

THE EFFECTS OF CONVENTIONAL INTEREST RATES AND RATE OF PROFIT ON FUNDS DEPOSITED WITH ISLAMIC BANKING SYSTEM IN MALAYSIA

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Interest rate has long been recognized not only by classical and neo-classical economists but also by contemporary economists as one of the factors that determine the level of savings in the economy. Although there are cases of inconsistent findings, it is a generally accepted opinion that interest rate has a positive relationship with savings. In other words, customers are guided by the profit maximization theory. Since there is no pre-determined rate of return involved in Islamic banking system, it is unknown whether Islamic bank customers are subjected to the normal conventional theory of economic behavior. If this assumption is true, a conclusion can be made that both interest rate of deposit accounts of conventional banks and rate of profit declared by Islamic banks have strong relationship with the amount of deposits of Islamic banks. Therefore, the management of Islamic banks is bound to follow the market rate when declaring the rate of profit to their customers, vice versa. Using Adaptive Expectation Model, this paper examines the effect of interest rates of deposit account facilities of conventional banks and past dividend rates on funds deposited by customers on the Islamic deposit facilities of Malaysian banks.

Introduction

After nearly four decades of their establishment, Islamic banks have managed to position themselves as financial institutions not only playing important role in resource mobilization, resource allocation and utilization but are actively involved in the process of implementing government monetary policy. Apart from offering almost all traditional banking facilities, Islamic banks also facilitate domestic and international trades. The first Islamic bank, pioneered by Mit Ghamr Local Saving Bank, was established in 1963 in a provincial rural centre in the Nile Delta (Egypt). At present, there are more than 200 interest-free institutions operating in 40 nations worldwide and providing services that are compatible to those services offered by conventional banks. In 1985 this system mobilized an estimated US \$5 billion funds which currently has increased to US \$ 80 billion. Western conventional based financial institutions such as Citibank, JP Morgan, Deutsche Bank, ABN Amro and American Express have started introducing interest-free products to customers. Similarly, multinational corporations such as General Motors, IBM and Dewoo Corporation have begun to use interest-free services.

Like conventional banks, Islamic banks also depend on depositors' money as a major source of funds. Bank Islam Malaysia Berhad (one of the Islamic banks in Malaysia) for example, had total deposits amounting to 83% of total liabilities and shareholders' equity as at the end of December 1998. Since depositors' money is a major source of funds, it is important for the management of Islamic banks to know the factors that influence customers' decision making in depositing their money with Islamic banks. With the exception of a study conducted by Metawa and Almoassawi (1997) which shows religion as a factor of customers' choice of Islamic bank in Bahrain, other studies proved otherwise. The evidence from studies conducted in Sudan and Turkey, for example, shows that religion is not the main reason for customers selecting Islamic banks (Erol and El-Bdour, 1989). Similarly, studies conducted in Malaysia and Singapore find both religion and profit as the reason for people maintaining their relationship with Islamic banks (Haron et. al., 1994; Gerrad and Cunningham, 1997).

Since depositors are motivated by returns, it is important for Islamic banks management to understand the extent that rates of return on deposits influence their customers' decision to deposit. The purpose of this study is to highlight the strength of the relationship between the deposits of Islamic banks, and its 'rate of profit' of both savings and investment deposit facilities. This study will also measure whether the rates of interest available at conventional banks have a direct influence on the level of deposits of Islamic banks.

Theoretical Considerations

Rate of interest has always been featured as one of the important considerations in explaining the saving behavior of individual. Saving, according to Classical economists, is a function of the rate of interest. The higher the rate of interest, the more money will be saved, since at higher interest rates people will be more willing to forgo present consumption. Based on utility maximization, the rate of interest is also at the center of modern theories of consumer behavior, given the present value of lifetime resources. For a net saver an increase in the rate of interest will have an overall effect composed of two partial effects: an income effect leading to an increase in current consumption and a substitution effect leading to a reduction in current consumption (Hadjimatheou, 1987).

Keynes (1936) despite arguing the quantitative importance of the interest rate effect believes that in the long run substantial changes in the rate of interest could modify social habits considerably, including the subjective propensity to save. Friedman (1957) in his neoclassical analysis of the consumption function suggested that the main variables determining the average propensity to consume are 'the rate of interest, the relative dispersion of transitory components of income and of consumption, the ratio of wealth to income, and the age and composition of consumer units'. In view of the importance of the rate of interest on consumption, many researchers using various methodologies try to establish the strength of relationship between these two elements. Wright (1967), Taylor (1971), Darby (1972), Heien (1972), Juster and Watchel (1972), Blinder (1975), and Juster and Taylor (1975) in their studies found an inverse relationship between interest rate and consumption. Modigliani (1977) based on his works and after seeing evidence on the effect of interest rate on consumption concludes that the rate of interest effects on demand, including the consumption component, are pervasive and substantial.

Each of the different types of deposits available at the conventional banks carries a different rate of interest or yield to the depositor. In general, the longer the maturity of a deposit, the greater the yield that must be offered to depositors, in part because of time value of money and the frequent upward slope of the yield curve. For example, notice of withdrawal (NOW) deposits and money market deposits (MMDAs) are subject to immediate withdrawal by the customer and, accordingly, interest rate offered to depositors is among the lowest of all deposits. In contrast, negotiable CDs and time deposits of a year or longer to maturity often carry higher rates. Similarly, savings or thrift deposits are designed to attract funds from customers who wish to set aside monies in anticipation of future expenditures or financial emergencies. These deposits generally pay significantly higher interest rates to customers than transaction deposits do, particularly for those deposits the customer agrees to hold with the bank for several months or years.

Conventional bankers have learned that deposit pricing can be used to shape the kind of customer base each bank can best serve. Changing deposit prices affect not only spread between bank loan rates and deposit interest rates but also customer balances and deposit mix decisions, which in turn, influence both bank growth and profit margins (Edmister, 1982). As Rose (1991) points out, deposit pricing is best used to protect and increase bank profitability, rather than to simply add more customers and to take market share away from competitors. Indeed, when new deposit plans are introduced, its biggest appeal and greatest chance for success lies with those customers who already hold deposits with the bank. And even those customers the bank already has will not automatically pay higher prices for deposit services. They will pay no more for a deposit than the sum total of its benefits to them and will go elsewhere when the value of those benefits falls below the deposit's price or if a competitor offers a significantly better package of services.

In summary, two important elements emerge from this overview. First, the acknowledgement by conventional banks that those who are willing to part with their monies must be rewarded. Second the recognition that different types of deposits carry different amount of returns or rewards. Therefore, if the management of Islamic banks believe that the attitude of depositors of Islamic banks are indifferent to those of conventional banks, the same rates of return will be rewarded with rates of conventional banks. There are several serious repercussions if the management of Islamic banks believe that depositors at Islamic banks possess similar attitudes to those at the conventional banks. The interest rate will continue to have an influence on the operations of Islamic banks as long as this thought remains in the mind of their management. Findings of Metwally (1997), for example, confirmed that conventional and Islamic banks offer their depositors similar returns.

Although some empirical research have found that people who patronise Islamic banks look for monetary rewards, this is not necessarily true for all cases. In 1984, Kuwait Finance House did not distribute any profit to their depositors, but there was no evidence of massive withdrawal of deposits. Similarly, Islamic banks in Sudan never reward their current account holders, but a bulk of their funds is supplied through these facilities. As institutions whose foundations are based on religious doctrines, it is paramount for Islamic banks management to believe there are other factors that dominate the economic behaviour of Muslims. These principles comprise the belief in the day of Judgement and the life in the hereafter, the Islamic concept of riches, and the Islamic concept of success. All of these principles are expected not only to have a significant impact on the decision-making process of Muslims, but also to have an influence on their perceptions of Islamic banks.

The first principle has an effect on the depositors' behaviour and their decision-making process. The choice of action is based not only on the immediate financial returns but also on those returns in the hereafter. Therefore, the decision to place deposits with Islamic banks is not because of a profit motive but rather to gain the blessing of Allah. One of the ways to gain this blessing is to support any program that will improve Muslim communities. Since Islamic banks operate on an interest-free basis and their establishment is designed to improve Muslim communities, Muslims who support these banks are therefore considered people who achieve salvation as indicated by Verse 20 of *Al Tawbah*.

In the case of the second principle that involves wealth, Islam has given a clear guideline to be followed by Muslims. In Islam, wealth is a bounty from Allah and is a tool that may be used for good and evil. Poverty is, in some instances, associated with disbelief and riches are considered a gift from Allah. Wealth itself is considered as an important means by which man can pave the way for the attainment of his ultimate objective. All persons are exhorted to work to earn a living and to accumulate wealth. Accumulating wealth is considered among the highest blessings bestowed on man and everyone is encourage to strive for wealth (Verse 10 of *Al Jumu'ah*).

The methods of earning, possessing, and disposing of wealth, however, must be in line with the *Shariah*. The best method of accumulating wealth as defined by *Shariah* is by striving to succeed on one's own and not from the income generated from other peoples' efforts. This is in line with many *hadiths* in which the Prophet (pbuh) had given his advice to Muslims to work for their own food. Therefore, in line with these *hadiths* Muslims should not regard rewards from Islamic banks as a source of income.

The Islamic concept of riches also serves as an important factor that influences Muslim attitudes towards the existence of Islamic banks. Islam defines success as the level of obedience to Allah and not the accumulation of wealth. Service and obedience may be rendered by the positive use of capabilities and resources given by Allah. According to Islamic teachings, if a man really wants to serve Allah, the utilisation of the natural and human resources made available to him is not only a privilege but also a duty and obligation prescribed by Allah. This is in line with Verse 27 of *Al Anfal* which commands Muslims not to betray the trust given by Allah and His Apostle. Applying this principle to the banker-customer relationship would mean that the customer should not be discouraged by the low profits or limited success of Islamic banks.

In light of these three principles, Islamic bank customers are expected not to be guided by the profit motive. Instead, the reason for placing their monies with the Islamic banks is directed towards receiving a blessing from Allah and this action is considered the best way of managing the resources given by Allah. Since it is a belief of every Muslim that all properties belong to Allah, returns on their deposits are also considered a gift from Allah irrespective of amount. Similarly, in the case of loss, it is all from Allah.

Research Methodology

Unlike conventional bank customers who have the privilege to know the exact amount of returns that they will receive from their deposits, no Islamic bank customers will have this information. Therefore, while it is likely that conventional bank customers make decisions based on existing information, the decision to deposit made by Islamic bank customers is based on historical facts and assumption of the future. If the assumption that Islamic bank customers are rational in their decision making process and governed by the utility maximization theory, there is a

great possibility that the amount of deposits at Islamic banks is influenced heavily by the rate of returns declared by them and also the existing rates of deposits of conventional banks.

Haron and Shanmugam (1995) in their work try to link the rates of profit to Islamic bank's deposits. Using the Pearson Correlation and First Order Autoregressive model, they find a strong negative relationship between the two variables. Similarly, their finding indicates that there is a positive linear relationship between deposits of conventional and Islamic banks.

This study adopt the 'Adaptive Expectation Model' to measure the effects of rate of profit declared by Islamic banks on the level of deposits placed by their customers. A general statement of the model is represented by:

$$Y_t = a + b X_t^* + u_t$$

Where

$$X_t^* = \lambda X_{t-1} + (1-\lambda)X_t^*, 0 < \lambda < 1$$

The variable X_t^* is the anticipated (or expected) value of the variable X and it is assumed unobservable. The anticipated value X_t^* is assumed to be a weighted average of the previous period's anticipated value, and the realization of the previous period. The rates of interest for various deposit facilities available at conventional banks is also included in the model with the objective of measuring the effect of this variable on level of deposits of Islamic banks. The following equations are used to validate the objective of this study. They are,

$$IsD_t = a + b IsDp_t^* + u_t \dots\dots\dots(1)$$

$$IsD_t = a + b IsDp_t^* + d FDr_t + u_t \dots\dots(2)$$

$$IsSD_t = f + g IsSDp_t^* + u_t \dots\dots \dots\dots(3)$$

$$IsSD_t = f + g IsSDp_t^* + h SDr_t + u_t \dots\dots(4)$$

Where IsD_t is the investment deposits amount for a period of t, $IsDp_t^*$ is the expected rate of profit of Islamic investment deposits, FDr_t is the interest rate for fixed deposit of conventional banks at t period, $IsSD_t$ is the amount of savings deposit of Islamic banks, $IsSDp_t^*$ is the expected rate of profit of Islamic savings deposit facility, and SDr_t is the rate of interest of conventional banks' savings deposit facility.

Monthly data for the variables used in this study are taken from either monthly or quarterly bulletins of Bank Negara Malaysia. The time period studied is from January 1984 through December 1998.

Findings

Table 1 presents the relationship between the level of interest-free investments deposits and the rates of profit declared on these deposits and interest rates of fixed deposit facilities available at conventional banks. As indicated in equation 1 of Table 1, each one percent increase in rate of profit given to the interest-free deposits is seen to boost the total amount of this deposit by 71 million Ringgit. Equation 2 shows a better R^2 value. Interestingly, rates of interest of conventional banks have negative relationship with deposits with Islamic banks. An increase of one percent in the interest rate of the conventional banks would reduce the level of interest-free investment deposits by 65 million Ringgit.

Table 1

Estimates of Relation between Amount of Interest-free Investment Deposits and Rates of Profit and the Interest Rates of Fixed Deposits of Conventional Banks

Equation	R2	ISSDP	FDr	F	Sig
1	0.503	0.715 (7.796)		60.782	0.000
2	0.674	1.232 (10.005)	-0.654 (-5.317)	58.818	0.000

T statistics in parentheses

There is not much deviation between results of Table 1 and Table 2. The sign of coefficients for all variables moved towards the same direction. As shown in equation 3, each one percent increase in the rate of profit declared by the Islamic banks would increase the amount of saving deposits by 91 million. Similarly, equation 4 indicates that an increase in the saving deposits of conventional banks would reduce the amount of deposit with the Islamic banks.

Table 2

Estimates of Relation between Amount of Interest-free Saving Deposits and Rates of Profit and the Interest Rates of Saving Deposits of Conventional Banks

Equation	R2	ISSDP	FDr	F	Sig
3	0.841	0.917 (17.542)		307.734	0.000
4	0.848	1.157 (7.116)	-0.253 (-1.556)	158.853	0.000

T statistics in parentheses

Concluding Remarks

This study provides evidence regarding the relationship between the amount of deposits placed in the Islamic banking system in Malaysia and returns given to these deposits. The findings confirmed that customers who place their deposits at saving and investment account facilities are guided by the profit motive. The existence of the utility maximization theory among the Muslim customers is further confirmed by the negative relationship between the interest rate of conventional banks and the amount deposited in interest-free deposit facilities. Therefore the findings of this study are consistent with the earlier research conducted in Sudan, Jordan, Malaysia and Singapore.

As elaborated in the theoretical consideration Section, Muslims should be guided by Islamic doctrines when making their economic decisions. These doctrines require that Muslims should not place profit maximization as the sole factor in establishing relationship with Islamic banks. To ensure that Muslims are really adhered to the Islamic concept of wealth and Islamic concept of success is not an easy task. Therefore, every party must play the role of educating customers of Islamic banking system. The methods and steps taken in educating these groups are indeed formidable and challenging.

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