The Dynamic Interaction Between Islamic Stock Market And Strategic Commodities

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Abstract

In this research, we examine the relationship between FTSE Bursa Malaysia Emas Shariah Index, strategic commodities (such as oil and gold price) and macroeconomic variables in Malaysia from January 2007 to December 2011 using Vector Error Correction Model (VECM). Our findings indicate that Islamic stock prices are co-integrated with strategic commodities and macroeconomic variables. Based on the long run relationship analysis, the Islamic stock price is positively related to industrial production index, money supply aggregate, and crude oil price, while negatively related to consumer price index, Islamic interbank rate, exchange rate of Malaysian Ringgit-United States Dollar, and kijang gold price variables. Meanwhile, there is Granger causality between Islamic stock return and economic growth rate, Islamic interbank rate, and crude oil price. Thus, we can conclude that among strategic commodities, only oil price variables impact the Islamic stock return in the long run and short run in Malaysia.

Keywords: Strategic Commodities, Islamic Stock Market, Macroeconomic Variables, Vector Error Correction Model (VECM)

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1. Introduction

Empirical studies on the prices of oil and gold have grown rapidly in the past few years, partly due to the current upsurge in oil and gold prices. Oil and gold are the two strategic commodities that have important roles to the global economy. Oil is the most traded commodity in the world and its price fluctuations are in observations not only for association with major developments in the world economy, but it is also deemed as a trigger for inflation and recession (Lee and Chang, 2011).

Gold, on the other hand, is considered as the leader in the market of precious metals, is an investment asset as well as an industrial commodity. The unique characteristic of gold resides in its less susceptibility to exchange rate fluctuations. On assessing the role of gold in the global financial system, Baur and McDermott (2010) found that gold is a potent “safe haven” during the maximum point of the recent financial crisis for most developed markets such as major European and the U.S. stock markets, but not for large emerging markets like BRIC countries.

In general, Islamic stock market is an appropriate place for investors to refrain from the threat of inflation and at the same time it works as an indicator towards the national development in terms of economics (Mohd Hussin and Borhan, 2009). The establishment of FTSE Bursa Malaysia Emas Shariah (FBMES) in 2006 for instance, is believed related to the movement of oil and gold price growth in Malaysia. Islamic stock market which is represented by the Kuala Lumpur Shariah Index (KLSI) was launched by Bursa Malaysia in April 17, 1999. This was the first step in facilitating participations in equity investments that are compatible with the Islamic principles of Shariah. Furthermore, Bursa Malaysia, in co-operation with FTSE, introduced a new series of tradable equity indices called FTSE-Bursa Malaysia Emas Shariah Index (FBMES) and FTSE-Bursa Malaysia Hijrah Shariah Index (FBMHS). FBMES provides a benchmark for investors seeking to make investments based on Shariah principles and helps them to make better informed decisions. Mohd Hussin and Muhammad (2011a) reported in 2009 that there were over 88 percent of total listed Islamic equity companies in Malaysia. The development of this instrument helps to create more opportunities for investors seeking Shariah investments to benchmark their portfolios, and the asset managers to create new products serving the investment community (Mohd Hussin and Muhammad, 2011b).

Based on Table 1, it was found that in 2008, both Shariah Index and crude oil price decreased by 43 percent and 61 percent respectively, while gold price increased by 8.4 percent. However, in 2009 and 2010, all of referred commodities’ growth increased tremendously, but much lower growth in 2011. These movements show
that the growth of crude oil and gold price is related to the growth of Islamic stock market in Malaysia.

Table 1: The Rate of Shariah Index, Oil Price, and Gold Price from 2007 to 2011

The paper proceeds as follows. Section 2 reviews the previous literature on three important aspects; the relationships between crude oil and gold price, macroeconomic variables and stock returns. The data, methodology, and empirical results are presented in Section 3, 4 and 5, respectively. Finally, the concluding section summarizes our findings.

2. Literature Review

In the literature, there have been extensive discussions and debates on the dynamic relationship between macroeconomic variables and share returns. The basis of these studies has been the use of models promoting that share prices can be written as expected discounted cash flow. Thus, the determinants of share prices are the required rate of return and expected cash flows (Elton and Gruber, 1991). Economic variables including oil and gold price which impact future cash flows and required returns can hence be expected to influence share prices.

The relevant literature, however, generates mixed views pertaining to the effect of such oil-price shocks on asset prices, such as stock prices. The relationship between stock price and oil price can exist either positively or negatively. Sadorsky (1999)
investigated the relationship between shocks occurred in oil prices in the U.S. and the stock exchange. The result of the study performed in the period between 1947-1996, using VAR and GARCH analysis and the inclusion of interest rate and industrial production output, it was found that there was a negative effect of oil-price volatility on stock prices. This finding complies with the finding in the study by Arouri and Julien (2009) of stock market in GCC countries. Similarly, Nandha and Faff (2008) probed on how oil price changes affect the equity price and whether there was any asymmetric impact of oil price on equity returns. Their findings suggested that oil prices affect both real output and corporate profits negatively. When price effect asymmetry was tested they discovered that oil price change effect on equity price is symmetric, not asymmetric as expected. Miller and Ratti (2009) also have proved that oil price shock had adverse effect on the stock price in OECD countries.

On the other hand, Mohd Hussin et al. (2012) revealed that Islamic stock price is positively and significantly related to the oil price in Malaysia. Lin et al. (2010) also proved that oil price has a positive relationship with stock return in China based on the positive expectation effect. Furthermore, Gogineni (2007) and Yurtsever and Zahor (2007) also provided statistical support for a number of hypotheses regarding this matter such as;

i) Oil prices positively related to stock prices, if oil price shocks reflect changes in aggregate demand,

ii) Oil prices negatively related to stock price, if they reflect changes in supply.

The relationship between gold price and stock price also shows an inconclusive result. Smith (2001 and 2002) found that the short-run correlation between gold price and the stock price indices is commonly negative in the U.S., European, and Japanese markets, respectively. In addition, Mishra et al. (2010) proved that the gold prices Granger-causes stock market returns and stock market returns was also the Granger-causes of the gold prices during January 1991 until December 2009 in India. Thus, both variables contain some significant information for the prediction of one and another. Buyuksalvarci (2010), on the other hand, found that gold price does not appear to have any significant effect on ISE-100 Index returns in Turkey.

In the mean time, Wang et al. (2010) explored the impacts of fluctuations in crude oil price, gold price, and exchange rates of the US dollar with various currencies on the stock price indices of the United States, Germany, Japan, Taiwan, and China respectively. Empirical results revealed that there are co-integrations among fluctuations in oil price, gold price, and exchange rates of dollar with various currencies, and the stock markets in Germany, Japan, Taiwan, and China except in
the U.S. Thus, the finding proved that there is a relationship between gold price and stock market which varies and also depend on country’s economic situations.

It is believed that stock prices are positively related to real gross domestic product, which have been proved by Liu and Sinclair (2008), Shabaz et al. (2008), Aljafari (2011) and Hsing (2011). These studies found that, in general, the increase in the real GDP will affect the price of stock through the impact towards corporate profit where there is a simultaneous increase in the expected cash flow as well as the stock price.

The relationship between inflation and stock price can be either positive or negative. According to Merika and Anna (2006), Wei (2009), and Sohail and Hussain (2009), these two variables are negatively related. They indicated that inflation will increase the cost of production and at the same time it will also decrease the expected future cash fallow and profit of the company. Furthermore, Mukherjee & Naka (1995) pointed out that this negative relationship can be detected by looking at the increase of the inflation rate which will result in a strict economic policy. When this happens, the free risk nominal rate will increase as well as the rate of discount. This will in turn cause an increase in the stock price. However, other researchers suggested that there is a positive relationship between these two variables. Sohail and Hussain (2010) and Rasiah (2010) specified this relationship through the concept of protection value or hedging in which the equities serve as a hedge against inflation as they represent claims on real assets.

Similarly, the relationship between money supply aggregate and stock price can exist either positively or negatively. Rad (2011) believed that this positive relationship can be noticed through economy encouragement feature. This is a basis for money supply to increase towards the increase of the corporate profit and this will further increase the future cash flow and result in the increase of stock price. Negative relationship however, can be observed by looking at direct relationship (positive) between money supply and inflation. In this direct relationship, the increase in the money supply will increase the discount rate and further decrease the price of stock market (Nishat and Shaheen, 2004; and Abdul Rahman et al., 2009).

Unsurprisingly, the relationship between interest rate and stock price are in the negative form. The increase in interest rate will increase the free risk nominal rate and at the same time will increase the discount rate (Abdullah and Hayworth, 1993). As a result, the price of the stock will decrease (Humpe and Macmillan, 2009; and Sohail and Hussain, 2011). Maysami et al. (2004) explained that most of the stock is bought through the money which is borrowed by investors from financial institutions. The increase in interest rate will increase the stocks purchasing cost. The investor will try
to search for stock that can assure higher rate of return to balance the cost of borrowing from financial institution. When this happens, the demand towards the stock will decrease and at the same time, it will reduce the price of the stock. Nevertheless, Coleman et al. (2008) proved that interest rate can influence the level of corporate profit through expectation where investors will gain higher dividend in the future. This is because most of the companies support their equipment and inventory through loans. Therefore, reduction in the interest rate will cut down the cost of borrowing and at the same time it provides an incentive to the company to expand their operation. Consequently, the future expected value of the company will increase.

Stock prices can relate positively or negatively with the foreign exchange rate where any changes in value of exchange rate will give a big impact towards the price of stock. Rasiah (2010) and Sohail and Hussain (2011) found that the relationship between these two variables are in positive form. Empirical evidences show that when value of the local currency falls, the local exported products will became cheaper in the international market. Thus, the volume of export will rise, leading to increase in flow of cash, company profits and local stock price.

However, Doong et al. (2005), Adjasi and Harvey (2008), and Rad (2011) shared a different view. They believed that there is negative relationship between these two variables. They argued that if a country depends on the export, the decrease in currency value will lead to an increase in the growth of export. Nevertheless, the decrease in currency value will have adverse impacts on the production cost and domestic price. As a result, the profit margin in the company will decrease.

A large amount of research has been done on the relationship between macroeconomic variables and conventional stock market; however, it is less explored in the context of Islamic stock market and strategic commodities such as oil and gold. Furthermore, regional stock markets such as in Malaysia have not been fully explored because of their small sizes and geographical locations. Therefore, in this paper, we attempt to examine the relationships between the FBM Emas Shariah Index (FBMES), these strategic commodities variables, and a set of five macroeconomic variables from the period of January 2007 to December 2011 using vector autoregressive (VAR) model.

3. Data Description

A total of seven macroeconomic variables and FBMES index are used in the analysis. The following model is being applied:
SEQUENCE OF RETURNS RISK FOR ISLAMIC INVESTORS

\[ FBMES_t : \alpha_0 + \alpha_1 IPI_t + \alpha_2 CPI_t + \alpha_3 M3_t + \alpha_4 IIR_t + \alpha_5 MYR_t + \alpha_6 COP_t + \alpha_7 KGP_t + \mu_t \]

(1)

where FBMES, IPI, CPI, M3, IIR, MYR, COP and KGP are being used as a proxy for Islamic stock market, Gross Domestic Product, inflation rate, money supply, interest rate in the Islamic financial system, foreign exchange, world crude oil price, and kijang gold price respectively. All variables are in natural logarithm form. In terms of data frequency, the study employs monthly data series spanning from January 2007 to December 2011. All data are taken from various sources such as Monthly Statistical Bulletin, Bank Negara Malaysia, Bloomberg, and Islamic banking and money market websites.

4. Methodology

Using a vector autoregressive (VAR) model, this study aims to examine the relationship between Islamic stock market variables, namely FBM Emas Shariah Index (FBMES) with seven macroeconomic variables based on discounted cash flow model (French, 2005). With regard to the VAR regression method, the above-mentioned model (1) has eight variables and can be written as follows:

\[
\begin{bmatrix}
FBMES_t \\
IPI_t \\
CPI_t \\
M3_t \\
IIR_t \\
MYR_t \\
COP_t \\
KGP_t
\end{bmatrix}
= \begin{bmatrix}
A_1 \\
A_2 \\
A_3 \\
A_4 \\
A_5 \\
A_6 \\
A_7 \\
A_8
\end{bmatrix}
+ R(L)
\begin{bmatrix}
FBMES_{t-1} \\
IPI_{t-1} \\
CPI_{t-1} \\
M3_{t-1} \\
IIR_{t-1} \\
MYR_{t-1} \\
COP_{t-1} \\
KGP_{t-1}
\end{bmatrix}
+ \begin{bmatrix}
et_1 \\
et_2 \\
et_3 \\
et_4 \\
et_5 \\
et_6 \\
et_7 \\
et_8
\end{bmatrix}
\]

(2)

where \( R \) is 8 x 8 matrix polynomial parameter estimators, \( (L) \) is lag length operators, \( A \) is an intercept and \( et \) is Gaussian error vector with mean zero and \( \Omega \) is a Varian matrix.

To analyze the VAR model, firstly, we conducted unit root tests to determine the variables’ stationarity properties or integration order. Secondly, we applied cointegration test suggested by Johansen and Juselius (1990) to determine whether
the variables involved in the model have a long run relationship. *Finally*, we employed Granger causality test in the form of vector error correction model (VECM). Granger causality test is employed to test the existence and nature of the causality relationship between the variables.

5. Empirical Results

Table 3 presents the results for the unit-root tests using Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) tests for the order of integration of each variable. For the level of the series, the null hypothesis of the series having unit roots cannot be rejected at even 10% level except IIR. However, it is soundly rejected for each differenced series. This implies that the variables are integrated of order I(1).

### Table 3: Unit Root Test-Summary Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level ADF</th>
<th>Level PP</th>
<th>First Difference ADF</th>
<th>First Difference PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNFBMES</td>
<td>-1.591 (1)</td>
<td>-1.636 (4)</td>
<td>-5.500 (0)*</td>
<td>-5.551 (3)*</td>
</tr>
<tr>
<td>LNIPI</td>
<td>-1.847 (3)</td>
<td>-2.730 (2)</td>
<td>-4.646 (3)*</td>
<td>-14.992 (3)*</td>
</tr>
<tr>
<td>LNCPI</td>
<td>-2.785 (1)</td>
<td>-2.117 (2)</td>
<td>-4.424 (0)*</td>
<td>-4.356 (4)*</td>
</tr>
<tr>
<td>LNM3</td>
<td>-2.828 (1)</td>
<td>-2.759 (2)</td>
<td>-6.822 (0)*</td>
<td>-6.802 (3)*</td>
</tr>
<tr>
<td>LNIIR</td>
<td>-1.580 (2)</td>
<td>-1.241 (4)</td>
<td>-5.759 (0)*</td>
<td>-5.811 (2)*</td>
</tr>
<tr>
<td>LNMYR</td>
<td>-1.689 (0)</td>
<td>-1.725 (3)</td>
<td>-7.454 (0)*</td>
<td>-7.452 (2)*</td>
</tr>
<tr>
<td>LNCOP</td>
<td>-2.501 (1)</td>
<td>-2.096 (3)</td>
<td>-4.827 (0)*</td>
<td>-4.819 (3)*</td>
</tr>
<tr>
<td>LNKGP</td>
<td>-2.883 (5)</td>
<td>-2.991 (3)</td>
<td>-4.960 (3)*</td>
<td>-10.396 (3)*</td>
</tr>
</tbody>
</table>

* Denote significance at 1% respectively

Having established that the variables are stationary and have the same order of integration, we proceeded to test whether they are cointegrated. To achieve this, Johansen Multivariate Cointegration test is employed. The results of the Johansen’s Trace and Max Eigenvalue tests are shown in Table 4. At the 5% significance level the Trace and Max Eigenvalue test suggested that the variables are cointegrated with r ≤ 1. Therefore, Cheung and Lai (1993) suggested the rank will be dependent on the Trace test results because Trace test shows more robustness to both skewness and excess kurtosis in the residual, which implied that there are at least 2 cointegration vectors found in this model.
Table 4: Johansen-Juselius Cointegration Test

<table>
<thead>
<tr>
<th>Lag Length</th>
<th>Null Hypothesis</th>
<th>Statistical Trace</th>
<th>Critical Value (5%)</th>
<th>Maximum Eigen Statistical Trace</th>
<th>Critical Value (5%)</th>
<th>Variable</th>
<th>Long-term Coefficient Elasticity</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>r ≤ 0</td>
<td>203.495*</td>
<td>159.529</td>
<td>72.835*</td>
<td>52.362</td>
<td>NFBMES</td>
<td>1.00000</td>
<td>Statistical Trace showed two cointegration vectors</td>
<td></td>
</tr>
<tr>
<td>r ≤ 1</td>
<td>130.659*</td>
<td>125.615</td>
<td>55.382*</td>
<td>46.231</td>
<td>LNPI</td>
<td>-7.033</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 2</td>
<td>75.276</td>
<td>95.753</td>
<td>30.716</td>
<td>40.077</td>
<td>LNCPI</td>
<td>1.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 3</td>
<td>44.560</td>
<td>69.818</td>
<td>20.695</td>
<td>33.876</td>
<td>LNM3</td>
<td>-0.342</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 4</td>
<td>23.864</td>
<td>47.856</td>
<td>15.436</td>
<td>27.584</td>
<td>LNIIR</td>
<td>1.848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 5</td>
<td>8.427</td>
<td>29.797</td>
<td>6.125</td>
<td>21.131</td>
<td>LNMYR</td>
<td>6.533</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 6</td>
<td>2.301</td>
<td>15.494</td>
<td>2.274</td>
<td>14.264</td>
<td>LNCOP</td>
<td>-0.647</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 7</td>
<td>0.027</td>
<td>3.841</td>
<td>0.027</td>
<td>3.841</td>
<td>LNKGP</td>
<td>1.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r ≤ 8</td>
<td>0.027</td>
<td>3.841</td>
<td>0.027</td>
<td>3.841</td>
<td>LNKGP</td>
<td>1.465</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Denote significance at 5% respectively
#: Critical Value obtained from Osterwald-Lenum (1992)

These values represent long-term elasticity measures, due to logarithmic transformation of FBMES, IPI, CPI, M3, MYR, COP and KGP in Table 3. Thus the cointegration relationship can be re-expressed as Table 5.

Table 5: Cointegration Relationship

<table>
<thead>
<tr>
<th>Dependent variable (FBMES)</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LNIPI</td>
</tr>
<tr>
<td>Coefficient</td>
<td>7.033*</td>
</tr>
<tr>
<td>t Value</td>
<td>5.630</td>
</tr>
</tbody>
</table>

Note: * Significance at a degree of freedom 1 percent.

The long-term equation shows that the FBMES values are positively correlated with the IPI variable. This is in line with the share analysis theory based on the discounted cash flow model which states that the IPI shares a positive correlation with a particular firm’s expected future cash flow. This means that the higher the IPI, the higher the expected share price. It should also be pointed out that the positive relationship between the two variables is significant. This result is in line with studies by Liu and Sinclair (2008), Aljafari (2011), and Hsing (2011).

The long-term equation also shows that the CPI variable has a negative relationship with the Islamic share price but this is a not significant relationship. This finding is supported and consistent with the findings by Merika and Anna (2006), Wei (2009), and Sohail and Hussain (2009). They proved in the event of rising inflation, the
production costs will also increase, thereby reducing future cash flow and ultimately reduce the price, revenue, and profit shares in a firm.

A striking finding in the study points out that there is a positive relationship but not significant between the FBMES and the M3 money supply, which are in line with the findings by Maysami et al. (2004), Ihsan et al. (2007), and Rad (2011). This positive relationship is based on the impact of money supply expansion that will increase economic activities. Then it affects the share price through the corporate profits of the firm and thus increases future cash flows and stock price.

This study also finds that the relationship between FBMES and IIR is negative and significant. The basis for this type of relationship refers to the rise in interest rates which would cause the share prices to decline via the decrease in future corporate profit due to the increasing borrowing and production costs. This finding is similar to the studies by Ratanapakorn and Sharma (2007), Coleman et al. (2008), and Sohail and Hussain (2011). In essence, the relationship between the IIR investment rate and Islamic share prices is negative as the higher the IIR rate is, the lower the Islamic share price will be.

With regards to the foreign exchange rate (MYR) with the Islamic share price (FBMES), the findings showed that these two variables share a long-term relationship which is negative and significant. This finding indeed supports the findings of studies conducted by Doong et al. (2005), Adjasi and Harvey (2008), Abdul Rahman et al. (2009), and Rasiah (2010) which is also in line with the literature review discussed previously.

In terms of relationship between oil price and Islamic stock market, this finding proves that there exists a positive and significant relationship between them. This is in line with the findings in the U.S. by Sadorsky (2001), in GCC countries by Arouri and Julien (2009), in China by Lin et al. (2010) and in Malaysia by Mohd. Hussin et al. (2012). This positive relationship is based on the positive expectation effect. Furthermore, the inclusion of gas and oil firm listed in FBMES directly influences the Islamic market performance.

This study also reveals that the relationship between FBMES and KGP is negatively insignificant. This finding is similar to the findings of studies conducted by Smith (2002) and Wang et al. (2010). The basis for long-term negative relationship is based on alternative investment tools theory (Buyuksalvarci, 2010). As the gold price rises, Malaysian investors tend to invest less in stocks, causing stock prices to fall. It is no surprise that many investors have chosen to hedge their investments through gold at the time of financial crisis. Therefore, a negative relationship is expected between gold price and stock returns.
Long term Granger causal relationship can be seen based on the value of Ect-1 for each variable in Table 6. Based on the result of VECM test, it is found that the value of Ect-1 for FBMES variable is significant. This proves that the variables of IPI, CPI, M3, IIR, MYR, COP and KGP are the long term Granger cause for Islamic stock returns in Malaysia. In other words, FBME variable in the equations bears the burden of dispersed error correction of short term balance to achieve long term equilibrium as much as 5.7 percent in one period and demonstrates endogeneity towards the formed model.

Short term Granger causal relationship can be observed through Wald test (chi square statistics) on a group of related coefficients. Based on Table 5, it is proven that only variables of IPI, IIR and COP are the short term Granger cause for FBME. This means, the Islamic share market return in short term is only influenced by economic growth, Islamic interbank rate and crude oil price but not gold price and others macroeconomic variables. The pattern of this short term Granger causal relationship can be summarised as in Figure 1.

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables Chi-Square (Wald Test)</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΔLNFBMES</td>
<td>2.957** (0.085) 0.893 (0.344) 0.213 (0.644) 2.902*** (0.088) 0.025 (0.872) 7.169* (0.124) 2.358 (0.124) -0.057* (-2.825)</td>
<td></td>
</tr>
<tr>
<td>ΔLINPI</td>
<td>2.163 (0.141) 5.179** (0.022) 4.769* (0.029) 3.044*** (0.081) 0.043 (0.835) 1.561 (0.211) 0.0291 (0.864) 0.033* (2.014)</td>
<td></td>
</tr>
<tr>
<td>ΔLNCP</td>
<td>4.257** (0.039) 1.300 (0.254) 0.442 (0.505) 0.001 (0.971) 4.299** (0.038) 2.893* (0.088) 0.516 (0.472) -0.006* (-2.733)</td>
<td></td>
</tr>
<tr>
<td>ΔLNBM3</td>
<td>0.003 (0.955) 0.002 (0.963) 0.003 (0.951) 0.162 (0.686) 0.082 (0.774) 0.148 (0.700) 3.478** (0.062) -0.001 (-0.317)</td>
<td></td>
</tr>
<tr>
<td>ΔLNH3</td>
<td>6.673* (0.009) 13.359* (0.000) 0.119 (0.729) 8.938* (0.002) 0.153 (0.695) 10.655* (0.001) 3.053** (0.080) -0.106* (-5.307)</td>
<td></td>
</tr>
<tr>
<td>ΔLNMR</td>
<td>4.014** (0.045) 0.130 (0.717) 0.324 (0.568) 0.628 (0.428) 2.197 (0.138) 0.262 (0.608) 0.686 (0.407) -0.012 (-1.319)</td>
<td></td>
</tr>
<tr>
<td>ΔLCOP</td>
<td>3.063** (0.080) 1.550 (0.213) 0.165 (0.684) 4.746* (0.029) 0.514 (0.473) 3.209** (0.073) 0.001 (0.971) 0.046 [1.016]</td>
<td></td>
</tr>
<tr>
<td>ΔLNKGP</td>
<td>0.339 (0.560) 0.026 (0.870) 1.446 (0.229) 0.069 (0.791) 1.297 (0.254) 0.049 (0.823) 0.266 (0.605) -0.032 [-1.278]</td>
<td></td>
</tr>
</tbody>
</table>

* *, ** and ***: Denote significance at 1%, 5% and 10% respectively
( ) probability [ ] t value
6. Conclusions

This study’s main objective is to investigate the relationship between Islamic stock market and macroeconomic variables involving oil price shock in Malaysia. It is found that the Islamic share prices (FBMES) denote a positive relationship with the economic growth rate (IPI), money supply (M3) and crude oil price (COP) but has negative relationships with inflation rate (CPI), Islamic interbank rate (IIR), foreign exchange rate (MYR) and Kijang Gold Price (KGP). All of these variables demonstrate a significant relationship except for CPI, M3, and KGP variables. This finding proves that all macroeconomic and strategic commodities variables are important variables in predicting changes in Islamic share prices in Malaysia, except inflation, money supply and kijang gold price variables based on the conducted cointegration tests. Meanwhile, in the short run, only economic growth rate, Islamic
profit rate and oil price variables are the Granger cause for Islamic stock returns. Therefore, it can be concluded that among strategic commodities, only oil price variables will affect the Islamic stock return in both long run and short run in Malaysia. This proves that Kijang Gold Price is not an important variable for the purpose of predicting changes in Islamic share prices in Malaysia.

References


