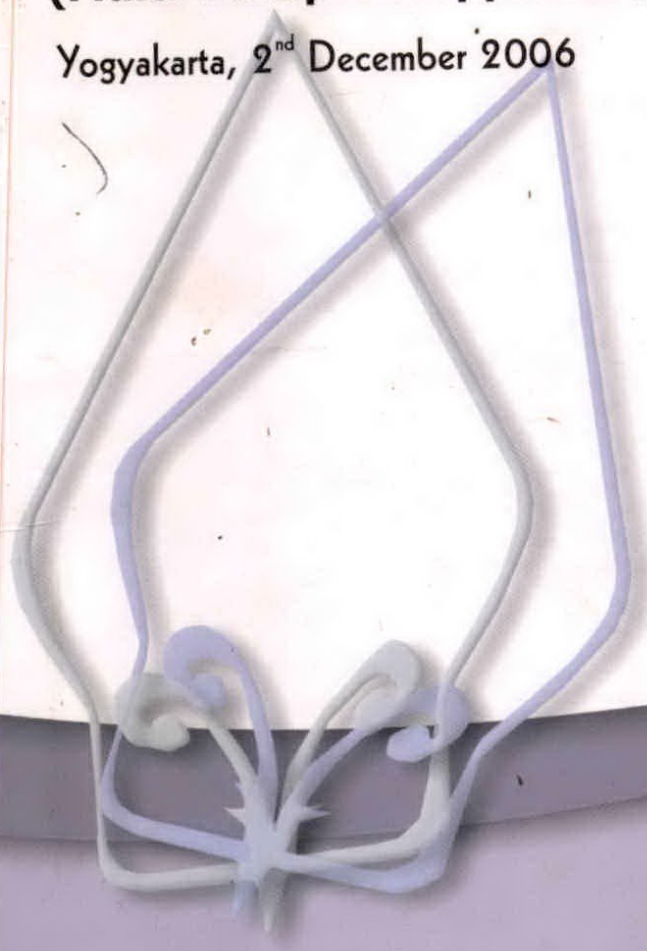


Proceeding

International Joint Seminar

**Muslim Countries and Development :
Achievements, Constraints and Alternative Solutions
(Multi-Discipline Approach)**

Yogyakarta, 2nd December 2006



Organized by:



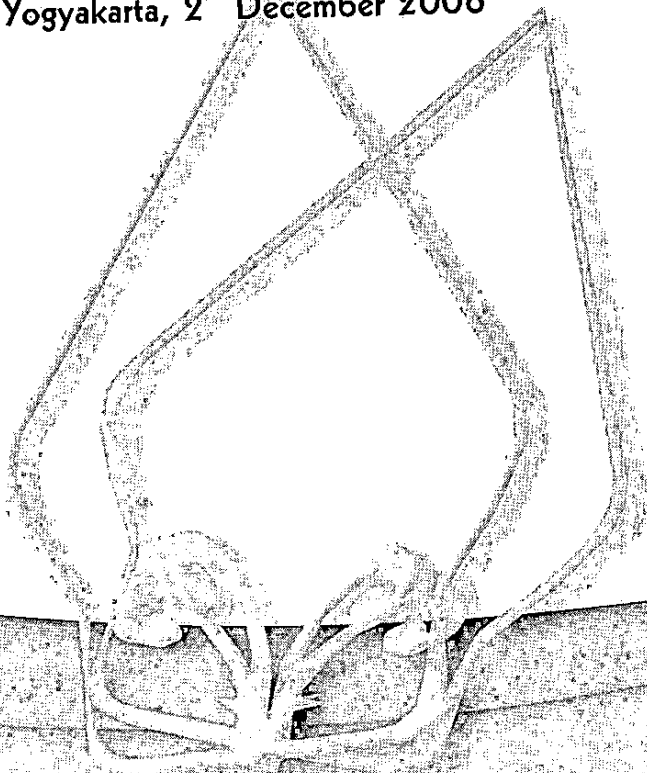
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Organized by:



Universitas
Muhammadiyah
Yogyakarta



International
Islamic
University
Malaysia



Education and
Cultural Attache
Embassy of The Republic
Indonesia in Malaysia

**MESSAGE FROM THE RECTOR OF
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA (UMY)**

Assalamu'alaikum warahmatullahi wabarakatuh

All praise be to Allah SWT, Lord of the world. Peace and blessings on Muhammad SAW, His Servants and Messenger.

First of all, as the rector of Universitas Muhammadiyah Yogyakarta (UMY), I would like to welcome to the honourable guests, Rector, Dean of Postgraduate Studies (CPS), Dean of ISTAC, Dean of IRKHS, Deputy Deans and Head Departments from various Kulliyah, lecturers, postgraduate students of International Islamic University Malaysia (IIUM), and all participants in this joint seminar.

Academic cooperation between UMY and IIUM started several years ago. The cooperation between us is based on a solid foundation; both us are Islamic universities having same missions to develop Islamic society, to prepare future generations of Islamic intellectuals, and to cultivate Islamic civilization. In fact, improving academic quality and strengthening our position as the producers of knowledge and wisdom will offer a meaningful contribution to the development of Islamic civilization. This responsibility is particularly significant especially with the emergence of the information and knowledge society where value adding is mainly generated by the production and the dissemination of knowledge.

Today's joint seminar signifies our attempts to shoulder this responsibility. I am confident to say that this joint program will be a giant step for both of us to open other pathways of cooperation. I am also convinced that through strengthening our collaboration we can learn from each other and continue learning, as far as I am concerned, is a valuable ingredient to develop our universities.

I sincerely wish you good luck and success in joining this program

Wassalamu'alaikum Wr, Wb.

Dr. Khoiruddin Bashori

Rector, UMY

**MESSAGE FROM THE RECTOR OF
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (IIUM)**

Assalamu'alaikum warahmatullahi wabarakatuh

In the name of Allah, the most Gracious and the most Merciful. Peace and blessings be upon our Prophet Muhammad (S.A.W).

First and foremost, I felt honoured, on behalf of the university to be warmly welcomed and to be given the opportunity to work hand in hand, organizing a respectable conference. Indeed, this is a great achievement towards a warmer bilateral tie between the International Islamic University Malaysia (IIUM) and Universitas Muhammadiyah Yogyakarta (UMY) after the MoU Phase.

I would also like to express my heartfelt thanks to Centre for Postgraduate Studies (CPS), Postgraduate Students Society (PGSS), contributors, paper presenters, participants and our Indonesian counterpart for making this program a prestigious event of the year.

This educational and cultural visit is not only an avenue to foster good relationship between organizations and individuals and to learn as much from one another but a step forward in promoting quality graduates who practices their ability outdoor and master his or her studies through first hand experience. The Islamic platform inculcated throughout the educational system namely the Islamization of knowledge, both theoretical and practical, will add value to our graduates. This comprehensive excellent we strived for must always be encouraged through conferences, seminars and intellectual-based activities in line with our lullaby: The journey of a thousand miles begin by a single step, the vision of centuries ahead must start from now.

My utmost support is with you always. Looking forward to a fruitful meeting.

Ma'assalamah

Wassalamu'alaikum Wr, Wb.

Prof. Dato' Dr. Syed Arabi Iddid

Rector, IIUM

**MESSAGE FROM EDUCATION AND CULTURAL ATTACHE
EMBASSY OF THE REPUBLIC OF INDONESIA
KUALA LUMPUR**

Assalamu 'alaikum warahmatullahi wabarakatuh

All praise be to Allah SWT. This is the moment where implementation of MoU between Universitas Muhammadiyah Yogyakarta (UMY) and International Islamic University Malaysia (IIUM) comes in the form of action by organizing this Joint Seminar. The efforts of both sides to implement the MoU are highly appreciated, especially, in the context of which both universities effort to enhance the quality of education.

Substantially, I believe that this Joint Seminar will bring many benefits. In term of the development of knowledge, it is a means for developing academic quality, for exchanging of information on academic development, as well as for constructing intellectual atmosphere at both universities. In term of international relations, both universities have taken part in increasing close relationship between Malaysia and Indonesia. RUM and UNY as well are using 'soft power' to increase bilateral relations among citizens which brings a lot of benefits for both nations.

Therefore, I hope that both RUM and UMY can make use of this program as a 'kick-off' for other programs in the future, especially in using UMY's vast networks with other Muhammadiyah Universities in various cities in Indonesia as well as IIUM's network. The support of IIUM for UMY also means a progress for IIUM and UMY. I hope such joint program will continue in future for betterment of both Indonesia and Malaysia. Embassy of the Republic of Indonesia in Kuala Lumpur will always support these efforts.

To our honorable guests, Rector, Dean of Postgraduate Studies (CPS), Dean of ISTAC, Dean of IRKHS, Deputy Deans and Head Departments from various Kulliyah, lecturers and students of IIUM, I warmly welcome you to Yogyakarta. I hope you enjoy your stay in the cultural city of Yogyakarta.

Finally, as the Attache of Education and Cultural, Embassy of the Republic of Indonesia, Kuala Lumpur, I sincerely wish you good luck *and a successful program with unforgettable memories.*

*Wabillahit Taufiq Wal Hidayah
Wassalamu 'alaikum warahmatullahi wabarakatuh.*

M.Imran Hanafi

Education and Cultural Attache, Embassy of the Republic of Indonesia

MESSAGE FROM DEAN CENTRE FOR POSTGRADUATE STUDIES

Assalamu'alaikum warahmatullahi wabarakatuh

Praise be to Allah. May the peace and blessings of Allah be on the last prophet and messenger, our master Muhammad and on his household and companions. It is a great privilege for me to foreword this message to this wonderful event that is jointly organized by the Universitas Muhammadiyah Yogyakarta (UMY) and International Islamic University (IIUM).

First and foremost I would like to record my special gratitude to management of Universitas Muhammadiyah Yogyakarta for their co-operation.

In order to obtain comprehensive excellence, the Centre for Postgraduate studies has always facilitates postgraduate students of the university to achieve the highest quality in their academic work. This seminar is one of the many programs that Centre for postgraduate studies has to ensure quality graduates.

I would therefore like to thank all the participants and programme coordinators who have worked hard to realize this event.

May Allah SWT shower His blessing upon us.

Wassalamu'alaikum Wr, Wb.

Prof. Dato' Dr. Wan Rafei Abdul Rahman
Dean, Centre For Postgraduate Studies

**MESSAGE FROM THE ACTIVE
PRESIDENT OF POSTGRADUATE STUDENTS'**

Assalamu'alaikum warahmatullahi wabarakatuh

On behalf of Postgraduate Students' Society (PGSS), my gratitude and appreciation to our beloved Dean of Studies, the Embassy of Indonesia in Kuala Lumpur, Muhammadiyah Yogyakarta and the organizing committee of IIUM and the Universitas Muhammadiyah Yogyakarta for their huge success. Postgraduate Students' Society (PGSS) under the supervision of the Center for Postgraduate Studies (CPG) is pleased to host this event.

As I strongly believe that the initial stages of unity are the key to building the new generation, who will represent the future more, such programs, not only achieve the mission of our universities but to achieve the global mission and vision. Therefore, I believe today, we have to have understanding and then only we can appreciate our diverse cultures. We should acknowledge the different strengths and weaknesses through knowledge in this age of information. I am sure this joint seminar will initiate unity among the future leaders along with integrating them.

Thank you,

Mohd Nabi Habibi

Active President Postgraduate Students' Society (PGSS)

MESSAGE FROM PROGRAM DIRECTOR

Assalamu'alaikum warahmatullahi wabarakatuh.

Praise be to Allah. May the peace and blessings of Allah be on the last Prophet and Messenger, our master Muhammad and on his household and companions.

Honestly speaking, we are pleased to be trusted by Postgraduate Students' Society (PGSS) and Centre for Postgraduate Studies (CPS) to organize the programme named Educational and Cultural Visit to Yogyakarta, Indonesia. For this, We express our gratitude to the management of both PGSS and CPS. This programme is of immense value. It has the potentials to promote intellectual endeavor, develop leadership capabilities and enrich cross-cultural understandings. We sincerely believe and hope that program of this kind will be organized in a regular fashion in future.

It is a great privilege for us to play twofold role in organizing this event: *as a host* and *as guest*. In fact, this is a fascinating experience to manage this event. Since our inception here, we have found meaningful interaction of students in an interweaving of cultures into complicated, yet beautiful, embroidery of social fabric. We are proud to say that this dearly loved university has produced graduates of high quality, who are distinct from those of the local universities.

Finally, we wish to express our special thanks to Bapak M.Imran Hanafi, Education and Cultural Attache of Indonesian Embassy, Bapak Herdaus, S.H., Assistant of Immigration Attache of Indonesian Embassy, Bapak Tharian Taharuddin for their immensely valuable assistance and co-operation in making this program a success. I sincerely appreciate all local committees at Yogyakarta, the colleagues and program coordinators and committee members who worked diligently to materialize this event. We wish to pass on good wishes to the PGSS for their valuable efforts it expended for this event.

May Allah s.w.t shower His blessing upon us.

Wassalam,

Nasrullah

Programme Director

Todi Kurniawan

Co-Programme Director

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Market Integration and Dynamic Linkages Between Shariah-Compliance Stocks and Interest Rate: Empirical Evidence on The Kuala Lumpur Syariah Index (KLSI) Malaysia

Muchamad Imam Bintoro
University of Muhammadiyah Yogyakarta

Abstract

This paper aims to explore the interdependence and dynamic linkages between the Syariah compliant stocks available in the Bursa Malaysia and interest rate, which is supported by the bivariate cointegration technique. The most objectives of this paper are two fold. Understanding the interdependence and dynamic linkages between the Syariah compliant stocks and interest rate may reveal the long run relationship between them, in this paper we employ the Kuala Lumpur Syariah Index (KLSI) and 3 month T-bill as objects of the study. The KLSI, which is used as a representation of the Syariah compliant stocks, is the index that aims to meet the demands of local and foreign investors who seek to invest in securities, which are consistent with the principles of Syariah. The index, which was launched at April 17, 1999, is a weighted-average index comprising the securities of Main Board companies in the Kuala Lumpur Composite Index (KLCI). In addition, we utilized 3 month T-bill as a representation of the Malaysian interest rate. The valuable data used in this study consists of monthly closing prices of the Kuala Lumpur Syariah Index (KLSI) and 3 month T-bill from the period of September 2003 till September 2005. All of the data are obtained from Bloomberg Database and the Bank Negara Malaysia website.

Introduction

The interdependence and integration of financial markets have received much attention in the area of economics and finance. Issues discussed are mainly centred on two main aspects: the integration of international financial markets (for examples Arshanapalli et al., 1995; Masih and Masih, 1997, 1998, 1999, 2002; Narayan, et al.; 2004; Sabri, 2005; Mansor, 2005) and the interrelationships between financial market and any two or more macro economic variables, such as stock price and trading volume (Basci et al., 1996), stock price and exchange rate (Ying Wu, 2000), stock price and monetary policy (Mansor, 2000; Rosylin, 2003), and inter-counter stock linkage (Idris, et al., 2004), etc.

Despite numerous studies on market integration as discussed above, the study which utilised integration between Islamic capital market and interest rate is relatively inadequate especially as the Islamic stock markets, considering the vast growing and increasing investment opportunities there. Based on previous studies, almost all of the market integration studies tend to focus on the conventional or interest-based market rather than focusing on Islamic market as object of study.

Although some researchers have started to realise the importance of Islamic stock market (for examples Sabri, 2005; Mansor, 2005), more studies are needed to document these new emerging market in order to give information to investors and other investment institutions who want to place their funds into this market. Therefore, in order to fill the gap in the studies of market integration between sharia-compliance stocks market and interest rate, this study is then, undertaken.

Data

The data used in this study are in the form of composite rather than individual sharia-compliance stocks. Other market cointegration researches like Basci (1996), Masih and Masih (1997, 1998, 1999, 2002), Ying Wu (2000), Hakim (2002), Narayan, et al., (2004), Sabri (2005), Mansor (2005) supported of the use of composite indices data. Furthermore, Shiller (1988 in Rosylin, 2003) reasoned that composite data is better than individual stocks. The individual stocks normally do not last very long, since separate entities are doing a certain kind of business. They may be acquired by other companies or acquire other companies in different line of business. Even with no mergers or acquisitions, the nature of the business of a particular company engages in may change through the years. Therefore, it is unlikely that we expect to see a stable structure of individual stock over long periods of time.

In this study we employ monthly closing price data of the sharia-compliance stock in Malaysia (represented by KLSI) and KLIBOR (Kuala Lumpur inter-bank Offering rate/KLIBOR) over the period of September 2003 to December 2005. We prefer monthly other than daily data in order to avoid high noise and the problem of weekly effect, which is usually inherent in daily and weekly based data. As asserted by Mansor (2005) that the high frequency data such as daily data contain too much noise and are subject to the problem of non-synchronous and in-frequent trading, which might lead to erroneous conclusions in the lead-lag relationships among the variables. Moreover, the problem of day-of-the-week effects is generally inherent in the daily data.

Methodology

To identify market integration and dynamic linkages between sharia-compliance stock and interest rate Islamic, this study employs cointegration analysis. This method is based on a number of crucial steps. First and prior to testing for cointegration, properties of individual time series are investigated by applying the Augmented Dickey- Fuller (ADF) and the Phillip-Perron (PP) unit root tests.

Secondly, Johansen (1988) and Johansen and Juselius (1990) or JJ maximum likelihood method, will be applied to examine the cointegration in a bivariate setting.

$$X_t = \mu + \Pi_1 X_{t-1} + \dots + \Pi_k X_{t-k} + e_t \dots \dots \dots (1)$$

Where X_t is an $n \times 1$ vector of non-stationary variables integrated of the same order, μ is an $n \times 1$ vector of intercept terms, Π_t is an $n \times n$ matrix of coefficients and e_t is an $n \times 1$ vector of error terms assumed to be white noise. Equation (1) can be equivalently written as:

$$\Delta X_t = \mu + \Gamma_1 \Delta X_{t-1} + \dots + \Gamma_k \Delta X_{t-k+1} + \Pi X_{t-k} + e_t \dots \dots \dots (2)$$

The presence of a long-run relationship among equity prices is tested based on the rank of an $n \times n$ matrix of coefficients of lagged level variables, Π , in (4.2). If $\text{rank}(\Pi) = 0$, then the variables are non-stationary and they are not cointegrated. However, if $\text{rank}(\Pi) = r$ and $r < n$, then the variables share cointegrating vectors (Mansor, 2005).

In order to determine the number of cointegrating vectors, the JJ method employs two tests namely the Trace Statistic (TS) and the Maximal Eigenvalue (ME) statistics. By comparing the TS and ME with the t-statistic value (in 1%, 5% and 10%) we can determine whether we reject or accept null hypothesis of no cointegration ($r = 0$). If the TS and ME exceeds the t-statistic, then, we will reject the null hypothesis and conclude that there exists a long-run relationship among variables in this vector.

In this study, we intend to explore the sharia-compliance stock and interest rate by using bivariate cointegration technique. Based on the bivariate model, the possible of cointegration vectors employed in this study can be written as follows:

$$\begin{aligned} [\text{LKLSI, KLIBOR}] & \dots \dots \dots (3) \\ [\text{KLIBOR, LKLSI}] & \dots \dots \dots (4) \end{aligned}$$

In addition, we chose lag length structure in the model (4.4) and (4.5) on the basis of Akaike Information Criterion (AIC) procedure as explained in the previous section. The existence of cointegration among variables in the model indicates that there exists the long-run equilibrium relationship among variables.

Result

Descriptive Statistics

In this section we will explain the descriptive statistics for all variables used in this study including analysis of mean, standard deviation, skewness, kurtosis, and Jarque-Bera statistics. Summary of all descriptive statistics is provided in table 1 below.

The central tendency of data that is measured by the mean coefficient indicates that the variable of LKLSI and KLIBOR centralized on 4.871778 and 2.8416 respectively. Moreover, the maximum and minimum values of LKLSI and KLIBOR is recorded at 2.94 - 2.79, implying the spread of 0.15 and 5.366163 - 4.727476, implying the spread of 0.638687. In addition, the KLIBOR has the higher standard deviation (0.111062) than the LKLSI (0.038479). In addition, based on skewness, kurtosis, and Jarque-Berra coefficient, all variables indicate non-normal distribution; which are consistent with critical finding of Cheng (2000), Rosylin (2003) and Sabri (2005).

Table 1
Summary Statistics

	LKLSI	KLIBOR
Mean	2.8416	4.871778
Median	2.85	4.853123
Max	2.94	5.366163
Min	2.79	4.727476
SD	0.038479	0.111062
skewness	0.466738	3.62593
kurtosis	2.740955	17.18858
Jarque-Berra	0.977584	264.4846
Probability	0.613367	0
observation	25	25

Notes: *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Unit Root Tests

To test the level of integration of variables that are used in this study, two well-known unit root tests namely Augmented Dickey-Fuller (ADF) and the Philips Perrons (PP) tests are employed. The aims of these tests are to determine whether the variable follows a stationary trend in data levels (denoted as $I(0)$) or non-stationary trend and integrated in upper levels (for example in order of 1, denoted as $I(1)$, in order of 2, denoted as $I(2)$, etc.).

The summary of unit root test is presented in table 2 and 3 below. We estimate both tests with trend and no trend. Column 1 and 2 present the results for the data levels and column 3 and 4 report the results for their first differences data of each test.

From the table 2 and 3 below it appears that at the data levels, both ADF and PP tests indicate that all series (LNKLSI and KLIBOR) are non-stationary or cannot reject the null hypothesis even at 10% significance level both in trend and no trend. Accordingly, in order to avoid any spuriousness in our test, we continue our analysis to take the first difference of data level.

According to ADF and PP results for the first differences data as they are shown in tables below, all variables are integrated in order of 1 or denoted $I(1)$. Consequently, since the results from integration tests suggest the possibility of a long-run relationship among the variables, we proceed to investigate whether the series is cointegrated by applying Johansen (1988) and Johansen and Juselius (1990) cointegration tests which will be explained in next section.

Table 2
Augmented Dickey Fuller (ADF) Unit Root Test

Variables	Level		First Different	
	with trend	no trend	with trend	no trend
LNKLSI	-3.083013***	0.130047	-4.937287***	-5.157955***
KLIBOR	-1.057791	0.053660	-4.282911	-4.081577***

Notes: *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Table 3
Philips-Perrons (PP) Unit Root Test

Variables	Level		First Different	
	with trend	no trend	with trend	no trend
LNKLSI	-4.589025***	0.300135	-8.715572***	-9.123078***
KLIBOR	-1.369559	-0.019168	-5.620828***	-5.508568***

Notes: *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Bivariate Cointegration Test

Having determined that each of the series is stationary, we will then proceed to examine whether there exists some long-run relationship among variables by using cointegration test.

We investigate the cointegration among variables via bivariate models using Johansen (1988) and Johansen and Juselius (1990) or JJ maximum likelihood estimation. These estimations basically based on the comparison between trace statistic (TS) and maximal eigenvalue (ME) with t-statistic at particular critical values. If TS and ME exceeds the t-statistic, then we can reject the null hypothesis of no cointegration ($r = 0$) and state long-run relationship among variables in the model.

We present the result of JJ test in table 4 below. It is interesting to note that based on comparison between the TS and ME with critical values, the results indicate that there is no cointegrating vectors at 1%, 5% and, even 10% critical values within two pre-determined models i.e. model 1 and 2. From these results, we conclude that there is no cointegrating vector governing the long-run relationship among variables. Since the variables are KLSI and KLIBOR, thus, it can be concluded that there is an absent of long-run relationship between sharia-compliance stocks and interest rate for the sample period. This interesting result conforms well to those documented by Hamdia (2004). By using cointegration and supported by Vector-Error Correction Model (VECM), Hamdia (2004) indicated that there is no evidence for long-run co-movement among KLSI, KLCI and 3 month 3 T-bill. Hakim and Rashidian (2002) also concluded that there is no long-run relationship between sharia-compliance stocks, represented by Dow

Jones Islamic Market Index (DJIMI), and interest rate, represented by US 3 month Tbill in case on the Dow Jones Market Index (DJMI).

The absent of cointegration between KLSI and KLIBOR need to be highlighted. To elaborate on this observation, we note that while the two indexes may be temporarily correlated, the evidence suggests they are not cointegrated in the long-run. To better understand this point, one can think of exogenous variables which may impact one index but not the other. In addition, by construction, interest rates are likely to have much less impact on the KLSI to the extent that the *Syariah* Advisory Council (SAC) of Securities Commission of Malaysia excludes all companies which derive more than 10 % of their revenue from interest income.

Table 4
Bivariate Cointegration Test

Model	Null Hypothesis	TS	5% Critical Values	1% Critical Values	Results
1	$r \leq 0$ $r \leq 1$	12.58957 2.499922	25.32 12.25	30.45 16.26	TS and ME indicate no cointegration equation at 1%, 5% and 10%.
2	$r \leq 0$ $r \leq 1$	12.18027 2.193088	15.41 3.76	20.04 6.65	TS and ME indicate no cointegration equation at 1%, 5% and 10%.

Conclusion

The objective of this paper is to explore the interdependence and dynamic linkages between the *Syariah* compliant stocks available in the Bursa Malaysia and interest rate, which is supported by the bivariate cointegration technique. Understanding the interdependence and dynamic linkages between the *Syariah* compliant stocks and interest rate may reveal the long run relationship between them, and, at the same time, help to identify the pattern of Moslem and other ethical aware investors' behavior in relation with interest rate.

By using Johansen (1988) and Johansen and Juselius (1990) or JJ maximum likelihood estimation we conclude that there is no cointegrating vector governing the long-run relationship sharia-compliance stocks and interest rate for the sample period. This interesting finding might be caused by the screening process which removes all companies which derive more than 10% of their revenue from interest rate.

Bibliography

- Arshanapalli, B, John, D., & Larry H.P.L., (1995), Pre and post-October 1987 stock market linkage between U.S and Asian markets, *Pacific-Basin Finance Journal*, 3,57-73.
- Basci, E., Ozyildirim, S & Aydogen, K., (1996), A note on price-volume dynamics in emerging stock market, *Journal of Banking & Finance*, 20, 389-400.
- Cheng, Hwahsin, (2000), *Cointegration test for equity market integration: the case of China Economic Area (Mainland China, Hong Kong, and Taiwan), Japan, and the United States*, PhD Dissertation, the School of Business of Public Management of the George Washington University, Washington, D.C., Ann Arbor, Michigan: UMI Dissertation Services, A Bell & Howell Company.
- Granger, C. W. J., (1986), Developments in the study of cointegrated economic variables, *Oxford Bulletin of Economics and Statistics*, 48, 213-228.
- Gujarati, D.N., (2003), *Basic econometrics*, forth edition, New York:McGraw-Hill/Irwin.
- Hamdia Chapakiya (2004), Islamic stock returns in Malaysia: an empirical analysis, *Master Research Paper*, Kulliyah of Economics and Management Sciences, International Islamic University Malaysia.
- Hakim, Sam & Rashidian, Manochehr, (2002), Risk & return of Islamic stock market indexes, http://www.erf.org.eg/9th%20annual%20conf/9th%20conference_main.asp.
- Henry, David, F. & Juselius, K., (2000), Explaining cointegration analysis: part II, *The Energy Journal*, 22(1).
- Idris, F., & Cheong, T.T., (2004), Inter-counter linkage in Kuala Lumpur stock exchange returns, *Sunway College Journal*, 1, 21-27.
- Johansen, S., (1988), Statistical analysis of cointegration vectors, *Journal of Economic Dynamics and Control*, 12, 231-254.
- Johansen, S., & K. Juselius, (1990), Maximum likelihood estimation and inference on cointegration-with application to the demand for money, *Oxford Bulletin of Economics and Statistics*, 52, 169-210.
- Mansor H.Ibrahim, (2000), Real economic activity and stock prices in a small developing economy: the case of Malaysia, *Gadjah Mada International Journal of Business*, 2(2), 151-161.

- Mansor H.Ibrahim, (2003), Macroeconomic forces and capital market integration: a VAR analysis for Malaysia, *Journal of the Asia Pasific Economic*, 8(1):19-40.
- Mansor H.Ibrahim, (2005), International linkage of stock prices: the case of Indonesia, *Management Research News*, 28(4), 93-115.
- Masih, A. M. M. & R. Masih, (1997), A comparative analysis of the propagation of stock market fluctuations on alternative models of dynamic causal linkages, *Applied Financial Economics*, 7, 59-74.
- Masih, A. M. M. & R. Masih, (1999), Are Asian stock market fluctuations due mainly to intra-regional contagion effects? evidence based on Asian emerging stock markets, *Pacific Basin Finance Journal*, 7, 251-282.
- Masih, A. M. M. & R. Masih, (2002), Propagative causal price transmission among international stock markets: evidence from the pre-and-post globalization period, *Global Finance Journal*, 13, 63-91.
- Narayan, P., Smyth, R., & Nandha M., (2004), Interdependence and dynamic linkages between the emerging stock markets of south Asia, *Accounting and Finance*, 44, 419-439.
- Roca, E.D. et al. (1998), "Are the Asean equity markets interdependent?" *ASEAN Economic Bulletin*, 15, 109- 120.
- Ross, S.A., Westerfield, R.W., & Jaffe, J.F., (1999), *Corporate Finance*, Irwin McGraw-Hill Companies, Inc.
- Rosylin binti M. Yusof (2003), The link between monetary policy and stock market behaviour: an empirical investigation on Malaysia 1977-2000, *PhD Dissertation*, Kulliyah of Economics and Management Sciences, International Islamic University Malaysia.
- Sabri, M., S.E. (2005), Stock market integration in emerging economies: the case of asean vis-a-vis USA and Japan, *PhD Dissertation*, Kulliyah of Economics and Management Sciences, International Islamic University.
- Szego, G, (2002) Measures of risk, *Journal of Banking and Finance*, 26, 1253-1272.
- Ying Wu, (2000), Stock prices and exchange rates in a VECM model—the case of Singapore in the 1990s, *Journal of Economics and Finance*, 24(3), 260-274

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