Islamic Banking: Interest-Free or Interest-Based?

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ABSTRACT

A unique feature of Islamic banking, in theory, is its profit-and-loss sharing (PLS) paradigm. In practice, however, we find that Islamic banking is not very different from conventional banking. Our study on Malaysia shows that only a negligible portion of Islamic bank financing is strictly PLS based and that Islamic deposits are not interest-free, but are closely pegged to conventional deposits. Our findings suggest that the rapid growth in Islamic banking is largely driven by the Islamic resurgence worldwide rather than by the advantages of the PLS paradigm and that Islamic banks should be subject to regulations similar to those of their western counterparts.

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ABSTRACT

A unique feature of Islamic banking, in theory, is its profit-and-loss sharing (PLS) paradigm. In practice, however, we find that Islamic banking is not very different from conventional banking. Our study on Malaysia shows that only a negligible portion of Islamic bank financing is strictly PLS based and that Islamic deposits are not interest-free, but are closely pegged to conventional deposits. Our findings suggest that the rapid growth in Islamic banking is largely driven by the Islamic resurgence worldwide rather than by the advantages of the PLS paradigm and that Islamic banks should be subject to regulations similar to those of their western counterparts.

1. Introduction

The first modern experiment with Islamic banking can be traced to the establishment of the Mit Ghamr Savings Bank in Egypt in 1963. During the past four decades, however, Islamic banking has grown rapidly in terms of size and the number of players. Islamic banking is currently practiced in more than 50 countries worldwide.[1] In Iran, Pakistan, and Sudan, only Islamic banking is allowed. In other countries, such as Bangladesh, Egypt, Indonesia, Jordan and Malaysia, Islamic banking co-exists with conventional banking. Islamic banking, moreover, is not limited to Islamic countries. In August 2004, the Islamic Bank of Britain became the first bank licensed by a non-Muslim country to engage in Islamic banking. The HSBC, University Bank in Ann Arbor and Devon Bank in Chicago offer Islamic banking products in the United States. Recent industry estimates show that Islamic banking, which managed around US$250 billion worth of assets worldwide as of 2004, is expected to grow at the rate of 15% per annum.

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[1] Islamic banking is practised in, but not limited to, the following countries: Albania, Algeria, Australia, Bahamas, Bahrain, Bangladesh, British Virgin Islands, Brunei, Canada, Cayman Islands, North Cyprus, Djibouti, Egypt, France, Gambia, Germany, Guinea, India, Indonesia, Iran, Iraq, Italy, Ivory Coast, Jordan, Kazakhstan, Kuwait, Lebanon, Luxembourg, Malaysia, Mauritania, Morocco, Netherlands, Niger, Nigeria, Oman, Pakistan, Palestine, Philippines, Qatar, Russia, Saudi Arabia, Senegal, Singapore, South Africa, Sri Lanka, Sudan, Switzerland, Tunisia, Turkey, Trinidad & Tobago, United Arab Emirates, United Kingdom, United States and Yemen.

The rapid growth of Islamic banking raises a series of important questions: Is the growth in Islamic banking a result of the comparative advantages of the Islamic banking paradigm or is it largely attributable to the worldwide Islamic resurgence since the late 1960s? Should Islamic banks be regulated differently from their western counterparts? Thus, an important question in understanding the growth — as well as the regulation and supervision — of Islamic banking is how and to what extent it differs from conventional banking. To answer these questions, our study focuses on Malaysia, where a full-fledged Islamic banking system has developed alongside a conventional banking system. The dual banking system in Malaysia, in particular, provides a unique setting for us to compare Islamic banking practices with those of conventional banking. In addition, Malaysia, which is reported to have the largest Islamic banking, capital, and insurance markets in the world (World Bank, 2006), is an ideal representative of Islamic banking practices in general.

From a theoretical perspective, Islamic banking is different from conventional banking because interest (*riba*) is prohibited in Islam, i.e., banks are not allowed to offer a fixed rate of return on deposits and are not allowed to charge interest on loans. A unique feature of Islamic banking is its profit-and-loss sharing (PLS) paradigm, which is predominantly based on the *mudarabah* (profit-sharing) and *musyarakah* (joint venture) concepts of Islamic contracting. Under the PLS paradigm, the assets and liabilities of Islamic banks are integrated in the sense that borrowers share profits and losses with the banks, which in turn share profits and losses with the depositors. Advocates of Islamic banking, thus, argue that Islamic banks are theoretically better poised than conventional banks to absorb external shocks because the banks' financing losses are partially absorbed by the depositors (Khan and Mirakhor, 1989; Iqbal, 1997). Similarly, the risk-sharing feature of the PLS paradigm, in theory, allows Islamic banks to lend on a longer-term basis to

projects with higher risk-return profiles and, thus, to promote economic growth (Chapra, 1992; Mills and Presley, 1999).

The PLS paradigm, moreover, subjects Islamic banks to greater market discipline. Islamic banks, for example, are required to put in more effort to distinguish good customers from bad ones because they have more to lose than conventional banks. The banks also need to monitor their investments and borrowers more closely to ensure truthful reporting of profits and losses. Islamic bank depositors, furthermore, are required to choose their banks more carefully and to monitor the banks more actively to ensure that their funds are being invested prudently. Advocates of Islamic banking, therefore, argue that a primary advantage of PLS banking is that it leads to a more efficient allocation of capital because the return on capital and its allocation depend on the productivity and viability of the project (Khan, 1986).

In practice, however, do Islamic banks operate according to the PLS paradigm? Our study finds that Islamic banking, as it is practiced today, tends to deviate substantially from the PLS paradigm. First, we find that the adoption of the PLS paradigm of Islamic banking in Malaysia has been much slower on the asset side than on the liability side. On the asset side, only 0.5% of Islamic bank financing is based on the PLS paradigm of *mudarabah* (profit-sharing) and *musyarakah* (joint venture) financing. Islamic bank financing in Malaysia, in practice, is still based largely on non-PLS modes of financing that are permissible under the *Shariah* (Islamic law), but which ignore the spirit of the usury prohibition.[2] On the liability side, however,

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[2] This result, in general, is consistent with Islamic banking experiences in other countries, such as Bangladesh, Egypt, Iran, Pakistan, Philippines, and Sudan (Mills and Presley, 1999).

mudarabah (profit-sharing) deposits, which account for 70% of total Islamic deposits, are more predominant.

Second, the *mudarabah* (profit-sharing) deposits, which are structured according to the PLS paradigm, are supposed to be interest-free and equity-like in theory. In practice, however, we find new evidence that shows that the Islamic deposits are not really interest-free, but are very similar to conventional banking deposits. More specifically, we find that, contrary to expectation, the investment rates on Islamic deposits are mostly lower and less volatile than that of conventional deposits.[3] Also, using the Engle-Granger error correction model, we show that (a) changes in conventional deposit rates cause changes in Islamic investment rates, but not vice-versa, (b) the Islamic investment rates are positively related to conventional deposit rates in the long-term, and (c) when the Islamic investment rates deviate far above (below) the conventional deposit rates, they will adjust downwards (upwards) towards the long-term equilibrium level. Those results imply that the Islamic banking deposit PLS practices are actually closely pegged to the deposit rate setting practices of conventional banking.

Our overall results, thus, suggest that Islamic banking, as it is practiced today in Malaysia, is not very different from conventional banking, and the alleged benefits of Islamic banking exist in theory only. There are two important implications associated with this finding: First, the key reason for the rapid growth in Islamic banking worldwide during the past decades is unlikely to be associated with the attributes of the Islamic PLS banking paradigm. Instead, its rapid growth is most likely spurred by the worldwide Islamic resurgence since the late 1960s, which leads to a heightened demand by Muslims for financial products and services that conform to their

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[3] An exception is in the case of the Islamic banks' investment rates on savings deposits, which are more volatile.

religion.[4] Second, Islamic banks in practice are similar to conventional banks, and, as such, should be regulated and supervised in a similar fashion.

The rest of the paper is organised as follows: Section 2 provides a description of Islamic banking concepts and practices. Section 3 details the Engle-Granger error-correction methodology used to study the long-term relation and short-term dynamics between Islamic investment rates and conventional deposit rates. Section 4 analyzes the results, and the final section concludes the paper.

2. Islamic Banking Concepts and Practices

In this section, we first examine basic Islamic concepts as well as the profit-and-loss sharing (PLS) paradigm in Islamic banking. We then provide a discussion of Islamic banking practices in Malaysia.

2.1 Islamic Banking Concepts and Paradigm

In Islam, there is no separation between mosque and state. Business, similarly, cannot be separated from the Islamic religion. The *Shariah* (Islamic law) governs every aspect of a Muslim's religious practices, everyday life, and economic activities. Muslims, for example, are not allowed to invest in businesses considered non-*halal* or prohibited by Islam, such as the sale

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[4] More recently, industry observers noted that the growth in Islamic banking is further stimulated by the withdrawal of capital from the United States following the September 11 attack and wars in Afghanistan and Iraq. Visa restrictions and a freeze on assets have led many investors from Middle Eastern and other Islamic countries to shift their money into local and regional Islamic markets (Badawy, 2005).

of alcohol, pork, and tobacco; gambling; and prostitution.[5] In Islamic contracting, *gharar* (uncertainty and risk) is not permitted, i.e., the terms of the contract should be well defined and without ambiguity. For example, the sale of fish from the ocean that has not yet been caught is prohibited.[6] The prohibition of *gharar* is designed to prevent the weak from being exploited and, thus, a zero-sum game in which one gains at the expense of another is not sanctioned. Gambling and derivatives such as futures and options, therefore, are considered un-Islamic because of the prohibition of *gharar*.

More important, Muslims are prohibited from taking or offering interest (*riba*). Thus, a unique feature that differentiates Islamic banking from conventional banking, in theory, is its profit-and-loss sharing (PLS) paradigm. Under the PLS paradigm, the ex-ante fixed rate of return in financial contracting, which is prohibited, is replaced with a rate of return that is uncertain and determined ex-post on a profit-sharing basis.[7] Only the profit-sharing ratio between the capital provider and the entrepreneur is determined ex-ante. PLS contracts, in general, allow two or more parties to pool their resources for investment purposes and to share the investment's profit and loss.

The PLS paradigm is widely accepted in Islamic legal and economic literature as the bedrock of Islamic financing. Islamic bank financing, which adheres to the PLS principle, is typically structured along the lines of two major types of contracts: *musyarakah* (joint venture) and *mudarabah* (profit-sharing).

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[5] The Dow Jones Islamic Market Indexes and the FTSE Global Islamic Index Series, which track the performances of *Shariah*-compliant stocks from around the world, were created to meet the growing demand for financial products that adhere to such Islamic investment guidelines.

[6] The general *Shariah* principle is that the commodity to be sold must exist. The seller, moreover, is required to have acquired the ownership and be in possession of that commodity.

[7] Islamic contracts are never risk-free and do not involve the exchange of money in one period for money in another.

- *Musyarakah* contracts are similar to joint venture agreements, in which a bank and an entrepreneur jointly contribute capital and manage a business project. Any profit and loss from the project is shared in a predetermined manner. The joint venture is an independent legal entity, and the bank may terminate the joint venture gradually after a certain period or upon the fulfilment of a certain condition.

- *Mudarabah* contracts are profit-sharing agreements, in which a bank provides the entire capital needed to finance a project, and the customer provides the expertise, management and labour. The profits from the project are shared by both parties on a pre-agreed (fixed ratio) basis, but in the cases of losses, the total loss is borne by the bank.

Most theoretical models of Islamic banking are based on the *mudarabah* (profit-sharing) and/or *musyarakah* (joint venture) concepts of PLS (Dar and Presley, 2000). There are, however, other financing contracts that are permissible in Islam but not strictly PLS in nature. Such financing contracts, for example, may be based on *murabaha* (cost plus), *ijarah* (leasing), *bai' muajjal* (deferred payment sale), *bai' salam* (forward sale), and *istisna* (contract manufacturing) concepts.

- *Murabaha* financing is based on a mark-up (or cost plus) principle, in which a bank is authorized to buy goods for a customer and resell them to the customer at a predetermined price that includes the original cost plus a negotiated profit margin.[8] This contract is typically used in working capital and trade financing.

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[8] Advocates of Islamic banking argue that the profit mark-up on *murabaha* financing is not considered as "interest" because profit is made on the exchange of money for goods and not money for money. To be *Shariah*-compliant, the bank must enter into separate contracts with the supplier and the customer, take physical possession of the goods, and de-link the mark-up from the period of repayment (Mills and Presley, 1999).

- *Ijarah* financing is similar to leasing. A bank buys an asset for a customer and then leases it to the customer for a certain period at a fixed rental charge. *Shariah* (Islamic law) permits rental charges on property services, on the precondition that the lessor (bank) retain the risk of asset ownership.

- *Bai' muajjal* financing, which is a variant of *murabaha* (cost plus) financing, is structured on the basis of a deferred payment sale, whereby the delivery of goods is immediate, and the repayment of the price is deferred on an instalment or lump-sum basis. The price of the product is agreed upon at the time of the sale and cannot include any charge for deferring payments. This contract has been used for house and property financing.

- *Bai' salam* is structured based on a forward sale concept. This method allows an entrepreneur to sell some specified goods to a bank at a price determined and paid at the time of contract, with delivery of the goods in the future.

- *Istisna* contracts are based on the concept of commissioned or contract manufacturing, whereby a party undertakes to produce a specific good for future delivery at a pre-determined price. It can be used in the financing of manufactured goods, construction and infrastructure projects.[9]

The acceptability of the above non-PLS modes of financing, however, has been widely debated and disputed because of their close resemblance to conventional methods of interest-based financing. Many Islamic scholars, including Pakistan's Council of Islamic Ideology, have warned

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[9] *Bai' salam* and *istisna* are two exceptions to the general *Shariah* principle that the commodity to be sold must be in existence and that the seller must have acquired the ownership and be in possession of that commodity. Unlike *bai' salam* contracts, *istisna* contracts (a) are always linked to goods that need to be manufactured, (b) do not require the price to be paid in advance, (c) can be unilaterally cancelled before the manufacturer starts the work, and (d) do not necessarily require a fixed delivery date (Usmani, 2005).

that, although permissible, such non-PLS modes of financing should be restricted or avoided to prevent them from being misused as a "back door" for interest-based financing.

2.2 *Islamic Banking in Malaysia*

Islamic banking was implemented in Malaysia following the enactment of the Islamic Banking Act in April 1983 and the subsequent establishment of its first Islamic bank, Bank Islam Malaysia Berhad (BIMB), in July 1983.[10] The Islamic Banking Act of 1983 provides Bank Negara Malaysia (BNM), the central bank of Malaysia, with powers to regulate and supervise Islamic banks. To disseminate Islamic banking nationwide, BNM introduced the Interest-free Banking Scheme in March 1993, which allows existing banking institutions to offer Islamic banking services using their existing infrastructure and branch network. Furthermore, a second Islamic bank, Bank Muamalat Malaysia Berhad, was established in October 1999, and three new Islamic bank licences were issued to Islamic financial institutions from the Middle East in 2004 to enhance the diversity and depth of players in the Islamic financial system. As of 2004, there were 36 Islamic financial institutions in Malaysia that offer a full range of Islamic banking products and services.

Today, Malaysia is widely believed to have the most developed Islamic financial system in the world that operates side-by side with a conventional banking system. Besides the Interest-free Banking Scheme, Malaysia has a well-developed Islamic interbank money market, Islamic government debt securities market, and Islamic insurance market. The Islamic interbank money

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[10] Prior to that, Islamic finance in Malaysia can be traced to the establishment of the Pilgrims Fund Board in 1963 to help the Muslims save for their annual pilgrimage to Mecca. The Pilgrims Fund Board, however, is a non-financial institution that collects and then invests the savings of would-be pilgrims in sectors of the economy that do not violate the *Shariah* principle.

market, introduced in January 1994, allows Islamic banking institutions to trade in designated Islamic financial instruments among themselves. The Mudharabah Interbank Investments (MII) mechanism, moreover, allows a deficit Islamic banking institution to obtain investment from a surplus Islamic banking institution on a *mudarabah* (profit-sharing) basis. The Government Investment Issues (GII) market, which was introduced in 1983, is the Islamic equivalent of a conventional Treasury bill and bond market. Islamic insurance, or *takaful*, was first introduced in 1985 when the first *takaful* operator was established to fulfil the public's need for insurance products that are *Shariah*-compliant.

Although Islamic banking is said to have made significant inroads in Malaysia, we find that, in practice, the adoption of the PLS paradigm of Islamic banking in Malaysia has been much slower on the asset side than on the liability side. Table 1 provides a breakdown of the types of Islamic financing and Islamic deposits in Malaysia. Total financing in the Islamic banking sector amounts to RM57.9 billion as of the end of 2004. The Islamic banking sector, in general, has been expanding much more rapidly than the conventional banking sector.[11] This has resulted in an expansion of the market share for Islamic financing to 11.3% of total banking sector financing as of the end of 2004.

[Insert Table 1 here]

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[11] Islamic bank financing in Malaysia, for example, grew at the annual rate of 19% in 2004, compared with 8.5% for the entire banking system.

A breakdown of the total Islamic financing in Panel A of Table 1 shows that financing is predominantly based on the *bai' muajjal* (deferred payment sale)[12] and *ijarah* (leasing) concepts, which account for 49.9% and 24.0% of total financing. *Murabaha* (cost plus), *istisna* (contract manufacturing) and other non-PLS financing account for a further 7.0%, 1.2%, and 17.4%, respectively. The *mudarabah* (profit-sharing) and *musyarakah* (joint venture) financing modes, in total, amount to only 0.5% of total Islamic financing. Thus, Islamic bank financing in Malaysia, in practice, does not appear to be very different from conventional bank lending. PLS modes of financing account for only a negligible portion of total Islamic bank financing. Islamic bank financing in Malaysia, in particular, is still largely based on the non-PLS modes of financing that are permissible under the *Shariah* law, but ignore the spirit of the usury prohibition.[13]

The adoption of the PLS paradigm, however, appears to be faster on the liability side of Islamic banking. Total Islamic banking deposits in Malaysia amount to RM72.9 billion, or 11.2% of total banking sector deposits as of the end of 2004. The breakdown of the Islamic banking deposits by type in Panel B of Table 1 shows that demand deposits, saving deposits, investment deposits, and negotiable instruments of deposit (NID) account for 17.7%, 11.6%, 57.6%, and 12.3%, respectively, of total Islamic deposits. Demand deposits and saving deposits are structured under the *al-wadiah* (savings with guarantee) concept, in which a bank guarantees the repayment of the depositors' money when demanded. The depositors of *al-wadiah* accounts are not entitled to any share of the bank's profits, but the bank may — at its absolute discretion — provide returns or gifts (*hibah*) to the depositors periodically as a token of appreciation.

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[12] The concept of deferred payment sale is referred to as *bai' bithaman ajil* in Malaysia.

[13] Studies of Islamic bank financing in other countries also yield similar results (Mills and Presley, 1999). Case studies on Bangladesh, Egypt, Pakistan, Philippines, and Sudan, for example, find that most of the financing provided by Islamic banks does not conform to PLS. Statistics from the International Association of Islamic Banks show that PLS modes of financing accounted for less than 20% of overall financing made by Islamic banks worldwide in 1996.

Investment deposits and NID are term deposits that operate under the *mudarabah* (profit-sharing) concept. Theoretically, such *mudarabah* deposit accounts are much riskier than conventional-banking fixed deposits for a number of reasons. First, Islamic banks guarantee neither the depositors' capital nor the return on the deposits. Second, profit sharing under *mudarabah* contracts is asymmetric, i.e., the depositors share the investment profits with the bank but bear all the losses.[14] Finally, *mudarabah* deposit accounts are equity-like from a residual claimant perspective, but the depositors of such accounts do not have any of the management and control rights typically accorded to shareholders of a bank.

The *mudarabah* deposits accounts, in theory, should be interest-free from an Islamic banking perspective. In practice, however, are such *mudarabah* contracts, which form the bedrock of the Islamic banking PLS paradigm, truly interest-free? Also, are the returns on *al-wadiah* (savings with guarantee) deposits independent of interest rates? To address these questions, we examined the relation between the investment rates offered by Islamic deposits and the corresponding deposit rates offered by conventional bank deposits. The next section describes the Engle-Granger error correction methodology used to study such a relation.[15]

3.   **The Methodology**

To determine the long-run relation as well as short-run dynamics between conventional deposit rates and Islamic investment rates, we first carried out the bivariate Granger causality test to

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[14] In the United States, deposits structured according to profit-and-loss sharing have not been permitted. Deposit products offered through University Bank, for example, are modified so that the principal is guaranteed and the depositors share only in the bank's profits, not losses. The Islamic Bank of Britain has similarly modified its deposit products within United Kingdom strictures.

[15] The methodology used here has similarly been used by Scholnick (1996), Heffernan (1997), and Chong, Liu, and Shrestha (2005) to study the dynamics of administered bank interest rates in response to changes in the benchmark money market rate.

determine the dependent and independent variables. The following two null hypotheses were tested: (i) changes in the Islamic investment rate do not Granger cause the conventional deposit rate to change and (ii) changes in the conventional deposit rate do not Granger cause the Islamic investment rate to change.

To further ascertain that the relation between the conventional deposit rate and Islamic investment rate is not spurious, we then carried out unit root and cointegration tests. Unit root tests were based on the standard Augmented Dickey Fuller (ADF) and Philips Perron (PP) procedures, and the cointegration test was done using the Johansen procedure. Once cointegration between the two time series was established, we then estimated their long-term relation and short-term dynamics on a maturity-matched basis.

First, the long-term relationship between two time-series variables was modelled as follows:

$$y_t = \alpha_0 + \alpha_1 x_t + \varepsilon_t \tag{1}$$

where y_t represents the endogenous variables, x_t denotes the exogenous variable, and ε_t is the disturbance term. The degree of pass-through in the long run, α_1, measures the extent to which a change in the independent variable gets reflected in the dependent variable. The long-run pass-through is considered complete when α_1 is equal to one and incomplete when it is less than one.

Second, we used the following error-correction representation to examine the short-term dynamics:

$$\Delta y_t = \beta_1 \Delta x_t + \beta_2 (y_{t-1} - \alpha_0 - \alpha_1 x_{t-1}) + v_t \tag{2}$$

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where Δ denotes the first difference, β_1 measures the short-term pass-through rate, and v_t is the error term. $\hat{\varepsilon}_{t-1} = \left(\mathbf{y}_{t-1} - \alpha_0 - \alpha_1 \mathbf{x}_{t-1} \right)$, which is the residual term associated with the long-term relation given by Equation (1), represents the extent of disequilibrium at time $(t - 1)$. β_2, therefore, captures the error correction adjustment speed when the rates are away from their equilibrium level. In the mean reverting case, the sign of β_2 is expected to be negative. Also, following Hendry (1995), the mean adjustment lag of a complete pass-through can be calculated using the following equation:

$$MAL = (1 - \beta_1) / \beta_2 \tag{3}$$

4. Data and Results

Our data on the monthly series of Islamic investment rates and conventional deposit rates were collected from the *Monthly Statistical Bulletin*, which is published by the Bank Negara Malaysia. The sampling period was from April 1995 to April 2004. The sample size was 109 for each time series. For robustness, we examined the rates provided by two types of financial institutions: banks and finance companies.[16] For each type of institution, we compared Islamic investment rates and conventional deposit rates on savings deposits as well as time deposits of various maturities, ranging from one month to 12 months. The definitions for the various variables used in this study are summarized in Table 2.

[Insert Table 2 here]

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[16] In comparison to the banks, the finance companies are much smaller and riskier. The finance companies, which have a less diversified portfolio of assets, typically undertake small-scale financing (such as hired-purchase and mortgage lending) and lend mostly to individuals and small businesses. Also, unlike the banks, the finance companies are much more dependent on deposits as a source of funding.

Table 3 provides the descriptive statistics for the sample data. The summary statistics, in particular, show that the Islamic investment rates are, on average, significantly lower than the conventional deposit rates. This finding is true for both the banks and the finance companies. Furthermore, the volatility and the minimum–maximum range of Islamic investment rates are significantly lower than those of conventional deposit rates, except for the investment rates on Islamic banks' savings deposits. These results are counterintuitive because the Islamic deposits, based on the PLS theory, should have higher risks than conventional deposits.

A possible reason for the above results is that, in practice, the returns on Islamic deposits are administratively linked to the deposit rates offered by conventional banking. The last column of Table 3, in particular, shows that the Islamic investment rates are highly correlated with the conventional deposit rates on a maturity-matched basis. The correlation coefficients, for example, range from 0.89 to 0.97 for the banks and from 0.88 to 0.94 for the finance companies. However, to rule out the possibility of spurious correlations, we next conducted several standard econometric tests to determine Granger causality, unit root, and cointegration.

[Insert Table 3 here]

The Granger causality test was carried out to determine if changes in Islamic investment rates cause adjustments in the conventional deposit rates and if changes in the conventional deposit rates cause adjustments in the Islamic investment rates. Table 4 reports the results of the pair-wise Granger causality test. The results show that for each of the six maturity-matched cases, we cannot reject the null hypothesis that changes in Islamic investment rates do not cause adjustments in the conventional deposit rates. On the other hand, we can reject the null hypothesis

that changes in the conventional deposit rates do not cause adjustments in Islamic investment rates. This is true for both the banks and the finance companies. In other words, changes in conventional deposit rates cause Islamic investment rates to change, but not vice versa.

[Insert Table 4 here]

Having determined the endogenous and exogenous variables, we then carried out the standard stationarity and cointegration tests. The Augmented Dickey Fuller (ADF) procedure was used to test the null hypothesis of unit root against the alternative hypothesis of stationarity. The ADF results of the stationarity test on the various rate series are reported in Table 5. For the level of the series, the results in Table 5 show that, at a 5% level of significance, all the series are non-stationary. For the first differenced series, the results in Table 5 show that all the series are stationary at a 1% level of significance.

[Insert Table 5 here]

The results of the cointegration tests are reported in Table 6. The Johansen cointegration test results show that all the Islamic investment rates are cointegrated with their corresponding maturity-matched conventional deposit rates at the 5% significance level for Islamic banks and at 10% for Islamic finance companies. The cointegration test results, hence, show that there is a long-term relation between the Islamic investment rate and the conventional deposit rate for both the banks and the finance companies.

[Insert Table 6 here]

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The estimated coefficients of the long-term relation (Equation 1) are reported in Table 7. The results show that there exists a long-term positive relation between Islamic investment rates and maturity-matched conventional deposit rates. The adjusted R^2 is very high. In the case of the banks, 79% to 93% of the variation in Islamic investment rates can be explained by changes in conventional deposit rates. The degree of long-term pass-through (α_1) is about 76%. In the case of finance companies, 76% to 87% of the variation in Islamic investment rates can be explained by changes in conventional deposit rates. The degree of long-term pass-through (α_1) is about 64%. For both banks and finance companies, the degree of pass-through for savings deposits is higher than that of time-deposits.[17]

[Insert Table 7 here]

The results of the short-term dynamics and the mean adjustment lags are reported in Table 8. The β_2 estimates in Table 8, which are all significantly negative, indicate a mean-reverting process. This implies that when the Islamic investment rate is above its long-term equilibrium level, it will adjust downwards. When it is below its long-term equilibrium level, it will adjust upwards. The mean adjustment lag (MAL) results, furthermore, show that for banks, the short-run adjustment process takes about 3.9 months to complete. For finance companies, the MAL ranges from 1.4 to 5.6 months. The MAL, moreover, is shorter for savings deposits than for the various time deposits.

[Insert Table 8 here]

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[17] For robustness, we also estimated the long-term relation (Equation 1) using two alternative procedures: the Johansen VECM and Bewley estimator. The results from using the Johansen VECM and Bewley estimator procedures are consistent with those reported in Table 7.

Our overall results, thus, suggest that the Islamic deposits, in practice, are not very different from conventional deposits. In particular, we found that the Islamic investment rates for both the banks and the finance companies are closely pegged to the conventional deposit rates. In theory, *mudarabah* deposits are structured based on a "profit-sharing" basis, whereas the *al-wadiah* savings deposits are structured based on the "savings with guarantee" concept. In practice, however, we found that both the *mudarabah* deposits and the *al-wadiah* savings deposits are not "interest-free," and their investment rates are closely linked to conventional deposit rates.

Furthermore, the *mudarabah* deposits, in theory, are supposed to be equity-like because of their PLS paradigm. Our results show that the *mudarabah* deposits are more debt-like than equity-like. For robustness, we examined if there is any long-term relation between the various Islamic investment rates and the return on the Malaysian benchmark KLCI equity index. Although not reported here, our results show that none of the Islamic investment rates is cointegrated with the return on the KLCI equity index and, hence, there is no long-term relation between them.[18]

An interesting question that arises, therefore, is why are the Islamic deposits not interest-free in practice? One explanation is that the actual implementation of the PLS paradigm is constrained by competition from conventional banking practices. Religion notwithstanding, individuals can choose to bank with an Islamic bank and/or a conventional bank. Thus, in terms of best practices, Islamic banking practices often cannot deviate substantially from those of conventional banking because of competition. Obaidullah (2005), for example, commented that: *"Islamic financial institutions face a kind of "withdrawal risk" that mainly results from the competitive pressures an Islamic financial institution faces from existing Islamic or conventional counterparts. An*

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[18] These results are available from the authors upon request.

Islamic bank could be exposed to the risk of withdrawals by its depositors as a result of the lower rate of return they would receive compared to what its competitors pay. Faced with this scenario Islamic financial institutions, operating in mixed systems, may pay their investment account holders a competitive "market" return regardless of their actual performance and profitability ... Failure to do this might result in a volume of withdrawals of funds by investors large enough to jeopardize the bank's solvency." The Governor of the Central Bank of Malaysia, Dr. Zeti Akhtar Aziz, in fact acknowledged in her keynote address on February 15, 2006 at the 2nd International Conference on Islamic Banking, Kuala Lumpur that "[profit-and-loss sharing] *places a higher degree of fiduciary risk on the Islamic financial institutions in ensuring that the investment deposits funds are managed in the most effective and efficient manner. This is further compounded by competition in managing the liquidity in the system. The profit share distributed needs to be competitive relative to that earned and paid by the conventional banks. This is important to avoid a shift of deposits and to retain the funds in the system ... Given the dual banking environment, as the one in Malaysia, the ability to maximize risk-adjusted returns on investment and sustain stable and competitive returns is an important element in ensuring the competitiveness of the Islamic banking system.*"

Consistent with the above competition explanation, our study shows that, because of competition from conventional banking, the returns on the Islamic deposit accounts are effectively pegged to the returns on conventional banking deposits. Our results, for example, show that changes in the conventional deposit rates cause Islamic investment rates to change, but not vice versa. Estimates of the long-term relation between the two rates of return, moreover, show that many of the changes in Islamic investment rates can be explained by changes in conventional deposit rates. Short-run dynamic analysis, in addition, shows that the Islamic investment rates are mean-

reverting, i.e., when Islamic investment rates deviate far above (below) conventional deposit rates, they adjust downwards (upwards) toward the long-term equilibrium level.

Another possible explanation on why the Islamic deposits are not interest-free is that, contrary to Islamic banking PLS theory, the depositors' funds are mostly invested in non-PLS financing in practice. Under the aforementioned asset-liability matching explanation, the risk and return characteristics of Islamic deposits should be similar to that of the Islamic bank's financing (investment) portfolio. We are unable to study this relation directly because the return data on Islamic bank's financing as far as we know is not available to the public. However, anecdotal evidence shows that, contrary to the asset-liability matching explanation, the Islamic bank depositors in practice do not fully share in the financing losses incurred by Islamic banks. The Bank Islam Malaysia Berhad's depositors, for example, continued to receive "market" investment rate of returns despite the bank's reported loss of RM480 million (US$127 million) as at June 30, 2005 due to non-performing loans. Moreover, the above asset-liability matching explanation cannot explain why the Islamic investment rates are pegged to conventional deposit rates. More specifically, it cannot explain why the changes in the conventional deposit rates cause Islamic investment rates to change, but not vice versa. Finally, the asset-liability matching explanation cannot explain why Islamic investment rates are, on average, significantly lower and less volatile than comparable conventional deposit rates, given that Islamic banks' financing portfolio tend to be riskier than those of conventional banks. For example, Bank Islam Malaysia Berhad's non-performing loans (NPL) ratio of 12.46 percent as at June 30, 2005 is significantly higher than the banking industry average of 5.1 percent.[19]

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[19] A probable reason for why Islamic deposits have lower risk and return profile than conventional deposits is that Islamic financial institutions are subjected to a higher degree of fiduciary risk and the ability to sustain stable and

5. Conclusions

In this paper, we attempted to establish whether Islamic banking is really different from conventional banking. In theory, a unique feature that differentiates Islamic banking from conventional banking is the PLS paradigm. In practice, however, we found that Islamic banking is not very different from conventional banking from the perspective of the PLS paradigm. On the asset side of Islamic banking, we found that only a negligible portion of financing is based on the PLS principle. Consistent with Islamic banking experiences elsewhere, a large majority of Islamic bank financing in Malaysia is still based on non-PLS modes that are permissible under the *Shariah* law, but ignore the spirit of the usury prohibition. On the liability side, the PLS principle is more widely adopted in structuring Islamic deposits. Our study, however, provides new evidence, which shows that, in practice, Islamic deposits are not interest-free.

There are several possible reasons for the poor adoption of the PLS paradigm in practice. First, unlike conventional banking, PLS financing encounters severe principal–agent problems. Moral hazard problems associated with ex-post information asymmetry, for example, are especially significant in PLS financing because the entrepreneur (borrower) has incentive to under-declare or artificially reduce reported profit (Mills and Presley, 1999). Also, in the case of *mudarabah* (profit-sharing) contracting, the entrepreneur has an incentive to undertake high-risk projects because the entrepreneur is actually given a call option whereby he or she gains on the upside but bears no losses at all on the downside. PLS financing, thus, requires more costly monitoring.

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competitive returns is an important element in ensuring the competitiveness of the Islamic banking system, i.e., as acknowledged by the Governor of the Central Bank of Malaysia, Dr. Zeti Akhtar Aziz. Another probable reason for the lower return is that part of the compensation to Islamic depositors is non-pecuniary in nature, i.e., Islamic depositors are willing to accept a lower return because of the religious fulfilment provided by such products, which cannot be satisfied by conventional deposits.

Second, the adoption of PLS financing is disadvantaged by a lack of management and control rights (Dar and Presley, 2000). In *mudarabah* (profit-sharing) financing, for example, the bank provides all the risk capital, but the management and control of the project is mostly in the hands of the entrepreneur. The lack of management and control, in particular, accentuates the principal–agent problems associated with PLS financing.

Finally, our study suggests that the adoption of the PLS paradigm is constrained by competition as well as by best practices from conventional banking. Religion notwithstanding, individuals can choose to bank with an Islamic bank and/or a conventional bank. Thus, in terms of best practices, Islamic banking practices often cannot deviate substantially from those of conventional banking because of competition. In particular, our study shows that the returns on the Islamic deposit accounts are effectively pegged to the returns on conventional banking deposits because of competitive reasons.

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Table 1
Islamic Banking System — Financing and Deposits by Type

Panel A: Islamic Financing By Type (as of the end of 2004)	(RM million)[1]	(%)
Mudarabah (profit-sharing)	38	*0.1%*
Musyarakah (joint venture)	238	*0.4%*
Bai' muajjal (deferred payment sale)	28,884	*49.9%*
Ijarah (leasing)	13,892	*24.0%*
Murabaha (cost plus)	4,052	*7.0%*
Istisna (contract manufacturing)	695	*1.2%*
Others	10,072	*17.4%*
Total Islamic financing	57,883	*100.0%*

Panel B: Islamic Deposits By Type (as of the end of 2004)	(RM million)[1]	(%)
Al-wadiah demand deposits	12,917	*17.7%*
Al-wadiah saving deposits	8,432	*11.6%*
Mudarabah investment deposits	41,996	*57.6%*
Mudarabah negotiable instrument of deposits (NID)	8,962	*12.3%*
Others	552	*0.8%*
Total Islamic deposits	72,859	*100.0%*

Note: [1] RM/USD = 3.8 as at end-2004.

Source: Bank Negara Malaysia

Table 2
Variable Definitions

Variable	Definition
Islam_01B	Islamic banks' investment rate on 1-month *mudarabah* deposits
Islam_03B	Islamic banks' investment rate on 3-month *mudarabah* deposits
Islam_06B	Islamic banks' investment rate on 6-month *mudarabah* deposits
Islam_09B	Islamic banks' investment rate on 9-month *mudarabah* deposits
Islam_12B	Islamic banks' investment rate on 12-month *mudarabah* deposits
Islam_SDB	Islamic banks' investment rate on *al-wadiah* savings deposits
Islam_01F	Finance companies' investment rate on 1-month *mudarabah* deposits
Islam_03F	Finance companies' investment rate on 3-month *mudarabah* deposits
Islam_06F	Finance companies' investment rate on 6-month *mudarabah* deposits
Islam_09F	Finance companies' investment rate on 9-month *mudarabah* deposits
Islam_12F	Finance companies' investment rate on 12-month *mudarabah* deposits
Islam_SDF	Finance companies' investment rate on *al-wadiah* savings deposits
FD_01B	Commercial banks' deposit rate on 1-month fixed deposits
FD_03B	Commercial banks' deposit rate on 3-month fixed deposits
FD_06B	Commercial banks' deposit rate on 6-month fixed deposits
FD_09B	Commercial banks' deposit rate on 9-month fixed deposits
FD_12B	Commercial banks' deposit rate on 12-month fixed deposits
SD_B	Commercial banks' deposit rate on savings deposits
FD_01F	Finance companies' deposit rate on 1-month fixed deposits
FD_03F	Finance companies' deposit rate on 3-month fixed deposits
FD_06F	Finance companies' deposit rate on 6-month fixed deposits
FD_09F	Finance companies' deposit rate on 9-month fixed deposits
FD_12F	Finance companies' deposit rate on 12-month fixed deposits
SD_F	Finance companies' deposit rate on savings deposits

Table 3
Descriptive Statistics

Variable	Mean	Std Dev	Minimum	Maximum	Variable	Mean	Std Dev	Minimum	Maximum	Correlation Coefficient[1]
Investment rates of Islamic banks					Deposit rates of commercial banks					
Islam_01B	4.24 ***	1.53 ***	2.61	7.55	FD_01B	5.03	2.18	3.00	10.14	0.95
Islam_03B	4.42 ***	1.61 ***	2.67	7.78	FD_03B	5.07	2.22	3.00	10.27	0.94
Islam_06B	4.63 *	1.61 ***	2.93	8.24	FD_06B	5.11	2.23	3.00	10.28	0.93
Islam_09B	4.82	1.63 ***	3.11	8.43	FD_09B	5.18	2.19	3.02	10.24	0.92
Islam_12B	5.05 *	1.61 **	3.27	8.59	FD_12B	5.51	1.97	3.69	10.28	0.89
Islam_SDB	3.14	1.03 *	1.78	5.11	SD_B	3.11	0.86	1.77	4.54	0.97
Investment rates of finance companies					Deposit rates of finance companies					
Islam_01F	4.64 **	1.56 ***	2.66	7.94	FD_01F	5.21	2.44	3.00	10.93	0.92
Islam_03F	4.79 *	1.60 ***	3.03	8.10	FD_03F	5.26	2.44	3.00	10.97	0.92
Islam_06F	4.97	1.52 ***	3.23	7.77	FD_06F	5.30	2.42	3.01	10.88	0.91
Islam_09F	5.17	1.54 ***	3.41	8.25	FD_09F	5.39	2.34	3.03	10.82	0.88
Islam_12F	5.38	1.50 ***	3.56	8.28	FD_12F	5.68	2.14	3.66	10.88	0.88
Islam_SDF	3.75	1.05	2.36	5.81	SD_F	3.87	1.11	2.14	5.59	0.94

Notes:
* Difference between investment rate and corresponding deposit rate is significant at the 10% level using a two-tailed test. ** Difference between investment rate and corresponding deposit rate is significant at the 5% level using a two-tailed test. *** Difference between investment rate and corresponding deposit rate is significant at the 1% level using a two-tailed test.

[1] Denotes the correlation coefficient between Islamic investment rates and conventional deposit rates on a maturity-matched basis.

For variable definitions, refer to Table 2.

Table 4
Pair-wise Granger Causality Test

This table presents the results of the pair-wise Granger causality test. Two null hypotheses are tested. The first null hypothesis is that changes in the Islamic investment rate do not Granger cause the conventional deposit rate to change. The second null hypothesis is that changes in the conventional deposit rate do not Granger cause the Islamic rate to change. In all cases, the first null hypothesis cannot be rejected, whereas the second null hypothesis can be rejected.

Null Hypothesis	F-Statistic	p-value
Islam_01B does not Granger cause FD_01B	0.59	0.558
FD_01B does not Granger cause Islam_01B	47.11	0.000
Islam_03B does not Granger cause FD_03B	0.24	0.789
FD_03B does not Granger cause Islam_03B	44.4	0.000
Islam_06B does not Granger cause FD_06B	1.01	0.366
FD_06B does not Granger cause Islam_06B	41.28	0.000
Islam_09B does not Granger cause FD_09B	0.64	0.531
FD_09B does not Granger cause Islam_09B	38.32	0.000
Islam_12B does not Granger cause FD_12B	0.32	0.726
FD_12B does not Granger cause Islam_12B	39.81	0.000
Islam_SDB does not Granger cause SD_B	0.93	0.397
SD_B does not Granger cause Islam_SDB	21.83	0.000
Islam_01F does not Granger cause FD_01F	0.09	0.906
FD_01F does not Granger cause Islam_01F	12.93	0.000
Islam_03F does not Granger cause FD_03F	0.39	0.679
FD_03F does not Granger cause Islam_03F	12.84	0.000
Islam_06F does not Granger cause FD_06F	0.10	0.907
FD_06F does not Granger cause Islam_06F	9.83	0.000
Islam_09F does not Granger cause FD_09F	1.21	0.303
FD_09F does not Granger cause Islam_09F	8.15	0.001
Islam_12F does not Granger cause FD_12F	0.09	0.911
FD_12F does not Granger cause Islam_12F	14.96	0.000
Islam_SDF does not Granger cause SD_F	0.26	0.774
SD_F does not Granger cause Islam_SDF	8.56	0.000

Table 5
ADF Unit Root Tests on the Level and First Differenced Series

This table presents the results of the Augmented Dickey Fuller unit root tests for the level and first difference of each series. The calculated statistics are compared against the MacKinnon-Haug-Michelis critical values (MacKinnon et al., 1999). The Philips-Perron (PP) test was also performed on all the series, and the results are consistent with the ADF test results presented below. All the series are I(1).

Level					1st Differenced				
Variable	p-value	Lag	Max Lag	Obs	Variable	p-value	Lag	Max Lag	Obs
Islam_01B	0.807	2	12	106	Δ(Islam_01B)	0.000	1	12	106
Islam_03B	0.813	2	12	106	Δ(Islam_03B)	0.000	0	12	107
Islam_06B	0.857	1	12	107	Δ(Islam_06B)	0.000	0	12	107
Islam_09B	0.807	2	12	106	Δ(Islam_09B)	0.000	0	12	107
Islam_12B	0.906	0	12	108	Δ(Islam_12B)	0.000	1	12	106
Islam_SDB	0.943	0	12	108	Δ(Islam_SDB)	0.000	0	12	107
FD_01B	0.754	1	12	107	Δ(FD_01B)	0.000	0	12	107
FD_03B	0.744	1	12	107	Δ(FD_03B)	0.000	0	12	107
FD_06B	0.737	1	12	107	Δ(FD_06B)	0.000	0	12	107
FD_09B	0.731	1	12	107	Δ(FD_09B)	0.000	0	12	107
FD_12B	0.647	1	12	107	Δ(FD_12B)	0.000	0	12	107
SD_B	0.957	1	12	107	Δ(SD_B)	0.000	0	12	107
Islam_01F	0.785	1	12	107	Δ(Islam_01F)	0.000	0	12	107
Islam_03F	0.758	2	12	106	Δ(Islam_03F)	0.000	1	12	106
Islam_06F	0.738	2	12	106	Δ(Islam_06F)	0.000	1	12	106
Islam_09F	0.609	2	12	106	Δ(Islam_09F)	0.000	1	12	106
Islam_12F	0.710	2	12	106	Δ(Islam_12F)	0.000	1	12	106
Islam_SDF	0.852	0	12	108	Δ(Islam_SDF)	0.000	0	12	107
FD_01F	0.731	1	12	107	Δ(FD_01F)	0.000	0	12	107
FD_03F	0.720	1	12	107	Δ(FD_03F)	0.000	0	12	107
FD_06F	0.719	1	12	107	Δ(FD_06F)	0.000	0	12	107
FD_09F	0.719	1	12	107	Δ(FD_09F)	0.000	0	12	107
FD_12F	0.649	1	12	107	Δ(FD_12F)	0.000	0	12	107
SD_F	0.949	1	12	107	Δ(SD_F)	0.000	0	12	107

Table 6
Johansen Cointegration Tests

The presence of pair-wise cointegration between the Islamic investment rate and the conventional deposit rate with the same maturity was tested using the trace and maximum eigenvalue test statistics. Two null hypotheses were tested. The first null hypothesis ($r = 0$) is that there is no cointegration equation. The second null hypothesis ($r \leq 1$) is that there is at most one cointegration equation. Both the trace and maximum eigenvalue test statistics reject the first null hypothesis ($r = 0$). The second null hypothesis ($r \leq 1$), however, cannot be rejected by either the trace or maximum eigenvalue test statistics.

Dependent Variable	Independent Variable	Trace $r = 0$	Trace $r \leq 1$	Max Eigenvalue $r = 0$	Max Eigenvalue $r \leq 1$
			Banks		
Islam_01B	FD_01B	40.78 ***	2.06	38.71 ***	2.060
Islam_03B	FD_03B	49.93 ***	1.75	48.19 ***	1.750
Islam_06B	FD_06B	54.00 ***	2.66	51.34 ***	2.660
Islam_09B	FD_09B	46.34 ***	2.40	43.94 ***	2.400
Islam_12B	FD_12B	56.77 ***	2.49	54.27 ***	2.490
Islam_SDB	SD_B	19.42 *	2.44	16.98 **	2.440
			Finance companies		
Islam_01F	FD_01F	21.72 **	1.53	20.19 ***	1.530
Islam_03F	FD_03F	23.19 **	1.27	21.93 ***	1.270
Islam_06F	FD_06F	19.85 *	1.31	18.54 **	1.310
Islam_09F	FD_09F	17.90 *	1.45	16.34 **	1.450
Islam_12F	FD_12F	26.06 ***	1.63	24.43 ***	1.630
Islam_SDF	SD_F	32.53 ***	2.94	29.59 ***	2.940

Note:

*** Significant at the 1% level; ** significant at the 5% level; * significant at the 10% level.

Table 7
Long-term Relation between Islamic Investment Rate and Conventional Deposit Rate

The following equation is estimated to measure the long-term relation between the Islamic investment rate and the conventional deposit rate on a maturity-matched basis:

$$y_t = \alpha_0 + \alpha_1 x_t + \varepsilon_t$$

where y_t represents the various Islamic investment rates and x_t denotes the corresponding conventional deposit rates. ε_t is the disturbance term. The degree of pass-through in the long run, α_1, measures the extent to which a change in the conventional deposit rate gets reflected in the Islamic investment rate.

Dependent variable	Independent variable	Constant (α_0)	Slope (α_1)	Adjusted R^2
Banks				
Islam_01B	FD_01B	0.91	0.66	0.89
Islam_03B	FD_03B	0.97	0.68	0.88
Islam_06B	FD_06B	1.18	0.67	0.87
Islam_09B	FD_09B	1.27	0.68	0.84
Islam_12B	FD_12B	1.02	0.73	0.79
Islam_SDB	SD_B	-0.45	1.16	0.93
Finance Companies				
Islam_01F	FD_01F	1.58	0.59	0.85
Islam_03F	FD_03F	1.61	0.60	0.85
Islam_06F	FD_06F	1.93	0.57	0.83
Islam_09F	FD_09F	2.07	0.58	0.76
Islam_12F	FD_12F	1.88	0.62	0.77
Islam_SDF	SD_F	0.32	0.89	0.87

Table 8
Short-term Dynamics between Islamic Investment Rates and Conventional Deposit Rates

The following error-correction model is estimated to determine the short-term dynamics between Islamic investment rates and conventional deposit rates:

$$\Delta y_t = \beta_1 \Delta x_t + \beta_2 \hat{\varepsilon}_{t-1} + v_t$$

where Δ denotes first difference. $\hat{\varepsilon}_{t-1}$, which is the residual term associated with the long-term relation given by Equation (1), represents the extent of disequilibrium at time (t − 1). v_t is the error term. β_1 measures the short-term pass-through rate, and β_2 captures the error-correction adjustment speed when the rates are away from their equilibrium level. The mean adjustment lag (MAL) of a complete pass-through can be calculated as: $MAL = (1 - \beta_1) / \beta_2$.

Dependent variable	Independent variable	β_1	t-value	β_2	t-value	MAL
			Banks			
ΔIslam_01B	ΔFD_01B	0.102	2.66 ***	-0.269	-8.71 ***	3.3
ΔIslam_03B	ΔFD_03B	0.053	1.38	-0.247	-9.07 ***	3.8
ΔIslam_06B	ΔFD_06B	0.094	2.24 **	-0.237	-8.55 ***	3.8
ΔIslam_09B	ΔFD_09B	0.071	1.66 *	-0.212	-8.27 ***	4.4
ΔIslam_12B	ΔFD_12B	0.083	1.88 *	-0.172	-7.39 ***	5.3
ΔIslam_SDB	ΔSD_B	0.367	2.54 ***	-0.240	-5.36 ***	2.6
			Finance Companies			
ΔIslam_01F	ΔFD_01F	0.190	2.23 **	-0.303	-5.14 ***	2.7
ΔIslam_03F	ΔFD_03F	0.170	2.92 ***	-0.182	-4.84 ***	4.6
ΔIslam_06F	ΔFD_06F	0.150	2.94 ***	-0.151	-4.57 ***	5.6
ΔIslam_09F	ΔFD_09F	0.073	0.94	-0.169	-4.03 ***	5.5
ΔIslam_12F	ΔFD_12F	0.095	1.70 *	-0.165	-5.25 ***	5.5
ΔIslam_SDF	ΔSD_F	0.745	3.88 ***	-0.179	-3.65 ***	1.4

Note:

*** Significant at the 1% level; ** significant at the 5% level; * significant at the 10% level.