

Review of the Literatures on Stock Price Behavior of Malaysia

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Abstract

Stock price behavior is one of the core concerns of researchers and finance scholars from more than a half-century of years. Most of the times, they have tried to identify unexplored anomalies that could be used to explain stock price movement in the different stock market. As a result, we have found different models and theories relating to stock price behavior as well as the efficiency of the stock market. Malaysian stock market is considered the second among the largest South East Asian stock markets according to its domestic market capitalization. A considerable number of researches have already been done on the stock price behavior of Malaysian stock market. This study reviews the existing literatures on the stock price behavior of Malaysian stock markets within two wings, literatures on efficient market hypothesis of Malaysian market and the effect of economic and financial variables on the stock price.

Keywords: Stock Price Behavior, Efficient Market Hypothesis, Economic Variables

1. Introduction

The Bursa Malaysia or formerly known as the Kuala Lumpur Stock Exchange (KLSE) is the premier security in Malaysia where the purpose of the Bursa Malaysia is to provide an internationally competitive marketplace for various investments and fund raising activities. Malaysian stock market is considered the second among the largest South East Asian stock markets according to its domestic market capitalization. A considerable number of research has already been done on the stock price behavior of Malaysian stock market. This study reviews the existing literatures on the stock price behavior of Malaysian stock markets within two wings, literatures on efficient market hypothesis of Malaysian market and the effect of economic and financial variables on the stock price.

2. EMH on Malaysian Stock Market

Relevance of EMH on Malaysian market has been investigated in several studies. Bol (2001) endorse no rejection of efficient market hypothesis for the Kuala Lumpur Stock Exchange in Malaysia for the period 1994-1999. Ozer (2003) investigates the informational efficiency of KLSE and confirmed the inefficiency of the market. Wong, Ho and Dollery (2007) examine random effect and seasonality of monthly share prices in the Kuala Lumpur Stock Exchange for the (13-year) period 1994-2006. They indicate that share prices do not reflect a complete random process within the period. The study also indicates possible room for investors to improve their returns by using appropriate trading means, while exploring monthly seasonal pattern (the monthly effects with positive returns for January and February, negative returns for March and September. However, they also document no monthly effect in the stock exchange with the Wald test and Kruskal-Wallis test. All these results by Wong et. al (2007) seem inconclusive whether to accept the efficiency of the Kuala Lumpur Stock Exchange. Consistently, Monday effect in the Malaysian stock market is reported by Maheran et al. (2010).

Cheong and Isa (2007) also investigate the random walk of share prices within the condition of drift and structural break with the Kuala Lumpur Stock Exchange. The study considers continuous compounded inter-day returns, composite index and major sector-based indices to test the random walk of equity prices, with respect to structural changes in the market and macroeconomic policies. The study results confirm the random walk of share prices. However, the study also indicates some missing drifts that can be accountable as the source of predicting returns. This dilutes and questions about the efficiency of Malaysian stock market.

Cheong (2008) also examines the weak form efficiency of Malaysian market for the period 1996-2006 with structural breaks. Cheong (2008) endorses this implying ambiguity on its efficiency with the findings from employing the unit-root test, where the test has ignored the control over currencies and economic setback. The results of the study do not support the efficient market hypothesis, since they imply violating the random walk requirements of share prices. Hence, Cheong (2008) concludes that within the structural change, the share markets in Malaysia are inefficient and not satisfying the weak form efficiency. Maheran et al. (2010) also consistently endorse Cheong (2008) on its efficiency with their findings from ordinary least square analyses. The study indicates that Malaysian stock market is subject to weekend effect; and therefore, it is not efficient.

Senthilnathan (2015) explores the empirical investigations carried out in the Asia and Pacific regions, except middle-east countries, to confirm which markets in the study area are efficient. The study demonstrate the Malaysian market as informationally inefficient (Senthilnathan, 2015).

3. Economic Variables and Stock Price Behavior of Malaysian Stock Market

Many previous studies show that there is significant relationship between equity prices and macroeconomic indicators in Malaysian equity market such as, Ibrahim and Aziz (2003), Zakaria (2008), and Rahman (2009) (Zandi et al., 2015). Md Nassir and Mohamad (1993) investigate the dividend and earnings behaviour of firms listed on the Kuala Lumpur Stock Exchange (KLSE). The findings suggest that: (i) the dividend decisions of these firms partiall)' depend on their current earnings and past dividends; (ii) firms have long-term target dividend which is conditioned upon their earnings ability, and (iii) earnings changes of firms are random which implies that earnings forecasts by analysts might be of no economic significance (Md Nassir & Mohamad, 1993).

Pandey (2001) examines corporate dividend behavior of the Kuala Lumpur Stock Exchange (KLSE) companies. The results show the influence of industry on payout ratios. The results of multinomial logit analysis reveal that the dividend behavior of the Malaysian companies is sensitive to the changes in earnings (Pandey, 2001).

Al-Abbasy (2012) explores through a qualitative study the factors that influence the net asset value of Islamic equity unit trust funds in Malaysian unit trust industry. The finding indicated that there are sixteen themes that found have influence on the variance of the net asset value of Islamic equity unit trust fund in Malaysian unit trust industry. These themes categorized into internal and external factors: external factors (Macroeconomics) include economic growth, interest rate, inflation, money supply, foreign exchange rate, crude oil price, local stability, global stability, and regulatory environment. While internal factors (Microeconomics) are fund manager experience, reputation and historical performance, shariah compliant

aspect (Islamic law), size of the fund, capital appreciation, income distribution and risk. (AL-Abbasy, 2012)

Zandi, Joupari and Aslam (2015) investigate the determinants of the net asset value (NAV) of Islamic equity unit trust funds in Malaysian capital market. Specifically, they empirically tested the existence of relationship between the endogenous variable (NAV of the Islamic equity unit trust funds) and the exogenous variables namely, microeconomic variables (Size, Liquidity, Volatility, Income distribution), macroeconomic variables (Consumer Price Index, Industrial Production Index, Three- Month Treasury Bill Rate, Money Supply (M3), Global Crude Oil Price, and Foreign Exchange Rate) and the impact of current global financial crisis on Malaysian unit trust industry. They found that the fund manager should keep update of the movement of macroeconomics variables and KLCI, so to be able to better predict the movement of the NAV of the unit trust Malaysia. (Zandi, Joupari, & Aslam, 2015)

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Ibrahim and Aziz (2003) Analyzed dynamic linkages between stock prices and four macroeconomic variables for the case of Malaysia using standard and well-accepted methods of cointegration and vector autoregression. Empirical results suggest the presence of a long-run relationship between these variables and the stock prices and substantial short-run interactions among them. (M. H. Ibrahim & Aziz, 2003)

Ibrahim (1999) investigated the dynamic interactions between seven macroeconomic variables and the stock prices for an emerging market, Malaysia, using cointegration and Granger causality tests. The results strongly suggest informational inefficiency in the Malaysian market. The bivariate analysis suggests cointegration between the stock prices and three macroeconomic variables – consumer prices, credit aggregates and official reserves. There are some evidence that the stock prices are Granger-caused by changes in the official reserves and exchange rates in the short run. (M. Ibrahim, 1999)

Later, Ibrahim (2000) and Ibrahim and Aziz (2003) investigate the dynamic interactions between stock market and economic activities by conjecturing that the stock market leads the movement of macroeconomic variables.

H. and Sulaiman (2001) analyzed dynamic interactions among three macroeconomic variables (real output, price level, and money supply), exchange rate, and equity prices for the Malaysian case using time series techniques of cointegration and vector autoregression. In the analysis, they rely on variance decompositions and impulse-response functions to gauge the strength of the interactions among the variables. The Malaysian stock prices seem to be driven more by changes in domestic factors, particularly money supply. Specifically, we note that money supply exerts a positive effect on the stock prices in the short run. However, money supply and stock prices are negatively associated in the long run. We also observe the negative effects of depreciation shocks on stock prices. Other selected notable results are: the stock prices contain valuable information for future variations in macroeconomic variables especially the price level; currency depreciation is both contractionary and inflationary; (H.Ibrahim & Sulaiman, 2001).

Janor, Halid and Rahman (2005) examined the stock market as a predictor of the economic activity in Malaysia and its sensitivity to different stock market conditions. In doing so, they employed the Johansen cointegration, variance decomposition and the Autoregressive Distributed Lags bound test. For the whole period under study, the Johansen cointegration and the VDC show that the Malaysian stock market lead changes in economic activity. The results from the ARDL show no relation between the two variables. Different findings are found for different sub-periods. All the three tests suggest that the stock market lead changes in economic activity. This implies that the stock market as predictor to economic activity is sensitive to different stock market conditions. (Janor, Halid, & Abdul Rahman, 2005)

Rosylin and Shabri (2006) explored the extent to which macroeconomic variables affect the stock market behavior in an emerging market Malaysia in the post 1997 financial crisis period. They employed the autoregressive distributed lag model (ARDL) to examine the long run relationship between the macroeconomic variables and the stock returns in Malaysia. The macroeconomic variables tested in the study were the money supply M3, industrial production index (IPI), real effective exchange rate (REER), and interest rate as proxied by Treasury bill rates (TBR). To examine the international influence on the Malaysian stock market, the US monetary policy variable as measured by the Federal Funds rate (FFR) was

incorporated in their analysis. The estimation of results suggested that REER, money supply M3, IPI and FFR seem to be suitable targets for the government to focus on, in order to stabilize the stock market and to encourage more capital flows in to the capital market. Changes in US monetary policy as measured by the changes in the FFR seems to also have a significant direct impact on the Malaysian stock market behavior during the period of analysis. This implies that any changes in the US monetary policy may affect the Malaysian stock market. (Rosylin & M.Shabri, 2006)

Ameer (2007) examines the impact of the macroeconomic variables on the stock and bond market activities in two Asian countries, namely, Malaysia and South Korea. The study focuses on the influence of the interest rate changes, the expected inflation rate and the stock returns on the aggregate stock and bond issuance in both countries. Quarterly data were obtained from the Bank of International Settlements (BIS) domestic securities statistics for the corporate bond and the equity over the period from 1995 to 2004. By adopting the vectors autoregressive model (VARs) and the variance decomposition techniques, the study shows that the macroeconomic variables have significant influence on the aggregate stock market and the bond issuance. The study also shows that, the interest rate liberalization changed the investors' attitude from the private to the public borrowing, i.e., the bond market as well as the equity issuance increased stock market returns, the result of which finally leads to the increase in the equity financial market in both countries.

Fadhil and Azizan (2007) examine the possible linkages between the unit trust NAV and the macroeconomic variables, including the Consumer Price Index (CPI), the money supply (M2) and the Interbank rate (IBR) as well as the KLCI. Another objective of the study is to examine the causal relationship between the inter linkages of the variables. This study adopts the Pearson correlation test to measure the strength of the variables and other related tests, such as, the unit root test, the Johansen co-integration test and the error correction model, covering the period from 2002 to 2005. The results show that the NAV of the unit trust funds in Malaysia has a long-term relationship with the macroeconomic variables. In particular, the KLCI, the M2 and the CPI have strong positive relationship with the NAV of the unit trust, while the IBR has a weak negative relationship with the NAV of the unit trust.

Mun, Ee and Tan (2008) explore causal relationships between stock market and the economy using formal tests of causality developed by C. J. Granger. Results show that stock market Granger-caused economic activity with no reverse causality observed. (Mun, Ee, & Tan, 2008)

Study conducted by Rahman et al. (2009) providing an assessment of the stock market behavior and the various macroeconomic variables on the Malaysian stock market covering the period from January 1986 to March 2008. The independent variables consist of an industrial production index, a real exchange rate, a money supply (M2), reserves (RES) and an interest rate (TB). The study adopts the time-series regression technique on the monthly price of the KLCI. The results show that all the six variables contributed significantly to the co-integrating relationship. The findings of the study illustrate that the Malaysian stock market is sensitive to the changes in the macroeconomic variables. Reserves and industrial production index were also found to have stronger dynamic interactions with the Malaysian stock market as compared to the interest rate, the exchange rate and the money supply.

Aisyah (2009) explored the interactions between selected macroeconomic variables and stock prices for the case of Malaysia in a VAR framework. Some conventional econometric techniques are applied along with a battery of complementary tests to trace out both short and long run dynamics. Upon testing a vector error correction model, they show that changes in Malaysian stock market index do perform a cointegrating relationship with changes in money supply, interest rate, exchange rate, reserves and industrial production index. Our lag exclusion test shows that all six variables contribute significantly to the co-integrating relationship. This shows that the Malaysian stock market is sensitive to changes in the macroeconomic variables. Furthermore, based on the variance decomposition analysis, they found that Malaysian stock market has stronger dynamic interaction with reserves and industrial production index as compared to money supply, interest rate, and exchange rate. (Aisyah Abdul Rahman, Noor Zaherah Mohd Sidek, 2009)

Rahman et al. (2009) explores the interactions between selected macroeconomic variables and stock prices for the case of Malaysia in a VAR framework. Some conventional econometric techniques are applied along with a battery of complementary tests to trace out both short and long run dynamics. Upon testing a vector error correction model, we show that changes in Malaysian stock market index do perform a cointegrating relationship with changes in money supply, interest rate, exchange rate, reserves and

industrial production index. Our lag exclusion test shows that all six variables contribute significantly to the co-integrating relationship. This shows that the Malaysian stock market is sensitive to changes in the macroeconomic variables. Furthermore, based on the variance decomposition analysis, this paper highlights that Malaysian stock market has stronger dynamic interaction with reserves and industrial production index as compared to money supply, interest rate, and exchange rate. (Rahman, Sidek, & Tafri, 2009)

Mohamed, Rohilina and Hassama (2009) attempted to examine the short-run and long-run causal relationship between Kuala Lumpur Composite Index (KLCI) and selected macroeconomic variables namely inflation, money supply and nominal effective exchange rate during the pre and post crisis period from 1987 until 1995 and from 1999 until 2007 by using monthly data. The methodology used in this study is time series econometric techniques i.e. the unit root test, cointegration test, error correction model (ECM), variance decomposition and impulse response function. The findings show that there is cointegration between stock prices and macroeconomic variables. The results suggest that inflation, money supply and exchange rate seem to significantly affect the KLCI. (Mohamed et al. 2009)

Study of Hawati, Ruzita, Hasimi and Izani (2010) provides evidence on the validity of the Fisher hypothesis, linking inflation and stock returns. Their findings are inconsistent with the Fisher hypothesis that, they found no long-run relationship between inflation and stock return. (Hawati et al. 2010) Rasiah (2010) used time-series analysis to investigate the long-run relationships and short-run dynamic interactions between the stock market and various macroeconomic variables in Malaysia. The study applied the multivariate cointegration methodology to establish the possible causal relations between these variables. The cointegration test and the vector error correction model demonstrates the evidence of positive long-run relationships between real stock returns and measures of aggregate economic activity including industrial production, consumer price index, money supply and real exchange rate. The long-term elasticity coefficients of the macroeconomic variables on stock returns display relationships that are theoretically grounded. Further analysis using variance decompositions lends evidence of the dominant influence of certain macroeconomic variables namely; consumer price index, money supply and real exchange rate in forecasting stock price variance. (Rasiah, 2010). Mugableh (2011) assessed the long-run and short-run equilibrium relationships between six macroeconomic variables namely; industrial production index (IP), producer price index (PPI), consumer price index (CPI), exchange rates (ER), narrow money supply (M1), broad money supply (M2) and the Malaysian Stock Market Index (SMI) using annual time-series data for the 1977-2011 period. However, the results indicate the presence of long-run and short-run equilibrium relationships between four macroeconomic variables and SMI. (Mugableh, 2011). Binti et al. (2011) examined the predictability power of exchange rates and interest rates' respective volatilities on stock market volatility and return using monthly Kuala Lumpur Composite Index (KLCI) returns, 3 months Malaysia Treasury bond and monthly exchange rate of Ringgit per US Dollar from 1997 January to 2009 November. The study adopts two models based on GARCH (1,1), model 1 (model 2) without (with) interest rate and exchange rate. The relationship between interest rate and exchange rate and KLCI returns are found to be negative, but significant for exchange rate and insignificant for interest rate. Insignificant relationship exists between return variance and the variables though positive for exchange rate and negative for interest rate. This means the variables have a certain degree of predictive powers for KLCI returns but weak volatility prediction. (Kadir, Selamat, Masuga, & Taudi, 2011)

Zukarnain and Shamsuddin (2012) examined the relationship between stock market returns volatility in Malaysia with five selected macroeconomic volatilities; GDP, inflation, exchange rate, interest rates, and money supply based on monthly data from January 2000 to June 2012. The volatility in this paper was estimated using GARCH(1,1) models, and the relationship between stock market volatility and macroeconomic volatilities has been examined using bi-variate and multivariate VAR Granger causality tests as well as through regression analysis. They found that, the volatilities of macroeconomic variables as a group are not significantly related to stock market volatility. (Zukarnain & Shamsuddin, 2012)

Bekhet and Mugableh (2012) conduct an empirical examination into the long-run and short-run equilibrium relationships between macroeconomic variables and the Malaysian stock market index (SMI) for the 1977-2011 period. Specifically, it employs Ng and Perron (NP) bounds statistics test to detect the boundaries of variables stationarity. Subsequently, the co-integrating relationships among variables are tested using the bounds F-statistic test. Eventually, the long-run and short-run equilibrium relationships are analyzed using Pesaran, Shin, and Smith (PSS) bounds tests Approach. The results indicate that all macroeconomic variables are co-integrated with SMI. (Bekhet & Mugableh, 2012)

Hussin, Abu, and Awang (2012) investigated the relationship between the development of Islamic stock market and macroeconomic variables in Malaysia. The estimation of Vector Auto Regression (VAR) method was applied on the created research model. The variables involved in their research are Kuala Lumpur Syariah Index (KLSI), Industrial Production Index (IPI), Consumer Production Index (CPI), Aggregate Money Supply (M3), Islamic Inter Bank Rate (IIR) and Exchange Rate of Malaysian Ringgit-United States Dollar. The research used monthly data from April 1999 to October 2007 taken from authorized sources. The findings showed that Islamic stock prices are co-integrated with the selected macroeconomic variables in which the stock price is related positively and significantly with IPI and CPI variables but related negatively and significantly with M3 and MYR variables. Meanwhile, its relation with IIR variables is found negative but insignificant. From the aspect of Granger causal relationship it is found that variables of CPI, M3 and MYR are the Granger cause for KLSI and the KLSI is the Granger cause for IPI, CPI and MYR. (Hussin et al. 2012)

Norshamshina (2012) studied on the association between selected macroeconomic variables and Malaysia Shariah Indices. They used the Vector Error Correction framework by looking at the long run and short run relationship between macroeconomic variables and (i) Kuala Lumpur Shariah Index and (ii) FTSE Bursa Malaysia Shariah Index. In the long run, the impacts of all selected variables on Kuala Lumpur Shariah index for the period of 1990 to 2006 are positive. However, the effect of increases in consumer price index, exchange rate, Treasury Bill and US Federal Fund Rate on Malaysian Shariah index after the period till 2011 are negative. Besides, they found positive relationship only in industrial production and money supply for the period of 2007 to 2011. In the short run, mix results were found during 1990 to 2011. The result also shows in overall the variables have unidirectional short run causal effect during the study period. (Norshamshina Mat Isa, Azrul Abdullah, 2012).

4. Conclusion

The factors that influence share prices could either be internal factors, such as earnings, dividend, book value, etc. or external factors such as interest rate, government regulations, foreign exchange rate, etc. Several such factors have been identified by previous empirical research of Malaysian stock market. Using different methods and measurement techniques different types of outcomes are revealed from these past literatures. More studies can contribute a lot in this area of research.

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