Are Islamic incomes relevance to commercial banks in Malaysia?

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Abstract: A significant price-to-earnings relation is evident in many research findings, which includes study on Malaysia Stock Markets, that the strength, consistency and magnitude of the relation are not as large as those reported in institutionally more developed markets. However, the price adjustment is stronger if price reaction is measured over a long periods, which is consistent to speculative trading. Firm-specific variables such as revenue, firm size and debt-equity have no incremental information content beyond earnings implies that the market monitoring process in an emerging market focuses on earnings only during financial announcement. Therefore, this paper revisited the study on the relevant of accounting earnings by looking at Islamic Income for commercial banks in Malaysia using the earnings response coefficients, which are the earnings-to-share return coefficients that are estimated for sub earnings components by including Islamic banking incomes in the analysis. This paper discovered that though there is a positive effect, the earnings from Islamic banking operation are small. Thus, the total earnings as well as the sub-categories of earnings of banks appear to enter the pricing considerations of investors.

Key words: earnings response coefficients; Islamic banking; information content; sub earnings variables; Bursa Malaysia

1. Introduction

In 1980, the Bumiputra Economic Congress, Malaysia had proposed to the Government to set up an Islamic bank in the country. Following that, the National Steering Committee made recommendations on the operation of Islamic banks. After a detailed study, this led to the establishment of the first Islamic bank in Malaysia, Bank Islam Malaysia Berhad (BIMB) in July 1983, with an initial paid-up capital of RM 80 million.

That marked the beginning of the development of the Islamic financial system. BIMB carries out banking business similar to other commercial banks, but along the principles of *Syari'ah* (Islamic Principles). The bank offers deposit-taking products such as current and savings deposit under the concept of *Al-Wadiah Yad Dhamanah* (guaranteed custody) and investment deposits under the concept of *Al-Mudharabah* (profit-sharing) and not on interest payments but profit shares. The bank grants financing facilities such as working capital financing under *Al-Murabahah* (cost-plus), house financing under *Bai'Bithaman Ajil* (deferred payment sale), leasing under *Al-Ijarah* (leasing) and project financing under *Al-Musyarakah* (profit and loss sharing).

After 10 years of operation, BIMB can do little as sole Islamic banking institution to promote the Islamic

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financial system. Therefore, in 1993, Bank Negara Malaysia introduced Skim Perbankan Islam (Islamic Banking Scheme) for three licensed commercial banks to operate as dual banking systems and subsequently extended this dual system in July 1993 to all commercial banks, finance companies and merchant banks to operate the scheme. The total number of commercial banks that offered this form of financing has increased to 15 (of which 4 are foreign banks) now. This Islamic banking system forms the foundation of the Islamic financial system.

Today, Malaysia has succeeded in implementing a dual banking system, and has emerged as being included among the first nations to have a full-fledged Islamic system operating side by side with the conventional banking system.[1] Throughout the years, the Islamic banking has gained its significance, and has been on a progressive upward trend. Since 2000, the Islamic banking industry has been growing at an average rate of 19 percent per annum in terms of assets. The total assets of Islamic banking in commercial bank amount to RM 54 billions (Bank Negara Malaysia, 2004) with the gross income of RM 1.9 billion in year 2004. Islamic income now account for over 5.4 percent of total income of commercial banking industry in year 2006.

This paper aims to study the relevant of the Islamic Income to the commercial banks in Malaysia after more than 15 years in operation. The research goes along the line of the usefulness of earnings studies in the seminal paper by Ball and Brown (1969).

The rest of the paper is divided into four sections. Section 2 contains a brief review of theory and evidence on the earnings-to-returns relation. The reasons for proposing a price effect to earnings disclosures are examined in this section. Section 3 explains the research design, hypotheses, data and variables: methodological issues including that relating to panel regression are also discussed to ensure that the results are robust to a degree. The findings are presented in Section 4 while the paper ends with conclusions and limitations presented in Section 5.

2. Theory and evidence

Lev (1989) defines a sufficient statistical criterion on the usefulness of accounting earnings numbers or earnings measurement process as the measure R-squared of straight forward regression of equity security returns on earnings realization. Lev (1989) concludes that the correlation between earnings and stock returns is very low, sometimes negligible. In trying to improve the R-square measures, researchers have related the returns and earnings adjustment to attributes such as earnings yield variables (Strong and Walker 1993), and extraordinary earnings variables (Easton 1990; Ariff, Loh and Chew 1997).

Earlier studies in United States by Horwitz and Young (1974), Gonedes (1975), Eskew and Wright (1976), Bell (1978), and Pastena (1979) all find evidence that the announcement of unexpected extraordinary items affects equity prices, while Gonedes (1978) did not find supporting evidence.

Castagna and Matolcsy (1989) provide some Australian evidence that, given the information content of accounting income numbers, the marginal information content of supplementary accounting numbers, like sales, extraordinary items, tax reconciliation and other income, appear to be zero. Easton (1990) uses cross-sectional regression analysis, and finds no evidence of an association between announcements of unexpected extraordinary items and abnormal returns to equity in a similar study for Australia.

Fairfield, Sweeney and Yohn (1996) show that the classification scheme prescribed by the accounting profession does increase the predictive content of reported earnings for US. They find forecasting improvements

[1] The first country to implement the dual banking system is United Arab Emirates (UAE) where the Dubai Islamic Bank was established in 1973 with a paid up capital of US$14 million (Metwally, 1997).

from earnings desegregation. These improvements go beyond separating extraordinary items and discontinued operations from the other components of earnings.

There are also research based on accounting earnings, which can be decomposed into sub-categories as permanent earnings and transitory earnings. Permanent accounting earnings can be thought of as the expected value of future accounting earnings. As time passes the expected or permanent earnings for a given year may change. Events such as strikes and catastrophic events that have impacts on current earnings may precipitate changes as transitory component of earnings. Ali and Zarowin's (1992a, b) studied the explanatory power of the earnings level variable to answer consistency of responses with the presence of transitory components in annual earnings. They show that, with predominantly permanent earnings in the previous period, the incremental explanatory power increases are small compared to a regression model with only the earnings change as an explanatory variable. Ali and Zarowin (1992a, b) show that, in the presence of transitory components of earnings, the change in earnings may be a poor proxy for unexpected earnings, causing the earnings response ERC to be biased towards zero. This is a potential reason for the widely documented, empirically low ERC (Lev 1989).

All the above studies are on the components of the earnings variable. Earnings variables are decompose into various sub-earnings variables and study their effect on the return-to-earnings relation. There is no study of this nature for banks. There are some studies on the non-interest income and financial performance at U.S commercial banks (De Young and Rice, 2004, Rose 1989). De Young and Rice's (2004) results indicate that well-managed banks expand more slowly into noninterest activities, and that marginal increases in noninterest income are associated with poorer risk-return tradeoffs on average. Their findings suggest that noninterest income is coexisting with, rather than replacing, interest income from the intermediation activities that remain banks' core financial services function. The other theory is that diversification of banks into non-bank product lines may reduce the risk to banking returns or cash flows provided appropriate portfolio conditions are satisfied. Rose (1989) find evidence consistent with the proposition that individual banking firm risk may be reduced through selected product-line diversification, particularly in the insurance and data processing fields.

Commercial banks of Malaysia have additional classification of Islamic income in their gross income results. There were very few studies on Islamic banking in Malaysia. Previous studies by Arif (1989), Samad and Hassan (1989) evaluate the performance of Bank Islam Malaysia Bhd (BIMB), the sole Islamic bank in Malaysia in 1989[2]. They find that BIMB is relatively more liquid and less risky compared to a group of commercial banks. There is no study on Islamic income for commercial banks of Malaysia. This paper evaluates the Islamic income components of selected ten (10) commercial banks from year 2000 to 2004 and for the first time, establishes the Islamic income effect on the return-to-earnings relation.

3. Research design, hypothesis and data

3.1 Research design

This research is designed to identify the stock price revaluation effect arising from earnings changes and earnings components occur in banks stocks in an emerging capital markets.

Analysis of Abnormal Returns: Sharpe's (1963) Market Model as a standard general equilibrium relationship for asset returns is used. Abnormal returns are:

$$AR_{it} = R_{it} - [\alpha_i + \beta_i R_{mt}] \quad (1)$$

[2] There are 6 Islamic banks of Malaysia in 2005 with total assets of RM42 billion.

With $R_{it} = \ln (P_{it}/P_{i\ t-1})$ and $R_{mt} = \ln(I_t / I_{t-1})$. Where, in addition to terms already defined, "ln" is natural logarithm and I refers to market's composite index. The market parameters α_i and β_i are estimated by ordinary least square regression over trading periods, –71 months to –11 months (estimation period) relative to the announcement month. The windows of analysis for the ARs are taken as 12 months. The windows of analysis are from the month of earnings announcements to 11 months prior to the announcements.

3.2 Analysis of unexpected annual accounting earnings

Unexpected annual earnings are computed using the naive expectation model, which assumes that the next period's expectation is simply the current period's annual earnings. This is also consistent with the design of the study to study the contemporaneous effect of price change at a point in time.

Unexpected annual earnings (UEs) are computed using the naive model:

$$UE_{it} = E_{it} - E_{i(t-1)} \quad (2)$$

The unit normal variables are estimated as follows:

$$SUE_i = UE_i/\sigma_{(UEi)} \quad (3)$$

Where, $\sigma_{(UEi)}$: Standard deviation of UE.

This transformation, which mitigates the effect of changing variance or heteroscedasticity on the variables, yields unexpected value of annual earnings variable adjusted for volatility differences, $\sigma_{(UEi).}$

Studies on returns-to-earnings relation also examine the coefficient in the regression analysis between the unexpected annual earnings as independent variables and abnormal return as the dependent variables. Typically, inferences regarding the information content of annual earnings are based on the significance of the slope coefficient (b) and the explanatory (R^2) of the following linear model estimated cross-sectionally:

$$CAR_{it} = a + b*SUE_{it} + e_{it} \quad (4)$$

where, CAR_{it} is some measure of risk-adjusted return for security i over 12 months period t; SUE_{it} is a measure of standardized unexpected annual earnings, and e_{it} is a random disturbance term assumed to be normally distributed.

The slope coefficient of the regression, b, is called the earnings response coefficient (ERC).

The above model is then extended to many studies in the incremental information studies, where additional variables were added into equation (4) above. If any of the coefficients of the additional variables are significant, then the results are interpreted as the variables have incremental information beyond earnings.

3.3 Islamic income for commercial banks companies

The available evidence indicates that interest income and financial performance are interrelated. Banks with large amounts of interest income have been shown to increase in risk-adjusted performance, while banks with high-quality management should be better at generating interest income. This paper proposes an econometric model that recognizes the return-to-earnings relation and the sub-earnings variables, i.e., Islamic incomes for commercial banks to compare with a prior study by Cheng, Ariff and Shamsher (2001) on non-banks.

This study tests the relation between abnormal returns as dependent variable and standardized unexpected earnings, unexpected Islamic income and Islamic income as independent variables by using the following formula:

$$CAR_i = a_1 + a_2\ SUE_i + a_3\ UISI_i + a_4\ ISI_i + \varepsilon_i \quad (5)$$

where, CAR_i: Abnormal returns over a 12 months window; SUE_i: Standardized Unexpected Annual Earnings; UISI: $ISI_2 - ISI_{1;}$ ISI: Islamic income/Total Income in percentage.

3.4 Firm-specific variables for non-banking companies[3]

Given that price of stock price is determined not solely by accounting earnings but also by other sources of information about future earnings, this study will also look at the relation between earnings and other information to control the effect of left-out variables in the returns-to-earnings association. Three variables are identified, which are growth in revenue (Swaminathan and Weintrop 1991), firm size (Freeman 1987; Chaney and Jeter 1993; Fama and French 1993), and debt-equity ratio (Dhaliwal, Lee and Farger 1991; Ball Kothari and Watts 1993).

This study tests the relation between cumulative abnormal returns, standardized unexpected earnings, revenue growth, firm size and debt-equity ratios by using the following formula:

$$CAR_i = a_1 + a_2\ SUE_i + a_3 Rg_i + a_4 Size_i + a_5 DE_i + \varepsilon_i \quad (6)$$

where, CAR_i is cumulative abnormal returns over a specified window; SUE_i is standardized unexpected earnings; Rg is growth in revenue, ln (R_t / R_{t-1});[4] R_t is revenue at time period t; $Size_i$: [Ln (MV_i) — Ln (min MV)] / [Ln (max MV) — Ln (min MV)];[5] MV_I is the market value of firm i, and DE: Debt-equity ratios (sum of short-term loans and long term's loans divided by shareholders' fund).

3.5 Hypothesis

The major hypothesis in this study is that a strong relationship exists between risk-adjusted abnormal returns, which represents adjusted share price changes, and unexpected annual earnings changes. The strategic hypothesis is:

Changes in stock prices are explained or determined by the sign and the magnitude of the unexpected annual earnings changes in banks.

The null will be accepted if there is no significant relation between stock price changes and unexpected annual earnings changes, i.e., the t-statistic for a_2 is insignificant.

The subsequent secondary null hypothesis for banks suggests that the cross-sectional Islamic income of the returns-to-earnings correlation do not effect the returns-to-earnings relation. The subsequent secondary null hypothesis is:

Islamic income does not effect returns-to-earnings relation.

The null will be accepted if the t-statistics for a_3, and a_4 are not significant.

The subsequent hypothesis for non-banks suggests that the cross-sectional determinants of the returns-to-earnings correlation do not effect the returns-to-earnings relation. The growth in revenue, firm size and debt-equity ratio also do not effect returns-to-earnings relation.

3.6 Data

The data set was mainly accessed from the monthly closing prices, annual earnings and balance sheets information in the following sources: Bloomberg financial data in the Kuala Lumpur Stock Exchange (KLSE); the financial information from the Company Annual Reports and/or the KLSE Annual Company Handbooks; and the annual earnings announcements obtained from Investors Digest and *KLSE Daily diary*. For commercial banks data relate to the period 2000, after the merger of the financial institutions into 10 banks, to the year 2005. The sample consists of 10 listed and traded banks over the test period. These banks are Affin Holding Berhad, AMMB Berhad, Commerce Assets Berhad, EON Capital Berhad, Hong Leong Bank Berhad, Maybank Bank Berhad,

[3] This section is abstracted from Cheng, Arif and Shamsher (2001).

[4] Log model is preferred because it produces better distribution. There is evidence that skewness is sensitive to log transformation (Singleton and Wingender, 1986).

[5] The log of market capitalization is still a very large number, whereas other variables are very small number of decimal point. Therefore squeeze firm size into 0-1 scale. (Elsharkawy and Garrod 1996, Ball and Kothari 1991).

M.Plant Berhad (Alliance Bank), Public Bank Berhad, RHB Capital Berhad and Southern Bank Berhad. The final sample consists of 47 firm-years for analysis.

Data relate to non-banks analysis in Cheng, Ariff and Shamsher (2001) are from the period 1988 to 1997, a period when the stock market experienced two peaks and two troughs. The sample consists of listed and traded non-banks companies over the test period. A total of 160 non-banks companies in KLSE main board were identified with records on earnings announcements. However, only 90 companies were finally selected for analysis. The final sample consisted of 381 firm-years observations for non-banks companies.

4. Results

4.1 Descriptive statistics

The Asian financial crisis in August, 1997 caused serious damage to the banking sectors of countries in the ASEAN region. Malaysia experienced negative growth for the first time in 13 years when it recorded a contraction of 7.5 per cent in Gross Domestic Products (GDP) in 1998. After the crisis, preventive measures introduced strengthened the financial system in order to avoid future risks as well as to ensure continued functioning of the banking sector to promote market confidence even when the economic situation continued to be weak. The measures taken were spread across all aspects of the banking system and included the merging of banking institutions. The financial reform resulted in 54 financial institutions being merged into 10 banking groups. The merger led to each banking group having a minimum shareholders fund of RM 2 billion and an asset base of at least RM 25 billion, which improved the capital ratio marginally. This bank reorganization is one the most extensive in the region. Therefore, in order to appraise the consequence of the financial reforms, it is meaningful to conduct an empirical study on the earnings components, and how these enter the return-to-earnings relation of banks, which has yet been studied in this economy.

Table 1, Columns 2, 3 and 4 describe the total incomes, total assets and shareholders' equity of the 10 anchor commercial banks of Malaysia in year 2004. The shareholders' equity of the 10 commercial banks vary from RM 1.8 billion in MPlant Berhad (Alliance Bank) to RM 14.6 billions in Maybank Bhd. Except for MPlant Berhad (Alliance Bank) all other commercial banks shareholders' equity are greater than RM 2 billions. In term of total assets, the values vary from RM 23 billions for MPlant Berhad (Alliance bank) to RM 180 billion in Maybanks. Similarly, except for MPlant Berhad (Alliance Bank), all the other 9 commercial banks have total assets of more than RM 25 billion. The total assets of all the 10 commercial banks were valued at RM 696 billion in the year 2004. Out of these, the Islamic Banking assets were valued at RM 54 billion (8% of combined total assets in commercial banks). The total incomes of the commercial banks vary from 1.3 billion in MPlant Berhad (Alliance Bank) to RM 9.5 billion in Maybank Bhd. The average total income of commercial banks of Malaysia is RM 4.1 billions over average assets of RM 69.6 billions. The average return of total income/total asset is 5.6%.

Table 1, Columns 5 and 6 show the Islamic income and the percentage of Islamic income/Total incomes for ten (10) commercial banks of Malaysia in year 2004. The table shows that AMMB Berhad has the highest percentage of Islamic income/total income ratio (7.84%) and CIMB has the lowest percentage of Islamic income/total income ratio (0.23%). Commerce Assets Berhad has the lowest Islamic income of 0.23%, because during the bank restructuring all Islamic banking assets and liabilities of Commerce Assets Berhad were transferred to another Islamic bank. AMMB Berhad has the highest Islamic income among all the ten Banks. The average Islamic income/total income ratio for commercial banks is 4.75%. AMMB Berhad, Public Bank Berhad,

EON Cap Berhad, Affin Holding Berhad, Maybank Berhad and Southern Bank Berhad have the above average Islamic income. Commerce Assets Berhad, MPlant Berhad (Alliance Bank), RHB Capital Berhad and Hong Leong Bank Berhad have below average Islamic income/total income ratio.

Table 1 Financial year-end, total incomes, total assets and shareholder equity of 10 commercial banks (RM'000) in year 2004

Bank	Total incomes (A)	Total assets	Shareholder equity	Islamic incomes(D)	D/A (%)
Affin	1,835,502	32,850,037	2,663,138	103,203	5.62
AMMB	4,298,955	60,478,610	4,107,473	337,155	7.84
Alliance	1,302,636	23,312,763	1,760,423	32,840	2.52
Commerce	6,750,468	111,970,661	8,787,739	15,740	0.23
EON	1,887,615	33,313,898	2,564,109	131,659	6.97
Hong Leong	2,412,044	49,060,405	4,425,498	109,364	4.53
Maybank	9,539,403	179,507,427	14,623,436	521,970	5.47
Public	4,919,770	92,087,394	8,570,735	380,384	7.73
RHB	5,597,444	82,128,422	4,217,134	197,068	3.52
Southern	2,051,094	31,466,099	3,472,310	98,574	4.81
Total	40,594,931	696,175,716	55,191,995	1,927,957	
Average	4,059,493	69,617,571	5,519,199	192,795	4.75

Table 2 shows the total incomes and Islamic incomes from year 1998 to 2007 for the ten (10) commercial banks. The Islamic incomes increase from 0.51% to 5.19 % from year 1998 to year 2007. The increase in the percentage of Islamic income to total income is more than 10 times. In the year 1998, the Islamic income was only RM 130 millions for the 10 commercial banks. However in year 2007, the Islamic income has increased to RM 3.06 billion.

Table 2 Accumulated total incomes and Islamic incomes for 10 commercial banks (RM'000) from Year 1998 to 2007

Year-end	Total Incomes (A)	Islamic Incomes (D)	D/A (%)
31/12/2007	58,929,769.00	3,058,950.00	5.19
31/12/2006	49,202,821.00	2,648,766.00	5.38
31/12/2005	42,959,161.00	2,268,372.00	5.28
31/12/2004	40,594,931.00	1,927,957.00	4.75
31/12/2003	36,497,917.00	1,387,594.00	3.80
31/12/2002	32,525,777.00	1,136,082.00	3.49
31/12/2001	31,008,218.00	863,748.00	2.79
31/12/2000	29,931,950.00	471,584.00	1.58
31/12/1999	30,062,750.00	257,486.00	0.86
31/12/1998	25,548,835.00	130,832.00	0.51
Total	377,262,129.00	14,151,371.00	3.8

Table 3 shows the regression results for the earnings-to-return relation for the commercial banks using Malaysian data from year 2000 to year 2004. Cumulative abnormal return is the dependent variable. Standardized unexpected annual earnings (SUE), unexpected Islamic income/total income ratio, and Islamic banking income/total income ratio are the dependent variables. Model 1 is the regression between the abnormal returns and

the standardized unexpected earning (SUE). This is the traditional basic earning response coefficient regression. Models 2 and 3 show the regression results of regressing SUE with other independent variables at a time. Model 4 is a final regression that includes all the independent variables.

The Unexpected Islamic banking income/total income ratio and Islamic banking income/total income ratio are added in models 2 and 3 regressions respectively as independent variables. The coefficients for SUE are again highly significant. However, the coefficients for other independent variables are not significant at all. This evidences show that the Unexpected Islamic/total income ratio, and Islamic banking income/total income ratio have no information content beyond unexpected earnings. In Model 2, the coefficient for Unexpected Islamic banking income/total income is positive 0.028, which means that the investors still respond in this market (as would also be the case with other markets trading Islamic banking products), positively to any amount of Islamic income. Similarly in Model 3, the coefficient for Islamic Income ratio is 0.005, the investors' response positively to the amount of Islamic incomes in the total earnings reported. However, both the coefficients are not significant.

Table 3 Regression results for returns-to-earnings relation for commercial banks of Malaysia from period 2000 to 2004

	Model			
Independent variables	1	2	3	4
Constant, a_1	-0.015 (-0.46) (0.646)	-0.037 (0.614) (0.542)	-0.045 (-1.31) (0.196)	(0.369) (4.99) (0.000***)
SUE, a_2	0.062 (9.02) (0.000***)	0.064 (7.53) (0.000***)	0.061 (8.92) (0.000***)	0.059 (4.89) (0.000***)
UISI, a_3		0.028 (0.827) (0.413)		0.008 (0.560) (0.578)
ISI, a_4			0.005 (0.362) (0.719)	0.002 (0.07) (0.944)
Adj. R-square	0.218	0.186	0.188	0.181
F-statistic	12.28 (0.001**)	6.15 (0.004**)	4.47 (0.008**)	7.00 (0.000***)
VIF	1.000-1.000	1.060-1.060	1.001-1.001	1.334-1.693
D-W	1.789	1.922	1.844	1.890

Notes: Regression model: $CAR_i = a_1 + a_2 SUE_i + a_3 UISI_i + a_4 ISI_i + \varepsilon_i$; *** significant at 0.001 level, ** significant at 0.05 level; Dependent variable: Cumulative abnormal returns (CAR), n= 47.

The final results are derived from the regressive process of all independent variables with abnormal returns as the dependent variable. The coefficient for SUE is again significant. The coefficients for unexpected Islamic/total income ratio, and Islamic banking income/total income ratio are not significant. The coefficients for Islamic banking income/total income ratio are positive. This positive coefficient means, in terms of the directional effect, that investors view the Islamic banking income in this economy positively in revaluing the share prices and that this effect in this market is in addition to the effect from unexpected changes in total earnings. That is, the sub-category of income from Islamic banking is viewed as weakly important as that of mainstream earning. This new finding is important for commercial banks to plan their future business strategies for growth in the Islamic finance. Malaysia has become a global hub for Islamic banking and finance. That perhaps reflects the emerging importance of this new source of income for the conventional banks as being important for future growth. The

growth in the Islamic income in commercial banks will contribute to the growth in the Islamic capital market. The adjusted R-squared value in this Model 2, 3 and 4 ranged between 0.18 and 0.186 which is lower that 0.212 in Model 1, as would be expected with refinements in the methods used. The F-statistic for all the models are significant.

4.2 Regression results for non-banks companies controlling for firm-specific variables[6]

Table 4 shows the results of multiple regressions aimed at explaining the behavior of stock returns in response to reported earnings of non-banks. In regression (1), (2), (3), (4) and (5), only the SUE variable is significant at the 0.001 significance level. None of the other three variables is significant. The result supports the subsidiary null hypothesis that there is no information content in revenue growth, firm size, and debt-equity ratio beyond standardized unexpected earnings.

The R-squared values for the regression (2), (3), (4) and (5) have not improved compare with regression (1). Therefore, this shows that the three additional independent variables have no incremental information content beyond the unexpected earnings. The above results are different than those reported for the developed markets, where researcher found that revenues have no incremental information content. However, firm size, leverage/debt-equity ratios and auditor choice have been found to affect the returns-to-earnings relation. Once again this implies that, due to the highly speculative nature of emerging market, investor may react to unexpected earnings only and do so aggressively during announcement.

Table 4 Results of returns-to-earnings response model regression for SUE, growth in revenue, firm size and debt-equity ratio: n=416

Independent variable		Regression coefficients model				
		1	2	3	4	5
Constant	[a]	-0.0080	-0.0084	-0.0067	-0.0097	-0.0065
	[b]	(-1.447)	(--1.438)	(-0.511)	(-1.354)	(-0.450)
	[c]	(0.149)	(0.151)	(0.610)	(0.177)	(0.653)
SUE		0.0410	0.0408	0.0411	0.0412	0.0411
		(6.841***)	(6.690***)	(6.811***)	(6.844***)	(6.652***)
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Revenue			0.0034			0.0035
			(0.233)			(0.239)
			(0.816)			(0.811)
Size				-0.0030		-0.0043
				(-0.107)		(-0.155)
				(0.915)		(0.877)
Debt-equity					0.0051	0.0062
					(0.382)	(0.457)
					(0.703)	(0.648)
Adj. R-square		0.1016	0.0973	0.0972	0.0975	0.0921
F-statistic		23.68***	15.77***	15.75***	15.80***	7.94***
B-P-G		0.265	0.734	2.782	0.776	4.938

Note: $CAR_{it} = a_1 + a_2\ SUE_{it} + a_3 \ln(Rt/Rt\text{-}1)_{it} + a_4\ Size_{it} + a_5\ Debt/Equity + e_{it}$; SUE = Standardized unexpected earnings; B-P-G is Bruesh, Pagen and Goldfreed test; [a] = coefficients, [b] = t-statistics, [c] = p-values, significant at 0.001 (***) level.

[6] This section of the results is abstracted from Cheng, Arif and Shamsher (2001) for the purpose of comparison of findings.

A final regression was run by adding all the independent variable into a single regression. The coefficients for unexpected earnings, revenues, firm size, and debt-equity variable are 0.0411, 0.0035, -0.0043, and 0.0062 with corresponding t-statistics of 6.652, 0.239, -0.155, and 0.457. The results indicate that only the coefficients for unexpected earnings are significantly different from zero at 0.001 significance levels. This confirms the findings from earlier regressions where the variables are regressed one at a time. Further support is provided by the adjusted R-squared value of 0.0921 in regression (5). This is lower than the R-squared 0.1016 equation (1). The conclusion is that the revenue, firm size, and debt-equity variables have no incremental information content in share revaluation in response to reported earnings for non-banks.

The results of the above OLS regression lead to the acceptance of the null hypothesis. The correlation amongst variables used in the regression is estimated. All of the independent variables have low correlation with each other. The highest correlation is between standardized unexpected earnings (SUE) and revenues with a coefficient of 0.2411 and a t-statistic of 4.822 significantly at 0.001 levels. However, this value is very small. It is not high enough to indicate the presence of multicollinearity. As a further test for multicollinearity, the condition index, variance inflation factor showed that the result supported there is no multicollinearity.[9]

There is no econometric problem in this study. The data used are pooled data, therefore these data do not have auto-correlation problem. Tables 3 and 4 show that the values of Variance Inflation Factors (VIF) lie between 1.000-1.693, which are below the tolerable level, meaning that our research process is mitigated of multicollinearity problem.

5. Conclusion

Some pertinent highlights of this study are identified. This study is about contemporaneous accounting earnings effect on share prices in an emerging market with institutional characteristics quite widely documented as being different to those of the more institutionally developed capital markets in the developed economies. As this is a first study of such a market, we designed this research simply on the basis whether the quite robust generally accepted findings about the price-to-earnings documented in several more developed capital markets can be extended to this one emerging market. There are altogether 67 emerging capital markets accounting in 1998 for 19 percent of world capitalization according to World Bank statistics. The KLSE is probably an example of a market among the more experienced, and institutionally (disclosure standards, investor protection, accounting standards, etc.) experienced emerging market than, for example, China's two markets or Jakarta's or Slovakia's stock exchanges. It is highly unlikely that the findings to be summarized for one market may be generalized to all emerging markets till further research of more markets are attempted. However, some tentative conclusions are warranted.

The findings presented in this paper suggest that accounting earnings is a price relevant variable, and earnings has a *contemporaneous* impact on share prices in an emerging market. That stock prices change ordinally in a statistically significant manner in response to earnings increases and decreases is quite evident, as is the case of existing findings.

Firm specific variables, (revenue growth, firm size, and debt equity) were investigated as to whether any incremental information effect is possible beyond unexpected earnings. The results support no evidence that the firm specific variables have incremental value beyond the value from the unexpected earnings. This indicates the

[9] Correlation matrix, condition index and variance inflation factor is available upon request.

price effect from accounting earnings is much more direct in the emerging market, which is also more speculative and less constrained by differences in firm-related variables. Investors react to unexpected earnings only.

Commercial banks all over the world have embarked on expending into other non-traditional, non-core sources for generating income for businesses. This paper reports the findings of a study applying for the first time the concept of earnings response to commercial banks in Malaysia. Also this study examines the unique Islamic banking income (which is profit-share based earnings) effect on the price-to-earnings relationship. This sources of income for banks contributed 5.19 percent to the total income for commercial banks in Malaysia in 2007.

The contribution of the Islamic banking income has increased tenfold although it is still less than 10 percent of the total income of commercial banks in Malaysia. The results in this study show that the coefficients of the Islamic banking income are positive. This suggests that investors do factor in the increasing share of this source of earnings as positive news, and thus adjust share prices upwards when this information is included in the financial statements. These results are consistent with the general perception of investors in valuing the intermediation functions of banks as the managers of risks and liquidity providers in the financial system.

Reference:

Ali, A. & Zarowin P.. (1992a). Role of earnings levels in annual earnings-returns market. *Journal of Accounting Research, 30*(3), 226-244.

Ali, A. & Zarowin P.. (1992b). Permanent versus transitory components of annual earnings and estimation error in earnings response coefficients. *Journal of Accounting and Economics, 15*, 249-264.

Arif, M.. (1989). Islamic banking in Malaysia: Framework, performance and lesson. *Journal of Islamic Economics*, *2*(2).

Ball, R. & Brown, P.. (1969). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, *6*(2), 159-178.

Ball, R. & Kothari, S. P.. (October, 1991). Security returns around earnings announcements. *The Accounting Review*, *66*, 718-38.

Ball, R., Kothari, S. P. & Watts, R. L.. (1993). Economic determinants of the relation between earnings changes and stock returns. *The Accounting Review*. *68*(3), 622-638.

Breusch, T. S. & Pagan, A. R.. (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica*, *47*,1287-1294.

Castagna, A. D. & Matolcsy, Z. P.. (Summer, 1989). The marginal information content of selected items in financial statements. *Journal of Business Finance and Accounting*, *16*(3), 317-333.

Cheng, F.F., Ariff M. and Shamsher. (2001). Accounting earnings and share revaluation: Further exploration. *Capital Market Review*, *9*(1&2), 21-48.

Chaney, P. K. & Jeter, D. C.. (1993). The effect of size on the magnitude of long-window earnings response coefficients. *Contemporary Accounting Research, 8*, 540-560.

DeYoung, R. & Rice, T.. (2004). Noninterest income and financial performance at U. S. commercial banks. *The Financial Review*, *39*, 101-127.

Dhaliwal, D. S., Lee, K. J. & Fargher, N. L.. (1991). The association between unexpected earnings and abnormal security returns in the presence of financial leverage. *Contemporary Accounting Research, 8*, 20-41.

Elsharkawy, A. & Garrod N.. (1996). The impact of investor sophistication on price responses to earnings news. *Journal of Business Finance and Accounting, 23*(2), 221-236.

Eskew, R. K. & Wright, W. F., (May, 1976). An empirical analysis of differential capital market reactions to extraordinary accounting items. *Journal of Finance*, *31*(2), 651-674.

Easton, S.. (1990). The impact of the disclosure of extraordinary accounting items on returns to equity. *Accounting and Finance*, *30*(3), 1-13.

Fairfield, P. M, Sweeney, J. M. & Yohn, T. L.. (July, 1996). Accounting classification and the predictive content of earnings. *The Accounting Review, 71*(3), 337-355.

Fama, E. F. & French, K. F.. (1992). The cross-section of expected stock returns. *The Journal of Finance*, *47*(4), 427-465.

Freeman, R. N.. (1987). The association between accounting earnings and security returns for large and small firms. *Journal of*

Accounting and Economics, (9), 195-228.

Gonedes, N. J.. (Autumn, 1975). Risk, information, and the effects of special accounting items on capital market equilibrium. *Journal of Accounting Research*, *13*(2), 220-256.

Gonedes, N. J.. (Spring, 1978). Corporate signaling, external accounting, and capital market equilibrium: Evidence of dividends, income, and extraordinary items. *Journal of Accounting Research*, *16*(1), 26-79.

Horwitz, B. and Young, A.. (Winter, 1974). Extraordinary gains and losses and security prices. *Quarterly Review of Economics and Business*, *14*, 101-110.

KLSE. *Daily Dairy.*

KLSE. *Investors Digest.*

KLSE. *Companies Handbook 1982 to 1998: The Kuala Lumpur Stock Exchange Publications.*

Lev, B.. (1989). On usefulness of earnings and earnings research-lessons and directions from two decades of empirical research. *Journal of Accounting Research*, *27*(2), 153-192.

Pastena, V.. (1979). Some evidence of the SEC's system of continuous disclosure. *Accounting Review*, *4*(4), 776-783.

Rose, P. S.. (1989). Diversification of the banking firm. *The Financial Review*, *24*(2), 251-280.

Samad, A. & Hassan, M. K.. (1989). The performance of Malaysian Islamic bank during 1984-1997: An exploratory study. *International Journal of Islamic Financial Services*, *1*(3), 10-21.

Strong, N. & Walker, M.. (1993). The explanatory power of earnings for stock returns. *The Accounting Review*, *68*(2), 385-399.

Sharpe, W. F.. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *Journal of Finance*. *19*(3), 425-442.

Singleton, J. C. & Wingender, J.. (1986). Skewness persistence in common stock returns. *Journal of Finance and Quantitative Analysis*, *21*, 335-341.

Swaminathan, S. & Weintrop, J.. (1991). The information content of earnings, revenues and expenses. *Journal of Accounting Research*, *29*(2), 418-27.

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References:

Mike, D., Paterson, R. & Wilson, A.. (1994). *UK GAAP* (4th ed.). MacMillan Press Ltd, Basingstoke, England.

Beaver, W. H. & Dukes, R. E.. (1972). Interperiod tax allocation, earnings expectations, and the behaviour of security prices. *Accounting Review*, *47*, 170-187.

Ball, R. J. & Brown, P.. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, *6*(2), 300-323.

Berkman, H. & Bradbury, M. E.. (1996). Empirical evidence on the corporate use of derivatives. *Financial Management*, *25*(2), 1-11.

Mayers, D. & Smith, C.. (1982). On the corporate demand for insurance. *Journal of Business*, *55*(2), 281-90.

Smith, C. W. & Stulz, R. M.. (1985). The determinants of hedging policies. *Journal of Financial and Quantitative Analysis*, *20*(4), 391-405.

Mayers, D. & Smith, C.. (1987). Corporate insurance and the underinvestment problems. *Journal of Risk and Insurance*, 54:45-54.

Bessembinder, H.. (1991). Forward contracts and firm value: Investment incentives and contracting effects. *Journal of Financial and Quantitative Analysis*, 519-532.

Froot, K. A., Hyatt, G. S., Marston, R. C. & Smithson, C. W.. (1995). Risk management: Coordinating corporate investment and financing policies. *Journal of Finance*, 1629-1659.

Dunne, T., Helliar, C., Mallin, C., Moir, L., Ow-Yong, K. & Power, D.. (2003). *The financial reporting of derivatives and other financial instruments: A study of the implementation and disclosures of FRS 13*. Centre for Business Performance, The ICAEW, Chartered Accountants' Hall, Moorgate Place, London EC2P 2BJ.

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

Citron, D. B.. (1995). The incidence of accounting-based covenants in UK public debt contracts: An empirical analysis. *Accounting and Business Research 25*(99), 139-150.

Megginson, L. W.. (1997). *Corporate finance theory*. Addison-Wesley.

Scott, W. R.. (2004). *Financial accounting theory*. Prentice Hall.

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