



## Islamic Finance Versus Conventional Finance, From Macroeconomic Perspective: A Review

Ayman Abdal- Majeed Al-Smadi  
Mahmoud Khalid Almsafir

Graduate Business School, College of Graduate Studies,  
Universiti Tenaga Nasional, UNITEN,  
Jalan IKRAM-UNITEN, 43000 Kajang, Selangor, Malaysia  
smadi370@yahoo.com, mahmoud@uniten.edu.my

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### ABSTRACT

The 21<sup>st</sup> century world witnessed global financial crisis (GFC), which was inaugurated in late last quarter of 2007. Its impacts still can be seen everywhere until now and has left severe impacts on the macroeconomic variables such as, the Level of Production, Gross Domestic Product (GDP), Level of Employment, Per Capita Incomes, Inflation Rate, Net of Trading, Exchange Rate, Public Debt, and another macroeconomic variables. This paper attempts to investigate the relationship between Islamic Finance (IF) and Macroeconomic variables on one hand, and the relationship between Conventional Finance (CF) and the Macroeconomic variables on another hand. The Macroeconomic variables that selected in this study are: Interest Rate, External Debt (ED), Public Debt (PD), GDP, Net of Trading (NT), Inflation Rate (INR), Unemployment Rate (UEMP), Exchange Rate (XR), and Industrial Sector Production (ISP). The data for this study was collected from various international databases such as: International Monetary Fund (IMF) and The World Bank. The time series of 1990-2010 was chosen as the study duration.

**Keywords:** Islamic Finance, Conventional Finance, IR, XR, ED, PD, NT, INR, UEMP, ISP, GDP, GFC.

### 1. Introduction

In the first decade of the 21<sup>st</sup> century, the world witnessed a global financial crisis, which was inaugurated in late last quarter of 2007, its impacts still can be seen everywhere until now. This crisis has left severe impacts on the level of Production, GDP, Level of Employment, Per Capita Incomes, Inflation, Net of Trading, Exchange Rate, Public Debt, and the Financial Markets. Those impacts urged many researchers to find out the main causes of that crisis, this crisis invaded most of world countries.

The financial crisis started in the summer of 2007, triggered initially by the explosion of the USA's housing bubble, and extended European countries, Asian countries, the Gulf countries, and developing countries as well. That means the crisis affected most of the world countries, The Arab world was not immune from the burdens of global crisis and its consequences due to its interdependent globalized economic relations provided by the various channels and methods. However, the depth of consequences varied from one country to another country depending on different factors.

Many studies revealed that the interest rate has played an important role in the last global financial crisis. Moreover, a lower interest rate, which was approximately 1% in 2003, encouraged an excessive lending of real estate loans. The government provided loans to housing companies (mortgage companies) with low interest rate and extended to lend people who have low income. According to Nonomiya and Lanman (2008) many believe that decreased interest rates for a long time with lack of regulation and supervision encouraged rapid growth of credit and, as a result, pushed house prices up. Fred and Jane (2008), argues that, reduction interest rate is a prime cause of the financial mortgage crisis of 2008, whereas the manipulation of interest rates had a deleterious effect on lenders and borrowers. Pasinetti (1997) argued that alternative monetary systems, where interest rates are held on average at low or high levels, have different effects on the sustainability of the public debt.

Numerous studies have examined the relationship between interest rate and macroeconomic variables. Moreover, the first and important theory about the relationship between interest rates and inflation was developed by Fisher (1930). This theory is known as Fisher effect, "The relationship is so strong that, if inflation rises, the interest rate will raise in an equal amount." For example, if inflation rate increases one percent, the interest rate will rise one percent too. Fuei (2009) stated that, the Fisher effect has, since its proposition, been widely accepted in theory. In essence, it postulates that the real interest rate on a financial asset is constant over time. As such, changes in nominal interest rate fully reflect changes in expected inflation.

Kudlacek (2006) says that a higher of GDP growth than expected is considered to be inflationary, causing the central bank to raise the interest rate in order to slow down the growth. The other way round, the interest rate might be lowered to stimulate the economy when the GDP growth is negative that higher interest rates result in higher GDP. A rise in GDP or income increases the money demand.

Hacker, Kim and Mansson (2010), argued that, there is a negative relationship between the exchange rate and nominal interest rate differential at the shorter-time. Berument and Gunay (2001) found that the exchange rate affect on interest rate positively. According to Dogrul and Soytas (2010), they observed that there are two significant results. Oil price and interest rate Granger cause unemployment in the long run. According to Chun, (2008), investigated the interest rate mean and volatility spillover to the industrial production index and two China stock markets, the results are indicated that China monetary policy have a positive impact to the China economic growth and stock markets. The increasing of interest rate will decrease the investment and then affect the industrial production sector.

Hayakawa and Kimura (2009), empirically investigated the relationship between exchange rate volatility and international trade, focusing on East Asia. The findings are summarized as follows: first, intra-East Asian trade is discouraged by exchange rate volatility more seriously than trade in other regions. Second, one important source of the discouragement is that intermediate goods trade in international production networks, which is quite sensitive to exchange rate volatility compared with other types of trade, occupies a significant fraction of East Asian trade. Third, the negative effect of the volatility is greater than that of tariffs and smaller than that of distance related costs in East Asia.

Because the traditional financing led to find financial bubbles in the many of capitalist economies, this has led to the attempt to find solutions to get out of these financial bubbles. Therefore, some researchers indicated that, Islamic economics has a vision and a different attitude in terms of cause's of economic shocks, so that, we have been motivated to study the contribution of Islamic banking in the financial shocks, especially after prevalence the Islamic banks locally and globally. Some researchers indicate that, the Islamic banks have been affected less than the conventional banks in the last global financial crisis in the terms of performance for both types and in terms of stocks prices. Moreover, Sukmana and Kholid (2010) by applied ARCH and GARCH models for the period January 2001 to December 2009, found that, investing in Islamic stock index is less risky than that of the conventional.

According to Hasan and Dridi (2010), stated that, the Islamic banks have been affected differently than conventional banks. Moreover, credit and asset growth in Islamic banks performed better than in conventional banks in 2008–2009. External rating agencies found that the Islamic banks risk was generally more favorable.

## **2. Research Objective**

This paper aims to investigate the performance of Islamic finance compare with Conventional finance and their effect on the Macroeconomic variables.

## **3. Significant of Study**

After the financial bubbles in the late of 2007, the economists noted the weak of the capitalist system, so that they hinted to the Islamic finance as alternative of the failed current finance system. Moreover, the Islamic finance is representing desire of the One fifth of the Islamic world, but this system did not get enough chance to prove his stability, resulted of that, this study will try to rise and highlights the importance of Islamic finance by reviewing the previous studies.

## **4. Literatures Review**

### **4.1 Islamic Finance**

The industry of Islamic finance witnesses a clear development all over the world whether in terms of transactions' size or the mechanisms of work, especially in the last quarter of twenty century. the organizations that offering Islamic financial services constitute a significant and growing share of the financial system in a number of countries, Since the Islamic banking began three decades ago, the number of Islamic financial organization worldwide has risen from one organization in one country in 1975 to more than 300 organization in more than 75 countries (El Qorchi, 2005). Sudan and Iran, the banking system there is generally based on Islamic finance principles. Islamic banks are concentrated in the Middle East and Southeast Asia, and it play a significant role in the United States and Europe .Total transaction size of Islamic banks worldwide are around \$250 billion (Choong and Liu, 2006; Ainley and others, 2007).

The period between 1975 and 1990 was the most important period in the history of development of Islamic financial industry. During this period, it matured into a viable alternative model of financial intermediation. It won respect and credibility in terms of both theoretical developments and practical experiences. On the one hand, several financial products compatible with the Sharijah were developed and, on the other hand, Islamic banks showed good results while using these products. The period was not only marked by the establishment of a large number of Islamic financial institutions in the private corporate sector under different socio-economic conditions, but also witnessed the expression of intent from three countries – Pakistan, Iran and Sudan – gradually to eliminate interest from their entire economies and substitute it with a complete banking system based on Islamic principles. Several practical steps were also taken in these countries towards achieving that objective. Even more important was the fact that several important multinational banks started offering Islamic financial products. That was a clear recognition of the viability of the new model and its acceptance by international players. The International Monetary Fund (IMF) and the World Bank also recognized Islamic financial products as a genuine means of financial intermediation and produced papers to that effect. In the 1990s, while the growth of the banking industry continued (though at a slower rate), attention was also given to non-bank financial institutions. Islamic financial institutions other than banks started coming on the scene in increasing numbers. These included insurance companies and investment funds. While the Islamic insurance sector has not registered sufficient growth, Islamic investment funds have witnessed significant progress.

The Islamic economic and financial system is based on a set of values, ideals and morals, such as honesty, credibility, transparency, clear evidence, facilitation, co-operation, complementarily and solidarity. These morals and ideals are fundamental because they ensure stability, security and safety for all those involved in financial transactions. Furthermore, the Islamic Shariah prohibits economic and financial transactions that involve interest (riba), lying, gambling, cheating, gharar (risk or uncertainty), monopoly, exploitation, greed, unfairness and taking people's money unjustly.

According to Smolo and Mirakhor (2010), the Islamic finance system was somewhat more resilient to the global financial crisis. It is even argued that if the principles of Islamic finance had been followed, the financial crisis would have been prevented.

Ali (2010) found that, the combined market capitalization of top 10 conventional banks suffered a decline of 42.8% vs. 8.5% decline in market capitalization by Islamic banks for the period between December 2006 and May 2010, the Aggregate net profits of conventional banks fell from USD116 billion in 2006 to a net loss of USD42 billion in 2008. In contrast, Islamic banks' net profit increased 9% during the same period from USD4.2 billion to USD4.6 billion.

Hesse and Cihak (2007) empirically dealt with the issue of banks' stability, by analyzing the role of cooperative banks in financial stability using the z-score method. Two related issues were examined:

First, cooperative banks' soundness and resilience to stress. Where, the researchers tested the hypothesis that cooperative banks are relatively weaker in responding to stress because of the features of their business model. Second, cooperative banks' impact on other banks where the researchers tested the hypothesis, that the presence of cooperative banks reduces the stability of other banks. Data on 16,577 banks from 1994 to 2004, comprising 11,090 commercial banks, 3,072 cooperative banks, and 2,415 savings banks was used, from 29 major advanced economies and emerging markets that are members of the Organization for Economic Cooperation and Development. The main findings of this study were first, cooperative banks were more stable than commercial banks. Second, in systems with a high presence of cooperative banks, weak commercial banks were less stable than they would be otherwise.

Cihak and Hesse (2008) argued that this work was the first one that provided a cross-country empirical analysis of the role of Islamic banks in financial stability. The researchers analyzed the financial stability of 77 Islamic banks, and 397 commercial banks, the sample covered banks in the following jurisdictions (Bahrain, Bangladesh, Brunei, Egypt, Gambia, Indonesia, Iran, Jordan, Kuwait, Lebanon, Malaysia, Mauritania, Pakistan, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen). The main part of the researchers' approach was to test, using regressions of z-scores as a function of a number of variables, whether Islamic banks are less or more stable than commercial banks. Finally, the researchers found that (1) small Islamic banks (with assets under US\$ 1 billion) were financially more solid than conventional banks of the same size; (2) large Islamic banks were less solid than conventional banks of the same size; and (3) small Islamic banks are financially more solid than large Islamic banks.

Boumediene and Caby (2009), the researchers in this paper examined the stability of Islamic banks during the subprime crisis, and empirically observed the specific nature of their risks at the time of the 2007 banking crisis. The study used a sample of fourteen Islamic banks and fourteen conventional banks; furthermore, the E-GARCH and GJR-GARCH asymmetric models were used to estimate volatility of stock returns. The results implied that Islamic banks were at least partially immune to the subprime crisis, and that these banks were not subjected to the same risks as conventional banks. But the researchers indicated that this result did not mean that Islamic

banks are exempt from risk, and prudential management methods suited to conventional banks may not be applied to them indiscriminately. Finally, the researchers recommended that the risks specific to Islamic banks should therefore be characterized and risk management tools be developed accordingly.

## **4.2 Interest Rate**

### **4.2.1 Introduction**

The last quarter of the twentieth century has witnessed many Global changes, where the global economy became a small village due to technology and information revolution. Resulted of that; globalization concept was appeared. This concept is still controversial in terms of its effects and dimensions.

According to Intriligator (2003), Globalization is mean major increases in worldwide trade and exchanges in an increasingly open, integrated, and borderless international economy, Globalization has involved greater openness in the international economy, an integration of markets on a worldwide basis, and a movement toward a borderless world, all of which have led to increases in global flows.

Almsafir (2002), considers globalization as a capitalistic phenomenon, and according to him it is one of the capitalistic faces where you can obviously see the hegemony's' characteristics of limited number of western countries against huge deterioration in the conditions of mutual transactions with the third world countries. He summarizes it in restructuring the capitalistic world for the sake of the developed countries.

According to Abdullah and Kssar (2011), Concept of globalization was appeared since a long time, the Holy Qur'an has discussed about globalization in many areas. The Holy Quran was discussed the globalization before the modern globalization discussed it. Globalization is hegemonies political, economic, cultural and social on the world, especially the East world, the third world and the Islamic world.

According to Al-allak, Alnaser and Saeed (2011) argued that, Origins of Globalization draw vastly on ancient sources and modern economic theory to detail the concept of "known world" globalization, arguing that a mixed economy existed in a variety of forms throughout the ancient world. By analyzing the business practices of the ancient world the authors provide readers with a unique historical interpretation of the contemporary globalised economy and a strong theoretical framework for future historical economic analyses.

We can conclude from previous that, globalization led to increase of money flows, goods and services among the countries, led to the over lapping the world economies and make it seem as a small village. Resulted of that, any event that occurs in any part it affects on the other parts, the current mortgage crisis is an example of globalization, when the values of stocks declined in wall street, the value of shares also declined in Frankfurt, Paris, Madrid, Tokyo, Jakarta, Hanoi, Rabat, Riyadh, Dubai, Beirut, Amman, and Cairo, and this crisis has moved from USA to all over world.

In the twentieth century occurred a number of financial crises, most notably the electricity crisis (1900-1903), Copper crisis (1907), 1929 crises (Great Depression), (oil price crisis) of 1973, (the Wall Street crisis) of 1987, the (Asian financial crisis) of 1997 which affected many Asian countries and the most recently current crisis in the world since 2008.

According to Romer (1990), Great Depression began in 1929 and lasted until about 1939. It was the longest and most severe depression ever experienced by the industrialized Western world. Although the Depression originated in the United States, it resulted in drastic declines in output, severe unemployment, and acute deflation in almost every country of the globe. But its social and cultural effects were no less staggering, especially in the United States, where the Great Depression ranks second only to the Civil War as the gravest crisis in American history.

The Asian financial crisis that began in July 1997 affected countries of Southeast Asia such as Indonesia, Malaysia, Thailand and the Philippines. The root of the crisis was related to a set of complex problems. These problems were grouped into three fundamental causes: a dramatic decline in export growth, the increasing liberal capital account policies and the behavior of foreign market participants (Almasaied, 2004).

According to Zainal Abidin and Rasiah (2009), As with most of the East and Southeast Asian economies, the impact of the global economic and financial crisis on Malaysia has been felt largely through a contraction in aggregate demand caused by a collapse in exports, either directly or indirectly, to the United States, GDP growth slowed down to 0.1% in the last quarter of 2008, and decelerated by -6.2% and -3.9% respectively in the first two quarters of 2009 as a consequence.

Athukorala (2010), argued that, Share prices in Malaysia fell after the crisis by 20% between 2007 and 2009, although the damages of current crisis it's less than of damage in the Asian crisis by 53 per cent between 1996 and 1998, Total earnings from goods exports of Malaysia recorded 9.5% in 2009 compared to the previous years. Earnings from primary products commodities fell by 33.1% in 2009 because of a sharp decline in world market process (Palm oil 29.2%, Rubber 57.0%, and crude petroleum 51.0%).

#### **4.2.2 The Role of Interest Rate in the Last Global Financial Crisis**

According to Nonomiya and Lanman (2008), many believe that low interest rates for a long time with lack of regulation and supervision encouraged rapid growth of credit and, as a result, pushed house prices up. The Federal Reserve in the USA lowered the interest rate in 2001 from 6.5 percent to 1.75 percent and then to 1 percent in 2003, a 45-year low.

Ovidiu (2009) said that, the epicenter is the U.S, where it offered some facilitates to real estate credit (a home for each family); interest rate was reduced so much. So that, the price of real estate has decreased, and that led to increase the interest rate in the USA (and other countries) later, those factors led to bankrupt some of banks, then to financial crisis.

Udell (2009) said, between 2001 and 2004, to make the labor market and economic system more strong, Fed lowered the interest rate to one percent. This, together with the propensity for speculation and over-indebtedness by American peoples, led to increasing of mortgage loans.

### **4.2.3 Interest Rate and Inflation**

According to Almsafir (1993), Inflation is an imbalance process occurs in an economy, resulting from the inability of the productive system commitment to an increase in the demand, for monetary reasons.

The first and important theory about the relationship between interest rates and inflation, developed by Fisher (1930), this theory called Fisher effect, "The relationship is so strong that, if inflation rises, the interest rate will raise in an equal amount." For example, if inflation rate increases one percent, the interest rate will rise one percent too.

Fuei (2009), said that, The Fisher effect has, since its proposition, been widely accepted in theory. In essence, it postulates that the real interest rate on a financial asset is constant over time. As such, changes in nominal interest rate fully reflect changes in expected inflation rate.

Crowder and Hoffman (1996), found evidence of nominal interest rates adjusting by more than one-for-one to changes expected inflation, using quarterly United States data from 1952:1 to 1991:4, and find that a 1 percent increase in inflation caused the nominal interest rate to increase by 1.34 percent.

Choudhry (1996), investigates the long-run relationship between nominal interest rates and the inflation during the gold standard era (1879 - 1913). The study shows that if one-period inflation rate is non-stationary at levels, then expectation of future inflation will be dominated by current one-period inflation rate.

### **4.2.4 Interest Rate and Exchange Rate**

Hacker, Kim and Mansson (2010), by used wavelet analysis to investigate the relationship between the spot exchange rate and the interest rate differential for seven pairs of countries, with a small country, Sweden, included in each of the cases. For the Swedish the sample period starts from January, 1993; for the Korean won January, 1998; for the euro January, 2000; and for the Swiss franc May, 2000. The sampled periods are covered up to May, 2009. The results from this paper indicate to that, there is a negative relationship between the exchange rate and nominal interest rate differential at the shorter-time, especially around three to four months.

Kim and Roubini (2000), they have used structure vector auto-regression (VAR) approach with non-recursive contemporaneous restrictions and got this result the positive change in real or nominal interest at domestic level can appreciate the exchange rate at domestic level and vice versa.

Holtmoller (2005), found that there is a co-movement between interest rate and exchange rate and sensitivity depends upon the monetary structure of the relative country. The country have sturdy monetary structure has low co-movement between interest rate and exchange rate.



#### 4.2.5 Interest Rate and Unemployment rate

Phelps (1994), found that, provides pooled cross-section time-series evidence indicating that increases in the world real interest rate and the world real oil price increase unemployment in OECD (Organization for Economic Co-operation and Development) economies.

According to Bierens and Broersma (1993), depended on ARMAX modeling strategy, found that the interest rate and the percentage change in production are significantly Granger causing unemployment in the USA.

According to Carruth, Hooker and Oswald (1998) by using Granger Causality Tests found that, the impact of changes in real interest rates and real oil prices is consistent with the long run relationships suggested by the theory. A rise in either the real rate of interest or in the real price of oil leads to higher unemployment (although the interest rate terms are not significantly different from zero).

Dogrul and Soytaş (2010), investigated on the relationship between unemployment, oil prices, and interest rate in Turkey depend on efficiency wage model. They observed that there are two significant results. Oil price and interest rate Granger cause unemployment in the long run.

#### 4.2.6 Interest Rate and Industrial production

The Industrial Production Index (IPI) is an economic indicator which measures real production output, which includes manufacturing, mining, and utilities. Production indexes are computed mainly as Fisher indexes with the weights based on annual estimates of value added. This index, along with other industrial indexes and construction, accounts for the bulk of the variation in national output over the duration of the business cycle. FRED Database (2011)

Wongbangpo et al (2002), they have implemented to models, augmented Dickey–Fuller (ADF) to testing unit roots, and vector error correction model (VECM), by using monthly data from 1985 to 1996, for five Asian countries (Philippines, Singapore and Thailand, Indonesia and Malaysia) and they found that interest rate had a negative impact on southeast Asian countries in term of industrial sector.

According to Chun, (2008), investigated the interest rate mean and volatility spillover to the industrial production index and two China stock markets by employing the Constant Conditional Correlation (CCC) and Dynamic Conditional Correlation (DCC) MGARCH (1,1) model, the results are indicated that China monetary policy have a positive impact to the China economic growth and stock markets. The increasing of interest rate will decrease the investment and then affect the industrial production sector.

The industrial world has blamed the hike in the interest rates for the low industrial production. In February 2011 Reserve Bank of India (RBI), 3.6 percent increase in the industrial production was recorded as compared to more than 16 percent profit in industrial sector in a last year because the impact of interest rate, **JPN/ Bureau (2011)**.

## 5. Conclusions

We can conclude from the previous literature that, there is a relationship between Conventional finance and Macroeconomic variables whether that relationship is negative or positive. In terms of the performance for both kinds of finance (IF and CF) and which one is perform batter we can note that, the Islamic finance is perform better than conventional finance especially in the last 10 years in terms of profitability and the amount of lending by using Islamic finance modes (Murabahah, Musharakah, Mudarabah, Ijarah, Istisna and Salam).

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