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The Impact of Scholars and Sukuk Types

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Abstract

Sukuk, the *shari'a*-compliant alternative mode of financing to conventional bonds, have considerably expanded over the last decade. We analyze the stock market reaction to two key features of *sukuk*: type and characteristics of the *shari'a* scholar certifying the issue. We use the event study methodology to measure abnormal returns for a sample of 131 *sukuk* from eight countries over the period 2006-2013 and find that *Ijara sukuk* structures exert a positive influence on the stock price of the issuing firm. We observe a similar positive impact from *shari'a* scholar reputation and proximity to issuer. Overall our results support the hypotheses that the type of *sukuk* and the choice of scholars hired to certify these securities matter for the market valuation of the issuing company.

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1. Introduction

The recent announcement on October 29, 2013 by the British Prime Minister that the United Kingdom will soon be the first country outside the Islamic world to issue *sukuk* has reaffirmed the increasing interest in this Islamic financing mode. Over the past decade, Islamic finance has registered an impressive growth, with worldwide Islamic financial assets rising from USD 150 billion in the mid-1990s to USD 1.6 trillion by end of 2012 (Di Mauro et al., 2013).

This impressive growth was spurred not only by the proliferation of Islamic banking but also by the extensive development of *sukuk*, the alternative mode of financing to conventional bonds that is compliant with *shari'a* or the Islamic legal code. A widening market for *sukuk* is driven by investors' demand for securities in accordance with their religious beliefs or by constraints faced by Islamic financial institutions on permissible investments. By end of 2012, the value of outstanding *sukuk* was USD 229.4 billion (with new issues amounting to USD 131.2 billion), representing 14.6% of global Islamic financial assets (Di Mauro et al., 2013). Malaysia accounts for the largest *sukuk* market with 74% of issues in 2012, but these securities are also commonly issued in Gulf Cooperation Council (GCC) countries.

Sukuk are investment certificates that can be issued by sovereigns and corporations and which exhibit similarities and differences with conventional bonds. Similar to bonds, *sukuk* have a maturity date and *sukuk* holders receive a regular stream of income (fixed or variable) over the life of the certificate along with a balloon payment at maturity. However, in contrast to bonds, the value of *sukuk* does not rest on the creditworthiness of the issuer. Instead, this financing instrument represents undivided ownership in tangible assets, usufruct, or services of revenue-generating issuers. Hence, these certificates are asset-based rather than asset-backed securities, with the underlying asset necessarily being *shari'a*-compliant in both nature and use. *Sukuk* prices can then vary both with the creditworthiness of the issuer and with the market value of the underlying asset. Further, the certificate value that is repaid at maturity should reflect the current market price of the underlying asset and not the original amount invested.

In spite of the rising interest in *sukuk* investments, research to appraise their growth implications remains limited. A notable exception is the work by Godlewski, Turk-Ariss, and Weill (2013) on the comparative stock market reaction to the announcements of both *sukuk* and conventional bond issues in Malaysia. This study finds that the stock market is neutral to the announcement of conventional bonds but that investors react negatively to the

announcement of *sukuk*, notwithstanding excess demand from Islamic financial institutions that makes it easier to sell these instruments. The negative implications of *sukuk* issues are attributed to possible adverse selection considerations, as borrowers with the lowest return expectations may favor the issuance of profit-and-loss sharing *sukuk* structures over conventional interest-based bonds.

However, it is possible for factors other than borrower characteristics to influence the stock market reaction to *sukuk* issuance, including two very distinct features that define them and which we address in this paper.

First, *sukuk* structures can be structured following debt-based or equity-based principles. Debt-based instruments such as *ijara* (rental/lease agreement) and *murabaha* (cost-plus sale) pay a predetermined rate of return to investors and are thus less eulogized under *shari'a* compared to equity-based investments.¹ However, these structures are permissible because they do not contain *stricto sensu* interest. In contrast, equity-based investments follow profit-and-loss sharing principles of *musharaka* and *mudaraba*, which are partnership contracts in which the financier and entrepreneur share profits based on pre-agreed ratios whereas losses are commensurate to their contribution (financial or physical) to the partnership. While being a preferred mode of financing, *sukuk* based on partnership contracts have been criticized by a prominent *shari'a* scholar in 2007 for not being *de facto* structured along the lines dictated by *shari'a* principles. In light of their *shari'a*-compliance questionability and since these instruments are likely to suffer from the adverse selection mechanism described by Godlewski, Turk-Ariss, and Weill (2013), these *sukuk* may generate a negative stock market reaction in comparison to debt-based instruments.

Second, *sukuk* structures undergo a strict screening process by religious advisors to ensure their *shari'a* compliance. These instruments must notably be free from prohibitive elements such as *riba* (interest), *gharar* (uncertainty), *maysir* (gambling), but also from non-permissible activities (e.g., investments in pork, pornographic, entertainment, drugs, and military activities). More importantly, *sukuk* certification is of prime importance to investors who must ensure that these securities are compliant with *shari'a* before purchasing them. Hence, the audit quality of *shari'a* can influence the investor reaction to *sukuk* issuance, with better quality issues sending a positive signal on the ability to trade the financial instrument in future periods. This “religious certification” granted by *shari'a* scholars is a key difference

¹ There are also *shari'a* restrictions on the tradability of *murabaha sukuk*.

between Islamic and conventional finance.² Further, the stock market reaction to *sukuk* can be influenced by the reputation of the *shari'a* scholars endorsing the issue. Namely, if suspicion with regards to *shari'a* compliance surrounds a particular *sukuk*, the signalling effect of certification by *shari'a* scholars can play a prominent role in determining investor reaction to its issuance.

The primary focus of the paper is to investigate how the features of *sukuk* influence the stock market reaction to their issuance. Using the event study methodology, we first measure the abnormal stock returns of listed companies that issued 131 *sukuk* between 2006 and 2013 across eight countries. We then examine how the *sukuk* type, characteristics of *shari'a* scholars, and their interaction influence the stock market reaction. We consider multiple ways through which *shari'a* scholars can influence the market valuation of *sukuk*, including characteristics such as reputation, proximity to issuer, tenure, and the number of scholars involved in the issue.

Understanding how *sukuk* characteristics influence stock market reaction has broad implications for the industry. First, identifying value-enhancing *sukuk* characteristics will help shape the design of these instruments to favor better firm market valuation. Since *shari'a* certification by reputable scholars comes at considerable cost, it is of major interest to investigate whether *shari'a* scholar reputation exerts a positive influence on firm valuation following *sukuk* issuance. Second, such evidence would also give insights about the evolution of *sukuk* in the future. Namely, the finding of a better investor reaction to *Ijara sukuk* in comparison to other *sukuk* types would suggest increasing domination of this type of *sukuk* in the future.

The paper proceeds as follows. Section 2 presents the related literature and develops our hypotheses. Section 3 describes the data and methodology. Section 4 presents the results. Section 5 concludes.

2. Literature Review and Hypotheses Development

Shari'a advisors are religious and juridical scholars with considerable authority and who are entrusted with issuing opinions (*Fatwa*) on the legality of Islamic financial products and instruments (Rosly, 2010). They can operate independently or as members of a *shari'a* Supervisory Board and they represent a crucial element in the governance structure of Islamic

² The presence of *shari'a* boards, a committee composed of religious scholars (whether at a national or institution level), also constitutes a distinctive feature in the governance structure of Islamic financial institutions compared to conventional banks (e.g. Gheeraert, 2013).

financial institutions.³ Their role is to minimize *shari'a* non-compliance risk, which can lead to capital flight between financial institutions as well as to lawsuits by providers of funds, notwithstanding divine accountability in the hereafter (Archer and Karim, 2007).

Shari'a scholars play a crucial role in the issuance and marketing of *sukuk*. Whereas they may be regarded as the counterpart of conventional external auditors who can improve the credibility and reliability of published accounting information in well-functioning capital markets, their role is broader in scope. Every single newly-issued financial instrument must be checked for *shari'a*-compliance, and it can only be sold to market participants if its quality assurance is endorsed by *shari'a* scholars. The importance of the *shari'a* pronouncement is so decisive that, when a prominent *shari'a* scholar declared in late 2007 that as much as 85% of *sukuk* structures are in violation with the risk sharing principle of the Islamic law, *sukuk* issuance suffered a 40% decline during the first half of 2008 compared to a year before (Oxford Business Group: The Report: Bahrain 2008). The *shari'a* scholar clarified his position a few months later that he was making reference to *Musharaka* and *Mudaraba* or non-*Ijara sukuk*, which only comprise 20-30% of total issues (Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), Resolutions on *Sukuk*, Bahrain, February 2008, pp. 1–4). In contrast to *Musharaka* and *Mudaraba sukuk* that currently guarantee principle repayment at maturity and which are thus divisive, *Ijara*-based *sukuk* remain largely non-controversial (Wilson, 2009). Against this background, we expect issuing *Ijara*-based *sukuk* to send a positive signal to market participants in comparison with other *sukuk* structures.

This argument is supported by the adverse selection mechanism. As explained by Godlewski, Turk-Ariss, and Weill (2013) and following Kuran (2004)'s argumentation, only issuers with the lowest return expectations have incentives to prefer profit and loss sharing instruments in comparison to debt-like instruments. An issuer expecting to realize low profit from operations has incentives to prefer profit and loss sharing instruments to minimize the firm's loss, while one expecting high profit would opt for a debt-like instrument in the aim of maximizing the bottom line. As a consequence, issuing *Ijara sukuk* in comparison to issuing *Musharaka* or *Mudaraba* can be considered as a positive signal on the financial position of the issuer, despite that profit-and-loss instruments are *de jure* more eulogized in Islamic finance. Therefore, we formulate the following hypothesis:

³ Bank Negara Malaysia introduced in 2011 a *shari'a* Governance Framework for greater transparency, specifying four functions to support *shari'a* compliance: *shari'a* review, *shari'a* risk management, *shari'a* audit, and *shari'a* research (Najeeb and Ibrahim, 2013).

H1: The cumulative abnormal returns (CAR) from issuing *Ijara*-based *sukuk* are higher than for other types of *sukuk*.

The importance of auditors in providing valuable information to market participants is well documented in the literature. Early research by Titman and Trueman (1986) and Datar, Feltham, and Hughes (1991) focused on the information role of auditors as it results in lowering the underpricing of IPO firms. According to the auditor expertise hypothesis, information asymmetry between the auditor and the client is reduced with longer auditor tenure because auditors gradually accumulate critical knowledge about their client's activities (Solomon, Shields, and Whittington, 1999; Geiger and Raghunandan, 2002; Johnson, Khurana, and Reynolds, 2002; Myers, Myers, and Omers, 2003; Carcello and Nay, 2004). Mansi, Maxwell, and Miller (2004) examine a sample of more than 8,500 firm-year observations and find that better auditor quality and longer auditor tenure reduce the rate of return required by investors for holding firm debt. Similarly, the results of Kim, Yang Song, and Tsui (2013) drawn from a large US sample of more than 12,000 bank loans suggest that a long client–auditor relationship lowers loan borrowing costs. In the case of *sukuk*, *shari'a* scholars are likely to build expertise as they endorse a larger number of issues, despite recent agency problem concerns that were recently raised because a limited number of *shari'a* scholars are engaging excessively in such activities by sitting on a large number of *shari'a* boards (Wilson, 2009).⁴ We, therefore, hypothesize that longer tenure proxied by a larger number of *sukuk* issues endorsed by a *shari'a* scholar, is expected to reduce information asymmetry about the *shari'a* audit quality and hence have a positive effect on firm returns.

H2: The longer the tenure of *shari'a* scholars, the greater the CAR for the *sukuk* issuer.

Further, when a *sukuk* issue is approved by a large number of *shari'a* scholars, a positive signal is likely to be conveyed to the market in the sense of congruence or uniformity of the pronouncement on the acceptability of the financial instrument. The importance of *shari'a* congruence is evident in the delays in issuance of liquidity instruments by the recently established International Islamic Liquidity Management Corporation in Malaysia, which has seen a reduction in shareholding membership thereby conveying lack of consensus on product acceptability (Najeeb and Ibrahim, 2013). Under these conditions, when more scholars affix their names to a *sukuk* issue, we expect that market participants will be more confident that

⁴ A counter-argument is that, by sitting on a large number of boards, *shari'a* scholars can share experiences on providing legal rulings. It is noteworthy that such agency problems are less pronounced in Malaysia compared to the Gulf Cooperation Council countries, as in Malaysia *shari'a* consultants can only serve on one board.

the newly-issued investment vehicle is in compliance with *shari'a*. We postulate the following:

H3: The larger the number of *shari'a* scholars endorsing a *sukuk* issue, the greater the CAR.

In addition to auditor tenure and product acceptability, a growing literature documents that geographical proximity between agents improves economic outcomes by lowering information asymmetry (DeFond, Francis and Hu, 2011; Kedia and Rajgopal 2011). Choi et al. (2012) find that shorter geographic distance between auditor and client improves audit quality, despite possible concerns about auditors' objectivity. In our case, when the *shari'a* scholar is located in the same country as the *sukuk* issuer, we expect information asymmetry between the client and the auditor to be reduced, thereby positively influencing investors' perception about the quality assurance of the Islamic financial instrument. *Shari'a* scholar proximity to issuer is in fact of key importance to the acceptability of a *sukuk* issue in light of disagreements on religious pronouncements across countries and regions. We formulate our next hypothesis as:

H4: When the majority of *shari'a* scholars reside in the same country as the issuer, the *sukuk* issuer is likely to experience greater CAR.

Furthermore, the reputation of *shari'a* scholars involved in the certification process can play a major role. In parallel with the audit market where the Big Four auditors are clearly identified, the market of *shari'a* scholars is not homogenous. The most prominent and experienced *shari'a* scholars are much more in demand than others: figures on the presence of *shari'a* scholars in the *shari'a* boards of Islamic banks indicate that the top 20 scholars hold 55 percent of all board positions worldwide (Reuters, 2012). As a consequence, the reputation of *shari'a* scholars hired to screen *sukuk* matters and we formulate our hypothesis as follows:

H5: The better the reputation of *shari'a* scholars, the greater the CAR for the *sukuk* issuer.

Finally, the characteristics of *shari'a* scholars can influence the stock market reaction to issuance of a certain *sukuk* type. In particular, the signaling effect of *shari'a* scholars' certification can be more important for Islamic financial instruments which are considered more suspicious in terms of *shari'a* compliance. We formulate our last hypothesis as:

H6: Greater tenure, number, reputation, and proximity to issuer of *shari'a* scholars have a more beneficial influence for non-*Ijara sukuk*.

3. Empirical strategy

In this section, we first present the methodology used to compute abnormal returns and the subsequent multivariate analysis. Then, we describe the data collection and management process and present some descriptive statistics.

3.1 Methodology

We use a standard event study methodology to compute the abnormal returns of listed companies that issued *sukuk* in order to investigate the impact of scholar certification on firm value.

First, we identify event days as the *sukuk* issue announcement date from the Bloomberg Professional Terminal Server (Bloomberg), or day 0. We exclude from our sample all contaminated dates, i.e. when another major event occurs for the issuing company (such as an earnings call, sales release or analyst, investor or shareholder meeting) two days before and two days after day 0. We also drop all the clustered amendments when different events for the same company occur within a range of two days from one another as we would not be able to isolate the effect of *sukuk* announcement on the company's return in such conditions. This conservative procedure reduces considerably the sample size.

Second, we follow Fuller et al. (2002) for a suitable estimation method of abnormal returns in a multi-event setting. In our sample, we include companies that have issued several consecutive *sukuk* in different countries. We estimate abnormal returns using a modified market model defined as $AR_i = R_i - R_m$, where R_i is the return on company i and R_m is the market index return⁵. Since our sample includes *sukuk* issues from different countries, we account for the multi-country setting by using national market indexes as represented by the main stock market index in each country (Campbell, Cowan and Salotti, 2010).⁶ We use the AR to compute cumulative abnormal returns CAR over a five-day period $[-2, 2]$ and consider them to be proxies for shareholder value.

We then perform regressions of the cumulative abnormal results on a set of explanatory variables including *sukuk* characteristics and other control variables. We use OLS regressions with robust standard errors clustered at the *sukuk* level. We test several

⁵ Brown and Warner (1980, 1985) show that for short-window event studies, weighting the market return by the firm's beta does not significantly improve the estimation.

⁶ The main stock market indexes (with country codes in parentheses) are: FTSE, Nasdaq, UAE 20 (AE), Bahrain All Share (BH), Indonesia JSX Composite (ID), Kuwait Market IXP (KY), Malaysia KLSE Composite (MY), Qatar QE Index (QA), Saudi Arabia Tadawul All Share Index (SA), and FTSE ST Straits Times Index (SG).

specifications including various combinations of explanatory variables, including industry and year fixed effects in all regressions.

3.2 Data

In order to test empirically our main hypotheses we collect data on *shari'a* scholars, *sukuk* issues at origination, issuers' stock price, and stock market indices. We begin by extracting all available information on Scholars from the Bloomberg Professional Terminal Server (Bloomberg hereafter) using the ISLM <GO> function from the start of the database until the March 7th, 2013. The initial dataset contains information on the scholar's name, country of origin, name and ticker of the issuing company, and the ISIN of the *sukuk*. We obtain the names of 57 scholars who certified 368 *sukuk* issued by 106 companies. Next, we retrieve information on the characteristics of the *sukuk* at origination such as the amount issued, coupon, date of announcement and issuance, maturity, type of *sukuk*, and country of issuer. We are able to obtain this information for 367 *sukuk*. Finally, we gather stock market information for 54 of the issuers. Owing to our conservative procedure for the identification of events and data availability regarding stock market prices, our final sample contains 131 *sukuk* issues by 43 companies. The time span of our sample runs from 2006 to 2013 and covers eight countries.

Since our objective is to investigate whether scholar characteristics and *sukuk* type influence stock market reaction to *sukuk* issues, we define variables to take into account such dimensions. To test our four hypotheses, we account for scholar characteristics using four complementary variables depending on data availability: *Number of Scholars*, *Proximity*, *Reputation*, and *Tenure*. All these four variables are expected to have a positive impact on the stock market reaction to *sukuk*, as they are all perceived by market participants as positive signals. We define *Number of Scholars* as the number of scholars participating to the certification of the *sukuk* issue. This variable controls for the congruence of the committee taking care of the *shari'a* compliance of the instrument. *Proximity* is measured by the percentage of scholars who are from the same country as the issuer for a particular *sukuk*. This variable informs on the degree of information asymmetry between the scholars and the issuing company as perceived by market investors. *Reputation* is the maximum number of *sukuk* certified by one of the *shari'a* advisors over the previous year. The market of *shari'a* advisors is such that the most renowned scholars are very frequently hired to certify Islamic financial activities and instruments. As a consequence, this variable takes into account how experienced *shari'a* advisors are for a given *sukuk*. *Tenure* is defined as the percentage of

scholars involved in the *sukuk* who have certified one former *sukuk* of the borrower previously. It provides information not just on information asymmetry between the issuer and scholars, but additionally on the length of their relationship.

We also include four control variables that are issue-specific. *Coupon* is the coupon of *sukuk* in percent. *Maturity* is the maturity of *sukuk* in years, while $\log(\text{Amount})$ is the natural logarithm of the *sukuk* amount in million USD. As many observations come from Malaysia, we control for the potential influence of the environment of this country by including a dummy variable *Malaysia* equal to one if the issuing firm comes from this country. Finally, we control for the number of previous *sukuk* issues by the issuer (*Previous Sukuk*).

Table 1 shows sample composition by issue year, issuer country, type of *sukuk*, and industry sector. We note that the most active year for *sukuk* issuance was 2012 with more than 62% of *sukuk* in our sample being issued during that year. In terms of the origin of the issuer country, Malaysian firms represent the majority of our sample (almost 85%). Companies operating in the financial, utilities, industry, and consumer industry sectors also account for most of our sample.

Table 2 provides descriptive statistics for all variables, which are defined in the appendix. We observe that the five-day event window average *CAR* equals to 0.05% with a large standard deviation (above 5%) and that its median is negative. The shorter event window average *CAR* [-1,1] is negative (-0.22%) with a lower standard deviation but also has a negative median. Major *sukuk* types in our sample are of *Ijara* (44%) and *Musharaka* (37%) types, followed by *Murabaha* (13%). Thus, debt-based *sukuk* account for 57% of the sample.

The average number of scholars certifying an issuer's *sukuk* is equal to 3. Geographical proximity between scholars and issuers seems important as, in more than half of the sample, at least one scholar is from the same country as the issuer. On average, half of the team of scholars is from the same country as the issuer. Scholars appear to be experienced, as a typical scholar certifies on average 24 *sukuk* per year or almost 75 issues over 3 years. Scholar-issuer relationships are not very common, although in 20% of the cases at least one scholar has already certified an issuer in a previous year. Regarding the financial characteristics of *sukuk*, the average coupon is above 4%, maturity is 8 years, and the average amount issued is 1,270 million USD with a large standard deviation. Finally, issuing firms are active having issued in the past, on average, more than 11 bond issues.

4. Results

We present the results of our analysis in this section. We first present the main estimations. Then, we proceed to additional estimations using an alternative classification for *sukuk* types. Finally, we perform some robustness checks.

4.1 Main estimations

We perform regressions of cumulative abnormal returns on a set of explanatory variables including *sukuk* types and scholars characteristics. The dependent variable is the cumulative abnormal return over the [-2,2] event window.

Table 3 reports the results of OLS regressions with standard errors clustered at the *sukuk* level. The first column displays the results without any interaction term. Next, we include interaction terms between scholar characteristics and *sukuk* type.

All estimations are performed on the full sample of observations. We use alternatively each *sukuk* type (*Ijara*, *Mudaraba*, and *Murabaha*) in the interaction terms. Columns (2)-(5) show the results with interaction terms between scholar characteristics and *Ijara*, whereas columns (6)-(10) and columns (11)-(15) display the results when *Mudaraba* and *Murabaha* are considered. *Musharaka* is the omitted category. Several findings are noteworthy.

First, we find that *Ijara* is significantly positive across most estimations. This finding lends support to hypothesis H1, i.e. the view that stock market reaction is significantly positive when *Ijara sukuk* is issued in comparison with selling *Musharaka sukuk*. It agrees with the fact that *Ijara sukuk* does not suffer from criticisms on *shari'a* compliance. It is also in line with the explanation suggested by Godlewski, Turk-Ariss and Weill (2013) that an adverse selection mechanism may contribute to favoring a negative stock market reaction. Indeed, *Ijara* is a debt-based instrument that is not based on profit and loss sharing principles; hence, it does not suffer from the possibility of attracting borrowers of poor financial condition as would a *Musharaka* instrument. In two estimations that include an interaction term between *Ijara* and scholar characteristics, the coefficient on *Ijara* is not significant, probably due to the correlation resulting from having between both terms in the same regression.

Second, we observe that the coefficients on *Mudaraba* and *Murabaha* are not significant in all estimations. Therefore, stock market investors do not react differently to these types of *sukuk* compared to *Musharaka*. It is interesting to observe that the only *sukuk*

type that provides a better market reaction compared to *Musharaka* is the most commonly used structure of *Ijara*.

Third, we find that two scholar characteristics significantly influence the stock market reaction in a positive manner: *Reputation* and *Proximity*. However, *Number of scholars* and *Tenure* are not significant determinants of cumulative abnormal returns. These findings suggest that investors react to some but not all features of *sukuk* issues related to the certification by *shari'a* scholars. Thus, the results lend support for hypotheses H4 and H5, but tend to reject hypotheses H2 and H3.

The importance of the choice of scholars in terms of reputation and geographic proximity with the issuer has implications for the design of *sukuk* issues, regardless of their structure. The finding on reputation is of particular interest in view of the high fees perceived by the most well-known *shari'a* scholars, which leaves one reasonably wondering whether such fees are worth the service being provided. Our finding provides some evidence that high compensation for reputable *shari'a* scholars certifying *sukuk* may be justified on the grounds of better valuation of issuing firms.

Fourth, the analysis of the interaction terms shows very few significant interactions between scholar characteristics and *sukuk* type. Among the twelve tested interaction terms, only three are significant, suggesting that scholar characteristics may not influence much the cumulative abnormal returns across different types of *sukuk*. The three exceptions are as follows.

The interaction between *Tenure* and *Ijara* is significant but negative. Associated with the positive and significant coefficient for *Ijara*, this interesting result suggests that the positive impact of issuing *Ijara* is weaker when certifying scholar tenure is higher. In other words, greater *shari'a* tenure may not generate cumulative abnormal returns for these *sukuk*. Furthermore, the interaction between *Tenure* and *Murabaha* is positive and significant, implying that stock market investors react more positively to these *sukuk* when they are endorsed by scholars of higher tenure. Both these findings provide limited support to hypothesis H6. Finally, the interaction between *Proximity* and *Ijara* is positive and significant, suggesting that proximity is more valued for *Ijara* than for other types of *sukuk*. It seems that reduced information asymmetry between the certifying advisors and the *sukuk* issuer matters for stock market investors when it comes to *Ijara* structures.

4.2 Additional estimations

In our main estimations above, we distinguished among all *sukuk* types omitting *Musharaka* and including dummy variables for all three other *sukuk* types. We further test whether our main findings are maintained when we group *sukuk* types in two broad categories: profit and loss sharing instruments, and debt-based instruments. In addition to serving as a sensitivity test of our main results, these additional estimations are of particular interest to examine whether stock market investors differentiate among the two broad categories of *sukuk*, in line with the argument of the adverse selection mechanism.

We estimate the regressions of cumulative abnormal returns for the [-2,2] event window by including a new variable *Debt* among the set of explanatory variables. *Debt* is a dummy variable that is equal to one if the *sukuk* structure is either *Murabaha* or *Ijara*, and zero otherwise. We show the estimations results in Table 4, from which several conclusions emerge.

First, the key finding is the positive and significant coefficient for *Debt* in column (1) that corroborates the hypothesis that debt-like Islamic financing instruments are more highly valued than profit-and-loss sharing instruments. Whereas it is in line with the former result that *Ijara* leads to a better stock market reaction than *Musharaka*, it provides a more general view of the different stock market reaction to both categories of *sukuk*. It seems that stock market investors react negatively to the issue of profit-and-loss sharing *sukuk* in comparison to debt-based *sukuk*, albeit the spirit of Islamic finance is to encourage equity and not debt-like investments. We explain our finding using the adverse selection mechanism according to which borrowers in better financial condition have fewer incentives to opt for the sharing of expected profits.

Second, we find similar results for the scholar characteristics as in the baseline regressions. *Reputation* and *Proximity* exert a positive impact on stock market reaction, while *Number of scholars* and *Tenure* do not significantly influence cumulative abnormal returns. Thus, this finding is robust to the dual classification of *sukuk* types.

Third, the results on the interaction terms between *Debt* and scholar characteristics show only one significant coefficient, *Debt* and *Proximity*. This finding accords with the previous finding on the significant and positive interaction term between *Ijara* and *Proximity*. It suggests that greater proximity between *shari'a* scholars and the issuing firm is positively valued by stock market investors when a debt-like *sukuk* is issued, due to reduced information asymmetry. We also note that including interaction terms generally lower the significance of *Debt*, due to the correlation of these terms with the *Debt* variable.

In sum, our main results are not sensitive to this alternative classification of *sukuk* structures.

4.3 Robustness checks

We check the robustness of our results in two different ways. First, we test whether they are sensitive to alternative definitions of scholar characteristics. We replace *Reputation*, defined as the maximum number of *sukuk* certified by one of the *shari'a* advisors in the last year, with three other variables - *Reputation (Max, 3 years)*, *Reputation (Mean, last year)*, and *Reputation (Mean, 3 years)*, for the maximum number of issues certified over the past three years and the average number of issues certified over the previous year and the last three years, respectively. We also replace *Proximity*, defined as the percentage of scholars from same country as the issuer, with *DummyProximity*, a dummy variable that is equal to one if one at least scholar is from the same country as the issuer. Finally, we replace *Tenure*, defined as the percentage of scholars involved in the *sukuk* who have previously certified one former *sukuk* of the borrower, with *DummyTenure*, a dummy variable that is equal to one if at least one scholar has certified a former *sukuk* issue of the borrowing firm in the past.

We report the results of the alternative regressions in Table 5, including the *sukuk* type variables (columns 1-3) and considering *Debt* variable (columns 4-6). We find that our main results are maintained. *Ijara* is significantly positive in the three first estimations and *Debt* is significantly positive in the three last estimations. The alternative variables adopted to consider reputation and tenure are also significant and positive in most cases. Hence these results corroborate our main findings on the impact of reputation and tenure on stock market reaction to *sukuk* issuance.

Second, we consider the cumulative abnormal return over the [-1,1] event window instead of the [-2,2] event window. The choice of the event window might indeed influence the results as a shorter event window can exert an influence on cumulative abnormal returns. We report the results in Table 6 by also considering separately *sukuk* types or using the *Debt* variable. Our main findings are not affected by the length of the event window. *Ijara* and *Debt* are respectively positive and significant. Only two scholar characteristics are significant, both in a positive way, *Reputation* and *Tenure*.

5. Conclusion

We examine how the stock market reaction to *sukuk* issues is influenced by key features of this *shari'a*-compliant instrument using the event study methodology on a sample of listed companies from eight countries.

We obtain several findings. First, we find that *Ijara sukuk* favors a positive stock market reaction. We attribute this result to both the lower *shari'a* compliance risk of *Ijara* compared to other structures and to the adverse selection mechanism uncovered by Godlewski, Turk-Ariss, and Weill (2013) that hampers the issuance of profit-and-loss sharing *sukuk*. Second, we provide evidence on a beneficial influence of reputation and proximity of scholars on stock market reaction to *sukuk* issuance. However, we do not find support for the view that all scholar characteristics matter, as neither the number of scholars endorsing the issue nor their tenure are found to be significant. Third, we find very limited evidence that the importance of scholar characteristics varies by *sukuk* type.

Therefore, the choice of *sukuk* structure and scholars hired for its certification matter for the market valuation of the issuing firm. Our findings support the view that *shari'a* scholar reputation and proximity with issuer may command a justifiable premium by the market. However, the need for certification should not overprice having a large number of scholars involved or their tenure, as these factors are not associated with a significant premium in terms of market valuation.

Our findings provide important insights for the expansion of *sukuk* markets across different countries. They suggest that *Ijara* structures may benefit the most from the expansion of *sukuk* markets because of the better investor reaction to them compared to other structures. They also suggest that investors attach value to the selection of scholars with certain characteristics. Future research may examine whether the (sometimes criticized) high compensation of *shari'a* scholars certifying the legality of *sukuk* is justified by the ensuing positive firm valuation by investors.

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Table 1
Composition of the sample

This table provides the composition of the sample by issue year, issuer country, and issuer industry.

Issue year	Freq.	Percent
2006	1	0.76
2007	10	7.63
2008	7	5.34
2009	4	3.05
2010	5	3.82
2011	9	6.87
2012	82	62.60
2013	13	9.92
Issuer country	Freq.	Percent
Bermuda	2	1.53
Caiman Islands	9	6.87
Indonesia	1	0.76
Malaysia	111	84.73
Qatar	1	0.76
Saudi Arabia	3	2.29
Singapore	3	2.29
United Arab Emirates	1	0.76
Industry sector	Freq.	Percent
Communications	7	5.34
Consumer	17	12.98
Diversified	4	3.05
Energy	2	1.53
Financial	45	34.35
Industrial	23	17.56
Utilities	33	25.19
Total	131	100

Table 2
Descriptive statistics

This table provides descriptive statistics for all variables used in the empirical analysis. Definitions can be found in the appendix.

Variable	N	Mean	Std dev.	Median	Min.	Max.
CAR[-2,2]	131	0.0548	5.2165	-0.4595	-6.4738	11.6130
CAR[-1,1]	131	-0.2263	3.0781	-0.0564	-4.7903	5.9073
Ijara	131	0.4427	0.4986	0.0000	0.0000	1.0000
Mudaraba	131	0.0534	0.2258	0.0000	0.0000	1.0000
Murabaha	131	0.1298	0.3373	0.0000	0.0000	1.0000
Musharaka	131	0.3740	0.4857	0.0000	0.0000	1.0000
Debt	131	0.5725	0.4966	1.0000	0.0000	1.0000
Number of Scholars	131	2.8321	1.5148	3.0000	1.0000	6.0000
DummyProximity	131	0.5954	0.4927	1.0000	0.0000	1.0000
Proximity	131	0.4995	0.4574	0.4000	0.0000	1.0000
Reputation (Mean, last year)	130	23.6355	13.1712	30.2500	1.0000	46.0000
Reputation	130	24.8000	13.2017	32.0000	1.0000	46.0000
Reputation (Mean, 3 years)	130	71.7479	38.5432	90.7500	3.0000	138.0000
Reputation (Max, 3 years)	130	75.9846	38.0151	96.0000	3.0000	138.0000
DummyTenure	131	0.2061	0.4061	0.0000	0.0000	1.0000
Tenure	131	0.2000	0.4000	0.0000	0.0000	1.0000
Coupon	130	4.4773	0.9739	4.4650	0.0000	7.0000
Maturity	131	8.3122	3.9359	8.0000	1.0000	17.0110
Amount	131	1270.0000	10 900.000	175.0000	5.0000	125 000.0000
Previous Sukuk	130	11.8769	9.8351	11.0000	1.0000	34.0000

Table 3
Main estimations

This table provides the results of OLS regressions with standard errors clustered at the *Sukuk* level of the CAR[-2,2] on scholars characteristics and *Sukuk* type along with control variables. Definitions are provided in the appendix. Malaysia is a dummy variable equal to one if the issuer is from Malaysia. In the interaction terms, *Sukuk* refers to *Ijara*, *Mudaraba*, and *Murabaha* respectively, for columns 2-5, 6-9, and 10-13. *, **, and *** indicate a statistically significant coefficient at the 10%, 5%, and 1% confidence level. Dummy variables for industries and years are included.

Variable	<i>Sukuk</i> used in interaction term is <i>Ijara</i>					<i>Sukuk</i> used in interaction term is <i>Mudaraba</i>				<i>Sukuk</i> used in interaction term is <i>Murabaha</i>			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Ijara	5.9545*** (1.9525)	7.5631** (3.5862)	0.5679 (1.9955)	8.6685 (5.4043)	8.4493*** (2.1677)	5.9234*** (1.8883)	5.9956*** (1.9147)	5.9429*** (1.9724)	5.9545*** (1.9525)	6.1434*** (1.8969)	6.1219*** (2.0124)	5.9310*** (1.9497)	5.7372*** (1.9112)
Mudaraba	3.8457 (2.8073)	4.2998 (3.0849)	0.6772 (2.5718)	5.0712 (3.5055)	4.8967* (2.6714)	8.5650 (5.6339)	4.8817 (3.3223)	4.0498 (3.5631)	3.8457 (2.8073)	4.2229 (2.8764)	3.8297 (2.7943)	3.8543 (2.8564)	3.1366 (2.5064)
Murabaha	0.6952 (2.1321)	0.6308 (2.1374)	-0.0866 (2.1661)	0.8579 (2.0486)	0.6769 (2.0717)	0.5611 (2.1600)	0.7557 (2.1689)	0.6773 (2.1575)	0.6952 (2.1321)	-4.2090 (5.4439)	-0.4386 (4.0186)	0.0983 (5.7893)	-0.8190 (2.2761)
Number of Scholars	-0.9498 (0.5851)	-0.3964 (1.1425)	-0.6189 (0.4778)	-0.9671* (0.5722)	-1.4715** (0.6445)	-0.8529 (0.5857)	-0.8923 (0.5771)	-0.9467 (0.5892)	-0.9498 (0.5851)	-1.1447** (0.5282)	-0.9595 (0.5817)	-0.9413 (0.5940)	-1.0159 (0.6107)
Proximity	8.4916*** (2.6150)	8.3770*** (2.6240)	2.9957 (2.1204)	9.0406*** (2.8044)	8.6201*** (2.4099)	9.0477*** (2.7470)	8.9273*** (2.8512)	8.4924*** (2.6284)	8.4916*** (2.6150)	9.3026*** (2.6989)	8.1251*** (2.8724)	8.6127*** (2.7136)	6.9509*** (2.5722)
Reputation	0.2756*** (0.0917)	0.2709*** (0.0893)	0.1086 (0.0854)	0.3088** (0.1217)	0.2744*** (0.0797)	0.2989*** (0.1021)	0.2757*** (0.0914)	0.2770*** (0.0971)	0.2756*** (0.0917)	0.2558*** (0.0811)	0.2866*** (0.0906)	0.2715*** (0.0837)	0.3050*** (0.0875)
Tenure	1.2691 (2.6145)	1.1433 (2.6645)	2.1556 (2.4217)	1.4342 (2.6410)	4.4077 (3.4655)	1.5560 (2.6098)	1.4457 (2.5951)	1.2773 (2.6297)	1.2691 (2.6145)	1.6285 (2.6942)	1.1110 (2.6595)	1.3916 (2.7341)	-1.7358 (2.4434)
<i>Sukuk</i> x Number of Scholars		-0.7573 (1.2278)				-2.7970 (2.5456)				2.0666 (1.8304)			
<i>Sukuk</i> x Proximity			14.8517*** (3.2093)				-4.1392 (4.6818)				2.3361 (6.7088)		
<i>Sukuk</i> x Reputation				-0.0902 (0.1603)				-0.0189 (0.1379)				0.0215 (0.1782)	

Sukuk x Tenure					-9.9698** (4.9117)				-† -				11.5612* (6.1333)
Coupon	0.9517 (0.6633)	1.1387 (0.7418)	0.2159 (0.5390)	0.9990 (0.6618)	0.7304 (0.6720)	0.8863 (0.6527)	0.8597 (0.6356)	0.9559 (0.6639)	0.9517 (0.6633)	1.2280* (0.7217)	0.9323 (0.6945)	0.9875 (0.6355)	0.7284 (0.5541)
Maturity	0.0424 (0.0917)	0.0263 (0.0913)	0.0280 (0.0773)	0.0562 (0.0963)	0.0878 (0.1031)	0.0654 (0.0891)	0.0726 (0.0888)	0.0416 (0.0925)	0.0424 (0.0917)	-0.0115 (0.0996)	0.0439 (0.0944)	0.0433 (0.0922)	0.1054 (0.0958)
log(Amount)	-0.3163 (0.4648)	-0.3288 (0.4492)	-0.6479 (0.4332)	-0.3984 (0.4917)	-0.6133 (0.5048)	-0.3589 (0.4632)	-0.3221 (0.4642)	-0.3190 (0.4654)	-0.3163 (0.4648)	-0.2854 (0.4276)	-0.2576 (0.4715)	-0.3288 (0.4584)	-0.1679 (0.4647)
Previous Sukuk	-0.0408 (0.0881)	-0.0593 (0.0841)	-0.1412* (0.0803)	-0.0196 (0.0974)	-0.0459 (0.0903)	-0.0429 (0.0871)	-0.0383 (0.0887)	-0.0411 (0.0883)	-0.0408 (0.0881)	-0.0062 (0.0994)	-0.0243 (0.1022)	-0.0417 (0.0873)	-0.0181 (0.0918)
Malaysia	-6.6159** (2.8996)	-6.8540** (2.8709)	-4.1471* (2.4007)	-6.4591** (3.0350)	-5.4245* (3.0070)	-7.5920** (3.3149)	-7.1561** (3.1329)	-6.6419** (2.9320)	-6.6159** (2.8996)	-7.7184** (3.1086)	-6.7893** (2.9103)	-6.7206** (3.0164)	-5.6605** (2.5181)
Intercept	-4.9581 (11.2140)	-5.1706 (11.2406)	5.1814 (10.1792)	-5.9324 (11.6181)	1.1822 (11.7583)	-5.8748 (11.0459)	-6.0016 (10.9318)	-4.8226 (11.3098)	-4.9581 (11.2140)	-4.0555 (10.3633)	-6.0073 (11.2498)	-4.7121 (11.0405)	-9.2158 (10.9270)
Obs.	128	128	128	128	128	128	128	128	128	128	128	128	128
Adj. R ²	0.5094	0.5079	0.6070	0.5086	0.5573	0.5114	0.5084	0.5046	0.5094	0.5210	0.5059	0.5047	0.5560

† There are no coefficient for Sukuk x Tenure using Mudaraba as Sukuk, as Tenure is equal to zero for all cases of Mudaraba.

Table 4
Additional estimations

This table provides the results of OLS regressions with standard errors clustered at the *sukuk* level of the CAR[-2,2] on scholars characteristics and *sukuk* debt-like type along with control variables. Definitions are provided in the appendix. *, **, and *** indicate a statistically significant coefficient at the 10%, 5%, and 1% confidence level. Dummy variables for industries and years are included.

Variable	(1)	(2)	(3)	(4)	(5)
Debt	4.1242** (1.8623)	2.3527 (4.3582)	1.7934 (2.0126)	2.8656 (3.5326)	3.7514* (1.8831)
Number of Scholars	-0.9502 (0.6240)	-1.6667 (1.6645)	-0.7883 (0.5132)	-0.9197 (0.6015)	-0.8664 (0.6861)
Proximity	6.9642** (2.6678)	7.3588** (3.0070)	2.4253 (2.6238)	6.9491** (2.6619)	6.7736** (2.7270)
Reputation	0.2319** (0.1001)	0.2273** (0.1010)	0.1695* (0.1010)	0.2083** (0.1032)	0.2387** (0.1005)
Tenure	0.7164 (2.8325)	0.9991 (3.0814)	0.5139 (2.7825)	0.9019 (2.8266)	-0.2749 (4.1107)
Debt x Number of Scholars		0.8743 (1.7702)			
Debt x Proximity			7.4316* (4.1695)		
Debt x Reputation				0.0438 (0.1117)	
Debt x Tenure					1.7736 (4.3436)
Coupon	0.1550 (0.6732)	0.0623 (0.6979)	-0.3264 (0.7250)	0.2558 (0.7602)	0.2064 (0.7065)
Maturity	0.0812 (0.0793)	0.0768 (0.0800)	0.0820 (0.0860)	0.0740 (0.0850)	0.0806 (0.0791)
log(Amount)	-0.0732 (0.4622)	-0.0266 (0.4768)	0.0817 (0.4089)	-0.0534 (0.4749)	-0.0071 (0.4405)
Previous Sukuk	-0.0312 (0.0998)	0.0096 (0.1209)	-0.0010 (0.0947)	-0.0391 (0.0987)	-0.0264 (0.1014)
Malaysia	-5.4820* (2.8035)	-5.5429* (2.8486)	-3.9372 (2.4736)	-5.7049* (3.0001)	-5.5830* (2.8147)
Intercept	-5.6420 (11.0341)	-5.3465 (10.9105)	-5.8528 (9.6820)	-4.9596 (10.8661)	-7.4208 (10.9515)
Obs.	128	128	128	128	128
Adj. R ²	0.4548	0.4517	0.4918	0.4507	0.4515

Table 5
Robustness check: Alternative variables

This table provides the results of OLS regressions with standard errors clustered at the *sukuk* level of the CAR[-2,2] on scholars characteristics and *sukuk* debt-like type along with control variables for robustness checks purpose. Alternative variables for scholars characteristics and *sukuk* type are included in the regressions. Definitions are provided in the appendix. *, **, and *** indicate a statistically significant coefficient at the 10%, 5%, and 1% confidence level. Dummy variables for industries and years are included.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Ijara	5.6625** (2.2894)	5.6180** (2.3660)	5.7682** (2.4378)			
Mudaraba	4.1129 (2.8723)	4.2867 (3.0118)	4.4674 (3.0493)			
Murabaha	0.8787 (2.1893)	0.8977 (2.2647)	1.1938 (2.2546)			
Debt				4.0105* (2.0890)	3.9821* (2.1689)	4.1361* (2.2065)
Number of Scholars	-1.9492* (1.0700)	-1.6717 (1.0466)	-1.6810 (1.0693)	-1.7264 (1.0641)	-1.5056 (1.0309)	-1.5057 (1.0552)
DummyProximity	7.7519** (3.6468)	7.9075** (3.5997)	7.5248** (3.6255)	5.9316* (3.3601)	6.0281* (3.2253)	5.6733* (3.3110)
Reputation (Max, 3 years)	0.0789** (0.0338)			0.0624* (0.0339)		
Reputation (Mean, last year)		0.2404** (0.1059)			0.1860* (0.1066)	
Reputation (Mean, 3 years)			0.0704** (0.0336)			0.0516 (0.0330)
DummyTenure	0.3773 (2.9160)	0.6861 (2.9273)	0.6530 (2.9597)	-0.2752 (3.0928)	-0.0329 (3.0925)	-0.0592 (3.1266)
Coupon	0.8106 (0.6710)	0.7769 (0.6510)	0.7666 (0.6841)	0.0766 (0.6632)	0.0458 (0.6371)	0.0421 (0.6599)
Maturity	0.0380 (0.0951)	-0.0159 (0.0975)	-0.0095 (0.1030)	0.0706 (0.0841)	0.0283 (0.0864)	0.0331 (0.0874)
log(Amount)	0.0135 (0.5382)	0.0896 (0.5840)	0.1508 (0.5981)	0.1684 (0.5437)	0.2274 (0.5893)	0.2726 (0.6066)
Previous Sukuk	0.0566 (0.1122)	0.0370 (0.1113)	0.0385 (0.1146)	0.0402 (0.1228)	0.0227 (0.1207)	0.0207 (0.1230)
Malaysia	-5.3939 (3.2596)	-5.5779* (3.2385)	-4.7901 (3.2267)	-4.1488 (3.1506)	-4.2508 (3.0035)	-3.5368 (3.0697)
Intercept	-9.8028 (12.8703)	-9.2451 (13.4832)	-10.7702 (13.8819)	-9.1478 (13.0036)	-8.6913 (13.5728)	-9.8828 (14.0226)
Obs.	128	128	128	128	128	128
Adj. R ²	0.4250	0.4182	0.4027	0.3808	0.3742	0.3606

Table 6
Robustness check: Alternative window

This table provides the results of OLS regressions with standard errors clustered at the *sukuk* level of the CAR[-1,1] on scholars characteristics and *sukuk* debt-like type along with control variables for robustness checks purpose. Alternative variables for scholars characteristics and *sukuk* type are included in the regressions. Definitions are provided in the appendix. *, **, and *** indicate a statistically significant coefficient at the 10%, 5%, and 1% confidence level. Dummy variables for industries and years are included.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ijara	3.4178*** (1.2064)		3.2782** (1.3562)	3.2490** (1.3912)	3.3385** (1.4344)			
Mudaraba	2.3883 (1.9972)		2.5054 (1.9918)	2.6051 (2.0410)	2.6900 (2.0649)			
Murabaha	1.3694 (1.3429)		1.4552 (1.3810)	1.4384 (1.4679)	1.6480 (1.4468)			
Debt		2.5641** (1.0285)				2.5016** (1.1481)	2.4730** (1.1952)	2.5768** (1.2182)
Number of Scholars	-0.5058 (0.3282)	-0.5142 (0.3430)	-1.0412* (0.5525)	-0.8954 (0.5448)	-0.8917 (0.5596)	-0.9690* (0.5374)	-0.8452 (0.5301)	-0.8403 (0.5444)
Proximity	4.4439*** (1.5049)	3.8758** (1.5230)						
Reputation	0.1517*** (0.0529)	0.1342** (0.0526)						
Tenure	0.5270 (1.6458)	0.2968 (1.6861)						
DummyProximity			4.1198* (2.1235)	4.2441** (2.1141)	3.9635* (2.1185)	3.4596* (1.9911)	3.5511* (1.9109)	3.3024* (1.9623)
Reputation (Max, 3 years)			0.0427** (0.0185)			0.0361** (0.0174)		
Reputation (Mean, last year)				0.1331** (0.0631)			0.1106* (0.0579)	
Reputation (Mean, 3 years)					0.0373* (0.0196)			0.0296* (0.0176)
DummyTenure			0.0487 (1.8156)	0.2222 (1.8352)	0.1926 (1.8512)	-0.2203 (1.8289)	-0.0765 (1.8363)	-0.0962 (1.8532)
Coupon	0.5026 (0.4489)	0.1247 (0.4249)	0.4258 (0.4562)	0.4087 (0.4412)	0.4010 (0.4639)	0.0745 (0.4226)	0.0553 (0.4061)	0.0549 (0.4219)
Maturity	0.0269 (0.0605)	0.0450 (0.0535)	0.0244 (0.0620)	-0.0050 (0.0627)	-0.0012 (0.0654)	0.0398 (0.0552)	0.0152 (0.0556)	0.0181 (0.0565)
log(Amount)	-0.0973 (0.2620)	-0.0174 (0.2534)	0.0780 (0.2922)	0.1166 (0.3137)	0.1541 (0.3212)	0.1230 (0.2894)	0.1550 (0.3109)	0.1835 (0.3211)
Previous Sukuk	-0.0605 (0.0523)	-0.0642 (0.0543)	-0.0093 (0.0615)	-0.0195 (0.0616)	-0.0194 (0.0634)	-0.0229 (0.0640)	-0.0325 (0.0638)	-0.0343 (0.0651)
Malaysia	-2.9468	-2.6444	-2.2986	-2.4562	-1.9262	-1.9669	-2.0834	-1.6010

	(1.9160)	(1.7782)	(2.1231)	(2.1400)	(2.1266)	(1.9986)	(1.9113)	(1.9647)
Intercept	-6.0902	-5.8459	-8.6605	-8.3074	-9.2154	-7.8938	-7.5765	-8.3276
	(6.8410)	(6.3258)	(7.3892)	(7.7206)	(7.8967)	(7.0846)	(7.3851)	(7.6165)
Obs.	128.0000	128.0000	128.0000	128.0000	128.0000	128.0000	128.0000	128.0000
Adj. R ²	0.4307	0.4071	0.3690	0.3662	0.3493	0.3504	0.3469	0.3317

Appendix

Definitions of all variables

CAR[-2,2]= five days event window cumulative abnormal return (in percent)

CAR[-1,1] = three days event window cumulative abnormal return (in percent)

Ijara = 1 if *sukuk Ijara*

Mudaraba = 1 if *sukuk Mudaraba*

Murabaha = 1 if *sukuk Murabaha*

Musharaka = 1 if *sukuk Musharaka*

Debt = 1 if *sukuk Ijara* or *sukuk Murabaha*

Number of Scholars = number of *shari'a* scholars certifying an issuer's *sukuk*

Proximity = percentage of scholars certifying an issuer's *sukuk* who are from the same country as the issuer

DummyProximity = 1 if *shari'a* scholar and issuer are from the same country

Reputation = maximum of *sukuk* certified by a scholar over last year

Reputation (Max, 3 years) = maximum of *sukuk* certified by a scholar over last 3 years

Reputation (Mean, last year) = average number of *sukuk* certified by a scholar over last year

Reputation (Mean, 3 years) = average number of *sukuk* certified by a scholar over last 3 years

DummyTenure = 1 if a scholar certified same issuer last year

Tenure = percentage of scholars who certified same issuer last year

Coupon = *sukuk* coupon (in percentage)

Maturity = *sukuk* maturity (in years)

Amount = *sukuk* amount (in million USD)

Previous Sukuk = number of previous *sukuk* issues by issuers

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