if  $p$  value is less than  $\alpha$ , then  $H_0$  is rejected, and the series is stationary. The first row in Table 1 shows that the  $p$  value (0.0011) is less than  $\alpha$  (0.01) in ADF test. Similarly, for GFCF, the result from the second row shows that the  $p$  value (0.0369) is less than  $\alpha$  (0.01) and also, for IBFinancing, the  $p$  value (0.01) is less than  $\alpha$  (0.01) in ADF test. This suggests that the null hypothesis is rejected for all variables. Hence, the failure to reject the alternative hypothesis indicates that the series are stationary.

### 6.3 Johansen Co-integration Test

Table 3 shows the results of Johansson test for the long relationship between Islamic banks' financing and economic growth. The trace test rejects the null hypothesis if the trace statistics exceeds the critical value. The first row of Table 3 shows that the trace statistics (23.61001) exceeds the critical value of (15.41) at 91 percent confidence level for GDP and the trace statistics (19.11819) exceeds the critical value of (15.41) at 95 percent confidence level for GFCF. It suggests that the null hypothesis of no cointegrating relationships is rejected. The results confirm that there is a cointegrating relationship among the variables.

Table 3

## Johansen's test (trace statistic)

		Trace statistics	Critical values	
			5%	1%
Gross Domestic Product(GDP)				
Null hypothesis	Ho: $r = 0$	23.61001**	15.41	20.04
Alternative hypothesis	H1: $r \geq 1$	4.991680**	3.16	6.61
Gross Fixed Capital Formation (GFCF)				
Null hypothesis	Ho: $r = 0$	19.11819*	15.41	20.04
Alternative hypothesis	H1: $r \geq 1$	1.181891	3.16	6.61
** Significant at 1 % level				

**Source:** Developed by the researchers

The eigenvalue test tests the null hypothesis of  $r$  versus  $r+1$  cointegrating relationships. This test rejects the null hypothesis if the eigenvalue test statistics exceeds the respective critical value. Table 4 presents the results from this test. Similarly, the result from the first row of Table 4 shows that the eigenvalue test statistics (18.61839) exceeds the critical value (14.01) at 95 percent confidence level for GDP and the eigenvalue test statistics (18.31089) exceeds the critical value of (14.01) at 95 percent confidence level for GFCF. This suggests that the null hypothesis is rejected. Hence, the failure to reject

the alternative hypothesis indicates that there is one cointegrating relationship among the variables.

**Table 4**

**Johansen's test (Max-Eigenvalue statistic)**

		Max-Eigenvalue	Critical values	
			5%	1%
Gross Domestic Product(GDP)				
Null hypothesis	Ho: $r = 0$	18.61839**	14.01	18.63
Alternative hypothesis	H1: $r = 1$	4.991680**	3.16	6.61
Gross Fixed Capital Formation (GFCF)				
Null hypothesis	Ho: $r = 0$	18.31089	14.01	18.63
Alternative hypothesis	H1: $r \geq 1$	1.181891	3.16	6.61
** Significant at 1 % level				

**Source:** Developed by the researchers

The results from table 3 and 4, if read together, show that the null hypotheses of non-cointegration are rejected at 1 percent level of significance. This suggests that in the long run Islamic banks' financing contributes in the growth of GDP and investment of Qatar. It is clear from the table that there is a long term relationship between Islamic



Banks financing and economic growth in Qatar.

#### **6.4 Granger Causality Test**

Statistics and probability values constructed under the null hypothesis of noncausality are reported in table 5. It can be observed that there is a causal relationship between Islamic banks financing and GDP. However, our results show that two-way causality exists from Islamic banks' financing to economic growth and from GDP towards Islamic Banks' financing; since the probability values 0.01931 and 0.03306 are less than 0.01. So, the null hypothesis is rejected, and it can be concluded that the higher flow of Islamic finance has led to the growth of the economy. At the same time, the development of the real sector economy stimulates Islamic banking institutions to change and develop.

Furthermore, the results show there is a unidirectional causality between Islamic banks' financing and investment since it is significant at 1 percent level, as (0.04094) less than (0.01). Thus, Islamic banks' financing granger causes the development of real economic growth in Qatar.

Table 5

## Pair wise Granger Causality Tests

Null Hypothesis	F statistics	Probability
IBF does not Granger Cause GDP	1.11321	0.01931**
GDP does not Granger Cause IBF	4.13842	0.03306**
IBF does not Granger Cause GFCF	1.31921	0.04094*
GFCF does not Granger Cause IBF	1.22686	0.29161
**,*** Significant at 5, 10 % level of significance		

**Source:** Developed by the researchers

## 7. Conclusion

This paper makes an attempt to examine the relationship between the development of Islamic finance and economic growth in the long-term in Qatar using econometric analysis. We analyzed empirically the relationship between Islamic banks' financing and economic growth. Data for all variables are stationary after first difference. Therefore, the Johansen's co-integration technique has been applied. The co-integration results provide evidence of a unique cointegrating vector. In other words, there is a long-term stable relationship between Islamic banks' financing and economic growth in case of Qatar. That means Islamic banks' financing and economic growth move together in the long-run.

We also find that the causality relation exist in a bi-directional relationship from Islamic banks' financing to economic growth and vice versa .Our results also indicate that improvement of the Islamic financial institutions in the Qatar will benefit from economic development, and it is important in the long run for the economic welfare, and also for poverty reduction. Furthermore, the results from causality tests shows that there is a causality relation exist from the Islamic banks' financing to investment of Qatar. The results presents that Islamic finance is a suitable environment for increasing the investments into the country.The results of study are quite significant as it is one of the pioneering studies of Islamic finance.

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