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Asymmetric Market Reactions to Sukuk Issuance

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Abstract: The main aim of this study is to investigate whether market reacts asymmetrically to the issuance of selected Sukuk in Malaysia for the period 2009-2011. 45 companies are selected and data on the date of issuance, issuers, issue size in million and tenors in years for each group are collected from the Securities Commission Malaysia (SC) and Bloomberg database. The study employs event study methodology using cumulative average abnormal return (CAAR) on all symmetric and asymmetric events of [0,0] 1-day, [-1,+1] 3-day, [-2, +2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+2] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day based on the reaction of the FTSE Hijrah Shari'ah Index and Dow Jones Islamic Market Index (DJIM) to the announcement of Sukuk issuance. The findings would be useful to Sukuk issuers and decision-makers to ensure the stability of the Islamic capital market and sustainable economic growth.

Keywords: asymmetric, CAAR, Dow Jones Islamic Index, event-study, FTSE Hijrah Shari'ah Index, Sukuk, symmetric.

1. INTRODUCTION

Factors that affect shareholder wealth is one of the central issues in finance. Financing decisions, which are to determine how much and what type of debt and equity should be issued to raise capital are among the factors affecting shareholder wealth. The empirical evidence on conventional bond indicates that pure equity offers have a relatively large negative effect while issues of straight debt have a small non-negative wealth effect. On the other hand, convertible securities, having both debt and equity features, have negative wealth effects that lie in between those observed for equity and straight debt (Abhayankar and Dunning, 1999).

The recent 2008 global financial crisis increases the need for risk diversification within the financial system. Sukuk, or Islamic bond, is an alternative for risk diversification and are the most active Islamic debt market financial instrument to date. They are investment certificates with both bond and stock-like features issued to finance trade or the production of tangible assets. Due to the rapid expansion of Islamic financial instruments, the Sukuk market has become an important avenue for fund raising and investment activities. The global outstanding volume of Sukuk exceeded USD\$90 billion in 2007 and is expected to reach USD\$200 billion by 2010. Issuance quadrupled from USD\$7.2 billion in 2004 to nearly USD\$39 billion by the end of 2007 and was up from USD\$336 million in 2000 (Moody's, 2007, 2008). More than 50 percent of the USD\$26.1 billion of Sukuk issued in 2009 originated in Malaysia (MIFC, 2010). Malaysian Sukuk represents about half of the total stock of Malaysian corporate bonds (Jobst et al., 2008).

The main contribution of this paper is to examine the wealth effects of Sukuk issuance after the recent 2008 post-crisis period in Malaysia. This is motivated by three key factors affecting the Sukuk market. First, regained market confidence after the restructuring of the high profile Sukuk in Dubai after the 2008 crisis. Second, investors are avoiding the riskiest markets of the United States and Europe. Third, positive economic growth and favorable debt dynamics in the two most important Sukuk issuing regions of the Gulf and Malaysia has attracted investors to the Islamic capital market. This paper will contribute to the literature since the empirical work on the information content of Sukuk issues is relatively few.



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The remainder of the paper is organized as follows. Section 2 discusses the related literature and provides a brief background on the recent development of Sukuk in Malaysia. Section 3 highlights the research method. Section 4 discusses the findings, and the final section concludes the paper.

2. LITERATURE REVIEW

Definition of Sukuk:

Sukuk is an Arabic name for financial certificates, which in economic terms are akin to conventional bonds. Unlike conventional bonds, Sukuk needs to have an underlying tangible asset transaction either in ownership or a master lease agreement. It represents ownership of underlying assets, usufructs (benefits), services, or investment. The money that a Sukuk holder gets represented a share in the profit of the underlying asset. The Securities Commission of Malaysia (SC) defines Sukuk as a financial document or certificate which represents the value of an asset evidencing an undivided pro rata ownership of an underlying asset; a capital market financial instrument tradable in the secondary market.

Theoretical Framework and Literature Review:

Modigliani and Miller first introduced the capital structure irrelevant theory in 1958. They assumed that under the perfect market condition, the capital structure of the firm is irrelevant. However, later they proposed that with corporate taxes, shareholder wealth would increase with the increase in debt usage due to the interest tax shield benefit of debt (Ibrahim and Minai, 2009). However, under imperfect market, models based on the idea of an optimal structure emphasize trade-offs between debt and equity; the corporate tax advantage of debt versus the costs of financial distress. On the other hand, asymmetric information and cash flow effects model assumed that managers have better information than outsiders about the firm's value. Myers and Majluf (1984) develop a model in which external financing has an adverse effect on common stock prices. When raising external funds, managers tend to issue securities in ascending order of risk (or in a 'pecking order') to preserve the wealth of shareholders. Summarizing the arguments, the effect of new financing may be positive, neutral or negative. It depends on how the implied changes in cash flow interact with the changes in leverage implied by the type of security issued (Smith, 1986).

There are limited studies that examine the wealth effects of Sukuk. Cakir and Raei (2007) examine the risk-reduction advantages of issuing sovereign *Sukuk*. Using a sample of sovereign *Sukuk* and euro bonds from the same issuer, the authors estimate and compare value-at-risk (VaR) for a portfolio that includes both instruments to a pure Eurobond portfolio. They find that the VaR is reduced when *Sukuk* are added to the portfolio of fixed-income securities, demonstrating that these investment certificates create diversification benefits for investors. However, Godlewski, Turk-Ariss and Weill (2011) take an opposing view, suggesting that there is no significant market reaction to conventional bond issues, but an important negative stock market reaction to *Sukuk* issues. The researchers explain the different stock markets reactions to two factors. First, investors expect that an adverse selection mechanism encourages less-healthy companies to prefer Sukuk over conventional bond financing. Second, investors may take the view that even if companies issuing Sukuk may have been shut out of the conventional bond market, they can still take advantage of the excess demand for *Sukuk* from Islamic banks.

Other recent studies include Ibrahim and Minai (2009) who found that the market reaction is significantly positive during event windows [-3, 0] and [-3, 3] during the announcements of Islamic debt issuance for the period 2000-2006 in Malaysia. The finding implies that the positive reaction is not due to investors' preference for Islamic-compliant activities, but it is due to similar factors found in studies on conventional bonds. Ameer and Othman (2010) find significant negative abnormal returns near the announcement days and the responses are asymmetrical to different types of bonds issuance announcements in Malaysia over the period 2001-2007. Modirzadehbami and Mansourfar (2011) report a significant negative abnormal return occurs one day before the announcement date in a sample of 45 listed companies on Bursa Malaysia involved in issuing of Islamic debts during 2005 to 2008. Mohd Ashhari, Sin-Chun and Md Nassir (2009) indicate that there is a wealth effect of the announcement of Islamic bond issues for the period 2001 to 2006 in Malaysia. In short, empirical evidence shows that stock market reactions to Sukuk issuance are mixed and inconclusive.

Growth and Development of Sukuk Market in Malaysia:

In Malaysia, as at December 2009, 57 percent of outstanding corporate bonds in the Malaysian bond market are Shariah-compliant (SC, 2009). From a macroeconomic perspective, the overall share of Sukuk of GDP was increasing each year since 2000 until 2009. In 2009, the percentage share of domestic Sukuk to share to GDP was 6.2 percent, corporate Sukuk



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represented 0.73 percent of GDP and sovereign Sukuk represented 5.47 percentage share to GDP in 2009 (IFIS and BNM). Malaysia dominated the Sukuk market in terms of both number and volume, with trade totaling approximately USD\$25 billion (IFIS Report).

Table 1 shows the turnover ratio for the period 2008 to 2010 in Malaysia. Both Sukuk and bond markets show declining trend, due to market still recovering from the impact of the 2008 financial crisis. Sukuk, under the category of 'Others', outperformed the conventional market for the period under review.

2009 2008 2010 Category Bond (%) Sukuk (%) Bond (%) Sukuk (%) Bond (%) Sukuk (%) **BNM** 1077 1307 1007 665 336 109 150 141 98 126 140 Government 19 Others 24 30 44 24 78 71 194 93 Total 209 88 176

Table I: Turnover Ratio for the Sukuk and Bond Market in Malaysia, 2008-2010

Source: Bond Info Hub, 2010.

Malaysia will have the comparative advantage to become a global Sukuk hub in the future. With the launching of the Malaysian International Islamic Financial Centre (MIFC) initiative in 2006, Malaysia offers the facilities for the origination, distribution and trading of Sukuk. The high volume of corporate issuance indicates the convenience of obtaining funds and the accessibility for the private sector in the Sukuk market. Malaysia also required the recognition of credit rating agencies for rating Sukuk.

3. RESEARCH METHOD

For the purpose of the study, the market is hypothesized to react positively to the announcement of Sukuk issues. This is due to firstly, cheaper financing costs since Sukuk has higher liquidity due to a wider investor base encompassing of both Muslims and conventional investors. Second, there is a higher demand for Shariah compliant stocks since 85 percent of total securities listed on Bursa Malaysia are Shariah compliant. Third, funds raised from the Islamic debt instruments are used to finance new activities (Ibrahim and Minai, 2009).

The performance of stock prices of firms on certain days is measured using (1):

$$AR_{it} = R_{it} - (\alpha_{it} + \beta_i R_{mt}) \tag{1}$$

Where; $AR_{ii} = \text{Abnormal returns for firm i at time period t}$

 R_{it} = Actual returns for firm i at time period t

 R_{mt} = Returns on market portfolio in period t

 α_i = The constant average returns of stock i

 β_i = Beta estimate of stock

 α and β are estimated using a market model that relates the given Sukuk to the return of the market portfolio. The return on the FTSE Hijrah Shariah Index and Dow Jones Islamic Shariah Index are used as a proxy for market returns. They are calculated by running a regression of Sukuk returns against the market returns. After estimating the abnormal returns for each firm, the abnormal return for all of the firms on each day of the event window are then aggregated and averaged at (2); where N is equal to the number of firms in the sample:

$$AAR_{t} = \frac{1}{N} \sum_{t=1}^{N} AR_{it} \tag{2}$$

The t-test for AAR_t is estimated as (3)

$$t\text{-test} = CAAR/\delta \text{ (CAAR)} \tag{3}$$



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Where AARt = Average abnormal return of period t

 δ = Standard deviation of average abnormal return over the estimation window

To observe the cumulative effects, the cumulative abnormal returns ($CAAR_{t,+t2}$) are computed as (4) below:

$$CAAR_{(-t_1,+t_2)} = \sum_{i=1}^{t_2} AAR$$
 (4)

 $CAAR_t$ is a more precise representative of the longer term effect on share prices from bond offering announcements. The z-test for the $CAAR_t$ is given as (5):

$$z-\text{test} = \text{CAAR}/\mathcal{S}^2 \text{ (CAAR)}$$
 (5)

The standard deviation of CAAR is defined as (6); where N is the number of days in the CAAR statistics:

$$\delta(CAAR) = \delta(AAR)\sqrt{N} \tag{6}$$

4. RESULTS

Following the literature, the study employs a standard event study methodology to estimate abnormal returns around the event date for the selected Sukuk issues. The sample period (2009–2011) contains 45 events for *Sukuk*, where 15 companies were chosen in 2010, 15 companies are chosen in 2009 and 15 companies are selected in 2011. The lists of companies selected are available in Table I in the Appendix. The following data are collected from each company: date of issuance, issuers, issue size in million, and tenor in years. Data on closing prices from FTSE Hijrah Shari'ah Index and Dow Jones Shari'ah Index are collected based on daily date from the DataStream database.

Table II: Descriptive Statistics of the Selected Companies that Issued Sukuk.

Year	ar Total Issue N			ze (RM) Mill	Tenor (years)		
	(RM) Million		Min	Max	Std. Deviation	Min	Max
2009	34,829	15	55	20000	5027.10	4	30
2010	36,139	15	114	7000	2133.34	5	30
2011	10,638	15	5	3000	895.62	1	17

Source: Authors' calculation.

From TABLE I in the Appendix, the total amounts of Sukuk issues from the 15 companies selected in 2009 are RM34,829 million. The data shows that Pengurusan Air SPV Berhad issued the highest amount in Sukuk RM20,000 million on 5th November 2009, 30 tenor years. The data show that UMW Holdings Berhad issued the lowest amount in Sukuk RM55 million on 15th September 2009, five-year tenures.

The 15 companies that are selected in 2010 are worth RM36,139 million. AmBank (M) Berhad issued the highest amount of Sukuk worth with RM7,000 million on 25th March 2010, 30 tenor years. The data show that CJ Capital Sdn Bhd issued the lowest amount in Sukuk RM114 million on 15th July 2010, ten-year tenures.

The total amounts of Sukuk issues from the 15 companies selected in 2011 are RM10,638million. The data show that Gonco Holdings issued the highest amount in Sukuk RM3, 000 million on 23rd February 2011, ten tenor years. The data show that Pins Capital Sdn Berhad issued the lowest amount in Sukuk RM5 million on 11th November 2011, one year tenure.

Measuring Abnormal Return on FTSE Hijrah Shari'ah Index and Dow Jones Islamic Index.

The study defines returns using this formula: Return = [P(t)-P(t-1)]/P(t-1)], where P is the stock market daily price at closing using FTSE Hijrah Shari'ah Index and Dow Jones Islamic Index. We examine all symmetric and asymmetric events of [0,0] 1-day, [-1,+1] 3-day, [-2,+2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day event windows and calculate average abnormal daily returns. The cumulative average abnormal returns (CAARs) are calculated by summing daily excess returns over the respective event windows. The announcement date is the issue date of Sukuk. We perform t-test and z-test to investigate the statistical significance of CAAR_t.



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TABLE III below shows the total return on events of [0,0] 1-day, [-1,+1] 3-day, [-2, +2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+2] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day in 2009, 2010 and 2011. The findings indicate that there are positive returns of the FTSE Hijrah Shariah Index for the 15 selected companies in 2010 for the all event windows. The findings also indicate that there are positive returns on Dow Jones Shariah index for all event windows in 2010, except in the event [-1,+1] and [-90,+15].

TABLE III also depicts the daily total return of the stock, total market model expected a return and total abnormal return on event windows for the period 2009 to 2011. By referring to TABLE II, the patterns are quite similar to the results of total daily return, the total market model expected return and total abnormal return for the [0,0] 1-day, [-1,+1] 3-day, [-2,+2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+2] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day event windows. In 2010, the FTSE Hijrah Shariah Index showed Sukuk issues generate positive responses for all calculations for all event windows of daily total return of stock and total abnormal return, but all negative calculation of total market model expected return. On the other hand, Dow Jones Shariah index shows the patterns are quite similar for the results of total daily return, total market model expected return and total abnormal return for the [0,0] 1-day, [-1,+1] 3-day, [-2,+2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+2] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day event windows.

From the TABLE III, Dow Jones Islamic Market index in 2010 also records positive calculation in all events in daily total return of the stock, except in the [-1,+1] 3-day event. It also shows the negative calculation in all events of total market model expected stock return except in [-1,+1] 3-day, and [-90,+15] 106-day events. Dow Jones Shariah Index also generates all positive calculation of total abnormal return except for [-1,+1] 3-day event that have shown a negative total abnormal return.

Table III: Total Return, Total Daily Return of Stock, Total Market Model Expected Stock Return, and Total Abnormal Return.

Indexes	Event Windows	Total Return		Total Daily Return of Stock			Total Market Model Expected Stock Return			Total Abnormal Return			
TIMOWS.		(Rmt) = [P(t)-P(t-1)/P(t-1)]		$R_{it} = In (P_{it} / P_i(t-1))$			$E(R_{it}) = \alpha_i + \beta_i(R_{int})$			$AR_t = R_{it} + E(R_{it})$			
		2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
FTSE HIJRAH	[0,0]	0.0006	0.0411	0.0041	0.0003	0.0409	0.0036	-0.0002	-0.0147	-0.0015	0.0001	0.0261	0.0022
SHARI'AH INDEX	[-1,+1]	-0.0115	0.0502	0.0116	-0.0123	0.0497	0.0103	0.0041	-0.0180	-0.0041	-0.0081	0.0317	0.0062
	[-2,+2]	0.0345	0.0708	-0.0036	0.0338	0.0701	-0.0052	-0.0124	-0.0253	0.0013	0.0214	0.0448	-0.0039
	[-5,+5]	0.0223	0.2078	0.0447	0.0186	0.2050	0.0412	-0.0080	-0.0744	-0.0160	0.0107	0.1306	0.0252
	[-1,+2]	0.0300	0.0684	0.0048	0.0290	0.0679	0.0030	-0.0108	-0.0245	-0.0017	0.0183	0.0434	0.0012
	[-2,+1]	-0.0070	0.0527	0.0036	-0.0075	0.0520	0.0022	0.0025	-0.0189	-0.0013	-0.0050	0.0331	0.0009
	[-2,+5]	0.0272	0.1468	0.0428	0.0252	0.1453	0.0405	-0.0097	-0.0525	-0.0153	0.0155	0.0928	0.0252
	[-5,+2]	0.0298	0.1318	-0.0011	0.0272	0.1298	-0.0045	-0.0107	-0.0472	0.0004	0.0165	0.0826	-0.0041
	[-15,5]	0.3811	0.3878	-0.0998	0.3625	0.3813	-0.1042	-0.1364	-0.1388	0.0357	0.2260	0.2425	-0.0685
	[-5,+30]	0.6630	0.4581	-0.0428	0.6357	0.4448	-0.0668	-0.2374	-0.1640	0.0153	0.3983	0.2808	-0.0515
	[-30,+60]	2.2868	1.0660	-0.1450	2.0865	1.0178	-0.1875	-0.8187	-0.3816	0.0519	1.2678	0.6362	-0.1356
	[-60,+30]	2.1430	0.9733	-0.1805	1.9812	0.9271	-0.2017	-0.7672	-0.3484	0.0646	1.2140	0.5787	-0.1370
	[-90,+15]	2.1468	0.6566	-0.1885	1.9453	0.6373	-0.1992	-0.7686	-0.2351	0.0675	1.1767	0.4022	-0.1317
DOW JONES	[0,0]	-0.0234	0.0383	0.0249	-0.0245	0.0378	0.0243	0.0123	-0.0234	-0.0156	-0.0122	0.0144	0.0087
ISLAMIC	[-1,+1]	0.0244	-0.0025	0.0594	0.0224	-0.0043	0.0568	-0.0153	0.0002	-0.0356	0.0071	-0.0041	0.0212
MARKET INDEX	[-2,+2]	0.0809	0.0426	0.0793	0.0777	0.0404	0.0738	-0.0480	-0.0259	-0.0470	0.0297	0.0145	0.0267
	[-5,+5]	0.0691	0.2481	0.1317	0.0599	0.2419	0.1186	-0.0412	-0.1447	-0.0774	0.0187	0.0972	0.0412
	[-1,+2]	0.0663	0.0234	0.0471	0.0621	0.0213	0.0427	-0.0396	-0.0148	-0.0285	0.0226	0.0066	0.0143
	[-2,+1]	0.0397	0.0171	0.0918	0.0379	0.0148	0.0879	-0.0242	-0.0111	-0.0543	0.0138	0.0037	0.0336
	[-2,+5]	0.2094	0.1587	0.1034	0.1993	0.1547	0.0950	-0.1223	-0.0930	-0.0610	0.0771	0.0617	0.0340
	[-5,+2]	-0.0546	0.1323	0.1079	-0.0617	0.1276	0.0974	0.0303	-0.0777	-0.0636	-0.0314	0.0499	0.0338
	[-15,5]	0.1679	0.3829	-0.0843	0.1414	0.3699	-0.0916	-0.0983	-0.2226	0.0475	0.0431	0.1474	-0.0441
	[-5,+30]	1.3429	0.5314	-0.4793	1.2561	0.4921	-0.5206	-0.7774	-0.3084	0.2758	0.4787	0.1837	-0.2448
	[-30,+60]	2.8751	1.4100	-0.8661	2.5579	1.3106	-0.9611	-1.6630	-0.8162	0.4994	0.8949	0.4943	-0.4617
	[-60,+30]	2.8275	1.0130	-1.0996	2.5425	0.9182	-1.1957	-1.6355	-0.5868	0.6343	0.9070	0.3315	-0.5614
	[-90,+15]	-2.3828	-0.6145	0.9858	2.0782	0.5659	-1.0677	1.3760	0.3540	-0.5710	3.4543	0.9198	-1.6387

Source: Authors' calculation.



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Table IV: Abnormal Returns of Sukuk during Announcement Dates on FTSE Bursa Malaysia Hijrah Shariah Index, 2009-2010

FTSE BURSA MALAYSIA HIJRAH SHARIAH										
Event window	CAAR	Std. Deviation	Z	t	df	Sig. (2-tailed)	95% Confidence the Different Lower			
[0,0]	0.0006	.0043	34.4725	.997	44	.324	000650	.001921		
[-1,+1]	0.0007	.0068	14.1045	.649	44	.520	001394	.002719		
[-2,+2]	0.0014	.0073	25.7179	1.255	44	.216	000831	.003578		
[-5,+5]	0.0037	.0130	22.0342	1.919	44	.061	000186	.007599		
[-1,+2]	0.0014	.0077	23.2895	1.208	44	.233	000932	.003723		
[-2,+1]	0.0006	.0069	13.4126	.634	44	.529	001428	.002739		
[-2,+5]	0.0030	.0098	30.6903*	2.025*	44	.049	.000014	.005920		
[-5,+2]	0.0021	.0120	14.7541	1.184	44	.243	001483	.005706		
[-15,5]	0.0089	.0212	19.7997*	2.815*	44	.007	.002525	.015257		
[-5, +30]	0.0139	.0311	14.4446*	3.012*	44	.004	.004616	.023287		
[-30,+60]	0.0393	.0562	12.4233*	4.686*	44	.000	.022394	.056189		
[-60,+30]	0.0368	.0489	15.3714*	5.045*	44	.000	.022097	.051494		
[-90,+15]	0.0322	.0516	12.0900*	4.184*	44	.000	.016674	.047664		

Note: * denotes significance at the 0.05 level.

Source: Authors' calculation.

Table V: Abnormal Returns of Sukuk during Announcement Dates on Dow Jones Shariah Index, 2009-2010

DOW JONES ISLAMIC MARKET INDEX										
Event window	CAAR	Std. Deviation	Z	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference			
							Lower	Upper		
[0,0]	0.0002	.0042	14.1092	.402	44	.689	000998	.001496		
[-1,+1]	0.0005	.0071	10.6408	.507	44	.615	001601	.002676		
[-2,+2]	0.0016	.0092	18.6672	1.150	44	.256	001185	.004336		
[-5,+5]	0.0035	.0146	16.3994	1.607	44	.115	000889	.007880		
[-1,+2]	0.0010	.0092	11.4482	.711	44	.481	001785	.003732		
[-2,+1]	0.0011	.0079	18.2458	.964	44	.340	001235	.003502		
[-2,+5]	0.0038	.0128	23.4253	2.008	44	.051	000015	.007677		
[-5,+2]	0.0012	.0133	6.5805	.586	44	.561	002832	.005157		
[-15,5]	0.0033	.0188	9.1641	1.154	44	.255	002418	.008902		
[-5, +30]	0.0093	.0336	8.2314	1.852	44	.071	000815	.019357		
[-30,+60]	0.0206	.0517	7.7037*	2.673*	44	.011	.005071	.036151		
[-60, +30]	0.0150	.0528	5.3981	1.912	44	.062	000814	.030907		
[-90,+15]	0.0608	.2141	1.3259	1.904	44	.063	003544	.125109		

Note: * denotes significance at the 0.05 level.

Source: Authors' calculation.

TABLE IV and TABLE V show that cumulative average abnormal returns (CAAR_t) are positive during [0,0] 1-day, [-1,+1] 3-day, [-2,+2] 5-day, [-5,+5] 11-day, [-1,+2] 4-day, [-2,+1] 4-day, [-2,+5] 8-day, [-5,+2] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day event windows for both indexes, FTSE Hijrah Shariah Index and Dow Jones Shariah Index.

TABLE IV shows abnormal returns of Sukuk during announcement dates on FTSE Bursa Malaysia Hijrah Shariah Index, 2009-2010. This table indicates that positive results on cumulative average abnormal return in all event windows with six events show significant results at 0.05 levels. There are; [-2,+5] 8-day, [-15,+5] 21-day, [-5,+30] 36-day, [-30,+60] 91-day, [-60,+30] 91-day and [-90,+15] 106-day. These results are tested by t-test and z-test by using formula (3) for t-test and formula (5) for z-test that have mentioned in section three above.



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However, using the same methodology to the Dow Jones Shariah Index, Table 5 shows abnormal returns of Sukuk during announcement dates for the period 2009 to 2011. This table indicates that positive results on cumulative average abnormal return in all event windows with only one event show significant result at 0.05 levels that is about [-30,+60] 91-day event. These findings are tested by t-test and z-test by using formula (3) for t-test and formula (5) for z-test that have mentioned in section three above.

Therefore, the announcement of Sukuk after the 2008 financial crisis carries surprise to the market. Thus, the results accept the hypothesis of positive market reactions to the Sukuk announcement after the 2008 global financial crisis in Malaysia. However, not all events show positive with significant results, these can be attributed to two reasons. First, there is leakage of information to the market before the Islamic debts announcements. Second, there is increasing awareness among investors regarding Sukuk has common features with equity instead of a conventional bond.

Fig. 1 and Fig. 2 show the increasing trend of CAAR_t for Sukuk for the estimation event windows for the period 2009 to 2011, in the FTSE Hijrah Shariah Index and Dow Jones Shariah Index.

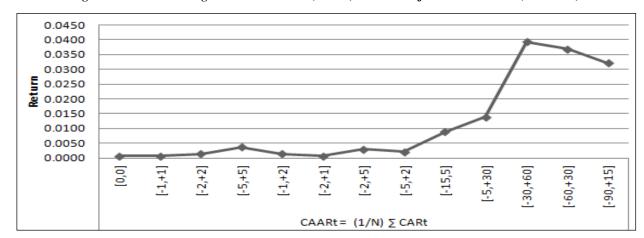


Fig. 1: Cumulative Average Abnormal Return (CAAR) on FTSE Hijrah Shariah Index (2009-2011)

Source: Authors' calculation.

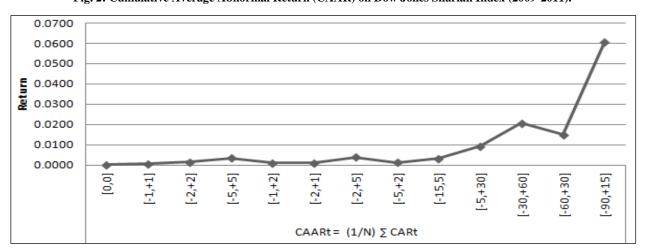


Fig. 2: Cumulative Average Abnormal Return (CAAR) on Dow Jones Shariah Index (2009-2011).

Source: Authors' calculation.

In short, financial markets in emerging economies are not expected to be as efficient as those with more advanced economies, so there could be a leakage of information when new Sukuk are issued. As such, it is possible that abnormal returns are realized prior to the announcement date. Also, small sample size and short duration of estimation windows which are 2007 and 2008, might also contribute to the insignificant findings of the study. However, the increasing trend of CAAR_t is a good early indication that the recent Sukuk announcement is perceived to be non-negative by investors after the 2008 financial crisis.



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5. CONCLUSION

The paper investigates how the stock market reacts to Sukuk issues after the recent 2008 financial crisis in Malaysia. The findings indicate that there are positive and significant market reactions towards the Sukuk announcement of a few events, for both indexes; the FTSE Hijrah Shariah Index and Dow Jones Islamic Market Index. However, the positive market reactions can be interpreted in two ways. First, the market can readily distinguish the news. Second, there are confidence effects that shareholders wealth will be increased through the issuance of the Islamic debt instruments. This is because, Sukuk, being neither debt, nor shares, are faithful to the calling of Islamic economics whereby the issue reflects the economic strength of the company and the real economic activities. However, future research might want to distinguish the instruments according to the issuance type and tests for asymmetric responses to the stock market to different kinds of Sukuk issuance. In addition, factors that move Sukuk markets can also be explored using regression analysis.

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