Are The Profit Rates of the Islamic Investment Deposit Accounts Truly Performance Based? A Case Study of Malaysia

Hussan, Subithabhanu and Masih, Mansur

INCEIF, Malaysia, INCEIF, Malaysia

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Subithabhanu Hussan [1] and Mansur Masih[2]

Abstract

In this study we were motivated to ascertain whether the profit rates of the investment deposit accounts based on the profit and loss sharing contracts offered by the Islamic banks are truly based on the performance of the underlying assets or otherwise, by taking Malaysia as our case study. Given the facts that Islamic investment deposits are interest free in nature and that they are supposedly used in real economic activities, one would naturally expect that their returns are directly related to the actual performance of the investment activities undertaken by the Islamic banks. However, this notion stands to be statistically validated since the likelihood of Islamic finance, operating in the same financial markets of the conventional finance, to be influenced by the regulatory intervention and interest rate regimes is equally high. Using time series techniques, we have tried to establish whether there were any significant cointegration among profit rates of the Islamic investment deposit accounts and the selected interest rate regimes. Our test results reveal that, instead, they are heavily influenced by the interest rate regimes.

Key words**:** Profit rates, Islamic investment deposit accounts, time series techniques

[1] Subithabhanu Hussan is pursuing a PhD in Islamic Finance at INCEIF, Lorong Universiti A, 59100 Kuala Lumpur, Malaysia. Email: subitha1967@yahoo.com

[2] **Corresponding author**, Professor of Finance and Econometrics, INCEIF, Lorong Universiti A, 59100 Kuala Lumpur, Malaysia. Phone: +60173841464 Email: mansurmasih@inceif.org

Are The Profit Rates of the Islamic Investment Deposit Accounts Truly Performance Based? A Case Study of Malaysia

1. Objective and Motivation of Research

Islamic banks, instituted with the aim of offering interest-free transactions as Islam unequivocally prohibits paying and receiving of interest[3], use various shariah(Islamic) compliant contracts to structure their products. Further they engage qualified shariah scholars to review and endorse their products on their shariah compliancy statuses in their efforts to ensure that their claim is well validated and convincing to their prospects and customers alike. Nevertheless in the course of doing business, their overall performance is dependent on how much funds they could solicit from the market and how efficiently they manage these funds eventually for an optimal results in the best interest of their various stakeholders. In the long run an Islamic bank's business sustainability is directly correlated with both how commercially viable it is and on its ability to continue to service the various demands and expectations of its stakeholders while holding on to its shariah value propositions.

Obviously funds are essential for Islamic banks, likewise for conventional banks, as they are directly related to the amount of investments and financing facilities an Islamic bank could undertake and thus the level of its profitability and overall performance. The main product group commonly used by the Islamic banks to solicit funds or deposits from customers is the investment account based on profit and loss sharing (PLS) contracts such like mudharabah (trustee profit sharing), musharakah (joint venture) and wakalah bi al-istithmar (agency for investment). The other type of deposit product is structured using principal guaranteed contracts which restrict any additional payout. As such they become naturally less attractive. PLS contracts essentially require the investment account holders (IAHs) to assume the risk of investment and this sanctions their entitlement to the profits made from the said investments,

[3] Al Quran, Surah Al Baqarah versus 2:272:"…Allah hath permitted trade and prohibited riba' (usury/interest)…".

thus making them shariah-complaint. But the profits to be made from these investments are subject to the performance of the respective underlying assets. Obviously this means there is neither certainty nor surety on the amount of profit from investments the IAHs would earn at the end of their investment period. This denotes that the profit rates are independent from the effect of any pre-fixed interest rate schemes.

Malaysia is one of the recognised leader in Islamic finance. It has both an advanced Islamic financial product suite and a sound regulatory framework that supports its growth. Nevertheless, operating in a dual banking environment, we believe it is not an easy task for the Malaysian Islamic banks to totally disassociate themselves from the effects of interest rate movements or the policy intervention by their regulator i.e. Bank Negara Malaysia (BNM)[4]. As Islamic finance is increasingly becoming a significant segment of the country's financial system, we trust there must be some level of policy intervention by BNM to preserve an orderly financial system. Thus it is also our aim to investigate the impact of its monetary policies especially the target interest rate, which is called overnight policy rate (OPR), on Islamic investment deposit profit rates (IDR).

Our primary motivation in this study is to ascertain whether the IDR based on the PLS structures are truly performance based or instead if they are influenced by interest rate regimes that co-exist in the market such like OPR, fixed deposit rates (FDR) or the interbank money market rates (MMR). Given the fact that Islamic investment deposits are supposedly interest free and their rates of return are post-ante in nature, ideally OPR or any other fixed rate regime should have no significant influence on the performance of Islamic investment deposit accounts. In contrast, it is a common criticism (Ariff, 2007 & Foster, 2009) that the Islamic banks in Malaysia are in actual fact operating quite similar to conventional banks. Thus in this study, we are motivated to verify whether the Islamic investment accounts are indeed independent from the influence of the fixed rate regimes that prevail in the financial markets.

Apart from interest rates, it is also our aim to check on the possible relationship between the IDR and the Islamic interbank money market rates (IMMR) on any possible influencing impact

[4] Malaysian Central Bank

between these two rates. As a matter of further enhancement of our examination we have also added the consumer price index (CPI) to check the significance of real economy on IDR. We take note that the relationship between interest rates and inflation is one of the most studied topics in economics (Mishkin, 1991) where inflation is the first differenced form of CPI. However we are more interested to test the CPI which is the proxy to the price of the goods and services. This is because we believe the Islamic investment deposits are used to finance real sector activities.

Based on the above, our study looks at the following four research questions, namely:

1. How independent is the performance of Islamic investment deposits from the influence of the fixed rate regimes of the conventional banking system such like OPR, FDR and MMR?

2. Is there any significant relationship between the performance of Islamic investment deposits in the banking sector and the Islamic interbank money market or are they totally incomparable?

3. What is the effect of CPI or commodity prices or real sector developments on the Islamic investment deposits? Would it be possibly be a more significant influencing factor behind the performance of the Islamic investment deposits, in line with the theoretical foundations?

4. In case the Islamic investment deposits are not truly independent from the influence of the interest rate regimes as commonly thought, what are the influencing indicators that the investors of Islamic investment deposits could refer to prior to making their investment decisions?

2. Literature Review and Theoretical Framework

We found quite a number of studies being conducted on the relationship between the conventional and Islamic investment deposit rates in Malaysia. The researchers had a similar

motive like ours although the methods employed by them and the data range investigated were not exactly the same. Interestingly their findings were noted to vary between one another.

One of such earlier attempts was carried out by Chong and Liu in 2005. Wanting to identify on the significant similarities and differences between the Islamic and conventional deposit rates in Malaysia, they conducted bivariate Granger causality tests and cointegration test using the Johansen procedure and found that the Islamic deposit rates were closely pegged to conventional deposits. On the other hand, in 2010, Erusan & Ibrahim (2010) found that there was a significant difference in mean return between the Islamic bank, local conventional banks, foreign conventional banks and finance companies in Malaysia. They used ANOVA and independent t-test to analyze their sample which comprised Islamic bank, conventional banks, foreign conventional banks and finance companies for the period from 2002 until 2006.

Later in 2011, in their attempt to study the behaviour of conventional deposit rates and Islamic bank deposit rates under PLS structures in Malaysia and Turkey, Sevik and Charap found that the rate of return on Islamic investment accounts was cointegrated with conventional bank deposit. In this study they used four econometric tools, i.e. cointegration test between the two deposit types, followed by bivariate test, vector error correction model (VECM) and finally an investigation of the correlation of volatility between them, before they found the conventional interest rates to Granger-cause Islamic investment accounts.

The above researches have commonly focused on a one-to-one comparison between corresponding conventional and Islamic deposit rates in the banking sector while in our study we have also included some other variables such like OPR, both conventional and Islamic money market rates and CPI which we thought may have some influence on the Islamic investment deposit rates. Ideally the performance of Islamic investment deposits should not be correlated with any other pool of deposits or interest rates as the results are directly linked to their underlying assets.

3. Data and Methodology Employed

The most common investment deposit product offered by the Islamic banks in Malaysia with an avenue for return is called general investment account (GIA). GIA is primarily offered under the contract of mudharabah. For this study we have chosen the 6-month GIA rate (referred to as IDR6M) as the proxy to test the performance of the Islamic investment deposits under the contract of PLS. 6-month GIA is one of the most preferred GIA in the market. Correspondingly we have included its conventional equivalent, the 6-month fixed deposit (FD) (the rate of which is denoted as CDR6M). Next we have selected the OPR which is the target interest rate used by BNM for their monetary policy drive. Then we have included 3-month MMR (denoted as MMR3M) and correspondingly the 3-month IMMR (termed as IMMR3M) to verify the influence of MMR on the GIA rates; the 3-month rates are selected because we wanted a lower tenure for the MMR and IMMR to represent the shorter term nature of the money market. In addition historically before BNM explicitly started to disclose the OPR, IMMR3M was taken as the signalling rate (Zulkhibri, 2012) for OPR. Nonetheless, we wanted to verify the impact of OPR on the money market rate, and of course the effect of both rates on the GIA rates. Lastly we have included the CPI as the proxy to the goods and services price[5]. It being a key indicator of economic performance we would be able to verify the real sector impact on the GIA rates, if any.

The data for this study was retrieved from two main sources. OPR and CPI were retrieved from Datastream. Meanwhile we have extracted the remainder i.e. IDR6M, CDR6M, IMMR3M and MMR3M from BNM Monthly Statistical Bulletin which is available from BNM website. The data is a monthly time series collection for each of the above-mentioned variables ranging from April 2004 until August 2013[6]. The number of observations incorporated is one hundred and thirteen (113) for each line of variable.

We have employed time series techniques, in particular cointegration, error correction model and variance decomposition procedures to identify empirical evidences to the independency of the Islamic deposit rates from the dominancy of fixed rate regimes, especially. We have preferred

[5] We do take note that CPI is also commonly used as a proxy to inflation but in its differenced form. Refer to *en.wikipedia.org/wiki/Consumer_price_index*

[6] The data of IMMR3M and MMR3M were given in a shorter frequency and thus we have made some adjustments on the month-end dates based on market open dates.

time series over the traditional regression method of ordinary least square (OLS) as most economic time series are non-stationary[7] in their level form i.e. they tend to move in certain patterns. They are not random as their randomness, in case there is, will cause unpredictability in the market which may shun away the investors from the financial markets in the long run. Further in the earlier years in operations, the Islamic banks have worked out the Islamic deposit rates as an average rate over three to twelve months in part of their efforts to overcome unexpected short term volatility in the investment returns[8].

The non-randomness of the variables in their natural form indicates their inability to satisfy the primary assumption of OLS that the variables are stationary. If the variables are non-stationary, the conventional statistical test such like R^2, t-ratios and F-statistics will no longer be valid. On the other hand performing regressions on the differenced form of the variables, while more likely will solve the non-stationary issue, but may potentially lead to a greater mistake of merely testing the short term, cyclical or seasonal effects instead of our primary objective of verifying the long term theoretical relationship among these variables. Secondly in the OLS method, the relationship among the variables are pre-determined based on the pre-established theoretical foundations. However in our case there are many opposing views on the possible relationship between our variables. As it is our aim to empirically identify the relationship between these variables, we have resorted to time series techniques which are free from pre-assumptions. Lastly traditional regression methods by definition assume that there is no multicollinearity or interaction between the variables while cointegration techniques acknowledges and provides for this. Our intuition suggests that these dynamic indicators are high likely inter-dependent due to their nature and behaviour in the economy where they tend to influence and be influenced by the others in the course of adjusting to changes, striking off any possibility of randomness.

4. Empirical Results And Interpretation

[7] McElroy & Trimbur, 2012, Signal Extraction for Nonstationary Multivariate Time Series With Illustrations For Trend Inflation, Finance and Economic Discussion Series, Division of Research and Statistics and Monetary Affairs, Federal Reserve Board, Washington D.C.

[8] Verbal interview with ex staff of Bank Islam Malaysia Berhad

In order to be able to proceed with the cointegration test, we have firstly tested the unit roots of all the variables to ascertain their stationarity status. Firstly we ran the ADF test on each variable, both at their level log and differenced log forms and found all the variables are non-stationary. In addition to the ADF test, we also carried out Philip-Perron test to check on the robustness of our test results. Whilst ADF has indicated that all variables are non-stationary in their level form, the Pillip-Perron results suggested four out of six variables as non-stationary. This is probably due to the size of our sample which can still be considered not large enough. Davidson and MacKinnon[9] (Pascual, Marta and González-Prieto Noelia, 2014) has reported that the Phillips–Perron test performs worse in finite samples than the ADF test. Therefore we took comfort at the ADF test results to proceed. Moving on, we have opted for the optimal lag on the basis of AIC criteria at five over the SBC's zero lag which is not suitable for the cointegration test. Although further test implied autocorrelation effects in the majority of the variables arising from the over parameterisation, nevertheless considering our relatively longer time series of data consisting of one hundred and thirteen months, we proceeded to test for cointegration.

Our main objective of this research is to explore on the existence of cointegration between the GIA rate and the other variables that we have selected. Existence of cointegration implies that the relationship among these variables is not spurious, i.e. they tend to move together in the long run and therefore they are theoretically related. Firstly we performed Engle-Granger test. The test returned positive results suggesting the variables are cointegrated at the 95% confidence level. Then we proceeded with Johansen cointegration procedure[10] which can accommodate for more than one co-integrating relationship, unlike Engle-Granger's single CV. Johansen procedure's results (see Table 1) validated the earlier results of Engle-Granger. The test suggested different number of CVs, but we have opted for the single CV in line with the main focus of the paper of identifying the existence of cointegration among the selected variables.

Table 1: Johansen ML results for multiple cointegrating vectors - Islamic deposit rates, OPR, FD rates, Islamic interbank money market rates, interbank money market rates and CPI (2004-2013).

[9] Davidson, Russell & MacKinnon, James G., 2004, Econometric Theory and Methods, New York, Oxford University Press. p. 623. ISBN 0-19-512372-7.

[10] Johansen cointegration test can accommodate more than one co-integrating vector (CV) compared to Engle-Granger which only has one CV.

H_o	H_1	*Statistic*	95% Critical V.	90% Critical V.
Maximum Eigenvalue Statistics				
r<=2	*r=3*	*35.14*	31.79	29.13
r<=3	*r=4*	*13.51*	25.42	23.10
Trace				
r<=1	*r=2*	*108.42*	87.17	82.88
r<=2	*r=3*	*62.88*	63.00	59.16
Model Selection Criteria				
AIC	*r=6*	*2036.0*		
SBC	*r=1*	*1795.3*		
HQC	*r=3*	*1936.6*		

The cointegration test results have suggested on the existence of a probable long term relations among our test variables. Then we used long run structural modelling (LRSM) procedure to estimate theoretically meaningful long run relations by imposing on the CV both exact identifying and over identifying restrictions. We used exact identification to normalise the coefficient of our variable of interest, IDR6M by equating it to one. The test results suggest that only the IMMR is significant while the rest are not. Based on theory, we are unable to comprehend this yet. GIA rates and Islamic money market rates are generally unrelated as they represent two different pool of funds managed by two different *mudharibs* in two different markets. Further it was puzzling to note that neither CPI nor the OPR were of any significance over IDR6M.

Table 2: Exact and over identifying restrictions on the cointegrating vector

	Panel A (IDR6M=1)	***Panel B (OPR=0)***	***Panel B (CPI=0)***	***Panel B (CDR6M=0)***	***Panel B (MMR3M=0)***
IDR6M	*1.00 (*None*)*	*1.00 (*None*)*	*1.00 (*None*)*	*1.00 (*None*)*	*1.00 (*None*)*
OPR	*-3.4 (2.24)*	*0.00 (*None*)*	*-6.49 (6.96)*	*0.29 (0.51)*	*1.01 (2.24)*
IMMR3M	*-1.53* (0.50)*	*-0.60 (0.43)*	*-2.13 (1.44)*	*-0.46 (0.60)*	*-0.07 (2.94)*
CPI	*-2.44 (1.58)*	*-7.30 (10.10)*	*-0.00 (*None*)*	*6.39 (8.97)*	*-11.58 (32.13)*
CDR6M	*17.15 (11.26)*	*2.10 (3.34)*	*31.05 (33.68)*	*0.00 (*None*)*	*-2.22 (6.13)*
MMR3M	*-14.03 (9.15)*	*-2.87 (4.27)*	*-24.87 (26.95)*	*-1.02 (1.42)*	*0.00 (*None*)*
Trend	*0.007 (0.004)*	*0.016 (0.021)*	*0.004 (0.003)*	*0.013 (0.018)*	*0.024 (0.065)*
Log Likelihood	*2173.8*				

Chi-Square	*None*	*0.000*	*0.009*	*0.000*	*0.000*

So we proceeded with over-identification procedure on each variable which was found to be insignificant. As expected the over identification procedure returned opposite results, indicating all test variables are significant. Thus we considered all test variables are significant in the CV. This means, although GIA rates are supposedly performance based but they seem to move together with our selected variables, signifying need for further verification of the LRSM results.

The CV does not explain much on the direction or the extend of causality among these variables i.e. on which one is the leading variable and which one is the most laggard one. By being able to discern the exogenuity/endogenuity of these variables, we would be able to infer better on the actual relationship among the test variables and thus deduce better on the behaviour of the GIA rates, especially in the future. So we attempted Vector Error Correction Model (VECM) procedure for the purpose. VECM tries to decompose the change in each variable to short and long term components and allows us to ascertain which variable is exogenous and which one is endogenous. The underlying principle of VECM is the Granger-causality, an inter-temporal linkage between variables where we try to figure out the impact of change in one variable due to a degree of change in another variable in a previous period. For this we examine the error correction term, e_{t-1} for each variable, and the statistical significance of its t-ratio (see Table 3).

Table 3: Error correction terms - Islamic deposit rate, OPR, FD rate, Islamic interbank money market rate, interbank money market rate and CPI (2004-2013).

Dependent Variables	***T-Ratio***	***Prob***
IDR6M	-2.51	0.014
OPR	*4.96*	0.000
IMMR3M	*0.29*	0.771
CPI	*0.49*	0.627
CDR6M	*4.93*	0.000
MMR3M	*5.48*	0.000

The error correction terms indicate that while the IMMR and CPI are exogenous, the rest are endogenous. This can be inferred as the CPI and IMMR are the leading variables which will receive any shocks in the financial market and that lead the movements in the other test variables. This implies the IAHs should closely monitor these two indicators before deciding to invest in GIA products. However our intuition tells that unlike CPI, IMMR's exogenuity

especially over OPR is unexpected. Being the target interest rate aimed at driving the monetary policies, OPR in actual fact is a controlled rate, and thus more likely expected to be exogenous, instead. Further, compared to the conventional interest rates which represent a relatively larger pool of funds in both the banking sector and interbank money market, it is very unlikely for the Islamic interbank money market to override these two. This requires us to further validate the results.

Despite categorising exogenuity or endogenuity of the variables using VECM procedure, we are yet to establish their relative degree of exogenuity or endogenuity. And at the same time we need to stress here that the results were obviously unexpected. So we move on to generalised variance decomposition (VDC) technique to quantify the degree of exogenuity/endogenuity of each variable in comparison to the others. Unlike the VECM procedure which predicts the relationship based on the pass records, generalised VDC decomposes the variance of *forecast* error of each variable including its own into proportion attributable to the shocks from each variable in the system. The least endogenous variable is thus the variable whose variation is explained mostly by its own past variations.

Generalised VDC results (see Table 4) indicate that at the end of forecast time horizon of 50 weeks, the contributions of own shocks towards explaining the forecast error variance are led by CPI at 74% and followed by OPR at 45%, fixed deposit rates at 31%, interbank money market rates at 29%, Islamic interbank money market rates at 29% and Islamic deposit rates at 14%. This means CPI is the most exogenous variable followed by OPR while the least exogenous are the Islamic interbank money market rates and GIA rates. As we observe, GIA rate is the least exogenous variable among all the variables we have tested under this study. Except for interbank money market rate on which it has an influencing effect of 10%, it has insignificant effect on the rest of the variables. Ideally GIA rates founded upon PLS structures should exhibit a higher level of exogenuity as they are supposedly dependent on the performance of their underlying assets, and not influenced by market forces mainly driven by fixed rate regimes.

Table 4: Percentage of forecast variance explained by innovations in generalised variance decomposition - Islamic deposit rate, OPR, FD rate, Islamic interbank money market rate, interbank money market rate and CPI (2004-2013).

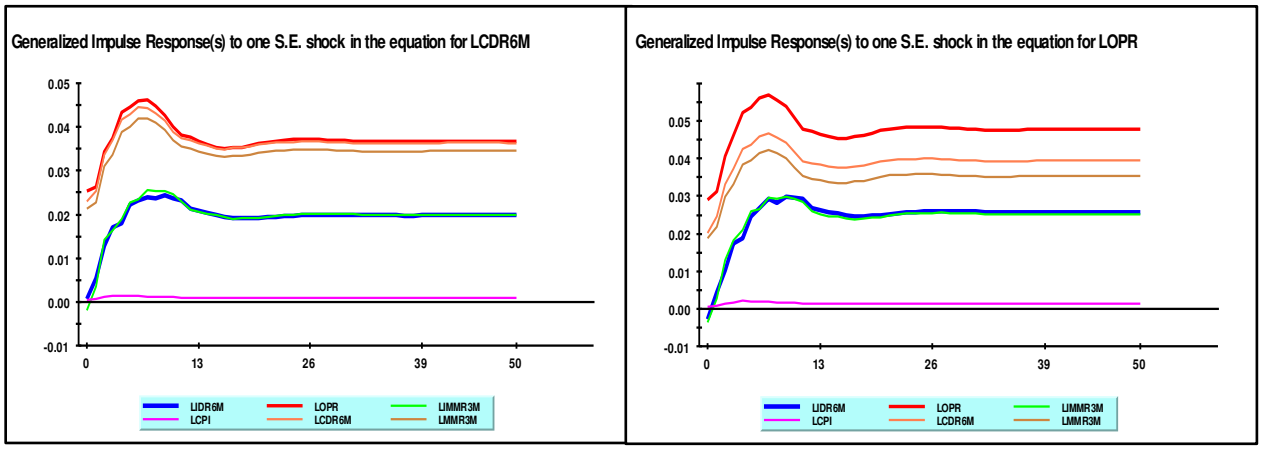
Weeks	IDR6M	OPR	IMMR3M	CPI	CDR6M	MMR3M
Relative variance in IDR6M						
25	14.44	26.91	21.95	3.40	17.66	15.64
50	14.12	28.04	23.13	1.82	17.49	15.41
Relative variance in OPR						
25	0.32	43.94	1.29	2.50	27.64	24.31
50	0.29	45.02	1.49	1.62	27.50	24.08
Relative variance in IMMR6M						
25	10.49	26.43	27.16	2.26	18.10	15.56
50	10.45	27.04	28.53	1.18	17.69	15.11
Relative variance in CPI						
25	7.20	6.67	5.57	74.80	3.23	2.53
50	7.66	6.63	5.82	74.22	3.19	2.48
Relative variance in CDR6M						
25	1.41	34.99	2.44	1.93	31.38	27.8
50	1.46	35.82	2.75	1.03	31.28	27.66
Relative variance in MMR3M						
25	1.88	32.64	2.45	1.88	32.33	28.82
50	1.97	33.24	2.82	0.99	32.29	28.70

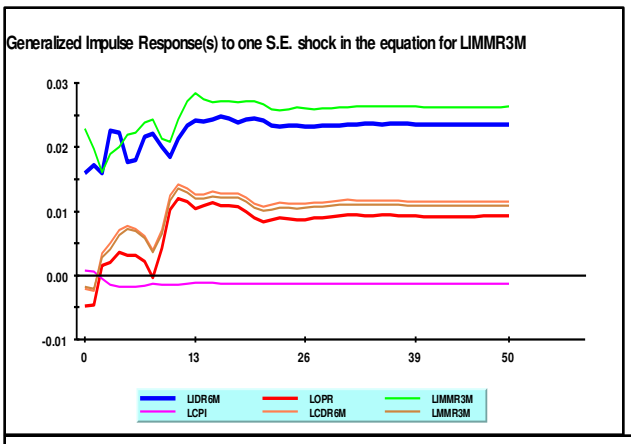
On the other hand the results also indicate that the GIA rates are most influenced by OPR and IMMR at 28% and 23% respectively, followed by CDR6M at 17% and MMR3M at 15%. IDR6M itself at 14% and at an insignificant 2% by CPI. This indicates that either the IMMR3M can be replaced by OPR or vice versa due to its heavy reliance on OPR (Zulkhibri, 2012), or we may want to explore on probable benchmarking between the banking sector and interbank money market within the Islamic financial segment. The influence of the conventional interest rates of both banking sector and interbank market further strengthen the notion of Islamic deposit rates being benchmarked against OPR and other fixed rates regimes in the markets. GIA rates dependence on its own past performance seems to agree with the earlier quoted strategy employed by Islamic banks to use moving average rates. But, though CPI's exogenuity has been confirmed, it has the least significance on the GIA rates i.e. at an insignificant percentage of 2%. In conclusion the test results indicate that the GIA rates are highly correlated to the interest rates movements in the market and not the real sector indicator like CPI.

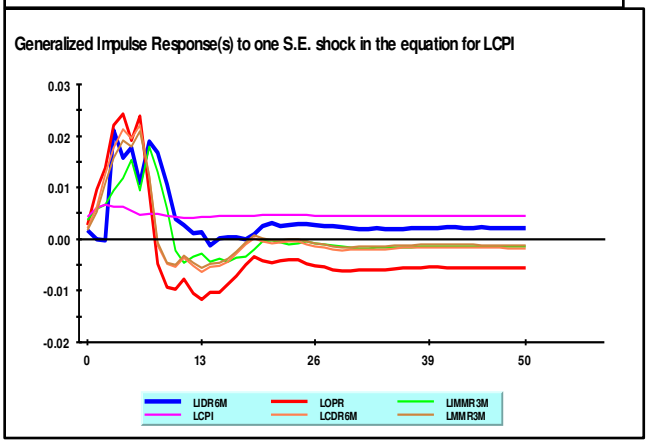
We then applied generalised impulse response functions (IRF) on the data and the output results are presented in Figures 1. Meanwhile the persistence profile (see Figure 2) which represents the effect of a system wide shock on the entire cointegrating vector indicates 16 weeks as the time to

be taken by the cointegrating equation to reach equilibrium post a system wide shock as 16 weeks.

Figure 1: Generalised impulse responses to one S.E. shock in the equation for - Islamic deposit rate, OPR, FD rate, Islamic interbank money market rate, interbank money market rate and CPI (2004-2013).




Generalized Impulse Response(s) to one S.E. shock in the equation for LIMMR3M
0.03
0.02
0.01
0.00
-0.01
0
13
26
39
50
LIDR6M
LCPI
LOPR
LCDR6M
LIMMR3M
LMMR3M


Generalized Impulse Response(s) to one S.E. shock in the equation for LCPI
0.03
0.02
0.01
0.00
-0.01
-0.02
0
13
26
39
50
LIDR6M
LCPI
LOPR
LCDR6M
LIMMR3M
LMMR3M

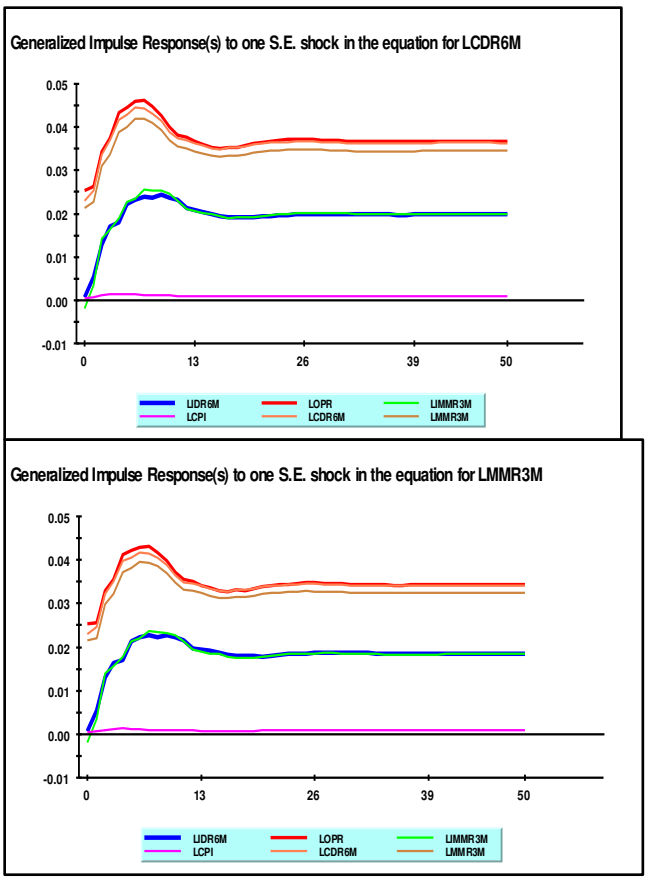
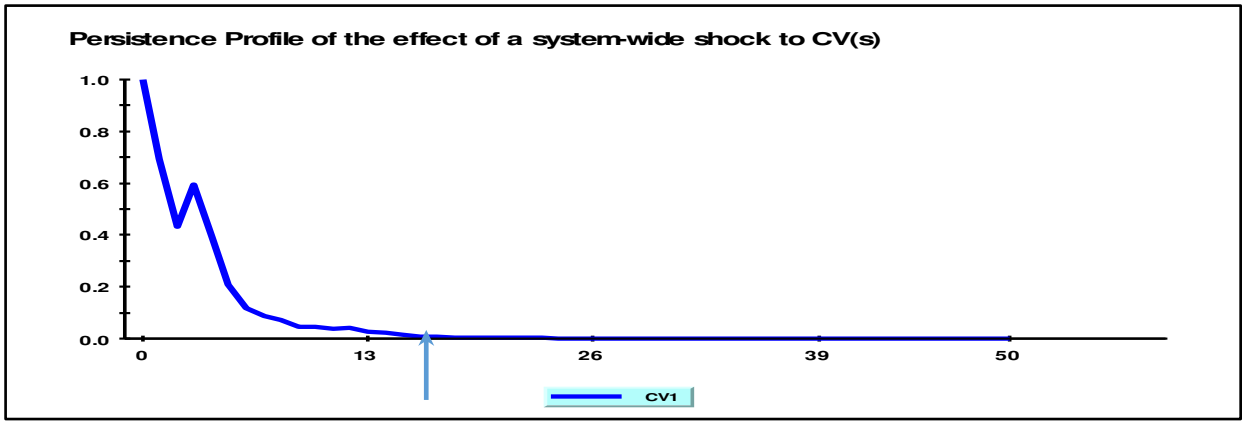


Figure 2: Persistence profile of the effect of a system wide shock - Islamic deposit rate, OPR, FD rate, Islamic interbank money market rate, interbank money market rate and CPI (2004-2013).



5. Conclusions

The empirical analysis that we have just concluded reveals the following as our main findings to the earlier defined research questions:

1. Despite the fact the GIA products based on PLS structures aim at eliminating ex-ante rate fixing, their performance seems to be heavily cointegrated with the major interest rate regimes. This implies that Islamic investment deposit products are not independent of the influence of the interest rate regimes that co-exist in the market.

2. To a certain extend there seems to be a significant correlation between the performance of the placements cross Islamic markets, i.e. between Islamic banking sector and the Islamic interbank money market. Again our instinct is this could be due to some profit smoothening or benchmarking practices[11] being commonly applied by the Islamic banks, most likely prior to finalising the final profit rates to be declared.

3. The price of goods and services has very little bearing on the performance of the GIA compared to OPR and IMMR. PLS structures are commonly thought to be linked to real sector activities but this result seems to contradict such views. Our interpretation of this is the profit smoothening practices most probably could have led to this situation.

4. Apart from the OPR and IMMR which are the most influencing factors of the GIA rate as our test results suggest, conventional FD rate, money market rate and GIA rate itself also seem to have significant influence on the GIA rate. The latter three indicators are quite similar in terms of their degree of effect on GIA rate, ranging between 27-31% with GIA rate being the least influencing on its own.

From this we could deduce that the prevailing practice of monitoring of historical trend of the GIA products might not be the most efficient in this regard. Instead it would be better for the investors of GIA products to look at the OPR and IMMR prior to making their investment decisions. To a certain extent, they could also follow the FD rates and money market rates. This underscores the challenges operating in a dual market environment. The reality of Islamic

[11] Sanctioned by both BNM and AAOIFI subject to certain restrictions

financial market is that it co-exists in the same conventional financial system. The customers of these Islamic and conventional markets are common and generally their expectations are similar in terms of risk tolerance and expectations on return. This has allowed the profit smoothening[12] practises to become part of the regulation, aiming at providing a same level playing field to the Islamic banks. Further the Islamic banks also encounter displaced commercial risk in ensuring competitiveness of their profit rates.

So we try to comprehend our findings. Probably, though the GIA products start with PSRs and indicative rates, but eventually we suspect some probable post acceptance "rate adjustments" by the IFIs. If this is true, then our empirical results can be explained. We believe somewhere in the process of finalising the end rates for GIA, benchmarking against interest rate regimes is carried out to mitigate probable outflow of funds, in case of inferior performance. Or we suspect the indicative rates initially offered were made the end rate eventually. This is more compatible as the conventional deposit rates are fixed upfront while the PSR will only get translated into a rate at the end of placement term and matching rates cannot be achieved unless taken up at the individual placement level. If the above were indeed practised then that explains on the non-significance of CPI on GIA rates.

If our suspicion is true, it will be frustrating to the purist Islamic banking investors who would have walked into the Islamic banks for real investments in shariah compliant products. Although there might be certain reasons behind these practices, but the irony is that the GIA rates have been continuously being "adjusted" by the Islamic banks for the last thirty years or so. So one would probably be thinking, what is the difference between the Islamic 'profit' rates and the conventional interest rates? Or how compliant are the Islamic banks in upholding the profit sharing principles? Or simply how Islamic are the Islamic banks? Nonetheless the good news is that the Islamic Financial Services Act, 2013 which came into force in 2013 has strictly

[12] BNM/RH/GL 007-11, Guidelines on the Recognition and Measurement of Profit Sharing Investment Account (PSIA) as Risk Absorbent, Appendix IV: Illustration of DCR Application, item 2 & 3 says that, "In situation where there is a sudden rise of market rates, the Islamic banking institutions as a strategy to be competitive may decide to increase the rate of returns payable to IAH to prevent potential withdrawal of funds. The application of DCR would occur when Islamic banking institutions give up its proportion of share of profits and allocate it to IAH in order to increase the rate of return. The rate of return to the IAH is "smoothened" at the expense of profits normally attributable to Islamic banking institutions….. '

prohibited any displaced commercial risk or profit smoothening practices[13]. We hope this will allow us a new experience in investing in investments accounts of Islamic banks in Malaysia in the future.

6. Limitations And Suggestions For Future Research

This study do have limitations. Firstly the selection of variables was based on our main research objective of testifying whether the Islamic investment deposits are truly independent from the influence of the interest rate regimes. For this purpose we could have included other variables such like money supply, GDP, industrial production index and exchange rate. In addition, many different combinations of the above variables could have been alternatively tested on. For example we could have either narrowed down the test variables to GIA rates, OPR and FD rates only or expanded to include more economic indicators such like money supply and GDP. However we have scoped our test variables as above and carried out the tests.

Our selection of variables was also dependent on the availability of data. We had considered different sources such like Datastream, BNM statistical bulletin and even the world databank. The data obtained were of different time frequency, such like monthly and daily (like in the case of money market rates) with some of the daily data incomplete probably due to non-trading day or weekend especially during the early years of our dataset. For this we have assumed that the last quoted rate for the month as the monthend rate.

Further as the conventional rates are declared ex-ante basis, the rates are the effective rates the depositor will get for his placement end of its maturity. For example the FD rate declared in January 2014 will benefit the customers whose placements will mature in July 2014, assuming placement is for six month. However for the GIA rates, the customers will get the profit sharing ratio only and the rate will be computed on maturity date. As such the rates declared in January 2014 will only benefit IAHs whose placements are maturing in January 2014. Therefore there exists a continuous lag that corresponds to the tenure of placement between FD and GIA. It would be good to test the impact of this feature in future in order to verify its significance if any.

[13] BNM's policy document on Investment account issued in 2014 BNM/RH/STD 029-4

Finally, in researches the theoretical foundation is crucial to validate the results obtained while performing empirical analysis based on data. Otherwise studies such like this can be deemed a pure statistical data crunching which has no theoretical basis. In our case, we have always believed that the PLS structures should differ from the interest rates regimes. Throughout this study we were guided by this inclination in continuing our tests. And we have found the answers to our research questions as presented above though they stand to be corrected or confirmed.

Nevertheless developing theories in Islamic finance is an ongoing process which has started much later compared to conventional finance. Thus efforts should continue to analyse more and understand better the behavioural patterns of Islamic banking and finance from different perspectives including comparing perceptions against reality and the ideal against what is practical and actually implemented. For this we encourage more researches to be conducted in this area by looking at different sets of data, in different markets, from different countries, and at different time horizon and so on.

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