Why interest-rate cannot benchmark for Islamic financial product pricing?

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Abstract

Purpose – The purpose of this paper is to emphasize that interest-rate benchmark cannot be used for pricing of Islamic financial products. This paper will help in pricing basis for Islamic financial products, which are currently based on interest-rate benchmarks. Shariyah perspective and ground realities are considered as evident to the viewpoint.

Design/methodology/approach – Viewpoint has been evident through comparison of conventional and Islamic financial product pricing, and through comparison of interest rate with macroeconomic indicators to analyze whether interest really represent economy, since Islamic finance based on real economic activities.

Findings – It has been analyzed that interest based benchmarks do not represent real economic activities.

Originality/value – This paper brings new light to the product development in Islamic financial instruments and institutions. Islamic finance should have its own footings in terms of product development.

Keywords Benchmark, Banking, Interbank rate, Interest rate, Islamic product

Paper type Research paper

Introduction

Islamic finance is the popular concept of finance to cater the needs of Muslim population worldwide. Islamic banking concept became popular in Muslim countries after its origin 40 years ago. Some of the countries like Iran and Sudan have adopted Islamic financial system completely while some of the countries like Bahrain, Jordan, Malaysia, Pakistan, Qatar, Saudi Arabia, Syria, UAE, etc. have adopted stepwise roadmap to replace the conventional banking system, and have converted more than 10 percent financial and banking assets to Islamic mode. Islamic financial concept emerged in 1963 in Egypt and evolved banking form in 1974 through establishment of Dubai Islamic Bank in UAE, now Malaysia and UAE provide variety of Islamic financial products. Western and European countries like Germany, UK, USA, etc. are also adopting Islamic finance. Some of these countries like France and UK have made legislative changes for convenient growth of Islamic finance (Khan and Bhatti, 2008). Islamic banking provides almost complete alternate range of products and services as provided by conventional banks. Some of the Islamic financial products are criticized for their similarity with conventional products, but product owners of these products claim that these are different in conceptual and accounting framework and abide by Islamic jurisprudence (Ghauri and Qambar, 2012). Risk management study explains that Islamic finance faces all similar risks like conventional financial system, but an additional risk of *shariyah* supervision. *Shariyah* supervision translates the controlling of all financial products and services under the teachings of Islamic jurisprudence (Hussain *et al.*, 2012). Islamic banking leads a step ahead of conventional banking in perspective of bank spread, growth rate, etc. (Ghauri and Qambar, 2012; Ghauri *et al.*, 2012).

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The term of benchmarking in financial agreements mainly refer to the standardization of products prices with a base line. Generally, conventional interest rates like LIBOR, EURIBOR, KLIBOR, Karachi Inter Bank Offered Rate (KIBOR) are termed as products prices base line for Islamic financial products (Yusof *et al.*, 2011; Rosly, 2011). But this concept should not lead to the pricing of Islamic financial agreements as Islamic finance is termed as an interest-free financial system where return on principal is not linked with time, amount or agreement terms. Considering the basic definition of riba (usury or interest), this sum is an excess to the borrowed sum of money. Islamic financial contracts give importance to the value of assets rather to the value of money. Since Islamic financial contracts lack the concept of interest, so their pricing cannot link with interest rate, as it makes the financial contractual mechanism identical to the conventional financial product. Core theme of Islamic banking is to save Muslims from interest but today, Islamic banking has benchmarked interest (Jaman, 2011).

Purpose of this paper is to determine that conventional interest rates cannot be benchmarked for Islamic financial products and to develop a concept regarding an alternate benchmark for pricing of the assets and liabilities products rather mere linking with conventional interest rates. All Islamic financial contracts are based on underlying real assets or projects so their pricing should not be linked with conventional interest rates, merely due to market risks. This paper signifies the importance of alternate pricing mechanism for Islamic financial contracts independent of conventional interest rates.

Archive review

Though, Islamic banking is differ from conventional banks on the basis of *shariyah* risk, conceptual and legal framework of product structures, and contractual obligations (Ghauri and Qambar, 2012) but face operational, credit and market risks identically (Rosly, 2011). Even, Basel accord implementation seems similar against facing risks whereas Islamic banking follows an additional risk of *shariyah* governance (Ghauri *et al.*, 2012). Apparently Islamic banking characteristics are identical to conventional banking like taking deposits, offering advances, making provisions against bad contracts and tax payment to government. Bank earns through the spread or margin between earnings from financing and payment for deposits (Ghauri and Qambar, 2012). Murabaha agreement sales pricing cost includes rate of return to depositors, operating costs (tax and administrative costs), profit margin, probability of default (credit risk premium), opportunity cost, inflation risk premium and it leads to targeted rate of return (Rosly, 2011). Key pillars of Islamic finance include underlying assets-backing in which its existence and physical transfer of ownership is vital for financial agreements maturity under *shariyah* instructions, so it should not be interlinked with conventional interest rates mere because of market and interest rate risks involved in these contracts. A study conducted by Cheung (2003) for the relationship of house rental prices and interest rates for the period of 1981-2001 in Hong Kong, it was determined that these were negatively related pre-1997 era but have positive relation post-1997 era (Yusof *et al.*, 2011). Various researchers have identified number of demographical, societal, political, economic and ground ingredients to determine the rent prices which strengthens our question that why conventional interest rates are benchmarked for Islamic financial contracts?

Product pricing is dependant of credit, market and operational risks. Credit risk plays vital role in this mechanism that leads to credit risk premium. Credit risk premium has direct proportionate relation with credit risk. Pricing of Islamic financial

agreements becomes competitive due to prevailing interest rate risk and market risk from other conventional and Islamic financial institutes. Generally, conventional banks products pricing on assets and liabilities side interlink with base lending rate or interbank offer rate (Rosly, 2011). Similarly, mortgage financing (offered through bai-bithamin-ajil Murabaha model in Malaysia or through Musharakah Muthanaqisa or Diminishing Musharakah model in Middle Eastern countries, Pakistan, Canada, Australia and USA) is also linked with conventional interest rates (interbank offering rate like LIBOR, KLIBOR, EURIBOR, KIBOR, etc. which is permissible by various Islamic scholars on the basis of non-availability of substitute; Yusof *et al.*, 2011). Market risk refers to the Islamic financial institutional competition with range of floating rates of return in the banking industry including Islamic and conventional financial institutions. Customers compare the product rates offered by different institutes in the industry and determine the purchase of product from a particular financial institute where it is most convenient to them. For Islamic banking customers, religion stands at seventh of ten preferred factors for adoption of Islamic banking as evident in case of UK (Masood, 2009). Operational risk in the product pricing includes administrative costs, monitoring and maintenance costs and provisioning of defaults (Rosly, 2011). All of these factors contribute together to determine the product pricing.

In favor of interest rate as benchmarking: Interest rate benchmarking in markup determination for Islamic finance products is permissible (*halaal*) but not desired. As Taqi Usmani (Chairman AAOIFI) argues that if all terms of Islamic financial contracts are validated then mere use of interest rate as benchmarking for determination of markup or prices of Islamic financial contracts cannot invalidate the whole financial contract. Similarly, if a conventional financial institution benchmarks the price of some Islamic financial product, it will not validate the whole financial contract of conventional as Islamic one. Similar argument provided by Yusuf Talal DeLorenzo (2009) states that benchmarking is mere number so it is non-objectionable from *shariyah* perspective. Islamic banking is niche-market and its co-existence with well-developed conventional banking requires benchmarking to conventional interest rate till establishment of its own benchmark base at a sound ruling level (Jaman, 2011). This concept is evident from various studies as conducted by Humind in Iran and Haron in Malaysia related to profit rates and volume of deposits in Islamic banks, it is analyzed that deposits are related with profit rates. Increasing profit rates attract huge volume of deposits in Islamic banks while declining profit rates away deposits from Islamic banks.

Against interest rate benchmarking: another school of thought of Islamic and financial scholars is against standardization of benchmarking of conventional interest rate for Islamic financial products pricing. Dr Zakir Naik (2006) argues that conventional interest rate cannot be benchmarked for profit rates of Islamic banking products as both are different concepts and have different philosophical, accounting, contractual basis. From daily life, as different vegetables have different prices so it is not fair to price Islamic banking products on the basis of conventional interest rates (Naik, 2006). This school of thought also refers to various sayings (Ahadees) of Prophet Muhammad (Sallalahu Ailehe Wasallam) where he advised to differentiate with the practices of non-Muslims. Amin (2011) proved same results for Islamic financing in mortgages, if conventional rates are used for benchmarking (Jaman, 2011). Islamic banks remain on mercy of conventional banks due to use of conventional interest rates, and also give a negative perception about authenticity of Islamic banking (Karimi, n.d.). It is also believed that benchmarking of certain conventional interest rates render the transaction to certain

payment of return on principal amount where basic definition of riba (interest or usury) also states the linking of additional amount payable with principal amount, fixed or variable with reference to time or any other condition (Fahmi, 2010). Extraction from famous order of shariyah bench of Supreme Court of Pakistan on interest in financial transactions states that permissibility of interest cannot be linked with financial position of debtor, nor on purpose of money borrowing so consumption and productive loans should be distinctive (Yusof, 2009, regarding interest, 1999). Fiqh Academy (Academy, 1993) and AAOIFI (Usmani, 2007) have emphasized on development of independent benchmark as an alternate to conventional interest rates, as using of conventional benchmarks is unethical and is not desirable and is termed as against basic philosophy of Islamic financial model.

Proposed benchmarks for Islamic financial products: Challenges faced by Islamic benchmarking includes conventional concept of future value of money due to inflationary effects, credit default and credit party risk. International Shari'ah Research Academy for Islamic Fiannce (ISRA) of Malaysia has proposed parameters to define benchmark for Islamic financial products as: mere indicator to guide pricing, unlike conventional benchmarks, Islamic benchmarks should be comprehensive as Islamic financial institute simultaneously performs as trader, partner, wakeel, etc., basis like COF, expected risk, etc. for pricing benchmarks should be disclosed to all parties to the Islamic financial contract, benchmarks may vary according to real economic sectors, risk impairment (potential loss) should be considered as a factor, time value of money can be considered in case of deferred sale pricing, benchmark should be from *halaal* (permissible) activities, benchmark should not be from *haraam* (prohibitive) activities, inflation index can be used as indicator to price movements, elements of corruption and fraud should be avoided, elements of price hiking, hoarding, speculation, etc. should be avoided, future situation of market should be considered and indices should be accurate and transparent (Omar *et al.*, 2010).

Different benchmarks are proposed for pricing in Islamic financial contracts. These benchmarks include: rate of profit mechanism model (through rate of profits in money market) (al-Ghazali, 1993), Tobin's Q theory (Mirakhor, 1996), rate of dividends of Islamic bank deposits and investment accounts (through dividends distributed by Islamic banks to their depositors) (Umar and Shahta, 2000), creation of Islamic bank interbank money market (through creating a common pool of investment on the basis of asset-backed instruments like Musharakah, Ijarah, etc. and its units can be sold and purchased for liquidity issues, thus result in development of Islamic interbank money market, value of which units will serve the purpose of benchmarking) (Usmani, 2007) Islamic benchmark that fits for conventional as well (to use the overnight policy rate in line with *shariyah* principles which suits both Islamic and conventional) this rate is in practice by Bank Negara Malaysia based on Malaysian quarterly GDP performance (Hassan, 2009), Arbitrage Pricing theory (proposed by ISRA of Malaysia , through real economic performance on the basis of weighted average of four macroeconomic variables: money supply (M2) changes, monetary liquidity rate, foreign exchange rate and composite index return) (Jaman, 2011), Shariyah Compliant Assets Pricing Model, by Hanif in 2010, to determine required return on a security is variance between return on baseline and premium over risk free return (Hanif, 2010), COF (based on cost estimated by financial institution for use of funds, and can be computed in number of ways, see Appendix 1) (Omar *et al.*, 2010), BLR/BFR (Basic lending/financing rate, see Appendix 2) (Omar *et al.*, 2010). Appendix 3 also explains the different internal rate of return among conventional and Islamic financial contracts.

Empirical design

Islamic finance is based on commodities instead of money so it is linked with real time assets or ventures. Therefore, base of Islamic finance is linked with real time economic activities so this paper discusses the real time economic indicators as growth factors for financial activities. Various studies have been conducted to determine the relationship of existing product prices with economic variables. But most of these studies are limited to specific product or contract. Cheung (2003) analyzed relationship of interest rate and house rentals in Hong Kong during 1981-2001, where he found a negative relation pre-1997 era but positive relation after wards. A similar study for mortgage finance prices conducted by Yusof *et al.* (2011) in Malaysian context for a period of 1996-2006, where he determined a significant relation of interest rate and income level with rental prices, significant relation of interest rate and exchange rate with lending rates (Yusof *et al.*, 2011).

Presently, pricing of Islamic financial products are based on interest rate benchmarks like LIBOR, KIBOR, etc. so this paper studies relationship of such economic variables with real economic growth to determine that whether all or any of these economic indicators truly represent economic growth so they can be used as benchmark for Islamic financial products pricing. To broaden our study, we have studied number of economic variables rather mere interest rate. As Islamic finance is based on real economic activities so we have compared key economic indicators with GDP growth rate to observe the relation of economic growth with these variables. This comparison will reflect that whether these economic indicators are truly depicted by any one key variable to be benchmarked. Various scholars have conducted such studies to analyze the true snapshot of economy. Methodology is divided into two parts according two hypotheses. First, methodology is related with representation of economic activities through economic indicators:

H1. Real economic activities are truly represented by any one key economic indicator.

H0. Real economic activities are NOT truly represented by any one key economic indicator.

This methodology is applied to number of economies for transparent observation of the facts related to our hypothesis.

In second part of this study is related with relationship of key economic indicators of real economic activities with interbank offered rate (KIBOR in Pakistan) to observe the variance in benchmark and real economic activities:

H2. Interbank offered rate represent true picture of real economic activities.

H0. Interbank offered rate DO NOT represent true picture of real economic activities.

Second methodology is applied to key economic indicators related to Pakistan.

Data collection

For the first part of study, key economic indicators are observed that are related to real economic activities. These indicators are related to various sectors of economy like agriculture, financial sector (represented by interest rate spread), manufacturing sector, investments (represented by market capitalization), monetary activities (represented by M2 supply), services sector and trading activities. This study is conducted in different countries to observe factual picture of these activities in the economy. All of these sample

countries belong to the group of countries where Islamic finance is under development. These sample countries include Bangladesh, Indonesia, Iran, Oman and Pakistan. Data for this research is taken from World Bank data catalogue for 15 years starting from 1997 to 2011. Agriculture, manufacturing and services sectors are represented by value added annual growth rate in respective sector, financial sector is represented by interest rate spread, investment is represented by market capitalization in terms of percentage of GDP, money supply (M2) is represented through its annual growth rate and trading activities are represented in terms of percentage of GDP.

Second part of this study includes data set for Pakistan which is compared with KIBOR. Data for this study is taken from The State Bank of Pakistan (central bank). Key economic indicators are compared through trend analysis of time period, along with real interest rate and conventional lending interest rate for the period of five years starting from 2007 to 2011.

Analysis and empirical findings

We have used the line charts to represent the comparative analysis for the economic indicators of our sample. First of all, we have taken Bangladesh as our study sample. Figure 1 represents the line chart of economic indicators related to Bangladesh.

Analyzing the key economic indicators of Bangladesh as depicted in Figure 1, it can be easily assessed that all of these economic indicators are alike. Close observation of all lines may elaborate that all sectors represent different trend lines, especially investment, money supply and trading. Other variables of agriculture, GDP, financial, manufacturing and services limited in similar range but remain varied in trend. Thus, it is reflected that all the selected economic variables are different from each other and none of them represent complete economic trend of Bangladesh.

Another economy of Indonesia is observed with economic variables from sectors of agriculture, GDP, financial, manufacturing, investment, money supply, services and trading activities, for the period starting from 1997 to 2011, as mentioned in Figure 2.

Trend of key economic indicators related to Indonesia for the period starting from 1997 to 2011 reflects that all sectors remained in limited range except agriculture, money supply and trading activities. Thrice of these remaining sectors (agriculture, money supply and trading) show different trend lines over the period. Thus, it can be ascertain that all selected economic indicators except agriculture, money supply and trading activities reflect similar trend in Indonesia.

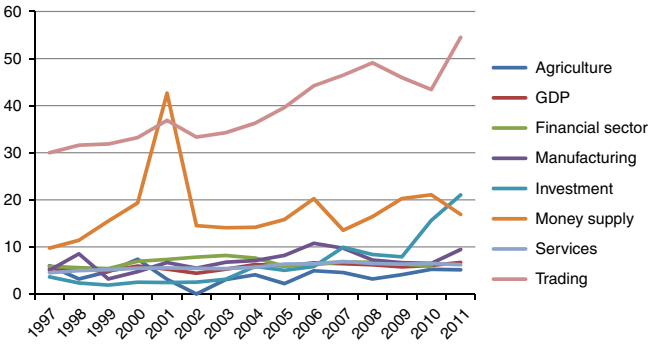


Figure 1.
Trend of key economic representatives of Bangladesh for 15 years

Trend for the selected economic indicators is observed in Iran for the period from 1997 to 2011, in Figure 3.

Figure 3 reflects the time analysis trend for the key economic indicators of agriculture, GDP, financial, manufacturing, investment, money supply, services and trading activities for the period from 1997 to 2011 but some statistics are missing for agriculture, manufacturing, services and trading activities, post-2008. Statistics for financial sectors are also missing pre-2004. Considering the trend from available data of economic indicators, it has been observed that all of the economic indicators reflect different trend line over the period. Thus, it may be noted that all economic indicators reflect varied lines of trend over the period in Iran.

Next trend is observed for the selected variables in Oman as represented in Figure 4.

Figure 4 reflects key economic indicators of agriculture, GDP, financial, manufacturing, investment, money supply, services and trading activities of Oman for the period from 1997 to 2011. Some statistics of agriculture, manufacturing and services are missing post-2004, and trading activities are missing for post-2009. The trend analysis from the available statistics for Oman reflect that all economic variables represent different trend line and none of them shows identical in trend for the selected period of 1997-2011. Thus, it can be stated that none of the selected economic indicators represent overall economic trend of Oman.

Last trend analysis of Pakistan can be reflected as in Figure 5.

Figure 5 reflects the trend analysis for the selected economic indicators of agriculture, GDP, financial, manufacturing, investment, money supply, services and

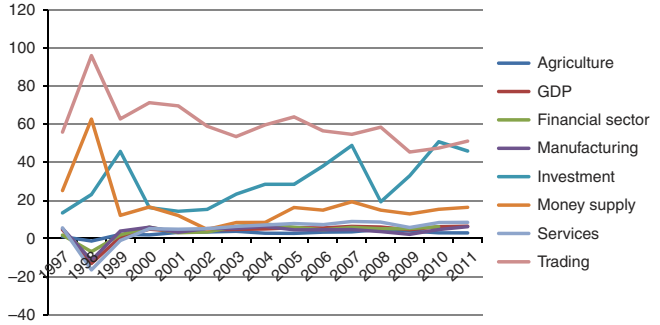


Figure 2.
Trend of key economic representatives of Indonesia for 15 years

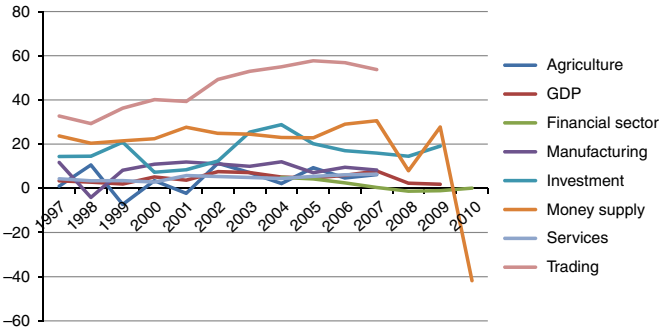


Figure 3.
Trend of key economic representatives of Iran for 15 years

trading activities for the period from 1997 to 2011. Part of data of financial sector is missing pre-2004. Analysis from the rest of sectors represents different trend lines in all selected sectors. Some of the sectors of investment, money supply and trading represent totally varied trend for the period. Thus, it can be stated that none of the selected economic activities represent economic trend of Pakistan.

Considering the trend analysis from Figures 1-5, we can conclude that hypothesis *H1* is rejected and *H0* is accepted. Hence, we can ascertain that none of single economic variable reflect overall economic trend of country. Different benchmarks should be introduced for different sectors of the economy.

KIBOR as benchmark

Coming to our second hypothesis for using KIBOR as benchmark for pricing of Islamic financial products, we seek its comparative analysis of trend line with other variables of real economic activities. Essence of this method is that Islamic finance is based on real economic activities. So, we have compared KIBOR with economic variables of real sectors. We have also included conventional lending interest rate and real interest rate for deep analysis. This analysis is conducted with the data extracted from world data indicators from data sets of World Bank and KIBOR is extracted from State Bank of Pakistan. This trend is reflected through Figure 6.

Figure 6 is based on the trend line of average daily KIBOR rates variations starting from January 1, 2007 to December 31, 2011. Trend analysis of these five years is depicted in this figure. KIBOR is announced on daily basis through State Bank of Pakistan for offer and bid rates for different periods i.e. one week, two weeks, one month, three months, six months, nine months, one year, two years and three years.

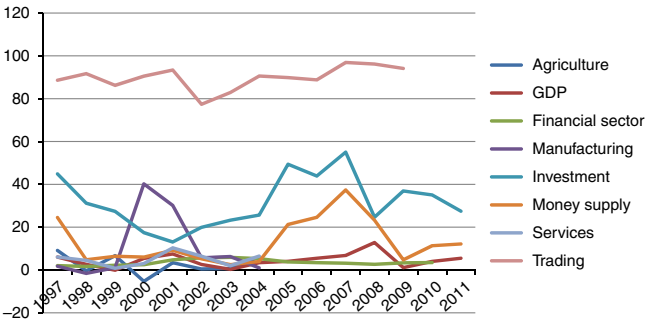


Figure 4.
Trend of key economic representatives of Oman for 15 years

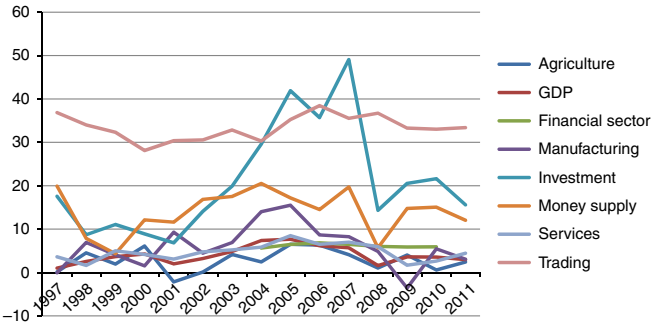
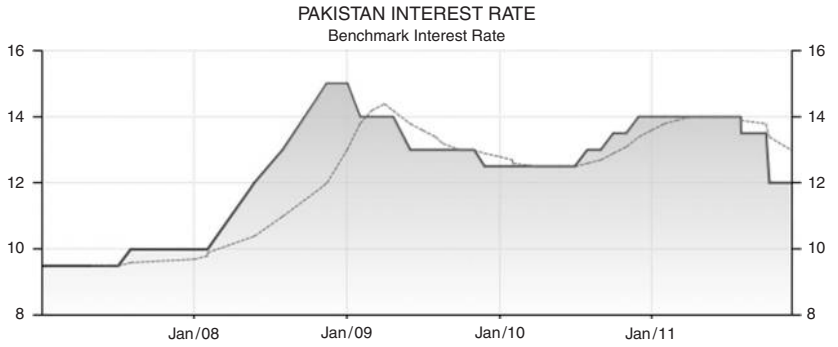


Figure 5.
Trend of key economic representatives of Pakistan for 15 years



Source: www.tradingeconomics.com; State Bank of Pakistan

Figure 6.
KIBOR trend for 5 years from Jan-2007 to Dec-2011

Since one year KIBOR is used for benchmarking in Islamic financial products so we have also taken the average of offer and bid rates of daily KIBOR rates in our study. This data is extracted from database of State Bank of Pakistan.

Figure 7 reflects the trend analysis for the key economic indicators of Pakistan for the period of five years starting from 2007 to 2011. Comparing the trend analysis from Figures 6 and 7 reflects that variable of money supply may reflect similar trend line as of KIBOR trend line but still the variation of both is quite varied. Rest of the real economic variable are far varied from KIBOR. Similarly, real interest rate and conventional lending interest rate is also varied from KIBOR trend line. Thus, it can be reflected that KIBOR do not represent real economic activities of the economy. Considering analysis from Figures 6 and 7, it can be ascertain that hypothesis *H2* is rejected; therefore KIBOR cannot represent real economic activities.

Conclusion

Above analysis based on different countries of Bangladesh, Indonesia, Iran, Oman and Pakistan, it is reflected that none of the real economic activity represent overall trend of economy so overall economic activity or trend cannot be represented by any one economic variable the real economic activity. Economic activity of the country can be represented through composite bunch of real economic indicators. Therefore, we can conclude that Islamic financial world should adopt different benchmarks for different economic sectors. Since, Islamic finance is based on real economic activities so different benchmarks should be adopted for different real sectors of the economy.

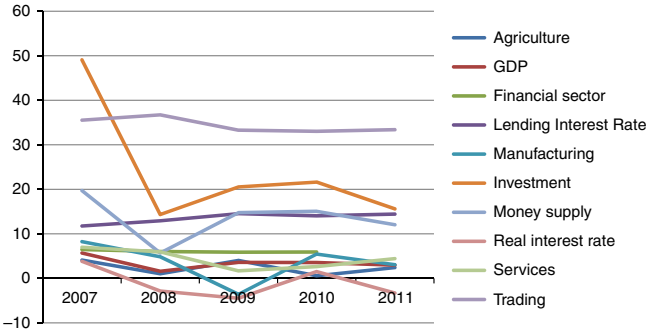


Figure 7.
Key economic trend analysis of Pakistan for five years

Similarly, moving to other part of the method using KIBOR as benchmark for Islamic financial products, it can be concluded that KIBOR is an interest bearing variable and may impact money supply or may close to conventional lending rate but cannot represent real economic activities in the economy. Due to the reason of its inability to represent overall real economic activity, it should not be used as benchmark for Islamic financial products.

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Further reading

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Appendix 1. Computation of Cost of Funds (COF) (Omar *et al.*, 2010)

Various ways are used for computation of COF to be used as benchmarking for pricing of Islamic financial contracts.

Method 1:

$$\text{Cost of Funds} = \text{Cost of Acquiring Funds} + \text{Cost of statutory reserve} + \text{Cost of liquidity assets (LA)}$$

where LA is the liquidity assets; SRR the statutory liquidity reserve. KLIBOR is used in computation of COF as it is based on Ijarah based Musharakah certificates.

It can be formulated as:

$$\text{COF} = \frac{\text{KLIBOR} - (\text{LA} \times \text{Return on LA})}{1 - (\text{SRR} + \text{LA})}$$

Method 2:

$$COF = \frac{(r - p1y1 - p2y2)}{1 - p1 - p2}$$

where $p1$ is the statutory reserve requirement; $p2$ the minimum liquidity requirement; r the weighted COF; $y1$ the yield on SRR; $y2$ the weighted yield on liquidity assets; l the loan size.

Method 3

Various formulae suggested by Rose (2003).

(1) Historical average cost plus noninterest cost plus equity funds:

$$\frac{\left(\sum \text{nominal deposit} \times \text{interest rate}\right) + \text{noninterest expense} + \text{cost of equity funds}}{\text{Total sources of funds}}$$

(2) Marginal COF:

$$\frac{\text{Total interest and noninterest fund raising costs of making a loan (\$)}}{\text{Amount to be borrowed}}$$

(3) Pooled funds cost:

$$\frac{\text{Total interest and noninterest cost of new funds (\$)}}{\text{Total new earning assets to be acquired}}$$

Appendix 2. Computation of BLR/BFR (basic lending/financing rate) (Omar *et al.*, 2010)

$$\text{Computed BLR} = \frac{[\text{intervention rate} \times \text{factor of weighted cost free deposits}] + \text{administrative margins}}{(1 - \text{SRR})}$$

This model is adapted from Malaysian financial system where weighted cost free deposit is considered as 0.8 (considering 20 percent deposit as cost free including current and call deposits) but is skipped from equation if BLR is computed for finance companies where there is no cost free deposit, administrative margins are considered as 2.25. Thus, equation is termed as:

$$\text{Computed BLR} = \frac{[\text{intervention rate} \times \ 0.8] + 2.25}{(1 - \text{SRR})}$$

BFR can be computed as:

$$\text{BFR} = \frac{[\text{average deposit cost} \times \% \text{ of non} - \text{zero cost of deposit}] + \text{overhead costs}}{(1 - \text{SRR})}$$

Appendix 3

Car	Suzuki Mehran VXR CNG				
Car price (Rs.)	610,000.00				
Bank	FBL-Islamic	Meezan	Bank Islami	UBL Ameen	UBL
Type	DM	Ijara	Ijara	Ijara	HP
Equity (%)	20	20	20	20	20
Equity (amount)	122,000.00	122,000.00	122,000.00	122,000.00	122,000.00
Finance amount	488,000.00	488,000.00	488,000.00	488,000.00	488,000.00
Rate	*K*+10 (22.22%)	17.25%	nd	nd	16
Installment 1st year	13,665.00	14,320.00	14,027.00	15,100.00	12,055.00
Installment 2nd year	13,665.00	14,320.00	14,027.00	15,100.00	12,055.00
Installment 3rd year	13,665.00	14,320.00	14,027.00	15,100.00	12,055.00
Installment 4th year	13,665.00	14,320.00	14,027.00	15,100.00	12,055.00
Installment 5th year	13,665.00	14,320.00	14,027.00	15,100.00	12,055.00
Insurance/Takaful(%)	Included	4.50	3.15	3.90	3.90
Processing charges	5,800.00	3,000.00		3,480.00	3,480.00
Total payable	825,700.00	862,200.00	841,620.00	909,480.00	726,780.00
Total cost	947,700.00	984,200.00	963,620.00	1,031,480.00	848,780.00
Additional cost	337,700.00	374,200.00	353,620.00	421,480.00	238,780.00

Table AI.
Internal rate of return for auto-finance through Islamic and conventional banks

About the author

Shahid Mohammad Khan Ghauri holds MPhil in Finance and has dozen of published articles and two books in the stream of banking and finance. His main focus is development of Islamic finance in the regions. He is retail Banker by profession since 2001 and has been associated with banks like ABN AMRO and The Royal Bank of Scotland, Faysal Bank Limited. Currently he is associated with Soneri Bank Limited Pakistan as the Regional Operations Manager. Shahid Mohammad Khan Ghauri can be contacted at: shahidmkghauri@gmail.com