Are Islamic bonds different from conventional bonds? International evidence from capital market tests

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Abstract

Islamic bonds (Sukuk) emerged as an innovative capital market instrument over the last decade. This paper investigates the impact of conventional bonds and Sukuk announcement on shareholder wealth and their determinants using 79 Sukuks and 87 conventional bonds over the period of 2004−2012 in six developed Islamic financial market. The overall time frame is divided into three parts, 2004−2006 (before crisis); 2007−2009 (during crisis) and 2010−2012 (after crisis). It is revealed that the market reaction is negative for the announcements of Sukuk before and during 2007 global financial crisis. On the other hand market reaction is positive for announcement of conventional bond before the crisis period and negative during and after crisis periods. The size of bond offering appears to have a negative impact on the cumulative abnormal return in case of Sukuk and positive in case of conventional bond.

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1. Introduction

Islamic debt instruments commonly referred to as Sukuk.[2] Sukuk is one of the significant Islamic Shariah compliant financial instruments which provide an alternative source of financing especially for the giant corporate and sovereign entities compared to the conventional bonds. Sukuk is an innovative debt security which is similar to the conventional bond with respect to cash flow and risk. The last decade was the spectator of the unprecedented proliferation for Sukuk especially before the global financial crisis. Sukuk had emerged as one of the important components of global Islamic Financial System. Over the recent past years, the Sukuk market has witnessed approximately 10%−15% growth rate to reach US$ 170 billion outstanding portfolio at the end of 3rd quarter in 2011 (Global Sukuk Report, 2011). It contributes approximately 14.3% of the global Islamic finance asset.

The emergence of the Islamic banking and finance industry in modern economies, particularly in the Arab Gulf and some Southeast Asian states reflects an attempt to create a semi-independent financial system under the prevailing system. This feature has also characterized the creation of the Islamic capital markets within the prevailing conventional capital markets. One incontrovertible fact about Sukuk and bonds is

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[1] Tel.: +60 3 89248279; fax: +60 3 89248019.
[2] *Sukuk* is an Arabic term for the plural of 'suk', which means certificate. Iqbal and Mirakhor (2007) defined *Sukuk* as participation rights in the underlying assets. Based on this definition, shares, notes, unit trust and bonds are all Sukuk. However, there is a great tendency among practitioners to use *Sukuk* interchangeably with bond.

their existence in the same markets albeit with separate regulations relating to Shariah compliance. Apart from the fundamental Shariah concepts that underlie the different structures of Sukuk, the execution of the contracts is generally patterned after conventional bonds (Cakir & Raei, 2007). This does not undermine the usual controversy and myths surrounding the differences between Sukuk and conventional bonds. While Miller, Challoner, and Atta (2007) believe Sukuk and their returns mimic conventional bonds, Cakir and Raei (2007) argue that Sukuk are different from bonds, especially when one considers the diversification advantages which reduce the risk of portfolio.

Another major difference between Sukuk and conventional bonds is asset ownership which is borne out of the general structures of Islamic finance products. To a large extent, Sukuk holders own part of the underlying assets in any Sukuk transaction depending on the extent of their investment which determines the share they are entitled to. On the other hand, the nature of conventional bonds does not allow such type of ownership since the securities are considered debt obligations. The bonds are merely debt obligations issued to the bond holders by the issuer as a proof of the existence of a debt. No ownership in the business, joint venture or project is conferred on the bond holder. Consequently, while Sukuk represents a share in the project, business or joint venture, the conventional bonds merely represent a share in the total debt (Jamaldeen, 2012).

The recent controversy over whether some Sukuk actually comply with the precepts of Shariah suggests that Sukuk are generally structured along conventional rules of asset securitization. This raises the question of whether these innovative financial instruments are really all that different from conventional bonds. Wilson (2008) argues that issuers make special efforts to render Sukuk identical to conventional securities so unfamiliar investors can assess the risk of these new investments. Such Sukuk essentially mirror conventional securities, defeating the notion of product innovation in Islamic finance industry.

These concerns are also backed by renowned Shariah scholars. According to the President of the AAOIFI Shariah Council, Mohammad Taqi Usmani, current practices of issuing Sukuk replicate the structure of conventional bonds in terms of lack of ownership, right to a fixed return, and the guarantee of repayment of principal making most Sukuk un-Islamic. Usmani (2007) argues against seeking international bond ratings, since Sukuk can be rated by the recently established regional ratings agency (like Rating Agency Malaysia), if needed and Islamic banks should stand ready to endorse the acceptability of Sukuk.

Even with these controversies surrounding the issuance of Sukuk, Sukuk have witnessed strong surge in the issuance in Malaysia and Gulf Co-operation Council countries, there is strong evidence on Europe, Japan and Korea patronizing Sukuk in their respective countries. The continual growth of Sukuk has raised question whether Sukuk can play the role of an alternative source of financing which might replace the conventional bond. This study will give us the opportunity to compare between Sukuk and conventional bond with respect to market perception regarding these two alternative sources of financing.

The increasing use of Sukuk to raise capital is proven to have a positive effect on the Islamic capital market and overall the fund management industry, but its effect on shareholders' wealth is unclear especially during volatile global financial market. This is the first time the wealth effect of Sukuk issue announcement will be compared to that of conventional bond issue announcement considering three distinct period of time (before the global financial crisis, during the global financial crisis and after the global financial crisis). As the global financial crisis of 2007−2008 changed the whole dynamics of the financial sector in the world, this paper will try to explore contrasting difference between the wealth effects of Sukuk and conventional bond announcements surrounding the crisis period. Thus, the findings of paper will provide a comparative analysis of Sukuk and conventional bonds based on the market's sensitivity of these alternative financing instruments.

The findings of the paper will also try to resolve some of the myths surrounding the differences between Sukuk and conventional bonds. There is on-going discussion on whether Sukuk are different from conventional bonds. Cakir and Raei (2007) claim that Sukuk are different from bonds since they have diversification advantages especially of risk reduction when added to a basket of fixed income securities but others like Miller et al. (2007) and Wilson (2008) take an opposite stand to show that Sukuk returns are structured to imitate features of conventional bond. To overcome this conflicting stand we analysis stock market reaction to address this unsolved puzzle.

The remainder of the paper is organized as follows. Section 2 discusses the related literature and the theoretical framework guiding the study. Section 3 provides the sample description and research methodology adopted to achieve the objectives of the study. Section 4 discusses the findings and finally paper is concluded in Section 5.

2. Literature review

It has been documented in Islamic capital market literature that Sukuk serve as a vital tool for resource mobilization and a key instrument for the development of Islamic financial industry (Jobst, Kunzel, Mills, & Sy, 2008; Wilson, 2008). But very few studies empirically focus on their specific characteristics or stock market reactions to their issuance. Jobst et al. (2008) in their seminal paper summarizes some of the issues encompassing the Sukuk market. They advocate that, despite the global financial crisis, there is still a strong demand from both Islamic countries and conventional financial institutions for Shariah compliant securities like Sukuk.

Sukuks are also criticized on the precepts that they are commonly structured along similar lines of asset securitization as done in conventional finance thus raising the doubt over the uniqueness of Sukuk as innovative financial instruments. This notion is further supported by Wilson (2008) who argues that issuers apply special attention to issue those Sukuk which are

identical to conventional bonds in order to simplify investors' risk assessment of Sukuk. Thus, Sukuk replicate conventional bonds, suggesting that the Islamic finance industry is lagging in areas of product innovation and pricing risk characteristics.

Diverging from above preposition, Cakir and Raei (2007) take an opposing stand and propose that Sukuk are different from conventional bonds when it comes to risk reduction benefits. Using a sample of sovereign Sukuk and Eurobonds by the same issuer, the authors calculate and compare the value-at-risk (VaR) for a portfolio including both instruments to another portfolio containing Eurobonds only. The results show that VaR is reduced for the portfolio containing Sukuk along with fixed-income securities, inferring that Sukuk does have some diversification advantages for the investors.

In order to test the difference in wealth effect of both Sukuk and conventional bond we rely on traditional financial models. One of the early theoretical models investigating the wealth effect of financial securities is the asymmetric information model based on the works of Myers and Majluf (1984). Myers and Majluf (1984) in their pecking order theory proved that the managers have more information than investors due to asymmetric information. One of the appealing attribute of the model explains the reason for fall in stock price when firms announce the stock issuance to finance their investment, and why stock prices do not fall if debt is issued.

Another theoretical model which explains this phenomenon is based on the signaling theory given by Kim (1990) who employs a signaling equilibrium to explain market reactions to announcement of convertible bonds, straight bonds and common stocks. The study shows that the conversion ratio of convertible bond gives a reliable signal of firm's future earnings.

Numerous studies have been carried out to investigate the wealth effects of bond announcements and results obtained thus far are mixed and indecisive. Howton, Howton, and Perfect (1998) attempted to investigate Jensen's free cash flow argument relating to straight bond issuance. They found that market reacts negatively to straight bond issuances made by industrial companies and that the announcement day reaction is inversely related to the level of free cash flow prior to the debt issue and inversely related to the investment opportunities of the firm. Harvey, Lins, and Roper (2003) provided evidence that debt creates shareholder value for firms' with high managerial agency costs. While Arshanapalli, Fabozzi, Switzer, and Gosselin (2004) documented that firms announcement of convertible bonds can lead to negative abnormal returns. This result contradicts the findings of Kang and Stulz (1996) and De Roon and Veld (1998) which showed that announcements of convertible bonds were linked with insignificantly positive abnormal returns. Ammann, Fehr, and Seiz (2006) in their study on the announcements and issuance effects of convertible bonds and exchangeable bonds for the German and Swiss market found significant negative abnormal returns on the announcement day and no significant returns on the issuance day. In a more recent study, Shao, Sheng, Hsing, and Chia (2007) examine the role of investment opportunities and free cash flow in explaining the source of the stock

valuation effects of secured debt offerings. The results showed a significantly positive relation between a firm's investment opportunities and its stock price to announcements of secured debt issues.

In only comparative study available in literature on Sukuk and conventional bond, Ashhari, Chun, and Nassir (2009) found that there is a wealth effect on the Sukuk issues announcement but not in case of the conventional bond announcement. Their study further established that the size of the bond offering establishes as significant factor of stock return for both Sukuk and conventional bonds, but the sign for Sukuk was negative and contrary to conventional bond. Since this study was only based on Malaysian sample, the results could not be generalized for the global Islamic financial market. Our study is an enhancement from Ashari et al. (2009) in two ways. Firstly, by incorporating Sukuk and conventional bond samples from Malaysia, Singapore, Indonesia, Pakistan, UAE, Bahrain and Qatar markets. Secondly, the regression model is further enhanced by including free cash flow as significant factor of stock returns for Sukuk and conventional bonds.

In a related study Ahmad and Radzi (2011) investigated the role of prevailing economic conditions in the country on the issuance of Sukuk and conventional bond. The study found significant effects of GDP, Malaysian Ringgit exchange rate with USD and market liquidity on the issuance of Sukuk in Malaysian capital market whereas conventional bonds issuance was only affected by exchange rate. The authors failed to empirically prove the role of financial crisis on the issuance of both type of debt instruments. In order to capture the true role of financial crisis on the decision to issue Sukuk or conventional bonds, our study will divide the sample period in three groups namely pre-crisis, during crisis and post-crisis period.

However, this study is distinctive and varies from previous studies since it focuses on the difference between wealth effect of conventional bond and Sukuk announcements during both normal time and volatile financial period. Much has been said on global platform about the resilience of Islamic finance during 2007 global financial crisis. World Bank (2012) highlighted that in recent years, Islamic financial assets has grown exponentially and generally outperformed conventional financial instruments, mainly following the onset of the financial crisis of 2008.

3. Data and methodology

The sample of Sukuk and conventional bonds issues spans from 2004 to 2012 and data has been extracted from Bloomberg. The sample size is determined by available information on all requested variables, particularly closing stock prices for firms issuing debt for a time span long enough before the actual announcement date of the issue in order to calculate abnormal returns. Our final sample comprises 166 issues (79 Sukuk and 87 conventional bonds). Sample was chosen from Malaysia, Indonesia, Singapore, Pakistan, UAE, Bahrain and Qatar which has distinction of developed Islamic capital market (Alam, 2012). In our sample, no firm has issued both

Sukuk and conventional bonds during the period of study, implying that our analysis compares two different populations of securities' issuers. Furthermore, in order to study the global financial crisis on financial market, the whole study period is divided into three parts. The first period is pre-crisis (2004−2006) followed by during crisis (2007−2009) and finally, the post-crisis period (2010−2012).

It can be seen from Table 1 that the mean leverage (debt/total asset) ratio for the companies issued Islamic bond is 0.3437 while the ratio is higher (0.4218) for the companies issued conventional bond during the whole period (2004−2012). We find that companies issuing Sukuk tend to be smaller than conventional bond issuers, both in terms of balance sheet assets and market valuation. In addition, the mean cumulative abnormal return (the dependent variable) for the Islamic bond issuer is −1.5072% within the time period −3 to +3 of announcement date with higher Standard deviation (10.97). On the other hand, the cumulative abnormal return for the conventional bond issuer is −1.30% with comparatively lower standard deviation of 4.79 for the same time frame.

Following Godlewski, Turk-Ariss, and Weill (2010, 2011), we use market model event study methodology to calculate the abnormal returns (AR) around announcement of Sukuk or conventional bond issuance. The AR is used to measure the performance of stock prices of firms on certain days to reflect the investors' reaction to announcement and is calculated as:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}),$$

where AR_{it} is the abnormal returns on stock i during period t, R_{it} is the observed returns on stock i during period t, R_{mt} is the market portfolio returns in period t, α_i is the constant average return of stock i and β_i is the beta estimate of stock i.

The date of announcement is treated as day 0. We estimate market model parameters over the period (−60, 60). This screening reduces the sample size to companies that have at least 120 days of stock returns. We examine one-day [0,0], three-day [−1,+1] and seven-day [−3,+3] event windows and calculate average abnormal daily returns. We obtain cumulative average abnormal returns (CAARs) by summing daily excess returns over the respective event windows.

A multivariate regression was then estimated to determine the nature of relationship between anticipated variables and abnormal returns associated with debt announcements using the following model:

$$CAAR(-3, +3) = a\text{OFR} + b\text{SIZE} + c\text{FCF} + d\text{LEV} + d\text{SHAR} + \varepsilon$$

where: OFR is ratio of size of bond offering divided by total asset for the period prior to the announcement, SIZE is the size of issuer, estimated by the natural log of its total asset; FCF is the level of free cash flows of issuer. FCF = (operating income − interest − net taxes)/BV asset, where taxes = current tax − change in differed tax (as in Howton et al., 1998; Shao et al., 2007). LEV is the level of leverage of firm, where LEV = total firm debt/total asset for the period before the announcement date. SHAR is the Shariah compliant status of firm where SHAR = 1 if firm is Shariah compliant and 0 otherwise. ε is error term.

4. Findings and discussion

The summary results of cumulative average abnormal return (CAAR) for the full sample and three chosen sub sample periods are shown in Table 2. Using the event window of (0, 0; −1, 1; and −3, +3), we note that computed CAARs are insignificantly positive for conventional bonds and insignificantly negative for Sukuk for overall period and pre-crisis period. The CAARs of Sukuk and conventional bond issues, however, are negative and significant during crisis period. Furthermore, the percentage of negative Sukuk CAAR is higher than the corresponding value for conventional bonds.

Meanwhile, cumulative return for Sukuk issue after crisis period is positive and significant at 5% which confirms wealth creation for the shareholders of firm offering Sukuk. This finding validates the results of Mikkelson and Partch (1986), which states that certain types of debts instruments can lead to abnormal return. On the other hand, no wealth effect is found for conventional bond announcement after crisis period. This is in line with Eckbo (1986) and Mikkelson and Partch (1986) findings, which states that stock markets do not react to debt announcements including bond issuances.

We test the statistical significance of CAARs applying a simple time-series test (Brown & Warner, 1985). Since deviations from the iid normal assumption of the aforementioned test are highly likely in event studies, we additionally apply various robust test statistics. We calculate the Patell (1976) standardized residuals test that is robust to heteroscedastic event period abnormal returns. Moreover, we apply the standardized cross-sectional test introduced by Boehmer, Musumeci, and Poulsen (1991) that is additionally robust to event-induced variance increases.

Our empirical results on CAARs of Sukuk and conventional bond issuance in different economic conditions highlights three observations linked to Sukuk and conventional bond issues: 1) lack of significant stock market reactions to conventional bond and Sukuk announcements over a larger time frame, 2) the high negative reaction to Sukuk issues than conventional bonds during global financial crisis period, and, 3) the significant positive stock market reactions to Sukuk issue in post-crisis period.

Table 1
Descriptive statistics by type of issue.

Variables	Sukuk			Conventional bond		
	Mean	Std. dev.	N	Mean	Std. dev.	N
CAR	−1.5072	10.973	79	−1.30	4.79	87
Firm size	2.6720E9	7.68990E9	79	5.2292E9	7.68388E9	87
Free cash flow	1.8885E8	3.35655E8	79	2.1108E8	5.30080E8	87
Leverage	0.3437	0.16928	79	0.4218	0.20670	87

Table 2
Cumulative average abnormal return (CAAR) for period (0, 0; −1, 1; −3, +3 days).

Event window	Overall period (2004−2012) Mean CAAR		Pre-crisis period (2004−2007) Mean CAAR		During crisis period (2008−2009) Mean CAAR		Post-crisis period (2010−2012) Mean CAAR	
	Sukuk (79)[a]	Bond (87)	Sukuk (26)	Bond (30)	Sukuk (26)	Bond (29)	Sukuk (27)	Bond (28)
[0,0]	−2.367	0.654	−1.021	0.741	−2.521	−1.052	0.631	−1.652
	(0.353)[b]	(0.248)	(0.118)	(0.251)	(0.022)**	(0.0167)**	(0.08)***	(0.156)
	(−0.987)[c]	(0.213)	(−0.843)	(1.023)	(−2.15)**	(−2.35)**	(4.13)***	(0.851)
	(−0.127)[d]	(0.652)	(−0.335)	(0.423)	(−2.14)**	(−2.41)**	(8.43)**	(0.632)
[−1,1]	−1.995	0.871	−1.102	1.142	−2.667	−1.942	0.701	−0.874
	(0.264)	(0.324)	(0.217)	(0.192)	(0.018)**	(0.0310)**	(0.025)**	(0.334)
	(−1.024)	(0.489)	(−0.792)	(1.22)	(−2.053)**	(−2.117)**	(2.301)**	(0.749)
	(−0.851)	(1.412)	(−0.114)	(0.495)	(−2.313)**	(−2.003)**	(2.143)**	(0.621)
[−3,3]	−1.703	1.301	−1.320	1.831	−4.047	−3.117	0.964	−0.668
	(0.275)	(0.456)	(0.135)	(0.296)	(0.028)**	(0.0197)**	(0.045)**	(0.226)
	(−0.743)	(0.185)	(−0.954)	(0.527)	(−2.00)**	(−2.253)**	(2.456)**	(0.921)
	(−0.961)	(0.247)	(−0.718)	(0.241)	(−2.112)**	(−2.179)**	(2.222)**	(0.829)

a = Number of issuance; b = p-values for t-tests; c = BMP-test; d = Patell Z.
** = Significance at 5%; *** = Significance at 10%.

The first finding of lack of significant stock market reaction to either conventional bond or Sukuk announcements (full period and pre-crisis period) is in line with Eckbo (1986), which confirms that stock markets do not react to debt announcements. The stock market's reaction to the issue of bonds is prejudiced by opposing effects in the sense that bond issuance may send a reliable signal about the quality of firms thus reducing the adverse selection problem resulting from information asymmetries between managers (Ross, 1977). It can also reduce agency costs and moral hazard behavior due to conflicts of interest between shareholders and managers (Jensen, 1986). In contrast, stock markets could react negatively to debt issue since debt increases the bankruptcy risk of the borrower as well as increases the agency costs due to conflicting interest between shareholders and debt holders (Jensen & Meckling, 1976). Thus, we can interpret that the absence of any significant wealth effect of Sukuk or bond announcements in the global market is the result of these opposing effects.

However, we find a noteworthy difference in stock market reaction to Sukuk and conventional bond issues during crisis period, following the comparatively larger negative reaction to Sukuk announcement to the smaller negative return to conventional bond announcement. Overall both conventional bonds and Sukuk issues sent negative signal to market confirming the loss of investors' faith in firms resorting to cheap source of financing. To explain why Sukuk issuance created more negative impact than conventional bonds issuance, we suggest that only borrowers who have low return expectations will have an enticement towards Sukuk. If issuers expect a low profit, they will prefer profit-and-loss sharing financing schemes to minimize their loss in the event of failure. If issuers expect a high return, they will prefer interest-based financing to maximize their gain in the event of success. As a result, stock market participants will expect less informed borrowers to choose to issue Sukuk and will interpret such issuance as a negative signal on the financial position of the issuing firm. Moreover, due to a strong demand for Sukuk from Muslim nations and Islamic banks associated with the limited supply of Sukuk in the market leads to an excess demand for Sukuk that makes these instruments more popular and easier to market than conventional bonds. Thus, companies that are financially weak and are not in a position to issue a conventional bond might still have access to financing through Sukuk issuance. Market takes this as a credible signal and does not react positively to the Sukuk issuance.

One probable explanation for the positive wealth effect of Islamic bond issuance announcements relative to conventional bond issuance announcements in post-crisis period is that the larger investor base for Islamic debt securities relative to that for conventional debt created cost advantages for Sukuk issuing firms leading to a lower cost of capital. One more plausible explanation will be huge demand for asset backed Sukuks in global market post-crisis period (Ernst & Young, 2012). Additionally, announcements of Islamic debt offering enhance the Shariah compliance status of issuing companies attracting more and more investors which led to stock price increase.

If we focus on regression model for both Sukuk and conventional bond announcements we find contrasting result for different time period. The regression models are free of multicollinearity, serial correlation and heteroscedasticity problems. The output of the regression analysis for overall period is presented in Table 3. For Sukuk issuance, coefficient of OFR is −0.0061 and significant at 5%. This significant negative coefficient means that the bigger the Sukuk issuance size, the smaller the CAAR. By contrast, we have positive relationship between offering size and CAAR of conventional bond announcement. The coefficient value of OFR is 0.0187 and statistically significant at 1%. Result specifies that conventional bond issuance size has positive impact on the abnormal return. This may suggest that investors perceived bigger conventional bond issue as an indicator of sound signal of improved performance of firm consistent with signaling

Table 3
Regression results for overall sample (2004–2012).

Variable	Sukuk	Conventional bonds
Constant	3.45 (0.264)	0.733 (0.641)
OFR	−0.0061 (0.0321)**	0.0187 (0.006)*
Firm size	0.018 (0.345)	0.0123 (0.412)
Free cash flow	−0.091 (0.049)**	0.0153 (0.241)
Leverage	−9.286 (0.217)	−2.095 (0.615)
Shariah compliance	0.000 (0.441)	−0.998 (0.438)
R-square	0.151	0.201
N	79	87

Note: value in parentheses denotes significance value; **, * = Significance at 5% and 1% respectively.

Table 4
Regression results for pre-crisis sample.

Variable	Sukuk	Conventional bonds
Constant	6.32 (0.238)	18.043 (0.111)
OFR	−0.0029 (0.0412)**	0.0138 (0.012)**
Firm size	−1.254 (0.962)	0.0032 (0.069)***
Free cash flow	−0.113 (0.776)	−3.833 (0.144)
Leverage	−21.877 (0.120)	−27.356 (0.120)
Shariah compliance	0.000 (0.241)	−6.710 (0.259)
R-square	0.123	0.426
N	26	30

Note: value in parentheses denotes significance value; ***, **, * = Significance at 10%, 5% and 1% respectively.

theory. The results also found negative relationship between free cash flow and CAAR of Sukuk issuance. This signifies that firms with more free cash flow when issue Sukuk; transmit negative signals to the market which can be due to asymmetric information theory.

When we divide the regression results into three time period of pre-crisis, during crisis and post-crisis period we observe some contrasting results. These results are shown in Tables 4–6.

For pre-crisis period results (Table 4) are very much similar to overall period. The only notably difference is the positive relationship between the firm size and CAAR for conventional bond issuance. This indicates that big firms issuing conventional bond will generate greater abnormal return which is seen as a positive move from bigger firms by investors. The firms are utilizing their size advantages and public attention to further leverage their earnings.

Table 5
Regression results for during crisis sample.

Variable	Sukuk	Conventional bonds
Constant	−0.208 (0.939)	−9.453 (0.033)
OFR	1.085 (0.023)**	0.0249 (0.154)
Firm size	0.008 (0.541)	0.357 (0.715)
Free cash flow	−0.271 (0.365)	−1.569 (0.532)
Leverage	1.387 (0.478)	−1.519 (0.012)**
Shariah compliance	0.000 (0.510)	1.706 (0.631)
R-square	0.182	0.236
N	26	29

Note: value in parentheses denotes significance value; **, * = Significance at 5% and 1% respectively.

Table 6
Regression results for post-crisis sample.

Variable	Sukuk	Conventional bonds
Constant	4.999 (0.501)	2.439 (0.161)
OFR	−0.0784 (0.251)	0.0752 (0.026)
Firm size	2.421 (0.726)	1.977 (0.579)
Free cash flow	−1.511 (0.076)	1.103 (0.156)
Leverage	−12.445 (0.483)	−10.064 (0.072)***
Shariah compliance	0.000 (0.208)	0.356 (0.851)
R-square	0.145	0.190
N	27	28

Note: value in parentheses denotes significance value; *** = Significance at 10%.

The market reaction to Sukuk issuance is found to be positively related to the size of issuance during the crisis period (Table 5). This means that if the size of issuance is large, firms are considered of high investment potential, the abnormal return would be higher. The results also highlighted negative relation between leverage and CAAR in case of conventional bond issuance. This negative relation between stock returns and leverage suggests that leverage is priced by the market.

Table 6 presents the regression results for post-crisis sample. Leverage continues to have significant negative relationship with CAAR for conventional bond issuance. This can be due to the reason that market is precarious with the firms which are more geared after the crisis period.

5. Conclusion

Much discussion on Sukuk has centered around the Shariah compliant and capital market issues with limited literature on the corporate finance perspective of Islamic bond issues. This study investigated the comparative wealth effect of Sukuk and conventional bond announcements on stock returns in major Islamic financial market.

Through an event study analysis, the study found the absence of significant stock-market reaction to conventional bond and Sukuk announcements over a larger time frame. Furthermore, we can explain the negative cumulative average abnormal return in case of Sukuk for before and during the 2007 global financial crisis (−1.32%, −4.04%) from the participants expectation point of view. As per the adverse selection mechanism, it is the assumption of the investors that those companies which are not strong enough prefer to issue Islamic bond as they will be able to share the loss in the worst case scenario. Therefore, announcement of Sukuk provide the negative signal in the market which is reflected in the negative Cumulative average abnormal return found in all the three period in this study. On the other hand, the positive cumulative average abnormal return for the conventional bond issue announcement before the global financial crisis can be attributed to the fact that those companies which are expected to earn high profit issue conventional bond so that they can pay a fixed amount to the investors and take the remaining profit in order to optimize their outcome. So, this might give positive signal to the investors which is reflected in the positive

cumulative average abnormal return for the conventional bonds before the global financial crisis though the scenario is different in during and after global financial crisis (−3.11% and −0.66%). During the global financial crisis, the cumulative average abnormal return resulting from the Islamic bond issue announcement (−4.04%) is more worse compared to that of conventional bond issue announcement (−3.11%). This means that only borrowers with the lowest return expectations will have an inducement to prefer Sukuk. If issuers expect a low profit, they will prefer profit-and-loss sharing financing schemes to minimize their loss in the event of failure. If issuers expect a high return, they will prefer interest-based financing to maximize their gain in the event of success. As a result, stock market participants will expect less informed borrowers to choose to issue Sukuk and will interpret such issuance as a negative signal on the financial position of the issuing firm.

Our interpretation of the findings is empirically supported by differences in the characteristics of the issuers of Sukuk and conventional bonds. Companies issuing Sukuk are notably less leveraged, less profitable and are in worse financial and operating shape compared to those issuing conventional bonds. Hence, these weaker companies may have economic incentives to prefer issuing a security based on Islamic finance principles such as profit-and-loss sharing principle rather than a fixed-income instrument that imposes more financial burden.

Our conclusion regarding the negative market reaction to Sukuk issues during the crisis period in comparison with insignificant reaction to conventional bond issues has several implications. The first one concern the fact that stock market participants are able to distinguish between Sukuk and conventional bonds characteristics as proposed by Cakir and Raei (2007) and opposite to the arguments of Wilson (2008) and Miller et al. (2007). Thus, even though Sukuk might be similar to conventional bonds structure, stock market participants perceive these instruments as being alternative financial tools and accordingly they react differently to their issuance.

Furthermore regression analysis provides more explanations for the sources of wealth effect of Islamic bond announcements. For Sukuk issuance, we found negative relationship between offer size of Sukuks and CAAR while result indicated that the relative offering size of conventional bond has positive impact on the abnormal return. This may indicate that investors perceived bigger conventional bond issues as an indicator of improved firms' performance which is consistent with signaling theory.

Therefore, the findings of this study are pertinent to the two unresolved issues related to Islamic financial instruments. The first issue is relevant to the fact that several characteristics of Islamic bond are similar to that of traditional conventional bonds (Ayub, 2007). On the other hand, regarding economic value of expanding the Islamic finance, it can be said that the announcement effect of Sukuk is negative for most of the periods. So, in the short run perspective the effect of announcement of Sukuk on firm value is negative while the effect of announcement of conventional bond is positive for all periods except for post-crisis period. Therefore, in spite of having the religious motivation to issue Sukuk, the negative effect might hinder the companies to go for Sukuk in order to raise fund. Though the adverse selection mechanism is there for raising fund through Sukuk, the long term outcome of issuing Sukuk needs to be considered.

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