

RESEARCH ARTICLE

# Dynamic Interactions Between the Islamic Stock Prices and Macroeconomic Variables: Evidence from Malaysia

**M. Shabri Abd. Majid**

Syiah Kuala University, Indonesia

mshabri@unsyiah.ac.id

**Abstract:** This study empirically explores the dynamic interaction between Islamic stock prices and some selected macroeconomic variables in the Malaysian economy. It also attempts to investigate the interactions between the Islamic stock and Islamic bank financing in the country. A monthly data from the period 1999 to 2013 were analysed using the standardised time series techniques, including the cointegration, Granger causality, and impulse response function. The study found that there was a long-run relationship among the variables. Meanwhile, in the short-run, the study found that the development of economy and Islamic banking industry have contributed to the growth of Islamic stock prices, and vice versa. This implies that the developments of Islamic stocks, Islamic banking industry, and national economy would promote and strengthen the Malaysian position as a viable international hub for the Islamic finance industries in the globe.

**Keywords:** Islamic Stocks, dynamic interaction, macroeconomic variables, Time series analysis, Malaysia

**JEL Classification:** C32, E31, E44.

In the last few years, Islamic financial industry has been growing very vastly worldwide. The Standard and Poor's Ratings Services reported that the growth rate of Islamic banking industry outpaced that of conventional banking during the past decade, making it one of the most dynamic areas in international finance (Pew Research Centre, 2011). The emergence of Islamic finance in modern times has been very much relating to the revival of Islam and the desire of Muslims to live all aspects of their lives in accordance with the

*Shari'ah*. Historically, the earliest experimentations in introducing the principles of Islamic finance were made in countries like Pakistan, Egypt, Malaysia, and Indonesia. Due to the gradual Islamisation process, Pakistan, Iran, and Sudan have altered their whole financial system to the Islamic shape (Vogel & Hayes, 1998). Nevertheless, their practical aspects are not far from other Muslim countries like Malaysia whereby a dual financial system consisting of both conventional and Islamic finance practices are in operation simultaneously.

Compared to the other Islamic stock markets, the Malaysian Islamic stock market is one of the largest and most efficient Islamic stocks in the world (Securities Commission Malaysia, 2015). In the last decade, the Islamic financial system in Malaysia has emerged as a viable and vibrant component of the overall financial system and a propeller of economic growth and development. Islamic stock industry in Malaysia has been acknowledged to be among the most sophisticated and developed stock markets in the Islamic world. Today, the Islamic financial system is growing rapidly side-by-side with the conventional financial system in the Malaysian dual financial system. After more than 40 years since its establishment, the Islamic stock industry in Malaysia has undergone rapid transformation. Indeed, Malaysia has become an exemplary country for others wanting to develop the Islamic finance industry. Malaysia currently is at the forefront in the Islamic finance industry and has great potential to become the world's Islamic finance hub.

With the increasing presence of the Islamic finance industry in the Malaysian financial landscape, it is indeed timely to undertake an in-depth study exploring empirically the pivotal factors determining the success of Islamic stock market in the country. The rapid growth of Islamic stocks and the investors increasing interest in the Islamic stock market industry require a deeper re-assessment of their key determinants of success. Together with the important role of Islamic finance to the Malaysian economy, the covariation of Islamic stock prices and other macroeconomic variables is suggestive of their causal relations and makes Malaysia a worthy case study. Information on these issues is highly sought after by the policy makers and industry players to chart out future direction for healthy growth of the Islamic stock industry. The need to understand the nature of dynamic interactions between the Islamic stocks and macroeconomic variables is critical; hence, this study is motivated to address this issue.

An aspect of novelty of this study is that not only that it uses the latest empirical methodology; but it also evaluates the key determinants of success of Islamic stocks in Malaysia. The participatory and risk-sharing nature of the Islamic finance transactions naturally would promote stronger linkages between the financial and real economic sectors. The requirement to comply with the *Shari'ah* prohibitions of *riba* (interest), *gharar* (excessive uncertainties), and *maysir* (gambling) serve

as a built-in check-and-balance mechanism as well as reduces the possibility of financial instability of the overall economic and financial system (Majid & Kassim, 2010).

Thus, the findings of this study are expected to contribute to the Islamic finance literature. Firstly, the study hopes to enrich the existing literature on Islamic stock market by presenting the specific case of Malaysia. To the best of my knowledge, there have been few studies on the Malaysian case that has specifically focused on the Islamic bank financing and Islamic stock prices as well as their dynamic interactions with the macroeconomic variables. Therefore, this study attempts to fill the existing gap in the literature and offers a new dimension by empirically investigating the causal dynamic interactions among the determinants of the Islamic stock prices. In addition, the study also employs more rigorous investigation techniques by adopting the vector error correction modelling (VECM), impulse response functions, and variance decomposition analysis based on the vector autoregressive (VAR) methodology, which, to my knowledge, has been rarely adopted in this area.

This rest of the study is organised as follows: Section 2 presents the literature review of such focal variables, that is, Islamic stock prices; Section 3 outlines the data and empirical approach used for analysing purposes and discusses the empirical framework, while Section 4 provides the results and discussion of the findings. Finally, Section 5 summarises the main findings and provides important policy implications.

## Selected Previous Studies

Essentially, stock prices would quickly adjust to the availability of new information in the market. Thus, the stock prices reveal all information concerning the stocks in an efficient capital market. The Efficient Market Hypothesis (EMH) declares that stock prices must include all appropriate information for either policy makers or stockbrokers in the business. Additionally, the stock prices could also reflect predictions of the firms' future performances and profits. Consequently, if stock prices mirror these postulations in real, it should be referred as a key indicator for the activities of economy. Hence, the dynamic association between stock prices and macroeconomic determinants could be used as references to design macroeconomic policies

of the nation (Yusof & Majid, 2007; Maysami & Koh, 2000; Karim & Majid, 2009, 2010).

Many efforts in the past have been put forward to explore the dynamic relationships between stock prices and macroeconomic determinants. All these empirical researches have documented significant short- and long-run relationships between stock returns and macroeconomic variables. For example, Gan, Lee, Yong, and Zhang (2006) investigated the relationship between the New Zealand stock prices and macroeconomic variables, that is, exchange rate, interest rate, inflation rate, real economic activity, oil price, and money supply. Their empirical findings implied that there exist short- and long-term relationships between the stock prices and the above-mentioned macroeconomic variables. Additionally, the Granger causality test suggested that the stock exchange of New Zealand could not be used as a good indicator for predicting macroeconomic movements in the country. This finding, however, was contradictory to several previous studies. Gan et al. (2006) concluded that it was because of the relatively small ratio of capitalisation to GDP in the New Zealand stock market, thus the contribution of stock market to the national economy was also near to the ground. The inflation rate was found to inversely affected the stock returns in the country, however, the money supply is documented to be negative because money supply was influenced by foreign investors in New Zealand. At the time, the rate of interest was high in the domestic country as compared to foreign countries; investors prefer to keep their monies in banks rather than allocating them in riskier investment. Alternatively, when the rate of interest rate was relatively low in the country, they might opt to invest their monies into foreign markets, thus the effect of money supply was negative in the case of New Zealand.

In their study on the Malaysian stock market, Ibrahim and Yusoff (2001) empirically investigated the long-run relationship between the stock returns and macroeconomic variables, that is, real economic activity as measured by the Industrial Production Index (IPI), broad money supply (M2), exchange rate, and inflation as measured by the Consumer Price Index (CPI). Their study documented a negative association in the long-run between stock returns and money supply. In addition, the stock returns were found to be positively affected by the inflation rate, but negatively affected the money supply. The positive

relationship between stock returns and inflation was in line with the view that the stock returns was a good hedge against inflation. In a different study, Ibrahim and Aziz (2003) empirically explored the dynamic relationship between stock returns and several other macroeconomic determinants. They discovered that both short- and long-run relationships between stock returns and inflation were positive, while a negative association between stock returns and exchange rate and money supply were documented.

Islam (2003) replicated the previous study to assess the short- and long-run equilibrium adjustment between the macroeconomic variables, that is, the rates of interest, inflation, exchange, the real economic activity, and the Malaysian stock returns. In the interim, Kwon and Shin (1999) evaluated the study on stock prices of Korea. The study documented a cointegration between trade balance, money supply, and exchange rates with stock returns; Ibrahim (1999) found the empirical evidence to support this study's findings. In his study on the Malaysian stock market, Ibrahim (1999) showed the dynamic relationships between several macroeconomic determinants and the stock returns in the country. The study found that the inflation, credit aggregates, and official reserves are cointegrated with the stock returns. Additionally, in short-run, the stock returns were Granger-caused by changes in exchange rate and the official reserves.

Furthermore, in their studies, Bahmani-Oskooee and Sohrabian (1992) and Nieh and Lee (2001) documented that long-run equilibrium does not exist between the stock returns and exchange rates. This could partially be due to different methods used and dissimilar variables selected in their study. By adopting the Johansen's cointegration based on the Toda and Yamamoto's Granger causality approach, Ahmed (2006) provided empirical evidences that there were causal linkages in the long-run between macroeconomic determinants and stock returns.

Finally, Asmy, Rohilina, Hassama, and Fouad (2009) investigated the dynamic relationships between the Malaysian stock market and money supply, inflation, and exchange rate during the pre- and post-1997 Asian financial crisis using various time series techniques. They found that there was a cointegration between stock returns and those macroeconomic determinants.

From the aforesaid discussions, there have been extensive lists of empirical studies investigating the

short- and long-run relationships between stock returns and macroeconomic determinants. However, there have been very few studies conducted to examine the significant role of Islamic stocks in the financial markets and their contribution to the economic development. Experientially, while the roles of the Islamic stocks are imperative in assessing the health of financial markets, it has received very limited attentions. For this time being, the dynamic interactions between the Islamic stock and macroeconomic variables, which represent foreign exchange market, money market, goods market, and financial services market still do not get enormous attentions by the researchers. Thus, it is indeed timely for this study to investigate the dynamic interactions among those markets and their contributions towards the development of the Islamic stocks in the largest and most developed Islamic stocks in the world, Malaysia.

### Empirical Framework

Basically, the focus of this study is to investigate the dynamic inter-relationships among the five markets, namely the stock market, the money market, the goods market, the foreign exchange market, and the labour market. However, according to the Law of Walras, any one of these markets could be dropped in the analysis. According to Wongbangpo and Sharma (2002), the labour market is usually dropped in the analysis of stock market. Thus, this study specifically explores the short- and long-run dynamic interactions between Islamic stock market and the other three markets, that is, the goods, foreign exchange, and money markets. Since the development of the Islamic stock market in Malaysia has, to a great extent, been related to the development of Islamic banking industry that provides financial services to the economy, this study also includes the Islamic bank financing in the analysis.

Following Wongbangpo and Sharma (2002), the Industrial Production Index (IPI) and Consumer Price Index (CPI) are used as a proxy for the goods market, the Islamic Interbank Overnight Rate (INTB) is used as a proxy for the Islamic money market, the Islamic Stock Prices (ISP) is used as a proxy for Islamic stock market, the Islamic Bank Financing (IBF) is used as proxy for financial services market, and the Real Effective Exchange Rate (REER) is used as proxy for the foreign exchange market. The incorporation

of the REER in the model of analysis also represents an external competitiveness measure of those markets internationally. I believe that for the trade-oriented developing country like Malaysia, the exchange rate plays a major role in the stock market movement. In short, these selected variables cover a wide range of macroeconomic aspects.

Monthly data covering April 1999 to April 2013 were utilized. In this study, the Malaysian Dow Jones Islamic Index is used as a yardstick to represent ISP. Meanwhile the real output and price level are respectively represented by the IPI and the CPI are used to designate the goods markets. To replace the interest rate, which is prohibited in the Islamic banking framework, I employ the INTB as the alternative, to represent the Islamic money market. In this study, the IBF, which is measured by total Islamic bank financing given to the various sectors in the Malaysian economy, is used to represent the financial services market. Considering Malaysia as a small open economy, the REER is used to cater the effect of global changes on the national Islamic financial industry as well as to represent the foreign exchange market.

All variables are expressed in natural logarithms except for INTB. These data were gathered from the Statistical Bulletin (various issues) published by Bank Negara Malaysia (BNM), the International Financial Statistics (IFS) of the International Monetary Fund (IMF), and Bloomberg database.

The main model that is employed in this study to empirically explore the dynamic interactions between the Islamic stock prices and macroeconomic variables (i.e., Islamic financial services market, foreign exchange market, Islamic money market, and goods market) can be formulated as follows:

$$ISP_t = \beta_0 + \beta_1 IBF + \beta_2 REER + \beta_3 INTB + \beta_4 CPI + \beta_5 IPI + u_t \quad (1)$$

The standard procedure for the time series analysis is conducted in this study, covering the tests of stationarity, cointegration, vector error correction model (VECM), impulse response, and variance decomposition analyses. As the stationary test, the study used the most prominent techniques of Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests, which permit the differentiation of the variable of interest until the stationary condition is accomplished. The ADF and PP tests for stationarity respectively, are, as follows:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \alpha_i \sum_{i=1}^m \Delta Y_{t-i} + \varepsilon_t \quad (2)$$

$$\Delta Y_t = \eta_0 + \eta_1 t + \delta Y_{t-1} + v_t \quad (3)$$

The asymptotic distribution of the modified t-ratio in the PP test is the same with that of the ADF test statistic. Essentially, both tests produce the same results. However, when there is conflict in the result, it is suggested to refer to the PP test due to the lower power of the ADF test (Gujarati, 2003).

As for the cointegration test, the Johansen and Juselius (JJ) method is used in this study to verify the number of cointegrating vectors based on the Maximum Eigenvalue test (ME) and the Likelihood Ratio Trace Test (LRT). The ME and LRT tests can be formulated as follows:

$$ME = -T \ln(1 - \mu_r) \quad (4)$$

$$LRT = -T \sum_{i=i+1}^n h(1 - \mu_i) \quad (5)$$

In order to identify the interaction between the Islamic stocks and macroeconomic variables, the study uses the VECM model, as shown below:

$$\Delta Y_t = \mu_i + \sum_{i=1}^n A_i \Delta Y_{t-i} + \sum_{i=1}^n \xi_i \Theta_{t-i} + v_t \quad (6)$$

Where  $Y_t$  is in the form of  $(n \times 1)$  vector.  $A_i$  and  $\xi_i$  are used as estimated parameters.  $\Delta$  shows different operator and lastly,  $v_t$  is known as a reactional vector which explains unanticipated movements in  $Y_t$  and  $\Theta$  (error correction term).

Finally, the Variance Decomposition (VDC) is tested in order to identify the relative importance of each random shock to the variable in the model. Information assembled from the VDC will be presented with Impulse Response Function (IRF). The IRF measures the predictable response to a one standard deviation shock to one of the system's variables on other variables in the system. Therefore, the IRF shows how the path of these variables changes in response to the shock.

## Results and Discussion

As noted, before I proceed to the VECM estimation, the study tested first the ADF and PP unit root tests. In these tests, the individual lag is chosen based on the Akaike Information Criterion (AIC) and both tests are conducted with trend and intercept. The results of these tests are presented in the Table 1.

**Table 1.** ADF and PP Unit Root Tests

Variable	Level		First Difference	
	ADF	PP	ADF	PP
LCPI	-2.309	-2.127	-9.699*	-9.601*
LISP	-0.183	-1.311	-9.507*	-9.692*
LIBF	-3.250	-5.541*	-13.042*	-13.800*
LREER	-1.415	-1.301	-7.620*	-7.676*
LIPI	-2.088	-7.001*	-12.592*	-29.001*
INTB	-2.003	-1.113	-4.704*	-11.111*

Note: \*\* indicates significance at 1% confidence level.

The tests of Augmented Diickey-Fuller (ADF) and Phillips-Perron (PP) agreed in categorizing the ISP, CPI, REER, and INTB as the variables of  $I(1)$ , that is, these variables were non-stationary in level, but they turn out to be stationary after taking first differencing. For the IBF and IPI, the two results show that they were already stationary in level under the PP test. Thus, to proceed, variables of IBF and IPI are treated as  $I(1)$  variables.

Having documented that each of the variables was non-stationary at level, I continue to scrutinize whether a long-run relationship exist between the Islamic stock returns and other selected macroeconomic forces. Table 2 reports the findings from Johansen-Juselius cointegration test. In this study, the selection of lag of first difference macroeconomic variables was set to 2, using the AIC lag length criteria, which was found to be sufficient to provide the error term serially to be uncorrelated in performing the test. The trace and maximal eigenvalue statistics are adjusted by a factor  $(T-np)/T$ , where  $T$  is the effective number of observations,  $n$  is the number of variables, and  $p$  is the lag order. This is to correct bias towards finding evidence for cointegration in finite or small samples. As may be noted from the table, the trace statistics suggest the presence of a unique cointegrating vector at 5% significant level. This implies that there exists long-run

**Table 2.** *Johansen-Juselius Cointegration Test*

Null hypothesis	System with Cointegration Rank (CR) Test		Critical Values (5%)	
	Trace	Maximal Eigen	Trace	Maximal Eigen
$r = 0$	102.111*	53.777*	95.422	40.022
$r \leq 1$	49.201	21.432	69.321	33.043
$r \leq 2$	28.320	16.763	47.765	27.876
$r \leq 3$	12.243	7.873	29.032	21.231
$r \leq 4$	4.02	4.123	15.432	14.983
$r \leq 5$	0.001	0.001	3.231	3.124

Note: \* indicates significance at the 5% confidence level.

**Table 3.** *Findings of Short Run Granger Causality*

Null Hypothesis	Chi-sq	Prob.
LnIBF does not Granger Cause LnISP	1.837	0.019*
LnIPI does not Granger Cause LnISP	1.724	0.022*
LnCPI does not Granger Cause LnISP	0.608	0.715
LnREER does not Granger Cause LnISP	0.318	0.526
INTB does not Granger Cause LnISP	0.669	0.781
LnISP does not Granger Cause LnIBF	14.128	0.008**
LnISP does not Granger Cause LnIPI	6.321	0.038*
LnISP does not Granger Cause LnCPI	1.030	0.428
LnISP does not Granger Cause LnREER	3.685	0.135
LnISP does not Granger Cause INTB	0.451	0.714

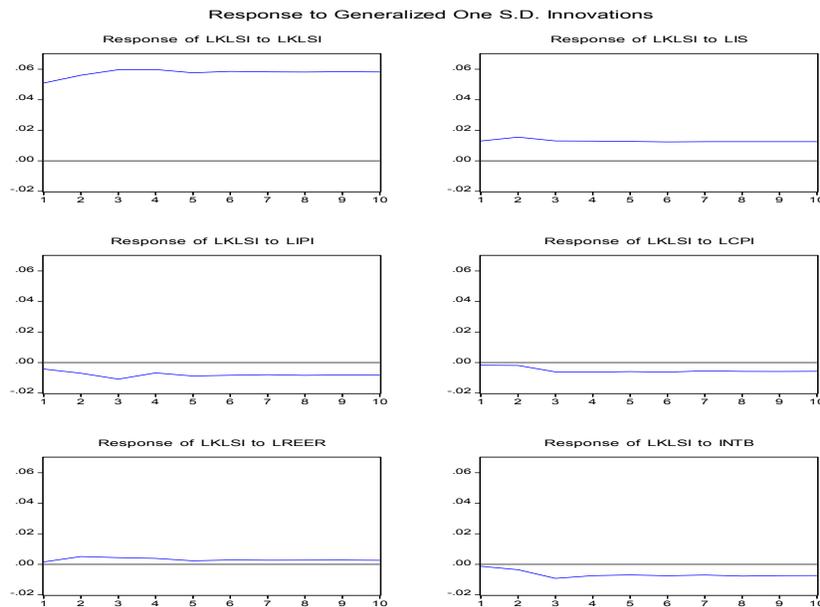
Note: \*\* and \* significance at 1% and 5% confidence levels, respectively.

equilibrium among the investigated markets. Thus, one market could be used to predict the movements of other markets in the future. Accordingly, these variables are tied together in the long-run and their deviations from the long-run equilibrium path will be corrected. The presence of cointegration also rules out non-causality among the variables. In other words, there must be at least a unidirectional causality from one variable to the other in the system.

After estimating the long-run equilibrium for stock prices and macroeconomic variables, I investigated the dynamic interactions between these variables. In this section, I present the results of the pair-wise Granger Causality with a uniform lag 2, which is rendered to be sufficient to whiten the noise process. The findings

of the short run dynamic causalities among variables based on the Granger causality is reported in Table 3.

From Table 3, only the Islamic stocks Granger caused bidirectional the Islamic bank financing and the output level. This implies that the development of Islamic stock markets is very much influenced by the development of economy and Islamic banking industry, and vice versa. This finding is in line with the feedback hypothesis or the bidirectional causality view, which proved that the Malaysian Islamic stock market has been able to promote high Islamic banking industry as well as the economic development via technological advancements, product innovation, and services modernization. This sequentially has resulted in an increased demand for the Islamic stocks and



**Figure 1.** Impulse responses of Islamic Stock Prices (ISP)

Islamic financial arrangements and services. As these Islamic stocks and banking institutions responded effectively to these demand, then these changes have stimulated the national economic achievement to rise. Islamic stocks, Islamic banking industry, and economic developments therefore are positively interrelated and their interaction might lead to bidirectional causalities. This finding is in harmony with the study by Choong, Yusop, Law, and Liew (2005).

In the last section, the study reported the finding from the impulse response function based on the VAR estimation. Figure 1 presented the Response to Generalized One S.D Innovations of Islamic stock prices and other selected variables (IBF, CPI, INTB, and REER) to shock in other macroeconomic variables. From Figure 1, I note that Islamic stock prices respond positively to IBF, REER, and IPI innovations. This finding implies that the Islamic banking institution and the foreign exchange markets are likely potentials to be effective leading sectors in channelling and transferring the financial resources within and outside the Malaysian economy. So far, the development of Islamic stock market in the country was, to a large extent, influenced by the success of the Islamic banking industry and the stability of the national currency, the Malaysian Ringgit (MYR), and economic development due to the conducive policy setting designed by

the government of Malaysia. The positive response of Islamic stock market to the IPI innovation is as expected, given that Islamic stock prices should serve as a barometer of the advancement of the economy. Accordingly, changes in the IPI might affect expected future cash flow of the firms and, in turn, positively influenced the Islamic stock prices.

Unlike the study on the conventional banking system conducted by Ibrahim (2006) that did not document any effect from the conventional bank loans to stock prices, this study documented evidences that the Islamic stock prices responded significantly and positively to the Islamic bank financing. Looking at only significant responses, it might be observed from the figures that the Islamic stock prices increased in response to positive shocks in the real effective exchange rate. This finding implies that the Malaysian currency's appreciation led to the increase of Islamic stock prices, which then induced the foreign investors to the country.

The high growth of Islamic banking industry in Malaysia has also contributed to the promotion of the Islamic stock in the country. This finding is in line with the Central Bank of Malaysia, Bank Negara Malaysia (BNM) initiative to support the country become the International Islamic financial hub in August 2006. In addition, to materialise this initiative, at the end of

2009, the Malaysian government has enacted Central Bank Act (CBA) 2009 to grant the BNM a greater role to further promote the country as the international Islamic financial hub (Yusof & Majid, 2008).

Additionally, from Figure 1, I also note that the Islamic stock prices responded negatively to CPI and INTB innovations. This finding implies that the instability in prices level has made Islamic stocks become less attractive due to their lower real returns. In other words, during the high level of inflation, the investors tend to invest more in the real assets rather than in the financial assets like stocks, thus higher level of prices level negatively responded by the Islamic stock market in Malaysia.

Furthermore, the Islamic stock prices responded negatively to the INTB innovations. This indicates that the increase in an Islamic interbank rate has attracted more investors to deposit their monies in the Islamic banking institutions than investing their monies in the stock market. In this case, the Islamic stocks have been perceived by the Malaysian investors as the substitute goods. If Islamic stocks were close substitutes, then their Islamic interbank rates were more likely to move together. In other words, when Islamic interbank rate increases, it makes holding stocks become less attractive relative to fixed income securities. Therefore, investors would change the structure of their portfolios and switch capital from stocks to banks, which resulted in stock prices decrease. This finding is in line with the Monetary Portfolio Model (Rozeff, 1974), which postulated that an increase in interest rates raises the opportunity cost of holding cash and is likely to lead to a substitution effect between stock and other interest bearing securities. Thus, a decrease in interest rate, which might also be a result of an expansionary monetary policy, would lead to an increase in the price of the stocks and subsequently increase their returns (Majid & Hasin, 2014).

## Conclusion and Policy Recommendations

This paper empirically explored the dynamic interactions between the Islamic stock prices and some selected macroeconomics variables, that is, industrial production index, consumer price index, real effective exchange rate, and Islamic interbank overnight rate. At the same time, the study also attempted to investigate the dynamic relationship between Islamic stock price

and Islamic bank financing in the Malaysian economy.

The findings indicated that these macroeconomic forces found to be cointegrated with the Islamic stock market in Malaysia, indicating that deviations in the short-run stock prices will be adjusted towards the long-run equilibrium. In the short-run, the development of economy and Islamic banking industry has contributed to the growth of Islamic stock market, but in the long-run, only economic growth (which is represented by industrial production index) remained to be significant in benchmarking the status of the Islamic stock prices movement in Malaysia. The study also documented the significant influences of Islamic stock prices fluctuations on the Islamic bank financing loans with reverse effects, which indicates that the bank vigorousness might depend decisively on the Islamic stock market strength and vice versa. In sum, rather than focus on the Islamic bank financing per se as a way to promote the Islamic banking industry in the country, the government especially the BNM, should help to steady the entire Islamic stock market in order to boost the Islamic Finance Industries (IFIs) position around the globe. In so doing, the government of Malaysia should embark on constant efforts to promote the advancement of the Islamic banking industry, enhancement the economic development, and warrant the stability of the price levels and Malaysian currency due to their significant contribution to the Islamic stock market's development. These include measures such as amplify the long-run capacity of the Islamic banking industry and invent the sensible economic policies with the aim at promoting the economic growth of the country. Further improving the Islamic financial infrastructures, enhancing the pool of quality human capital to cater for higher demand for skilled human resources in the Islamic stock markets in the future, as well as granting conducive legal setting would also be supportive of the long-run advancement of the Islamic stock market in the country. If the strong position and viability of Islamic financial institutions (IFIs) can be uphold, therefore, the entire Islamic financial system could be realized in the near future and Malaysia will be able to become the international hub for the IFIs.

The findings of the study were based on the methodology outlined above. In exploring the development of Islamic stock market in Malaysia, the roles of the goods market, money market, foreign exchange market, and financial services market were empirically investigated. For a more reliable

and robust finding, further studies should cover a broader Islamic stock markets worldwide, rely on a longer study period that cover different episodes of economic cycles, and utilise a wide variety of time series analysis techniques.

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