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Demand of Islamic Stocks: The Case of Kuwait

Abdullah M. Al-Awadhi¹, Ahmad Bash² and Somaiyah Alalmai³

¹Corresponding Author: College of Business Studies, Public Authority for Applied Education and Training (PAAET), Kuwait. Email: am.alawadhi1@paaet.edu.kw

²College of Business Studies, Public Authority for Applied Education and Training (PAAET), Kuwait. Email: ay.bash@paaet.edu.kw

³School of Economics, Finance, and Marketing, RMIT University, Australia; and, Department of Investment and Finance. Email: somaiyah.alalmai@rmit.edu.au

ABSTRACT

We investigate whether Islamic trading practices create a demand difference between Islamic and non-Islamic stocks. We use data from Bursa Kuwait, which has clearly exogenously defined religious rules for investing in the stock market. We find that Islamic stocks have higher demand than non-Islamic stocks, are overpriced, and have higher liquidity. Our results shed light on the potential challenges for Bursa Kuwait in attracting non-Islamic firms for listing and increasing their investor base.

Keywords: Kuwait; Islamic Stocks; Demand; Liquidity.

1. INTRODUCTION

Islamic investors prefer to invest in categories of stocks that conform with Islamic *Shariah* and to neglect stocks that conflict with the *Shariah*. The extent to which the preference of Islamic investors in the Islamic environment interacts with stock pricing and liquidity is not well understood.

In this study, to investigate pricing and liquidity differences between Islamic and non-Islamic stocks, we use data from Kuwait that have two main features. First, data from Kuwait offer relatively unambiguous religious guidance for traders to differentiate between Islamic and non-Islamic stocks. Traders can differentiate Islamic and non-Islamic stocks from firms' operating licenses (Islamic stocks are stocks of firms that operate within Islamic laws and have an Islamic operating license, whereas non-Islamic stocks are stocks of firms that have a non-Islamic operating license). Second, given that the level of religiosity in Kuwaiti society is very high (91% according to the Gallup Religiosity Index), we expect that a significant

portion of retail investors follow Islamic trading rules. In addition, Islamic institutional investors in Kuwait are guided by explicit rules that prohibit investing in stocks that conflict with Islamic *Shariah*.¹ In this clear setting, our study provides deeper insights into how a religious background may affect investment decisions and corresponding market returns and liquidity.

We contribute by attempting to understand whether Islamic trading practices lead to demand differences between Islamic and non-Islamic stocks. If Islamic stocks are preferred by Islamic investors, they are expected to have higher demand in a religious Islamic environment, and are relatively overpriced (lower returns) and more liquid relative to non-Islamic stocks.

We find that Islamic stocks experience significantly higher demand, and are overpriced (lower returns) and more liquid relative to non-Islamic stocks. Boursa Kuwait has recently been upgraded from “unclassified” to a “secondary emerging” market using FTSE classification. Whereas the classification upgrade was necessary, it will not in itself be sufficient to reach the desired level of market growth, which requires being able to attract additional investors seeking to trade in the market and firms seeking to be listed (Lo, 2013). We suggest that Boursa Kuwait consider the higher demand for Islamic stocks in its strategy to increase its investor base and the number of listed firms.

The next section of this study provides a review of the related literature and the development of the hypothesis. Section 3 presents the data. Section 4 describes the methodology. The empirical results are in Section 5, and the conclusion is in Section 6.

2. LITERATURE AND HYPOTHESIS DEVELOPMENT

Sin investments are viewed through a religious lens in Islamic societies and are framed elsewhere in ethical terms (Fabozzi et al. 2008). Islamic *Shariah* prohibits investing in stocks of firms that operate with usury, pork, alcohol, and gambling products (Durand et al. 2013).

Several studies suggest that Islamic stocks outperform their counterparties. For example, (Hakim and Rashidian, 2002) compare returns of the Dow Jones Islamic Market Index (DJIM) and the Wilshire 5000 Index (W5000) during 1999–2002. They find that the Islamic DJIM outperformed the W5000. Further, (Hashim, 2008) finds that the FTSE Global Islamic Index outperformed the diversified and socially responsible FTSE4Good Index during 1999–2007. Additionally, (Jawadi et al., 2014) examine both types of indexes for the United States, Europe, and the world during 2000–2011 and find that following the sub-prime crisis, Islamic indexes started outperforming conventional ones. Finally, (Ho et al., 2014) test eight Islamic indices (U.S., U.K., Malaysia, Indonesia, Hong Kong, Switzerland, India, and France) and find that they outperformed conventional ones during the financial crisis during 2000–2011.

Although many studies in the literature suggest that Islamic stocks outperform their counterparties, several other studies suggest the opposite. For example, (Hayat and Kraeussl, 2011) find that Islamic equity funds underperformed conventional counterparts for 2000–2009 across five geographical categories (Global, Malaysia, Asia-Pacific, Europe and the Middle East, and North America). In addition, (Al-Khazali et al., 2014) employ stochastic dominance and find that nine of the Islamic Dow Jones (Asia Pacific, Canadian,

¹ Islamic institutional investors are expected to have a Shariah board committee that ensures that institutional transactions are acceptable within Shariah rules. For example, the Kuwait Finance House (KFH) notes as such in Articles (5 & 7) of its Memorandum & Articles of Association.

Developed Country, Emerging Markets, European, Global, Japanese, U.K., and U.S.) underperformed their conventional counterparts during 1996–2012. Finally, (Merdad et al., 2015) investigate Saudi Arabian stock returns and find that Islamic stocks have lower returns than conventional ones during 2003–2011.

Shortly, it can be seen that the evidence on the performance of Islamic investments compared with non-Islamic ones is mixed and far from unanimous. Some studies find that Islamic investments outperform non-Islamic investments, whereas other studies find the opposite (Merdad, 2012).

Because our data come from the Islamic religious environment, we anticipate that when Islamic and non-Islamic stocks are listed on the same stock exchange (mixed market), Islamic stocks will have higher demand than non-Islamic stocks, which are relatively overpriced and have lower returns (Galema et al., 2008). This expectation can be formulated as the following hypothesis.

Hypothesis 1: Islamic stocks have lower returns than non-Islamic stocks.

When the market is mixed, Islamic stocks are potentially traded by all investors, whereas trading in non-Islamic stocks is restricted to non-Islamic investors. Hence, the two types of stock have different investor bases. The expectation is that in a mixed market, having a wider base of investors increases trading volumes and liquidity for Islamic stocks relative to non-Islamic ones (e.g., Tauchen 1983, Amihud 1999). This expectation can be formulated as follows.

Hypothesis 2: Islamic stocks are more liquid than are non-Islamic stocks.

3. DATA

In Kuwait, a strict screening method is used to divide the stocks into two categories: (i) Islamic stocks of Islamic firms and (ii) non-Islamic stocks of non-Islamic firms. This definition is different from the relaxed Islamic screening method used in some other countries with a Muslim majority, which divides stocks into three categories: (i) Islamic stocks of Islamic firms; (ii) non-Islamic stocks of non-Islamic firms, but of firms that operate in Islamic-acceptable industries and have a low percentage of prohibited activities (accepted by relaxed Islamic traders); and (iii) non-Islamic stocks of non-Islamic firms with a high percentage of prohibited activities. In our study, we depend on the strict screening strategy to define Islamic stocks because a growing number of Islamic investors are adopting a strict Islamic screening strategy in Kuwait; additionally, investors are skeptical about whether the relaxed screening strategy is in compliance with *Shariah* (Alotaibi, 2014).

The strict screening method in Kuwait provides two advantages. (i) It is clearer to easily identify Islamic stocks by reviewing the firm's operating license. These stocks are stocks of firms that are fully qualified according to Islamic *Shariah* for which there is no need for Islamic investors' purification.² (ii) The strict screening method is a more stable classification compared with the other screening methods. The classification of Islamic stocks in many other Muslim countries continues to be modified regularly (over time, the stock can move from Islamic to non-Islamic classification and vice versa). For example, Indonesia and Malaysia adopt more relaxed and less stable classifications for Islamic stocks.

We use the list of the *Al-Mashora and Al-Raya for Islamic Financial Consultancy* to identify Islamic-listed stocks. Table 1 shows the number of Islamic listed companies in Boursa Kuwait.

² Purification is the process of eliminating the income resulting from interest or other prohibited revenue sources from the portfolio's dividends and capital gains (e.g., Zaher 2001, Hassan 2011).

The data are obtained from Bloomberg. The daily data consist of stock closing prices, shares outstanding, and trading volume for the period 2004–2014. In addition, we obtained monthly firm-specific variables, such as firm size, firm age, and market-to-book ratio.

4. METHODOLOGY

4.1. Abnormal Return Tests

4.1.1. Time-series Tests

To test Hypothesis 1, we examine the monthly time-series returns of Islamic and non-Islamic stocks, estimated by (Fama and French, 1993):

$$\text{NIMI}_t = \alpha_0 + \alpha_1 \text{MP}_t + \alpha_2 \text{SMB}_t + \alpha_3 \text{HML}_t + \varepsilon_{i,t} \quad (1)$$

where, NIMI_t is the return of non-Islamic stocks minus the Islamic portfolio for month t , α is the intercept that represents the excess return of non-Islamic stocks, MP_t is the market risk premium for month t , SMB_t is the return of a small minus big firms' portfolio in month t , HML_t is the return of a high minus low book-to-market portfolio in month t , and $\varepsilon_{i,t}$ is the exogenous error term.

4.1.2. Panel Test

We also test Hypothesis 1 and examine the monthly returns difference between Islamic and non-Islamic stocks by applying the panel test, as follows:

$$\begin{aligned} \text{ER}_{i,t} = & \alpha_0 + \alpha_1 \text{ID}_{i,t-1} + \alpha_2 \text{MCAP}_{i,t-1} + \alpha_3 \text{MTB}_{i,t-1} + \alpha_4 12\text{R}_{i,t-1} + \alpha_5 \text{IB}_{i,t-1} \\ & + \alpha_6 \text{TOV}_{i,t-1} + \alpha_7 \text{AGE}_{i,t-1} + \varepsilon_{i,t} \end{aligned} \quad (2)$$

where, $\text{ER}_{i,t}$ is the return minus the risk-free rate of stock i . $\text{ID}_{i,t-1}$ is a dummy variable that equals 1 if the stock is Islamic and 0 if non-Islamic. $\text{MCAP}_{i,t-1}$ is the natural logarithm of the firm's market capitalization. $\text{MTB}_{i,t-1}$ is the natural logarithm of the stock market-to-book ratio, $\text{IB}_{i,t-1}$ is the industry rolling beta for stock i calculated from the previous three years, and $\text{TOV}_{i,t-1}$ is the turnover ratio for stock i for the month t . $12\text{R}_{i,t-1}$ is the average return for stock i in the last 12 months. $\text{AGE}_{i,t-1}$ is the natural logarithm of firm age.³

The coefficient α_1 indicates whether Islamic stocks have higher or lower returns than non-Islamic stocks after controlling for firm-specific characteristics. The null hypothesis is that α_1 equals zero, whereas our expectation is that it will be significantly less than zero.

4.2. Liquidity Differences Tests

To examine whether the demand difference creates monthly liquidity differences between non-Islamic and Islamic stocks, we apply the following panel regression:

$$\text{Liquidity}_{i,t} = \alpha_0 + \alpha_1 \text{ID}_{i,t-1} + \alpha_2 \text{MCAP}_{i,t-1} + \alpha_3 \text{MTB}_{i,t-1} + \alpha_4 12\text{R}_{i,t-1} + \alpha_5 \text{IB}_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

where the dependent variable $\text{Liquidity}_{i,t}$ is the liquidity proxy for stock i at time t . We use five liquidity

³ The natural logarithm of the firm's market capitalization, the stock's market-to-book ratio, and firm age are useful to minimizing the influence of outliers (Galema et al., 2008, Hong and Kacperczyk, 2009).

proxies: $V_{i,t}$ the natural logarithm of the trading volume; $VA_{i,t}$ the natural logarithm of the value of shares traded in local currency; $TOV_{i,t}$ the stock turnover ratio (the monthly trading volume divided by the number of shares outstanding); $ILLIQ_{i,t}$ Amihud's (2002) illiquidity ratio; and $LILLIQ_{i,t}$ Karolyi et al.'s (2012) adjusted form of the illiquidity ratio. $ID_{i,t-1}$ is a dummy variable that equals 1 if the stock is Islamic and 0 otherwise. $MCAP_{i,t}$, $MTB_{i,t}$, $12R_{i,t}$ and $IB_{i,t}$ as previously defined, are firm-specific characteristics that are anticipated to affect stock liquidity (e.g., Amihud 2015).

5. RESULTS

5.1. Abnormal Return Tests

5.1.1. Time-series Tests

The summary statistics for the time-series factors are presented in Table 2. The time-series mean of the excess return for non-Islamic stocks over Islamic stocks (NIMI) indicates that non-Islamic stocks outperform Islamic stocks.

The results for the time-series tests are displayed in Table 3. The results of the time-series CAPM and the three-factor model tests suggest that no return difference exists between non-Islamic and Islamic stocks, after controlling for the fundamental factors applied in the literature.

Since December 28, 2011, Boursa Kuwait has been implementing significant changes in its stock market legal system and micro-structure. On December 28, 2011, Boursa Kuwait declared the enforcement of the Capital Markets Authority (CMA) executive regulations. Further, the change in the stock market micro-structure from a broad-lot to an odd-lot trading system was implemented on May 12, 2012; this change in the trading system may cause significant changes in stocks returns and prices (see, for instance, Hauser2003). When we repeat the test for Kuwait from January 2007 to December 2011 (excluding the period of change in the stock market legal system and micro-structure) in Panel B of Table 3, the CAPM α yields 56 bps a month at the 10% level of significance, and the three-factor model α yields 60 bps a month at the 5% level of significance.

These results suggest that non-Islamic stocks outperform Islamic stocks in Kuwait, supporting Hypothesis 1.

5.1.2. Panel Tests

Table 4 reports our main variables of interest and their corresponding distribution statistics, with mean and median equality tests of the panel regression variables. Both equality tests

The results of the pooling panel are reported in Panel A of Table 5. The results suggest that a significant return difference exists between non-Islamic and Islamic stocks, after controlling carefully for firm-specific factors.

The results in Panel B of Table 5 reveal that we derive a similar conclusion when we repeat the tests with industry dummy variables and by using a cluster-robust variance and covariance estimators to give us more conservative standard errors (Arellano, 2003), and minimize the heteroskedasticity and autocorrelation that may influence the ordinary least squares (OLS) results. Further, when we repeat the tests for 2007–2011

(excluding the changeover period of the market legal system and micro-structure), the results in Table 5 Panel C show that non-Islamic stocks significantly outperform Islamic stocks in all panel regressions.

Almost all of the results for the panel tests are consistent with Hypothesis 1. Specifically, we find evidence that non-Islamic stocks outperform Islamic stocks.

5.2. Liquidity Difference Tests

Table 6 reports our main variables of interest and their corresponding distribution statistics with mean and median equality tests for the liquidity proxies. Our descriptive statistics report that non-Islamic stock have lower liquidity than Islamic stocks.

Following Hypothesis 2, we expect that Islamic stocks should be more liquid than non-Islamic stocks. As shown in Panel A of Table 7, the results of the OLS regressions are consistent with Hypothesis 2. All of the significant liquidity differences, after controlling for firm-specific factors, suggest that non-Islamic stocks are less liquid than are Islamic stocks. Specifically, Islamic stocks have higher and significant V, VA, and TOV than non-Islamic stocks. For ILLIQ, the results are insignificant. Finally, for LILLIQ, the results are significant and reveal that Islamic stocks are more liquid than non-Islamic stocks. We repeat the OLS tests for 2007–2011 (excluding the period of change in the market legal system and micro-structure). Our unreported results show that non-Islamic stocks are significantly less liquid than Islamic stocks for all of our five proxies.

The results in Panel B of Table 7 show that we derive a similar conclusion when we repeat the tests including industry dummy variables and using cluster-robust variance and covariance estimators to provide more conservative standard errors (Arellano, 2003).

Overall, our results support Hypothesis 2 that Islamic stocks attract more investor attention than do non-Islamic stocks.

6. CONCLUSION

Existing research indicates that religion has a significant influence on investor behavior. The question we address in this study is whether Islamic traders' preference of Islamic stocks creates a demand difference between Islamic and non-Islamic stocks. To address this issue, we avail of data from Boursa Kuwait.

In Boursa Kuwait, we find significant returns and liquidity differences between non-Islamic and Islamic stocks. Specifically, non-Islamic stocks are underpriced and have less liquidity relative to Islamic stocks.

Our liquidity results suggest that traders in Boursa Kuwait provide less liquidity to non-Islamic stocks relative to Islamic stocks. Local listed non-Islamic firms may seek to achieve higher liquidity for their stocks by moving to other stock markets in non-Islamic societies or by converting to operate within Islamic laws. Foreign non-Islamic firms may be anxious to get listed in Boursa Kuwait because of the less liquidity provided for their stocks relative to Islamic stocks.

7. APPENDIX: TABLES

This table presents Kuwait religious and stock market indicators. The population and Muslims percentage are based on the PEW 2011 report, "The Future of the Global Muslim Population." The religiosity index

is according to the Gallup Religiosity Index (2010–2014). The total market capitalization as of December 31, 2014 and the average market capitalization for listed firms are from Bloomberg and are in U.S. dollars. The number and percentage of listed Islamic firms as of December 31, 2014, is from Al-Mashora and Al-Raya for Islamic Financial Consultancy.

Table 1
Religious and Market Indicators for Kuwait

	<i>Value</i>
Population (millions)	2.74
Muslims Percentage (%)	86.4
Religiosity Index (%)	91.0
Market Capitalization in US\$ (millions)	101,179
Average Firm Market Capitalization in US\$ (millions)	562
Number of Listed Firms	203
Number of Islamic Firms	62
Percentage of Islamic Firms (%)	31

This table presents the summary statistics for the time-series regression variables for 2007–2014. $NIMI_t$ is the month t return of the non-Islamic portfolio minus that of the Islamic portfolio. MP_t is the month t market risk premium for the stock universe. SMB_t and HML_t are (Fama and French, 1993) size and book-to-market return-mimicking portfolios.

Table 2
Summary Statistics for Time-series Regression Variables

	<i>NIMI (%)</i>	<i>MRP (%)</i>	<i>SMB (%)</i>	<i>HML (%)</i>
Mean	0.17	−0.36	−0.36	1.02
St. dev.	0.03	0.06	0.05	0.06

This table reports the coefficients of the portfolio long non-Islamic and short Islamic stocks ($NIMI$) from 2007–2014. MP is an equally weighted market risk premium. SMB is the portfolio that mimics the return difference between the stocks of small and large market capitalization companies. HML is the portfolio that mimics the return difference between high and low book-to-market stocks. The standard errors are in brackets and have been adjusted for serial correlation using the Newey-West correction.

Table 3
Return Time-series Regression Tests

	α	<i>MP</i>	<i>SMB</i>	<i>HML</i>
Panel A: 2007–2014				
(1)	0.001 (0.003)	−0.278*** (0.051)		
(2)	0.000 (0.003)	−0.281*** (0.047)	−0.188*** (0.050)	
(3)	0.002 (0.003)	−0.199*** (0.048)	−0.235*** (0.048)	−0.185*** (0.045)

	α	MP	SMB	HML
Panel B: 2007–2011				
(1)	0.005* (0.003)	-0.175*** (0.053)		
(2)	0.005* (0.003)	-0.194*** (0.049)	-0.166*** (0.051)	
(3)	0.006** (0.003)	-0.135*** (0.059)	-0.193*** (0.049)	-0.140*** (0.047)

*** 1 %; ** 5%; * 10% level of significance.

This table presents the summary statistics for the panel regression variables for 2007–2014. The mean is the time-series average of the means, median is the time-series median of the means, and st. dev. is the time-series average of the standard deviations. $MCAP_{i,t}$ is the monthly natural logarithm of the firm market capitalization in local currency in thousands, $MTB_{i,t}$ is the monthly natural logarithm of the stock’s market-to-book ratio, $IB_{i,t}$ is the rolling beta for the industry to which firm i belongs (calculated at month t on the basis of the previous 36 months), $TOV_{i,t}$ is stock i ’s turnover ratio for month t , $12R_{i,t}$ is stock i ’s average monthly return for the previous 12 months, and $AGE_{i,t}$ is the natural logarithm of the firm’s age calculated on a monthly basis. Panel A reports the mean, median, and standard deviation of the panel regression variables for the overall market data. Panel B reports the mean equality test between Islamic and non-Islamic stocks for the panel regression variables, and the p -values of the (t -test) correspond to a standard test for equality. Panel C reports the median equality test between Islamic and non-Islamic stocks for the panel regression variables, and the p -values correspond to a Wilcoxon–Mann–Whitney signed rank median test.

Table 4
Summary Statistics for Return Panel Regression Variables

	EXR (%)	MCAP (000’)	MTB	12R (%)	IB	TOV (%)	AGE
<i>Panel A: Mean, Median, and St. Dev.</i>							
Mean	-0.37	10.91	-0.10	-0.01	1.11	7.36	7.93
Median	0.20	10.77	-0.22	-0.11	1.08	6.02	7.91
St. dev.	0.06	0.34	0.31	0.02	0.09	0.04	0.30
<i>Panel B: Mean Equality Test</i>							
Islamic	-0.49	10.69	-0.20	-0.25	1.14	11.30	7.50
Non-Islamic	-0.32	10.99	-0.06	0.08	1.09	5.90	8.09
P-value	(0.81)	(0.00)	(0.00)	(0.47)	(0.00)	(0.00)	(0.00)
<i>Panel C: Median Equality Test</i>							
Islamic	0.06	10.59	-0.33	-0.19	1.10	8.93	7.57
Non-Islamic	0.25	10.87	-0.16	0.00	1.08	4.91	8.04
P-value	(0.84)	(0.00)	(0.00)	(0.52)	(0.00)	(0.00)	(0.00)

This table reports the coefficients of the panel regressions for 2007–2014. The dependent variable $EXR_{i,t}$ is the monthly return net of the risk-free rate for stock i in month t , and $ID_{i,t}$ is the dummy variable equal to 1 if the stock is Islamic and 0 otherwise. $MCAP_{i,t}$ is the monthly natural logarithm for the market

capitalization of firm i ; $MTB_{i,t}$ is the monthly natural logarithm of the stock market-to-book ratio; $12R_{i,t}$ is stock i 's average monthly return for the previous 12 months; and $IB_{i,t}$ is the rolling beta for the industry to which firm i belongs, calculated at month t on the basis of the previous 36 months. $TOV_{i,t}$ is stock i 's turnover ratio for month t , and $AGE_{i,t}$ is the natural logarithm of the firm's age. The standard errors are in parentheses.

Table 5
Return Panel Regression Tests

	<i>ID</i>	<i>MCAP</i>	<i>MTB</i>	<i>12R</i>	<i>IB</i>	<i>TOV</i>	<i>AGE</i>
<i>Panel A: OLS 2007–2014</i>							
(1)	-0.001 (0.003)	0.004*** (0.001)					
(2)	-0.001 (0.003)	0.001* (0.001)	0.007*** (0.001)				
(3)	-0.001 (0.003)	0.002* (0.001)	0.007*** (0.001)	-0.079** (0.026)			
(4)	-0.001 (0.003)	0.002 (0.001)	0.007* (0.001)	-0.080*** (0.026)	0.004*** (0.004)		
(5)	-0.009*** (0.003)	0.004*** (0.001)	0.007*** (0.001)	-0.173*** (0.026)	-0.003 (0.004)	0.160*** (0.006)	
(6)	-0.007*** (0.003)	0.003*** (0.001)	0.008*** (0.001)	-0.175*** (0.026)	-0.002 (0.004)	0.160*** (0.006)	0.004*** (0.001)
<i>Panel B: Industry Fixed Effect & Robust Standard Errors</i>							
(1)	0.000 (0.002)	0.005*** (0.001)					
(2)	0.000 (0.002)	0.003*** (0.001)	0.007*** (0.002)				
(3)	0.000 (0.002)	0.003*** (0.001)	0.007*** (0.002)	-0.088*** (0.032)			
(4)	0.000 (0.002)	0.003*** (0.001)	0.007*** (0.002)	-0.107*** (0.034)	0.037*** (0.008)		
(5)	-0.008** (0.004)	0.005*** (0.001)	0.007*** (0.003)	-0.208*** (0.037)	0.040*** (0.008)	0.163*** (0.019)	
(6)	-0.006 (0.004)	0.004*** (0.001)	0.007*** (0.003)	-0.208*** (0.038)	0.041*** (0.008)	0.163*** (0.019)	0.003** (0.002)
<i>Panel C: OLS 2007–2011</i>							
(1)	-0.007** (0.003)	0.006*** (0.001)					
(2)	-0.007** (0.003)	0.003*** (0.001)	0.010*** (0.001)				
(3)	-0.008** (0.003)	0.004*** (0.001)	0.011*** (0.002)	-0.175*** (0.036)			

	ID	MCAP	MTB	12R	IB	TOV	AGE
(4)	-0.008** (0.003)	0.004*** (0.001)	0.011*** (0.001)	-0.175*** (0.036)	0.009*** (0.006)		
(5)	-0.013*** (0.003)	0.005*** (0.001)	0.011*** (0.001)	-0.204*** (0.035)	0.005*** (0.005)	0.139*** (0.008)	
(6)	-0.012*** (0.003)	0.005*** (0.001)	0.011*** (0.001)	-0.203*** (0.035)	0.005*** (0.006)	0.139*** (0.008)	-0.001*** (0.002)

*** 1 %, ** 5%, and * 10% denote levels of significance.

This table presents summary statistics for the liquidity variables for 2007–2014. The mean is the time-series average of means, the median is the time-series median of means, and st. dev. is the time-series average of standard deviations. The liquidity ratios have been calculated in local currencies (which does not affect our analysis because we are comparing portfolios within countries). $V_{i,t}$ is the natural logarithm of the trading volume for stock i in month t , $VA_{i,t}$ is the natural logarithm of the volume in local currency, ILLIQ is Amihud’s (2002) illiquidity ratio, and LILLIQ is karolyi2012understanding’s (karolyi 2012 understanding) illiquidity ratio. Panel A reports the mean, median, and standard deviation (st. dev.) of the panel regression variables for the overall market data. Panel B reports the mean equality test between Islamic and non-Islamic stocks for the panel regression variables and the p -values of the (t -test) correspond to a standard test for equality. Panel C reports the median equality test between Islamic and non-Islamic stocks for the panel regression variables and the p -values correspond to a Wilcoxon–Mann–Whitney signed rank median test.

Table 6
Summary Statistics for Liquidity Variables

	V	VA	$ILLIQ$	$LILLIQ$
<i>Panel A: Mean, Median, and St. Dev.</i>				
Mean	15.13	13.46	852.19	0.78
Median	15.03	13.22	2.29	0.65
St. dev.	0.56	0.88	2145.19	0.42
<i>Panel B: Mean Equality Test</i>				
Islamic	15.94	13.89	833.80	0.65
Non-Islamic	14.82	13.29	860.98	0.83
P-value	(0.00)	(0.00)	(0.36)	(0.02)
<i>Panel C: Median Equality Test</i>				
Islamic	15.88	13.72	2.41	0.59
Non-Islamic	14.79	13.17	2.33	0.64
P-value	(0.00)	(0.00)	(0.31)	(0.02)

This table reports the coefficients of the panel regressions for 2007–2014 for the liquidity proxies. The dependent variables are the liquidity proxies; $V_{i,t}$ is the natural logarithm of the trading volume; $VA_{i,t}$ is the natural logarithm of the amount in local currency; and $TOV_{i,t}$ is the stock turnover ratio calculated as the monthly trading volume divided by the number of shares outstanding. ILLIQ is the illiquidity ratio of (Amihud, 2002) and LILLIQ is the adjusted form of Amihud’s (2002) illiquidity ratio. The independent variables are firm-specific factors and ID is a dummy variable equal to 1 if the stock is Islamic, and 0 otherwise. The standard errors are in parentheses.

Table 7
Liquidity Regression Tests

	<i>ID</i>	<i>MCAP</i>	<i>MTB</i>	<i>12R</i>	<i>IB</i>
<i>Panel A: OLS</i>					
V	1.252 ^{***} (0.045)	0.769 ^{***} (0.015)	-0.499 ^{***} (0.017)	1.228 ^{***} (0.461)	1.938 ^{***} (0.070)
VA	0.888 ^{***} (0.042)	1.133 ^{***} (0.013)	-0.239 ^{***} (0.015)	2.952 ^{***} (0.424)	1.282 ^{***} (0.065)
TOV	0.052 ^{***} (0.003)	-0.011 ^{***} (0.001)	-0.003 ^{**} (0.001)	0.551 ^{***} (0.034)	0.046 ^{***} (0.005)
ILLIQ	-164.045 (241.882)	-791.534 ^{***} (78.767)	85.449 (87.289)	3585.254 (2475.722)	-614.566 [*] (373.231)
LILLIQ	-0.269 ^{***} (0.023)	-0.353 ^{***} (0.007)	0.085 ^{***} (0.008)	-0.914 ^{***} (0.231)	-0.397 ^{***} (0.035)
<i>Panel B: Industry Fixed Effect & Robust Standard Errors</i>					
V	1.205 ^{***} (0.278)	0.770 ^{***} (0.095)	-0.492 ^{***} (0.105)	2.078 (1.309)	0.379 (0.302)
VA	0.905 ^{***} (0.241)	1.188 ^{***} (0.081)	-0.249 ^{***} (0.068)	3.091 ^{**} (1.210)	0.693 ^{**} (0.299)
TOV	0.053 ^{***} (0.018)	-0.009 ^{***} (0.005)	-0.003 (0.003)	0.582 ^{***} (0.110)	-0.011 (0.017)
ILLIQ	-318.155 (383.839)	-979.085 ^{***} (209.030)	105.092 [*] (59.223)	4073.504 [*] (2365.488)	-434.278 (671.754)
LILLIQ	-0.298 ^{***} (0.088)	-0.397 ^{***} (0.036)	0.090 ^{***} (0.024)	-0.963 (0.661)	-0.104 (0.114)

*** 1%, ** 5%, and * 10% denote levels of significance.

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