What drives the profit rates of islamic banks ? Malaysia's case

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Abstract

Repeated financial crises helped the growth of Islamic banks as an alternative asset for investment. Similar to conventional banks, Islamic banks also depend on depositors' money as their source of funds. The profit rate of Islamic banks is expected to influence the amount of funds deposited for investment. This paper wants to investigate what drives the profit rates of Islamic banks. The standard time series techniques are used for the analysis. Malaysia is used as a case study. The findings tend to indicate that the profit rates are driven by the investment deposits of Islamic banks followed by the deposits of the conventional banks and their interest rates. The outcome of the results would be particularly of great interest to the regulators and Islamic bank CEOs to make decisions on whether to still depend on conventional rates and deposits in order to survive.

Keywords: Islamic bank investment deposits, conventional bank deposits, interest rates, profit rates, Malaysia

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1. INTRODUCTION: OBJECTIVE AND MOTIVATION OF STUDY

Having been established for more than 30 years, Islamic Banking in Malaysia has gained much attention especially in the current phase of economic development. Similar to conventional banks, Islamic banks also depend on depositors' money as their source of funds. Therefore, the profit rates of Islamic banks will have vast influence on the number of funds deposited for investment. This study aims to see the relationship between interest rates, profit rates and their respective deposited funds (in this case the General Investment Account) and to find out which variables are the leaders and which ones are the followers. The outcome of the results would be particularly of great interest to the regulators and Islamic bank CEOs to make decisions on whether to still depend on conventional rates and deposits in order to survive.

Various studies have been implemented in this area by focusing on the General Investment Account (GIA) in several countries like Tunisia and Indonesia with various models, but none of the same study has been published using the time series technique that will be used here. Therefore this paper tends to fill this gap by answering the following research question:

What relationship is apparent between the amount of invested funds in GIA in Islamic Banks and conventional banks, together with their respective rates of return, i.e. which of these are exogenous and endogenous?

The variables involved in this study consist of four; that is, both amount of deposits for GIA in Islamic banks and conventional banks; and their respective rates, the profit rate and interest rate.

2. LITERATURE REVIEW and THEORETICAL FRAMEWORK

Since the area of Islamic Banking in Malaysia is still quite new, there is not much work done in the literature to support the argument through strong theoretical answers. However, there has been some studies that uses empirical data to show the effects of interest rates on deposits of conventional banks and the like that can be referred to as the base of this study. In addition, various studies focusing on the Islamic bank investment account and savings account have been done to see what actually drives these deposits.

Looking at the theory of utility maximization, it follows that, as a depositor, he or she will tend to choose an action that will maximize his or her satisfaction. This, as believed by many conventional economists, stems from the high opportunity cost of holding cash when interest rates are high (Romer, 2001). It then, makes sense to say that if conventional investment deposits are highly determined by interest rates, then Islamic investment deposits should also be influenced by the profit rates that are offered by Islamic banks. However, the rate used by Islamic banks serves only as estimates since a fixed rate is not permitted resulting in other possible reasons for depositing money into the investment account.

Some research has shown that Islamic deposits in general are driven by the religious values one may adhere to. Rate of returns or profit rates therefore have insignificant effect on the number of deposits in Islamic banks in certain countries. For example, Metawa and Al-Mossawi (1997) found that people in Bahrain mainly choose to invest in the GIA of Islamic banks due to religious based reasons and take the rate of returns only as a second. From the author's perspective, it may be the case for countries like Bahrain and Sudan where people are not so motivated by the profit rate since their ultimate goal is more on serving the religion. But in most other parts of the world, the profit rate somehow or rather will have a great impact on the amount of deposit since a normal human being would react to high profit in such a way to gain and would not want to lose.

Haron and Ahmad (2000) prove that depositors are mainly encouraged to invest with higher profit rates. Using an Adaptive Expectation Model with Malaysian data, they show that this is the case, where a one percent increase in the profit rate can boost the deposit amount by 71 million Ringgit. On the other hand, interest rates are found to be negatively related to Islamic deposits where 1 percent decrease in interest rates would increase deposits in Islamic banks by 65 million Ringgit. This is not a good thing for Islamic banks although a decrease in interest rates would shoot up the deposits. The reason being is that, the conventional investment deposit account happens to be a complement instead of a substitute and customers would still go back and forth between the two systems depending on the rates. This however would be a different case in countries such as Bahrain which will possibly generate a permanent customer loyalty with an Islamic bank since the thing that drives them to deposit money is religion itself.

Haron and Ahmad (2000) have clearly posed their ideas based on Islamic teachings that the profit motive in Islam should not be the sole driver of any activity. They mention that the intention of putting money into investment deposits of Islamic banks SHALL not be because of the profit rate movement whatsoever, but to gain the blessings of Allah. In light of the strong Islamic principles, it is hoped and expected that depositors of Islamic banks would deposit their money with the intention solely for Allah since this is the best way to manage the resources given by Him. However, it is not easy to quantitatively see a person's niyyah or intention and therefore it would be hard to include this variable in the study unless a robust interview or survey is done.

Many of the existing works done focused on fixing the deposit amount as the dependent variable and finding the cause of the increase or decrease in GIA. However, there is probably none, (according to the limited knowledge of the author) that looks into what drives the profit rate of Islamic banks. This can be explained further by the time series technique since data will show the true movement of variables.

Based on the limited number of literature review, it is now relevant to proceed to the next step with quantitative analysis of the study. Since there is no clear theory in the area of research, the literature review provided will be referred to and if there are explicit controversies, intuition and knowledge will help to explain the findings.

3. RESEARCH METHODOLOGY, RESULTS AND INTERPRETATION

This study is based on a time series technique, which employs most importantly the long run structural modelling and error correction model. The model will involve several steps starting with the tests of unit roots and ending with persistence profiles.

The method used here is considered as one of the current models used for econometric modelling and is generally chosen over the basic regression that has survived for 60 years. One of the reasons that this study does not favour regression is because of the assumption that has to be made in using regression. The assumption that the data is stationary cannot at all be used in this regard, since financial data are almost always nonstationary at their level forms. If regression is still employed, then the results would not have significant meaning since the statistical tests would not be valid.

Statisticians have solved this problem in regression by using the differenced form of the variables, which is by differencing the variables to make them stationary. With stationary data, it is then possible to use regression model and results would be more meaningful. However, in applying the differenced form of the variables to make them stationary, the researcher will have put out the long term theoretical component in the variable leaving only the short term, seasonal effects.

The time series technique is also a model that does not require the researcher to determine or force the dependent variable. As already discussed briefly in the literature review section, most of the studies done had the investment/deposit account as the dependent variable. While this can also be true in the time series technique, it could also result in a more interesting outcome if other variables turn out to be the endogenous. This can be explained by the time series technique characteristic of allowing data itself to show the real movement of variable without having to force them. Therefore, the result from this study may differ altogether from the previous studies if the investment account for Islamic banks does not end up being endogenous.

Since the data for Islamic banks are still limited, this study uses monthly data from December 2006. An earlier start date was not possible in this case since Bank Negara Malaysia only provides

the separated Islamic banks' figures starting December 2006. Previous years have included Islamic window operations in conventional banks and would be irrelevant for this study. There are a total of 49 observations and 4 variables are used:

- General Investment Account deposit amount for Islamic banks (GIAISL)

- General Investment Account deposit amount for conventional banks (GIACON)

- Profit rates of Islamic banks (PRO)

- Interest rates (INT)

Data was taken from the monthly bulletin from Bank Negara Malaysia website from 2007 to 2010.

The method is simplified below through the eight steps that must be done in the time series technique through the software, *Microfit*:

1. Testing stationarity of variables
2. Determination of order of the VAR model
3. Testing for cointegration
4. Long run structural modelling (LRSM)
5. Vector error correction modelling (VECM)
6. Variance decomposition (VDC)
7. Impulse response function (IRF)
8. Persistence profiles

3.1 Testing Stationarity of Variables

The purpose of testing stationarity/non-stationarity of the variables is to enable us to test for cointegration in the later steps. To proceed with cointegration testing, the variables involved should be I(1) , that is, the variables are stationary only once they are differenced once. This differenced form version of variables is created by taking the difference of the log forms that have been defined. For example, as in the case of the Islamic GIA which has been defined by the author as

GIASL = LOG(DEP)

will have its differenced form through:

DGIASL=GIASL-GIASL(-1).

Further in this test, the Augmented Dickey Fuller (ADF) test is used to enable the author to distinguish the non stationary and stationary variables. The results are in APPENDIX A1-A8 and are summarized as below:

Variable	Test Statistic	Critical Value	Interpretation
GIAISL	-.83369	-3.5162	VARIABLE IS NON-STATIONARY
GIACON	-2.7127	-3.5162	VARIABLE IS NON-STATIONARY
PRO	-.92026	-3.5162	VARIABLE IS NON-STATIONARY
INT	-1.2184	-3.5162	VARIABLE IS NON-STATIONARY

Variable	Test Statistic	Critical Value	Interpretation
DGIAISL	-5.7934	-2.9320	VARIABLE IS STATIONARY
DGIACON	-3.8026	-2.9320	VARIABLE IS STATIONARY
DPRO	-3.7814	-2.9320	VARIABLE IS STATIONARY
DINT	-3.0521	-2.9320	VARIABLE IS STATIONARY

The test statistic highlighted above are chosen according to the AIC and SBC criteria, that is choosing the ADF from which the AIC is highest. However, all other test statistics are relevant in the case of level form variables. As in the case of differenced form variables, this criteria was needed since some of the other test statistics are not significant to show that they are stationary.

From the above results, it is concluded that all variables involved are I(1) and therefore the test for cointegration can be done. But before that, the next step will help determine the lag order of the VAR model.

3.2 Determination of order of the VAR model

The determination of order of the VAR model is defined as the number of lags to be used in the analysis. This is done using the unrestricted VAR function in *Microfit* by selecting an exceptionally high order, 6. The outcome will show both AIC and SBC where AIC will give the maximum lag order, while SBC gives the minimum. The results are summarized below:

	Criteria	
	AIC	SBC
Optimal order	6	0

Given the clear conflict between suggestions of lag order by AIC and SBC, it may have resulted from possible serial correlation and needs to be checked. Choosing a lower order may be a problem as a result from autocorrelation, while a higher order may drop degrees of freedom. From the diagnostic tests, only a single autocorrelation is found; therefore the authors choose 2 as the optimum lag order (since the normal lag order is either 2 or 3). A higher order in this

case is thought to be irrelevant since the number of observations is quite limited and will result in losing more degrees of freedom.

3.3 Testing for Cointegration

Two tests are carried out to see for cointegration in the study. One is the Engle-Granger method which only identifies at most, one cointegration, and the Johansen method which could actually identify more than one. The Engle-Granger method is in fact the residuals method, therefore it is just testing the stationarity of the residuals once saved in the microfit, in this case as RESID. This is similar to the first step, that uses the ADF on RESID. The interpretation would be that if it is stationary, it means that there is a cointegration among the variables. Results are shown below.

Test statistic	Critical Value	Interpretation
-2.9776	-2.9591	Stationary

From the summarized version of the Engle-Granger method above, the author concludes that there is one cointegration (since Engle Granger only detects one). More cointegration would be identified with the Johansen Method and this is considered more precise. This brings us to the Eigen Value and Trace criteria under Johansen Method.

In the case of these two criteria, the two hypotheses would be:

H_0: there is no cointegration

H_1: there is cointegration

The way it is interpreted is through looking at the test statistics and compare them against the critical values. For example, an extract from the output of the maximal Eigen Value is as below:

Null	Alternative	Statistic	95% Critical Value	90%Critical Value
r = 0	r = 1	35.3785	31.7900	29.1300
r<= 1	r = 2	18.2258	25.4200	23.1000
r<= 2	r = 3	15.0083	19.2200	17.1800
r<= 3	r = 4	10.5740	12.3900	10.5500

In the first row, were null is r=0, the test statistic is more than the critical values of 95% and 90%. Therefore, the null hypothesis is rejected (meaning that there is cointegration, but we are not sure how many, just yet), so we move onto the next row. The test statistic number is now lower than the critical values, therefore we accept the null (which is now r<=1).

From the Eigen Value test, it is confirmed that there is only one cointegrating vector, similar to the Engle-Granger method. However, according to the Trace criteria, there are two cointegrating factors found. For the purpose of this paper, we assume only one cointegrating relationship.

It makes sense to say that these variables are cointegrated, meaning that they do somehow relate to each other in the long run, especially regarding the Islamic investments that started off depending on the conventional counterpart . The profit rate for Islamic investments also would be logically related from intuition and knowledge since Islamic banks will also want to profit from the business in the competitive market with conventional banks. Therefore we can say the relationship between these four variables is not spurious and they tend to move together in the long run.

3.4 Long Run Structural Modelling

Since the previous step already confirmed one cointegration among the variables, this step is an attempt to quantify that relationship. This then enables us to compare with statistical findings to our intuition and knowledge, or theory if available. Since this study does not depend on any strong ground theory, we only rely on the available resources of literature, personal knowledge, and intuition.

The Long Run Structural Modelling (LRSM) is done through normalizing the particular variable of interest (in this case the Islamic investment deposit, GIAISL) by identifying a1=1. However,

the results show that all the other variables become insignificant with this normalization. The manual calculation of t-ratios and summary of the output below shows this insignificance.[1]

Variable	Coefficient	Standard Error	t-ratio	Interpretation
GIAISL	-	-	-	-
GIACON	4.5459	6.1753	0.7361	Variable is insignificant
PRO	-6.7072	5.6826	-1.1803	Variable is insignificant
INT	4.6037	3.8684	1.19	Variable is insignificant

From the above table, all the t-ratios show a signal of insignificance since all are less than 2. This result raises curiosity since all the literature related mentioned these variables to be significant. Thus there is a need for over identification restriction to test our intuition that all the variables are still significant somehow.

An overidentification of each variable[2] equalling to zero was tried but failed to show any sign of significance and thus all variables should be included in the cointegrating relationship. This is because all individual overidentification of aX = 0 (X being 1, 2, 3, 4) would result in rejecting the null hypothesis EXCEPT when a restriction of a2=0 is made. The percentage error of rejecting the null hypothesis (that a2=0) is 0.256. However, the t-ratios of all variables are still insignificant. Therefore other values were experimented for a2.

When a trial for a2=1is made[3], the t-ratios became more significant and as a2 is increased, we fail to reject the null hypothesis, with the p-value increasing each time.

[1] APPENDIX D1
[2] APPENDIX D2-1 TO D2-3
[3] APPENDIX D2-4

Finally, with the restriction of a2=3 all the t-ratios are significant and the null hypothesis is accepted since the p-value is at a high of 0.770. [4],

From the above analysis, since we chose to proceed with the overidentification of a2=3, we arrived at the cointegration equation below:

GIAISL + 3GIACON – 5.6409PRO + 3.8157INT →I(0)

(2.8589) (1.6583)

Even though LRSM allows us to see the equation and compare our intuition with statistical outcome, it does not tell us which variables are endogenous and which ones are exogenous. Thus we are not able to conclude which variables are independent or dependent. This will be solved in the next step, Vector Error Correction Model.

3.5 Vector Error Correction Model (VECM)

From the steps we have gone through thus far, we know that the variables are cointegrated to some degree but we are not given any information on the causality of the variables. In other words, we do not know which of the variables determine which. Having information on the leading and following variables are particularly important to regulators and policy makers in that they need to know which factor should be 'kicked' first in order to result in the movements of other variables, called the followers. At the same time, the most exogenous variable or the leader will be closely monitored since this variable is the one that brings significant effect on the others. Vector Error Correction Model (VECM) gives us this particular information on the causality of the variables involved. Through this step, the change in each variable is decomposed to short and long term components and it also determines which variables are exogenous or endogenous by looking at the ecm(-1) term in the output. Through

[4] APPENDIX D2-5

Granger-causality, we are able to determine the extent to which one variable is influenced by another in the previous period. The following table summarizes this part of the output in VECM.[5]

Variable	ECM(-1) t-ratio[prob]	Interpretation
GIAISL	-1.4031[.171]	Variable is exogenous
GIACON	2.5884[.015]	Variable is endogenous
PRO	5.9673[.000]	Variable is endogenous
INT	-2.3073[.028]	Variable is endogenous

The interpretation can be looked at from the two numbers, either t-ratio or probability. Both will give the same interpretation, but the author simply looks at the t-ratio; that is, a t-ratio higher than 2 represents endogenous variable, while a t-ratio lower than two represents exogenous variable.

This outcome seems to be a little puzzling since the initial normalization was to make a1=1, that is the GIAISL as the dependent variable. Thus we see the characteristic of the time series technique here that data will show the true movement of variables. Here, the Islamic investment deposit account happens to be the only exogenous variable which shall be influenced by the other three variables. The drawback of this method is however, it cannot determine which of the variables are most exogenous or endogenous when there more than one of the same type. For example, in this case, there are three endogenous variables, but we do not know which one is the ultimate follower i.e. the most endogenous.

This limitation of VECM will be solved in the next step, which is the Variance Decomposition.

[5] APPENDIX E1-E4

3.6 Variance Decompositions (VDC)

Since the VECM in the previous step is not able to tell us the relative endogeneity of the three variables, we need the VDC to provide us with this information. The VDC has two methods in the *Microfit* software. One is the orthogonalized and the other is the generalized version. What VDC does is it decomposes the variance of forecasted error of the different variables individually into proportions attributable to shocks from each variable. This not only happens in the whole system, but also including its own shock. The least endogenous variable will be considered exogenous. This is seen from how much the variable is explained by its own past.

This step is started off with the orthogonalized VDCs. The orthogonalized VDC assumes that when a particular variable is shocked, all others are 'switched off'. In addition, the numbers presented in the output depends on the ordering of the variables in the VAR. Usually, the first written variable will have the highest percentage since it is given priority as the first. Therefore, this first variable will normally turn out to be the most exogenous. To test whether this is true, the variables GIAISL and PRO are switched places in the VAR to see whether PRO would turn out to be the exogenous. From the experiment however, the results still show that GIAISL is the exogenous variable. From the author's point of view, this may be a result of the limited number of observations in the study or it may be that after all, GIAISL is the most leading factor in this study that could be influenced by other variables not included here.

The table below shows the orthogonalized VDC at the 10^{th} horizon[6], which clearly depicts the fact that GIAISL is the most exogenous variable with 95.15% contributed from its own shock compared to other variables. The highlighted diagonal pattern is the relative exogeneity; GIAISL being the most exogenous, and PRO being the least exogenous, therefore most endogenous.

6

	GIAISL	GIACON	PRO	INT
GIAISL	.95148	.0016992	.038148	.0086715
GIACON	.087829	.76150	.12957	.021101
PRO	.075632	.17203	.084496	.66784
INT	.0075720	.30711	.037375	.64794

The results follow accordingly with the VECM step that found GIAISL to be the only exogenous and the rest being endogenous.

When the variables GIAISL and PRO are switched to examine the effect of ordering of variables, the results come out to be as summarized below:[7]

	PRO	GIACON	INT	GIAISL
PRO	.092947	.11551	.75744	.034106
GIACON	.18228	.78803	.025772	.0039187
INT	.051239	.28138	.66450	.0028776
GIAISL	.032530	.064600	.075273	.82760

Although the percentage of GIAISL effect on itself decreased and the others increased, it still does not change the relative exogeneity or endogeneity among them, as already explained previously.

As for the generalized VDCs, the results are also summarized in table form as follows:

	GIAISL	GIACON	PRO	INT
GIAISL	.89175	.054342	.030488	.023418
GIACON	.07574	.725199	.157196	.041861
PRO	.08251	.135069	.101399	.681021
INT	.008286	.323061	.056073	.612579

The orthogonalized VDC had a few assumptions which the generalized VDC does not assume. The generalized VDC does not consider the particular ordering of the variables and does not assume that when one variable is shocked, the others are 'switched off'. However, the numbers in the row for generalized version does not add up to 1 or 100% like the orthogonalized. Thus, manual calculation of the numbers needs to be done in order to get consistent numbers as a percentage amount.

The three tables above (both orthgonalized and generalized) show consistent findings regarding the exogeneity of the variables. All three outcomes rank the relative exogeneity as follows.

No.	Variable
1	GIAISL
2	GIACON
3	INT
4	PRO

From here we are able to see that both steps 5 and 6 are consistent in giving out the results although initially the author placed a1=1; that is the variable GIAISL as the dependent. It turns out to be that the investment deposit of Islamic banks (GIAISL) is not really influenced by the three other variables, rather the profit rates of Islamic banks are influenced by the other variables. This is a logical reasoning from the author's perspective since competition from conventional banks drives the Islamic bank to increase or decrease its profit rate. Even though in this set of data, the GIAISL happens to be the most exogenous, it may become endogenous if other variables such as the religious reason are included. It is plausible to say from the findings, that customers of Islamic banks do not generally depend on the profit rate to deposit their money. It could originally be their own intentions of religious act in the first place, except that it is difficult to quantify.

Although it is a little confusing to see that interest rates (INT) of conventional banks have the least influence on profit rates of Islamic banks, an intuition may explain it. We are always seeing that Islamic banks need to depend on conventional banks in the past decades but what is found from this study is that we are moving away from too much dependency. Although both conventional deposits and the respective interest rates do have quite an influence on the profit rate, the Islamic investment deposit still stands first place as the leading variable that could be kicked to make the profit rate move up or down. Although in theory, there are other variables that would determine the profit rate, it is enough to say from this finding that the investment account of Islamic banks does have an important role to play. The amount of

deposits would enable banks to increase or decrease the profit rate so as to ensure that customers' money is given competitive returns. At the same time, the initial profit rate used by Islamic banks may not be the rate that customers are depending on to invest since it is only an estimate and not fixed. This explains the case of investment deposits not being influenced by the profit rate. In this case, other factors could be the leader for increasing the deposits, and not the profit rate itself.

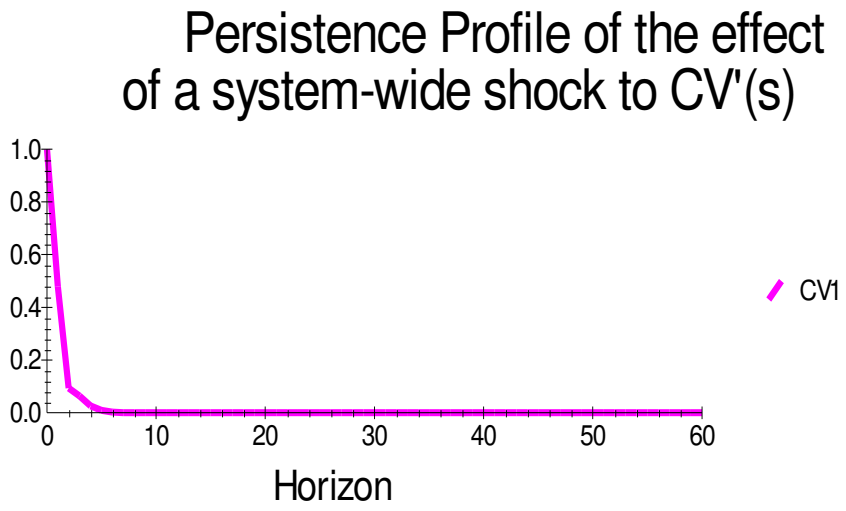
3.7 Impulse Response Functions (IRFs)

The Impulse response functions basically show the graphical representation of the VDCs in the previous step. While the VDCs prints out the numbers in the output, the IRFs uses these numbers to generate graphs. IRFs essentially map out the dynamic response path of a particular variable owing to a standard deviation shock of one period to another variable.

Since the IRFs produce the same information as VDCs but in different forms, explanation here would be redundant. However, the graphical outputs are available on request.

3.8 Persistence Profiles

The IRFs through VDCs illustrate a situation that depends on a shock to a single variable. But here in this step, the persistence profiles give a situation where the entire system is given a shock; that is, the whole cointegration equation is shocked. Both IRFs and persistence profiles map out the dynamic response of long term relationships but differ in that the former is based on variable-specific shock and the latter, the whole system shock. The graph in persistence profiles will also indicate how long it would take for the relationship to get back to equilibrium in the long run. As the graph below illustrates, the equilibrium time is around 5 weeks; that is to say, it would take approximately 5 weeks for the cointegrating relationship to get back to equilibrium after a system-wide shock.



4. CONCLUSION

The conclusion that can be drawn from this study is firstly, the time series technique allows the data to determine the movement of the variables under study. This is the reason why the profit rate comes out to be the most endogenous of all variables, contradicting the many literature available on the topic. However, since the relative endogeneity/exogeneity in this study is quite obvious and consistent along the steps, it is believed that the profit rates of Islamic banks are actually influenced by the other three variables. But it cannot be concluded that these are the only factors that determine the profit rate since there is no ground theory in this aspect. At the same time, there are many other influential factors in the economy that could move the profit rates up and down. We now are able to answer the research question in general through steps 5 and 6; again in the form of the following table:

No.	Variable
1	GIAISL
2	GIACON
3	INT
4	PRO

Variables become more independent as arrow goes up

The relationship could also be put in the form of mathematical equation as follows. This applies only for this particular study since no theory is formally established regarding this)

PRO=f(GIAISL, GIACON, INT)

With the aid of this study, Islamic banks could at least focus on other ways to increase the general investment account (GIAISL being the variable) besides only focusing on increasing the profit rate to increase deposits. Other factors like product development, attractiveness of deposit packages, number of branches, and also good religious education in banking could well serve the public to be aware of this matter.

As for the dependency on conventional banks' interest rates and deposit amount, it was probably a necessity to be benchmarking on those variables. Now that Islamic banking have thrived and survived for many years, it could be the starting point to slowly moving ahead with our own integrity. Furthermore, this study also showed that interest rates and conventional deposit does not have influential effects as much as the Islamic deposit itself. Therefore the profit rate is not the only factor that customers look at when they decide to invest in the Islamic banks, rather it could be the increase in awareness that triggers the public to start investing the Islamic way. This is actually the modest way to go for Islamic banks and the customers by not only investing for the purpose of getting the returns, but to get the beneficial rewards from Allah and finally with this intention, the investment amount would trigger banks to provide adequate capital to

increasing the profit rates to be given out as returns to customers. In short, whatever that is given with good intention and sincerity will of course result in abundance of later rewards and returns.

Another fact related to this is the riskier projects or investments undertaken by Islamic banks. Since Islamic banks deal with contracts like Musharakah and Mudarabah which are far more risky than those of conventional banks' contracts, the risk would certainly be taken into account in determining the profit rate. The fact that not many people are capable of taking enormous risks lowers the participation for depositing their money into these risky accounts. Thus banks have to work on increasing the profit rate to attract more customers. And at times where demand suddenly boosts up, the profit rate has to be reduced in order to balance the banks' capital. This strongly explains the negative coefficient on the variable PRO in the equation.

5. LIMITATIONS AND RECOMMENDATIONS

As this study initially posed to show that the GIAISL to be the most dependent variable, there is a big room for further research on what actually drives the investment deposit of Islamic banks other than the variables already mentioned here, especially the number of branches and religious education levels which are still waiting for published data.

As most of the literatures have established that profit rates do have a strong effect on the Islamic investment deposit, the limitations of this study may have come from the arbitrariness of the variables chosen and the limited time horizon. Since the Islamic investment deposit was only separated from the general investment in later years, data was not available for a date earlier than December 2006.

Future studies could be done to see the difference of this relatively short term study with a longer one, say in the next five or ten years. A strong conclusion on the factors influencing the profit rate in this study cannot be made since there are too many others that could take the role. Although interest rate happens to be the least pulling factor in this case, it will still be one of the benchmarked variables as long as the economy is still heavy-weighted on the western ground. Unless there happens to be a movement to shift towards an independent Islamic economy with

our own production and increased exports, the conventional factors will always be a reference for us in the longer term.

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