

EFFICIENT MARKET HYPOTHESIS:
IMPACT OF 12th MALAYSIAN GENERAL
ELECTION ON THE STOCK MARKET

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DECLARATION

We hereby declare that:

This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

Equal contribution has been made by each group member in completing the research project.

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LIST OF ABBREVIATIONS

AAR	Average Abnormal Return
AR	Abnormal Return
ARCH	Auto Regressive Conditional Heteroscedasticity
AV	Abnormal Volatility
CAAR	Cumulative Average Abnormal Return
E-GARCH	Exponential GARCH
EMH	Efficient Market Hypothesis
FBM	FTSE Bursa Malaysia
FTSE	Financial Times Stock Exchange
GARCH	Generalized Auto Regressive Conditional Heteroscedasticity
KLCI	Kuala Lumpur Composite Index
KLSE	Kuala Lumpur Stock Exchange
KLSEB	Kuala Lumpur Stock Exchange Berhad
MYR	Malaysian Ringgit
OECD	Organization for Economic Co-operation and Development
SARS	Severe Acute Respiratory Syndromes
SEMS	Stock Exchange of Malaysia and Singapore
SES	Stock Exchange of Singapore
T-GARCH	Threshold GARCH
CI	Confidence Interval
RSS	Residual Sum of Squares

OLS Ordinary Least Squares

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Abstract

The 2008 general election in Malaysia is a detrimental one in Malaysian history. The incumbent government, Barisan National, failed to acquire two-thirds majority in the parliament, thus losing their once-absolute control over legislative power. Amidst the political uncertainty, it is the aim of this research paper to investigate if it is possible for investors to earn abnormal return and abnormal volatilities during the period of 12th Malaysian general election.

Event study methodology, first proposed by Fama (1965), is used in this study to find out the impact of the general election on the Malaysian stock market. Researchers found it is the nature of stock prices to exhibit conditional volatility. However, the model proposed by Fama (1965) assumes stock prices to have constant volatility. To counter the unrealistic assumptions, a GARCH model is employed to model stock prices in the Malaysian stock market. To find out if abnormal returns and abnormal volatilities present, generally throughout the market, cross-sectional test-statistics by Brown and Warner (1985) and Savickas (2003) are used.

This study concludes that there are no abnormal returns during the period of 12th Malaysian general election. This proves that the Malaysian stock market is a semi-strong efficient market. Even so, abnormal volatilities are found throughout the event period. This is synonymous with a study by Floros (2008) on general elections in Greece.

CHAPTER 1: INTRODUCTION

1.0 Introduction

This chapter gives a summary of the research project conducted. The first section is research background. It is a brief introduction about fundamentals and motivation for this research. The next section, the problem statement, addresses issues of an inefficient market and deficiencies in past research. The subsequent section highlights the importance of this research. Next, chapter layout is to summarize the remaining chapters of the report. Lastly, the summary of Chapter 1 is provided in the conclusion.

1.1 Research Background

General elections give the impression of being a clean and transparent affair, yet the Malaysian general elections have always been an enigma. Already shrouded in mystery, it is even more shocking that so few researches have been done on the subject matter (Norli, Annuar, Taufiq & Sazali, 2010). It is the purpose of this research project to shed some light regarding the relationship of the 12th Malaysian General Election and stock returns.

In the next sub-sections, facts including the interaction between politics and stock markets, the political climate in Malaysia, and the Malaysian stock market will be discussed. The following sub-sections are about underlying fundamentals of this research.

1.1.1 Interaction between Politics and Stock Markets

What exactly is politics? A generally agreed definition is difficult to find. It can be defined in various aspects, mainly depending on the context examined. As this research project focuses on the politics of Malaysia, the definition suggested by Etzioni (2003) should be relevant in this context. Etzioni interprets politics as a process that concerns with bridging power differences with society with those within the state. It is a bridge that carries input both from society to the state (the results of election) and from the state to society (Presidential speeches and legislation). The national political process, of course, encompasses all the governmental activities or policies. Researchers argue that politics plays a crucial role especially in the emerging stock market of a developing country (Bilson, Brailsford & Hooper, 2002; Civilize, 2012; Suleman, 2012).

Over the decades, academicians attempt to disclose the political factors that impact the performance of stock market in a country. This is evident by numerous empirical literatures found pursuing on the said topic. The most common factor is the general election of a nation (Niederhoffer, Gibbs & Bullock, 1970; Allvine & Neill, 1980; Gemmill, 1992; Foerster & Schmitz, 1997; Nippani & Medlin, 2002; Nippani & Arize, 2005; Hung, Jiang & Chiu, 2007; Bialkowski, Gottschalk & Wisniewski, 2008; Ferri, 2008; Floros, 2008; Jones & Banning, 2009; Cooley, 2010; Huang, Chan, Huang & Chang, 2011; Altin, 2012).

General election often triggers a period of political uncertainty (Durnev, 2011; Lugovskyy, 2012). According to Lugovskyy (2012), investors are unsure about election outcomes that could possibly change the political regime of a country. That is why surprising electoral outcomes create

political instability. Mbaku (1992) claims that political instability arises from a change or challenge in the existing political system of a country. While a change in the existing government, according to Morrison and Stevenson (1971), entails restructuring of the cabinet through changing the representatives of political parties in the cabinet after an election. Consequently, investors' willingness or unwillingness to risk their portfolios is reflected in their actions, thus causing a substantial impact on stock prices.

A stock market is perceived as the central indicator of a country's economy. It is not merely reflecting the current accomplishment but also the future performance of the economy. Wang, Lee and Lin (2008) and Srivastava (2010), agrees that a stock market's performance is very vulnerable to any unfavorable forces. Moreover, it is known that stock markets are highly informational sensitive. This is the one of the main theories within the Efficient Market Hypothesis, proposed by Fama (1965). Through the way investors make their decision, any information regarding economic and political outlook will therefore be reflected in the stock price. The concept of how stock markets discounting information will be detailed in subsequent section.

The emphasis should now be devoted to the relationship between stock market and general election. Specifically, this research project concerns how stock markets generally react to elections in which the reaction may be triggered by political instability. According to Pantzalis, Stangeland and Turtle (2000), the general election is the most critically important political factor closely monitored by investors. They justify that elections are the events that attract media attention, pollsters and political and financial analysts who filter information between politicians and the public. It is the general election process that disseminates information to financial markets.

In fact, it is all about investors' psychological judgments. According to Tan and Gannon (2002), stock markets react favorably by showing an increase in prices when the news arrived uplifts the expectation of investors. Prices will decrease otherwise (Suleman, 2012). Similarly, if investors are optimistic about the unknown election outcome, the stock market tends to respond with a soar in stock prices. In contrast, if investors are pessimistic (probably because they fear a significant change in existing political structure following the election, causing political instability), the result will often be a plunge in stock prices. This is proven in the study by Huang, Chan, Huang and Chang (2011), on the presidential election in Taiwan in year 2004. They pointed out that investors panicked during the political crisis, which in turn led to a crash in the Taiwan stock market.

1.1.2 Political Climate in Malaysia

Malaysia is a country practicing democracy. But it is a unique democracy because Malaysia still retains its element of constitutional monarchy (Means, 1976). Monarchs are the Sultans of each Malay state. For every five-year term, the Yang di-Pertuan Agong (King of Malaysia), is selected among the nine Sultans of the Malay states. Even though Malaysia has a king, legislative power lies within the elected parliament as well as state representatives. The king is only able to exercise his power based on advice from Malaysia's Prime Minister (Means, 1976).

The Prime Minister leads a panel of ministers, called the cabinet. The cabinet serves as the executive power in Malaysia (Means, 1976). A cabinet can only be formed by a party which commands a majority (above 50%) of the parliament. To elect representatives in the parliament a general election is held at least once every five years. Malaysia is considered a politically stable country. The ruling party has always been Barisan Nasional (known as the Alliance Party before 1973). Barisan

Nasional's rule has remained unchanged since its independence in 1957 (Mohamad, 2008).

The only periods of political uncertainty were during the 3rd general election in 1969 and the 12th general election in 2008 (Mohamad, 2008). In 1969, Barisan Nasional only won 77 out of the 140 parliamentary seats (55%); in 2008, Barisan Nasional only won 140 out of the 220 parliamentary seats (63.6364%). For both of these two periods, Barisan Nasional has failed to secure two-thirds majority (66.6667%) in the parliament (Mohamad, 2008).

A two-thirds majority is very significant in the Malaysian parliament. To amend the national constitution, the relevant Constitutional amendment bill must be passed in each House of Parliament "by the votes of not less than two-thirds of the total number of members of" that House (Art. 159(3) Federal Constitution of Malaysia) (Means, 1976).

Thus, the abovementioned general elections (3rd general election in 1969 and 12th general election in 2008) are unique, given their unexpected results. As Barisan National has failed to obtain a two-thirds majority in the parliament, it can no longer make amendments to the national constitution without obtaining support from the opposition parties. Despite still being the ruling government, the result of both general elections has robbed Barisan National of its full control over the Malaysian parliament (Mohamad, 2008).

The 12th Malaysian general election has been described as a "political earthquake" or "political tsunami" (O'Shannassy, 2008; Chin & Wong, 2009; Moten, 2009; Singh, 2009). According to Pepinsky (2007), the results bear well for Malaysia as a democratic nation. However, it is a shock for the incumbent regime, which has been controlling the country for the past 50 years. The end of Barisan National long-standing

authoritarian regime triggered a period of political instability in Malaysia (Pepinsky (2007)).

As such, the aim of this research project is to understand does the failure of an incumbent government securing a two-thirds majority in the parliament affect the Malaysian stock market.

1.1.3 The Malaysian Stock Market

Bursa Malaysia, previously known as Singapore Stockbrokers' Association, was set up as a formal organization to deal with securities business in Malaysia. In 1937, it re-registered as the Malayan Stockbrokers' Association but it did not trade public shares.

By 1960, the Malayan Stock Exchange was established and the public trading of share commenced on 9th May 1960. Besides, the trading rooms in Singapore and Kuala Lumpur were linked by direct telephone line in order to facilitate the public trading of shares.

The Stock Exchange of Malaysia was established in 1964 and changed its name to Stock Exchange of Malaysia and Singapore (SEMS) in the following year with the secession from Singapore. In 1973, the currency interchangeability between Malaysia and Singapore was terminated. The SEMS was separated into The Kuala Lumpur Stock Exchange Berhad (KLSEB) and The Stock Exchange of Singapore (SES). KLSEB became a limited company on 14th December 1976 and changed its name to Kuala Lumpur Stock Exchange (KLSE).

In 2004, KLSE was re-named as Bursa Malaysia. It became a demutualized exchange with the purpose to enhance their competitive position and to respond to global trends in the exchange sector by making

them more customer-driven and market-oriented. Bursa Malaysia was listed on its own main board on 18th March 2005 with a 17% or RM0.51 premium over its retail price of RM3. Hence, it has moved to a profit-motive organization.

Operating under Section 15 of the Capital Markets and Services Act 2007, Bursa Malaysia offers securities, derivatives as well as Islamic instruments. Currently, there are 823 companies listed on Bursa Malaysia's main board and it has a market capitalization of MYR1.287 trillion (Bursa Malaysia, 2012).

The main index in Bursa Malaysia is the FBM KLCI. It is often used as an indicator of Malaysian stock market performance. Currently, the index is comprised of 30 of companies in Malaysia with the largest market capitalization. Prior to July 6, 2009, FBM KLCI was just known as KLCI. The index was then comprised of 100 companies in Malaysia with the largest market capitalization. The reason why FBM KLCI replaced KLCI is to improve the benchmark index to be float-based and liquidity-screened. This ensures it is aligned with Bursa Malaysia's ongoing efforts to remain globally relevant (Ng, 2009). Figure 1.1 is a depiction of the KLCI during the period of the 12th Malaysian General Election.

By observing the candlestick chart in Figure 1.1, it is obviously noticed that there is a significant price plunge between the dates 7th March 2008 and 10th March 2008 (two consecutive trading days). The closing price difference between these two trading days is a shocking 9.5%.

Figure 1.1 Bursa Malaysia FBM KLCI during the period of the 12th Malaysian General Election



Source: Developed for Research

It would be interesting to find out if the reason of the stock market decline is a direct impact of the general election in year 2008. Insofar, there has not been any event study conducted on the effect of the 12th Malaysian general elections on the Malaysian stock market.

1.2 Problem Statement

This research project is motivated by two main concerns: the adverse effect of an inefficient market and deficiency of past studies. They will be discussed in the following sub-sections.

1.2.1 The Adverse Effect of an Inefficient Market

Given that a market is inefficient, an investor in that particular market could make abnormal returns and/or losses (Beaver, 1981). Even though abnormal returns may be deemed as good news to investors, an inefficient market actually harms the economy. According to Barua and Raghunathan (1987) inefficiency encourages heavy speculation in the capital market.

Speculation, harms both the market as well as the country's economy. Barua and Raghunathan (1987) defines a speculator as someone who operates in a market without the requisite resources (i.e. money). Thus, when the settlement date arrives, the speculator might not honour his obligation, creating a breakdown in the market mechanism.

The economy suffers in a different way. Hussin (2000) claims that the United States economic crash in the 1930's was caused by speculation in the stock market. According to him, speculation caused stock prices to rise to their peak and plunge to their trough in just a few days, sending the United States economy into a depression.

Barau and Raghunathan (1987) admit that policies should be implemented to curb speculation. Thus, it is vital, if not imperative that government should make sure their stock markets are efficient to prevent unwanted speculation.

1.2.2 Deficiency of Past Studies

Norli, Annuar, Taufiq, and Sazali (2010) confess that until recently, few studies have been done on the Malaysian stock market in relation to issues such as general elections, the SARS outbreak and the 2004 tsunami.

In addition, little or no event study has been done on the effects of general elections in South-East Asia on a country's stock market, with the exception of Sundari and Masodah (2009). Thus, it makes this research project one of the first papers seeking to understand how the 12th general election in Malaysia affects the stock market, making use of the GARCH model and event study methodology.

1.3 Research Objectives

1.3.1 General Objective

The core objective of this study is to empirically demonstrate the efficiency of Bursa Malaysia exchange as an emerging stock market in responding to the 12th Malaysian general election by adopting event study methodology.

1.3.2 Specific Objectives

- I. To find out if there are abnormal returns during the 12th Malaysian general election.

- II. To measure the magnitude of abnormal returns during the 12th Malaysian general election if any.
- III. To find out if volatility of stock returns changes during the 12th Malaysian general election.
- IV. To measure the magnitude of changes in volatility in stock returns during the 12th Malaysian general election if any.

1.4 Significance of the Study

Previous researches have shed much light in examining the efficiency of stock market surprised by such events as large price increases and decreases (Himmelmann, Schiereck, Simpson & Zschoche, 2012), mandatory disclosure (Salameh & Albahsh, 2011), dividend announcement (Sharma, 2009) and shares repurchase (Dua, Puri & Mittal, 2010). However, few if not none has studied the impact of general election on the efficiency of stock market in developing country particularly in Malaysia. The knowledge gap can be bridged with a thorough investigation.

Political risk is generally regarded by investors as a significant influential factor in their portfolio management. Inefficiency attracts speculators to the stock market to reap unfair capital increment. For example, a price skyrocket of stocks during pre- and post-election period may be a pseudo sign of improved performance, mainly due to speculation. George Soros is a prominent speculator. According to Litterick (2002), in the year 1992 Soros brought damaging impact to the English economy due to his vigorous speculation activity. This is why government should dedicate more efforts towards shaping and improving the efficiency of stock market as none would like the history to repeat itself.

This study will reveal the insight of Malaysian stock market for investors not only from local but also foreign countries. Generally speaking, investors are rational and risk-averse and thus they need in-depth information to make deliberate and

informed decisions to secure their capital when investing in a relatively strange stock market. This research project's empirical work will provide investors with a deeper insight into how political events could affect the Malaysian stock market.

1.5 Chapter Layout

The remainder of this paper is organized into five sections: Chapter 2 presents the literature review including relevant theoretical model, proposed theoretical framework, hypothesis development and conclusion of the chapter. Chapter 3 details the data and methodology. This chapter comprises introduction of the research methodology, research design, data collection method, sampling design, research instrument, constructs measurement, data processing, data analysis and conclusion of the chapter. Chapter 4 discloses the results. This chapter documents introduction, descriptive analysis, scale measurement, inferential analyses and conclusion of the chapter. Chapter 5 files discussion, conclusion and implications. This chapter encompasses introduction, summary of statistical analyses, discussions of the major findings, implications of the study, limitations of the study, recommendations for future research and conclusion of the chapters.

1.6 Conclusion

In short, this chapter introduces the background and the objectives of conducting this research. The central idea is around the classical theory of Efficient Market Hypothesis that is to be tested in Malaysian stock market with the 12th general election as the event. Before any further statistical work, it is hypothesized that the Malaysian stock market is efficient.

And in fact, this study could be a catalyst for investors seeking in-depth insight about political risk and its effect on the stock market in Malaysia. Past literatures will be reviewed in next chapter.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter is divided into three sections. The first section is a review of theory and empirical work. The second section focuses on theoretical models used by past researchers. The third and last section is the theoretical framework for this research project.

2.1 Review of Literature

In short, the first sub-section is a discussion about several authors advocating the Efficient Market Hypothesis and how they are related to this research project. It would be followed by an investigation of investors' response to the general election outcomes. The last sub-section will be about the impact of events on the conditional volatility of stock returns.

2.1.1 Review on the Theory and Empirical Work of Efficient Market Hypothesis

The Efficient Market Hypothesis theory was initially proposed by Fama (1970). He defines an efficient market as a market that fully reflects all available information. In a typical competitive market investors react quickly to the announcement of new information (Fama, 1970). EMH is further divided into three categories, which are strong-form, semi-strong form and weak form. Strong form indicates that current market prices

reflect all relevant information, which contains public or private information. In the semi-strong form, information, which includes publically available information and in weak form, information relevant to historical price or return sequences (past data) will be fully reflected in current market prices (Fama, 1970). He further explains that the ideal market is a market where prices provide accurate signals for resource allocation and investors can chose the securities that represent ownership of firm activity. In addition, Fama (1970) also advocates that an efficient market is voided of any transactions cost.

Even though Fama (1970) has always been credited as the father of EMH, there are several earlier journals that came up with the concept of an efficient market. The origins of EMH could be traced back to works such as those by Bachelier (1900). The efficient market concept became a dominant finance paradigm only after the 1970's. It was during that time when scholars extrapolated on the EMH theory proposed by Fama (1970). In a study by Dimson & Mussavian (1998), they discovered that investors cannot expect to earn superior profits from their investment strategies if the capital market is considered sufficiently competitive. Moreover, according to Chughtai (2010), technical analysis is futile in an efficient market. An efficient market adapts its prices to new information at such a speed that investors are unable to accurately predict future prices based on past trends (Chughtai, 2010).

Moving past the fundamentals of EMH, the following paragraphs will be dedicated to the stock market conditions of Malaysia. Based on a study by Akinyote (2008) and Baharuddin, Abdullahi and Teoh (2010), Bursa Malaysia is considered a semi-strong efficient market. This indicates that stock prices in Bursa Malaysia reflect all past historical information as well as all publically available information. An individual can only earn abnormal returns under the condition that he or she possesses internal information (Akinyote, 2008).

Apart from studying the market efficiency of Bursa Malaysia, Akinyote (2008), Baharuddin, Abdullahi and Teoh (2010) and Chughtai (2010) studied the relationship between the announcement of dividends and stock prices. In Malaysia, the announcement of dividends and earnings are on the same day. Both information are important because the Malaysian public views them as a benchmark for the company's future prospects (Akinyote, 2008).

As such when the size of the dividend increase is beyond the market expectation, it will result in negative abnormal returns; when the dividend payments remain unchanged, individual investors will treat it as no information and stock prices also remain constant. On the contrary, when dividend payment decreases but the company reports higher earnings, investors will consider this as good news as the company is retaining more earnings for future growth. This will result in a positive abnormal return for investors (Akinyote, 2008).

Studying on the economic influence on rights issue announcement behavior in Malaysia, Salamudin, Ariff and Md Nassir (1999) found that a rights issue is positively correlated to share price. The authors reasoned that investors in Malaysia believe the fund from issues would be used in profitable investment projects in a high growth economy. Due to the post-announcement period reaction speed, Salamudin, Ariff and Md Nassir (1999) concluded that the Malaysian stock market is efficient in semi-strong form.

2.1.2 Review on the Relationship between Stock Markets and General Elections

Stock markets are the most common barometers to measure a country's economic performance (Chuang & Wang, 2009). Unexpected general election results or government changes are often negatively linked to a country's stock market performance (Kim & Mei 2001; Ferri, 2008; Chuang & Wang, 2009).

Chuang and Wang (2009) found that political change in America, Japan, Britain and France has a negative relationship to stock returns. This means when there is a change in governments, stock returns would drop. The authors also explained that different political parties have different economic agendas, leading to frequent economic policy modification. Investors view this as serious uncertainty. To protect their positions, they will take up conservative stock positions (Chuang & Wang, 2009).

Using a components-jump filter to measure the impact of political event on the market volatility and return, Kim and Mei (2001) discovered that changes in government administration affects stock markets. The authors reasoned that new governments would often implement new fiscal and monetary policies, leading to an increase in uncertainties. The uncertainty discourages investors from taking risk, which causes negative stock returns (Kim & Mei, 2001). On the contrary, evidence from a research in Thailand, by Nimkhunthod (2007) shows that a change in government is only negatively related to negative stock returns in the short run. In the long run, government change in Thailand leads to a significant positive returns in the stock market.

Usually, unexpected general results (not yet to the extent of a government change) also influence stock market returns (Nimkhunthod, 2007; Ferri, 2008; Bialkowski, Gottschalk & Wisniewski, 2008; Fuss & Bechtel, 2008).

In a study of the year 2004 United States presidential election by Ferri (2008), during the event day (day when the election is held) there were significant changes in share values in response to an unexpected general election outcome. The research by Ferri (2008) proves that the surprising outcome of George Bush winning the presidential election was accompanied by shift in equity values. The author advises prudent managers and investors to carefully monitor future presidential elections and be prepared to adjust or hedge their holdings against possible unfavorable outcomes. Similarly, Bialkowski, Gottschalk & Wisniewski (2008) discovered that in 27 organizations for Economic Co-operation and Development (OECD) countries, unexpected election results such as narrow margin of victory, lack of compulsory voting laws and change in political orientation and failure to form a government with parliamentary majority to negatively affect the stock market. Nimkhunthod (2007) found that coup d'états in Thailand significantly affects the stock market. In the event of a coup d'état, the stock market in Thailand would experience a temporary negative shock but experience a boost in a longer period (Nimkhunthod, 2007).

Applying a conditional volatility model, Fuss and Bechtel (2008) discovered that in Germany, if the public expects a right-leaning coalition to win the election, small-firm stocks would generate a positive return; when a left-leaning coalition is expected to win, small-firm stocks would perform negatively. Another peculiar finding of Fuss and Bechtel (2008) is when uncertainty of which coalition would win increases, the stock market becomes less volatile. The authors admit that the result is at odds with

theory. However, several other past researchers obtained similar results in other countries.

Apart from post general election events, events that occur prior to the general election or even the general election itself have potential to influence the stock market. Based on a study by Chuang and Wang (2009), prolonged debates between ruling and opposition parties before the election, inter-party negotiations and mediations are fueling uncertainty in Taiwan's political scene. As such, they have a significant negative relationship with Taiwan's stock market (Chuang & Wang, 2009). In addition, the authors also attributed uncertainties to factors such as political distortions of economic principles as well as disagreements between ruling and opposition parties. Political news can also affect in unexpected return jumps in the stock market (Kim & Mei, 2001).

In fact, price jumps are associated with political risks; political risk is able to arouse huge damage to foreign investment and thus increasing the possibility for multi-national firm bankruptcy (Kim & Mei, 2001). The abovementioned pre-general election factors create market confusion, which is the main cause of market downturns (Kim & Mei, 2001; Chuang & Wang 2009).

Researching on the 2004 political crisis in Taiwan (presidential candidates were shot and wounded during the elections), Huang, Chan, Huang and Chang (2011) discovered that the crisis has a temporary negative impact on the stock market. Based on their research, the Taiwan stock market recovered once the crisis ended. They concluded that elections in Taiwan do not have a long term influence on the stock price and volatility. On a separate note, Huang, Chan, Huang and Chang (2011) also discovered that stocks of companies with better corporate governance experience less price volatility.

Until now, most researchers have proven a significant effect of general elections and political linked events on stock markets. Even so, there are researchers who found differing results. Floros (2008), studying the Greek stock market, found no evidence to support a significant effect of political election on the stock exchange. In his study, he discovered that on average, two months before an election in Greece, stock index performances would increase and the mean daily fluctuation would decrease. However, just one month before the elections, stock index performances would decrease and the daily fluctuations would increase, on average. In addition, the research by Floros (2008) shows a performance drop in the stock market for six months after the elections take place, only to find it bouncing back after passing the six month mark. These are the reasons why Floros (2008) concluded that elections in Greece do not significantly affect the stock market.

Similarly in the United States stock market, Jones and Bonning (2009) also found no significant relationship as well as the various occurrences in the American election. They also discovered no significant differences in the monthly stock market returns regardless of which side winning the presidential elections in the United States.

2.1.3 Review on Statistical Models in Event Study

2.1.3.1 Classical Market Model

The classical market model, also known as the simple market model, was designed by Fama, Fisher, Jensen and Roll (1969). Stock returns of a particular company will be modeled using the following equation:

$$r_{it} = \alpha_i + \beta_i r_{mt} + e_{it} \quad \text{-----(eq 2.1.1)}$$

Where:

-
- r_{it} = the return on firm i at time t
-
- r_{mt} = the corresponding market return

- α_i = the intercept term

- β_i = a parameter that measures the sensitivity of r_{it} to the market index

- e_{it} = a random variable that by construction, has an expected value of zero. It is assumed to be uncorrelated with r_{it}

Once the model is estimated, the parameters α_i and β_i would be used to generate expected returns of a company during a particular event. The model is as follows:

$$E(r_{it}) = \alpha_i + \beta_i r_{mt} \text{ -----(eq 2.1.2)}$$

Where:

$E(r_{it})$ = is the expected return of firm i during an event

Once $E(r_{it})$ is obtained, it will be compared to actual returns of firm i during an event:

$$AB_{it} = r_{it} - E(r_{it}) \text{ -----(eq 2.1.3)}$$

Where:

AB_{it} = abnormal return of firm i at time t

If AB_{it} is zero, the firm does not have abnormal return; if AB_{it} is not zero, abnormal return exists.

Once the abnormal returns for individual firms are calculated, an average will be calculated from all the forms. The calculation is denoted as follows:

$$AAR_{it} = \frac{1}{N} AB_{it}$$

Where:

N = number of firms in the sample

AAR_{it} = average abnormal return at time t

By adding average abnormal return from different time periods, the cumulative average abnormal return (CAAR) is obtained. The mathematical equation for CAAR is as follows:

$$CAAR = \sum_{t=1}^n AAR_t$$

Where:

CAAR = the cumulative average abnormal return

At this point, there will be enough data to determine if the event has impact on the stock returns. The null hypothesis is that the event has no impact on the stock returns. In other words, CAAR = 0.

Researchers in later years improved on the classical model by adding a dummy variable into the equation. The model is shown as follows:

$$r_{it} = \alpha + \beta_t r_{mt} + \gamma_i D_{it} + e_t \quad \text{-----(eq 2.1.4)}$$

γ_i = a parameter that estimates the magnitude of abnormal return (if any) of firm i

D_{it} = a dummy variable which captures the effect of an event (if event date, value =1; otherwise, value = 0)

This model shortens the steps by Fama, Fisher, Jensen and Roll (1969). Bacmann and Dubois (2003) claim the above model can simultaneously obtain the expected value of the abnormal returns and their standard deviations. As such, it allows immediate testing of variable significance.

Even so, the classical market model has a major flaw. It will be discussed in subsection 2.1.3.2.

2.1.3.2 Dynamic Market Model

Using the traditional market model, many researchers faced problems with heteroscedasticity and conditional volatility (Bollerslev, 1986, Engle & Russell, 1998; Savickas, 2003). According to Engle (2001), the statistical assumptions of the traditional model- i.e. homoscedastic error values- are unrealistic.

The reason why Engle and Russell (1998) described the assumptions as unrealistic is because stock prices tend to follow a phenomenon called volatility clustering. According to Baharuddin, Abdullahi and Teoh (2010), Benoit Mandelbrot was the first person to discover this phenomenon. Based on a study by Baharuddin, Abdullahi and Teoh (2010), Mandelbrot defines volatility clustering as “large changes tend to be followed by large changes, of either sign, and small changes tend to be followed by small changes”.

Volatility clustering is a violation of the market model’s homoscedasticity assumption (Engle & Russell, 1998). As such, the hypothesis testing for the market model becomes unreliable.

To capture volatility clustering, Engle (1982) and Bollerslev (1986) developed Auto Regressive Conditional Heteroscedasticity (hereafter known as ARCH) model and Generalized Auto Regressive Conditional Heteroscedasticity (hereafter known as GARCH) model respectively.

Since their conceptions, several methods have been developed to include ARCH and GARCH into event studies. Pioneer studies include journals by Jong, Kenna and Klock (1992) and Brockett, Chen, and Garven (1994). Their event study methodology includes a market model with GARCH effects and time-varying slope. They are called dynamic market models. Their models are summarized in the following equations.

$$r_t = \alpha + \beta_t r_{mt} + e_t \quad \text{-----(eq 2.2.1)}$$

$$h_t^2 = \alpha_0 + \alpha_1 h_{t-1}^2 + \alpha_2 e_{t-1} \quad \text{-----(eq 2.2.2)}$$

Where,

$$h_t^2 = \text{variance or mean equation}$$

h_{t-1}^2 = conditional variance (GARCH term)

e_{t-1} = lagged error term of mean equation (ARCH term)

However, Savickas (2003) and Balaban and Constantinou (2006) criticized their methodology. The research by Jong, Kemna and Kloek (1992) and Brockett, Chen and Garven (1994) ignored the importance of event induced variance. Works such as Brown and Warner (1980, 1985), Boehmer, Musumeci and Poulsen (1991) and Corrado (1989) proved that events do cause fluctuations in stock return variance. Jong, Kemna and Kloek (1992) and Brockett, Chen and Garven (1994) merely incorporate volatility into their model. They do not test if abnormal volatilities exist.

As such, the event studies designed by Savickas (2003) and Balaban and Constantinou (2006), test for event-induced volatilities. Their test statistics are cross-sectional approaches based on those developed by Brown and Warner (1980) and Boehmer, Musumeci and Poulsen (1991). Both journals utilize global test statistics, developed by Brown and Warner (1980), to test for the significance of abnormal returns and changes in conditional volatility.

The models used by Savickas (2003) and Balaban and Constantinou (2006) are listed as follows:

$$r_t = \alpha + \beta_t r_{mt} + \gamma_i D_{it} + e_t \quad \text{-----(eq 2.2.3)}$$

$$h_t^2 = \alpha_0 + \alpha_1 h_{t-1}^2 + \alpha_2 e_{t-1} + \delta_i D_{it} \text{-----(eq 2.2.4)}$$

Where,

D_{it} = dummy variable to capture effects of event period (1 if event date; 0 if non-event date)

γ_i = coefficient representing abnormal return of firm i

δ_i = coefficient representing abnormal volatility of firm i

The two equations above are similar to the ones by Jong, Kemna and Kloek (1992) and Brockett, Chen and Garven (1994). However, instead of using a simple market model, Sacvickas (2003) and Balaban and Constantinou (2006) use dummy variables to capture the effect during an event. The coefficient γ_i , captures the presence or absence of abnormal returns during an event; the coefficient δ_i , captures the presence or absence of abnormal volatilities during an event.

Both research use global test statistics developed by Brown and Warner (1980) to test for abnormal return and abnormal volatility significance. According to a study by Boehmer, Musumeci and Poulsen (1991), traditional test-statistics too frequently reject a null hypothesis of zero abnormal returns.

This is because traditional event-studies assumes security residuals are uncorrelated and event-induced variance is insignificant. To counter these problems, Brown and Warner (1980) created a new test-the cross sectional test-statistics. They are listed as follows:

$$\text{Test}_1(\hat{\gamma}) = \frac{\left(\frac{\sum_{i=1}^n \hat{\gamma}_i}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{\gamma}_i - \frac{\sum_{i=1}^n \hat{\gamma}_i}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.5)

$$\text{Test}_2(\hat{\delta}) = \frac{\left(\frac{\sum_{i=1}^n \hat{\delta}_i}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{\delta}_i - \frac{\sum_{i=1}^n \hat{\delta}_i}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.6)

Next, Savickas (2003) designed his own test-statistics based on the ones by Brown and Warner (1980). Incidentally, the research by Balaban and Constantinou (2006) picked it up as well. The newly developed test-statistics are listed as follows:

$$\text{Test}_3(\hat{\gamma}) = \frac{\left(\frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{S}_{it} - \frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.7)

Where,

$$S_{it} = \frac{\hat{Y}_i}{\hat{h}_{it}}$$

and

h_{it} = estimated conditional standard deviation of firm i on the event date

and

$$\text{Test}_4(\hat{\delta}) = \frac{\left(\frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{S}_{it} - \frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.8)

Where,

$$S_{it} = \frac{\hat{\delta}}{\sqrt{\hat{h}_{it}}}$$

According to Savickas (2003), the methodology he employed has higher test power as well as the ability to reduce type 1 error. Type 1 error is the incorrect rejection of a true null hypothesis. It is also interesting to note that Balaban and Constantinou (2006) advocates Savickas's methodology and suggests future researches to test for abnormal volatility in addition to abnormal returns.

As such, the event-study used by Savickas (2003) will be the framework in this research project. For detailed explanations of the research design, please refer to Chapter 3: Methodology.

2.2 Review of Relevant Theoretical Models

2.2.1 Random Walk and Efficient Market Hypothesis

A few centuries ago, a number of empirical works or books in the fields of physics, botany, calculus and logics deem discussed the idea of random walk. The primary concern of this research project, regarding random walk hypothesis is specifically devoted to finance. As such, the following paragraphs will be a discussion of how random walk theory was invented and evolved in the study of finance.

Random walk theory is traceable to 1863 when Jules Regnault, a French financial philosopher and analyst discovered the random movement of the

price of a bond and its derived option. This profound finding was then documented in a book titled “Calcul des chances et philosophie de la bourse”. The random walk concept then laid down the foundation of modern stochastic process of stock price (Preda, 2004). This French philosopher left no more academic publication concerning on the random walk theory since then. Not much of his life is known.

Supposedly, the originator of random walk theory and stochastic process in mathematical finance should be Bachelier (1900) when he submitted his PhD thesis titled “The Theory of Speculation”. Bachelier (1900) recognized that past, present or even anticipated events, often showing no apparent connection with its fluctuation. He then explained that factors influencing the fluctuation of stock price are so immense that an exact mathematical forecast is impossible. In fact, the work by Bachelier (1900) already contains some remarkable insights and commentary on random walk. But sadly, the thesis was overlooked and not appreciated until half a century later.

According to Lim, Lim and Zhai (2012), perhaps the empirical work explicitly proposing the theory of random walk on the movement of stock prices is by Kendall in 1953. When Kendall investigated the behavior of 22 British industrial share prices, he surprisingly found that when prices are observed at fairly closed intervals the random changes from one term to the next are so large as to swamp any systematic effect which may be present. He concluded that the data behaved almost like a wandering series. Since the stock prices are moving randomly, Kendall concluded that investors would not profit from watching the current price and then take a position only when it seems to have a favorable movement. Perhaps, investors outperforming the market owe much to luck, insider information, acting instantly, the exemption of brokerage fees or bullish market where all the stock prices rise simultaneously. The theory of random walk thus marks its birth officially.

The mid-1960s was a turning point in academic research world on the random movement of stock prices (Dimson & Mussavian, 1998). In the article review by Cohen (1966), Cootner in 1964 published his book titled “The Random Character of Stock Market Prices” which consists of a collection of empirical literatures done by the researches during the twentieth century concerning on the natural movement of security price. The book produces valuable insights to academicians wanting to review and understand the “Random Walk Theory”. One year later, Fama (1965) by documenting and reviewing the previous literatures, defined the theory of random walk as the series of price changes has no memory, that is, the past cannot be used to predict the future in any meaningful way. And this article has been cited more than six thousand times. It is perhaps the most contemporary and most influential empirical work for financial researchers today studying on the behavior of the stock price.

In the article named “The Behavior of Stock Market Prices”, Fama (1965) proposed that one of the most important hypotheses in the theory of random walk is the independence in successive changes of stock price. If stock price changes are not independent, the theory is invalid. Since perfect independent price changes in time series may not be realistic, Fama (1965) asserted that the random walk theory cannot be theoretically realized, but can be practically realized. This can be further illustrated in different perspectives of two groups: a statistical view and a stock market trader’s view. From statistical view, the independent price changes of a time series model can be accepted as long as the dependence in price changes is below the “minimum acceptable” level defined by statisticians. In other words, when the dependent behavior in a time series is not statistically sufficient to constitute certain properties in the distribution of the price changes, the independence assumption is still hold. In contrast, from a stock market trader’s view, the price changes conform to independence assumption when he can find no way to increase the

expected profits from his stock investment by analyzing the behavior of the successive stock price changes in the past.

Fama (1965) then demonstrated, with examples, the mechanisms of random walk in the real investment world. Undeniably, there are some dependencies concerning on stock price changes when there exists a group of professional investors or traders who are opinion leaders. Other informed investors tend to follow their recommendations in making investment decisions. In addition, according to Fama (1965) positive news of a company tends to follow by more positive news and vice versa. The two scenarios above would result in stock price changes being dependent on information. Nevertheless, he stressed that there is a mechanism to neutralize the situation where the dependence of stock price changes will eventually be offsetted.

Fama (1965) further assumed that there is a sufficient large group of sophisticated trades in stock market who have expertise in determining the intrinsic value of a particular stock. They believed that the stock will ultimately move towards its intrinsic value. Thus at any point of time, the market price of the stock is at its fair value by instantly discounting the information and moves independently according to the economic and political outlook in an efficient market, but not exhibiting predictable sequence based on any psychological influence of certain group of investors or traders.

The term “efficient market” of securities was initially introduced by Fama (1965). He defined an efficient market as a market where, given the available information, actual prices at every point in time represent very good estimates of intrinsic values. Whenever the intrinsic value changes, the actual price will adjust instantaneously to meet its intrinsic value. The word “instantaneously” does not mean that the actual price will adjust to the same level as its new intrinsic value in the next moment. Instead,

according Fama (1965), the actual price will first overestimate or underestimate the new intrinsic value. Then, the price will move towards its intrinsic value, or at least a value close to its new intrinsic value to eliminate any discrepancy.

The key assumption constituting an efficient market is the existence of sophisticated intrinsic value analysts (Fama, 1965). Fama (1965) assumed that there exist a large number of investors who are superior in determining the intrinsic value. When the intrinsic value alters, these sophisticated investors will influence the actual price to its new intrinsic value by buying up (long) or selling down (short) the securities. The result of this being the actual price, at any point of time, represents its intrinsic value.

Another assumption of an efficient market is availability of information (Fama, 1965). Fama (1965) claims that an efficient market has a large number of rational, profit-maximizers actively competing with each other. They are trying to predict future value of individual securities and where important current information is almost freely available to all participants. To put it plainly, in an efficient market, the investors will influence the actual price by discounting all available information that alters the intrinsic value. Hence, the actual price will always fully reflect all available information (Fama, 1970).

In an efficient market, the movement of the actual price towards its intrinsic value follows random walk (Fama, 1965). This is caused by rigorous competition of large groups of sophisticated investors trying to make prediction on future prices. Discussed above, those projecting rising prices (causing the actual price a tendency of successive increasing) will be offset by those projecting falling prices. This leads to a neutral environment where the actual price fluctuates randomly. Also, the intrinsic value (a factor which can never be determined exactly) is rapidly adjusted

by any information. Fama (1965) asserts that predicting the intrinsic value of a security is equivalent to predicting its future uncertain price. Therefore, a random walk – informational efficient market posts a challenge to both fundamental and technical analysts.

Dimson and Mussavian (1998) believed that the informational efficiency in a security market marks its birth when Bachelier (1900), in his PhD thesis, identified that past, present, and even discounted future events are reflected in the market price, but often show no apparent to price changes. However, Bachelier's precious work had been neglected until the latter half of the 20th century. The empirical works concerning on the market efficiency was then evolving. Fama (1970) then documented the previous works and produced a comprehensive theory regarding the various forms of market efficiency.

The first form of market efficiency- the weak form efficiency is derived from random walk literature. Weak form efficiency suggests that the historical information has been factored into current price. Hence, the chartist and fundamental analysis are of no value in assessing the intrinsic value of stock since the price unpredictably fluctuates (Fama, 1965). Those literatures evidenced the random walk behavior of stock prices indirectly supported the weak form efficiency theory.

The second form is called semi-strong form efficiency. According to Fama (1965), this level of efficiency was developed from literatures examining efficiency of the speed of price adjustment, annual earnings announcement (Ball & Brown, 1968), announcement of discount rate changes (Waud, 1970) and new security issues (Black and Scholes, 1970). A market with semi-strong efficiency, newly arrival of information will be quickly and accurately adjusted in stock price.

The third is strong form efficiency. This form reviews whether certain investors such as mutual fund managers could obtain return advantage by possessing private and unpublished information (Sharpe, 1965 & 1966; Treynor, 1965; Jensen, 1967 & 1969). However, it should be no way for them to beat the market. This is because stock prices in a market with strong form efficiency have already reflected all information. Be it past, current or insider information.

2.2.2 Event Study

The event study methodology was introduced by Fama, Fisher, Jensen and Roll (1969). Its significant statistical power in academic research was highlighted in their research (Binder, 1998). In his paper, *The Event Study Methodology Since 1960*, Binder (1998) calls the event study methodology as a classic. Indisputably, it deserves this appraisal as it has been (up to the time of Binder's paper), surprisingly, cited 2833 times.

The event study methodology was originally employed by Fama, Fisher, Jensen and Roll (1969) to investigate the process of common stock price adjusting to the information on stock split announcement. In particular, they examined if stock prices exhibited any unusual behavior leading to abnormal returns during the period of stock split announcement. With the methodology proposed, Fama, Fisher, Jensen and Roll (1969) asserts that, unless insider information is available, the stock market is "efficient" in the sense that stock prices adjust very rapidly to new information (Fama, Fisher, Jensen & Roll, 1969). This conclusion finally proves the characteristics of an efficient market as described by Fama himself in 1965.

The merit of this statistical tool stems from its versatility (Binder, 1998). It is very adaptable for different circumstances in modeling the abnormal return.

Applying the market model irrespective of computing mean-adjusted return, market-adjusted return or market-and risk-adjusted return, Dyckman, Philbrick and Stephan (1984) and Brown and Warner (1985) jointly concluded that the various measures are equally powerful when the abnormal return is proven. The assertion was then empirically re-proven by Chandra, Moriarty and Willinger (1990). In fact, in 1985, Brown partnered with Weinstein conducted event study employing the alternative measure—multifactor model (Binder, 1998). They tried to examine the model's superiority. The two researchers finally stood on the common ground that the multifactor model is as competitive as market model.

The event study methodology, as evidenced by evolving literatures, seems ideal for any event. However, the empirical strength is dramatically weakened when it is being used to examine legislative approval events (Binder, 1985) and on unknown-date events (Brown & Warner, 1980).

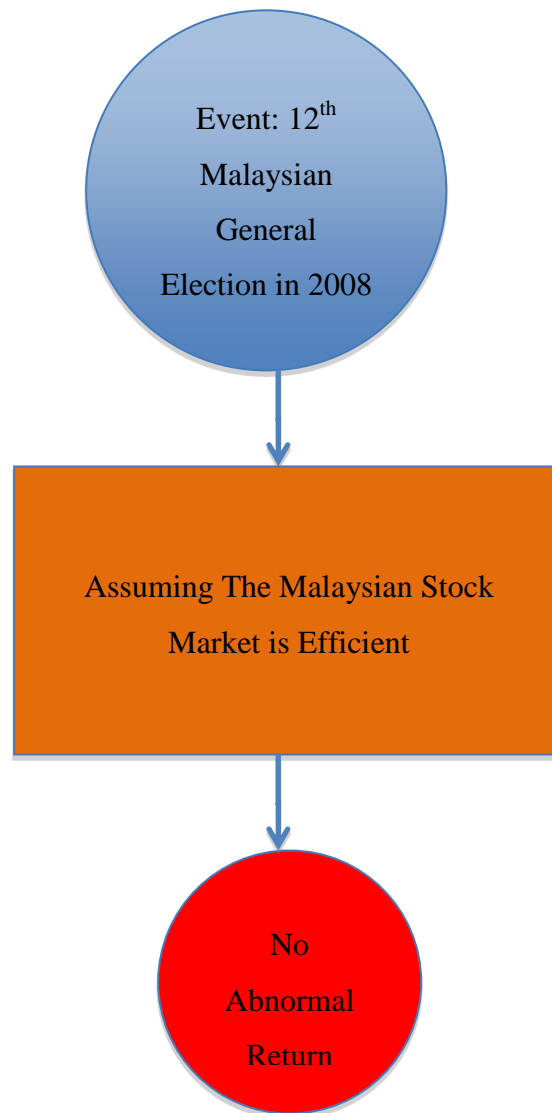
The Malaysian stock market, in recent years, has always been residing in the semi-strong form (Cheah, 2005; Baharuddin, Abdullahi & Teoh, 2010). In other words, stock prices in Malaysia reflect all publically available information. There should be little or no abnormal returns in the Malaysian market.

Even so, Cheah (2005) noted that the Malaysian stock market has yet to reach full-efficiency level in the semi-strong form. The time taken for the market to absorb dividend and earnings announcements is still generally long (Cheah 2005). Utilizing event studies, Cheah (2005) as well as Baharuddin, Abdullahi and Teoh (2010) came to the same conclusion: the Malaysian stock market is efficient in the semi-strong form. However,

both papers studied different events. The prior- new company announcements; the latter- companies receiving the Prime Minister's Quality Award.

As such, the event study method will also be used in this study. Even so, event study in this research project devoted to a more impactful micro event- 12th Malaysian general election. By finding out if abnormal returns exist during the event period, this research project will attempt to prove if the Malaysian stock market remains in the semi-strong form of efficiency even during the 12th general election.

2.3 Proposed Theoretical Framework



Source: Developed for research.

2.4 Hypotheses Development

Based on the study by Salamudin, Ariff and Nassir (1999), the Malaysian stock market is efficient in semi-strong form. Stock prices have already reflected all publically available information. As such, logic would dictate it is impossible for investors to earn abnormal return.

Even if a market is efficient, it does not discount the probability of risk. Stock market volatility is the main indicator of market risk. Thus, even if abnormal return was absent during the 12th Malaysian general election, it does not mean abnormal volatility is also not present. It is the aim of this paper to investigate if investors can earn abnormal return, and if risk increases, decreases or remain constant during the event period.

2.4.1 Presence of Abnormal Return

H_0 = stock returns do not exhibit abnormal returns during the 12th Malaysian general election

H_1 = stock returns exhibit abnormal returns during the 12th Malaysian general election

2.4.2 Presence of Abnormal Volatility

H_0 = stock returns do not exhibit abnormal volatilities during the 12th Malaysian general election.

H_1 = stock returns exhibit abnormal volatilities during the 12th Malaysian general election.

2.5 Conclusion

Literatures on EMH as well as the effects of political incidents have been critically reviewed. They are the basis in forming the proposed theoretical framework. Based on logical deduction from the theoretical framework, hypotheses are developed.

Apart from theory, a series of event-study methodology has been studied as well. This research project will be conducted using the event-study methodology, first proposed by FFJR as well as modifications to the model used by Savickas (2003) and Balanan and Constantinou (2006). The steps will be discussed in the next chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This study applies the event-study methodology proposed by Fama, Fisher, Jensen and Roll (1969). The methodology will closely follow the modifications made by Savickas (2003) and Balaban and Constantinou (2006). This study is an attempt to find out if stock prices of big-capital firms in Bursa Malaysia have abnormal returns or abnormal volatilities during the 12th Malaysian general election.

98 companies, listed in Bursa Malaysia as big-capital firms are targeted. Daily stock prices are obtained from Datastream. For econometric analysis, the software, Eviews is used.

This chapter can be divided into 5 sections. Section one describes the methodology of event study. Section two describes data collection method. Section three describes sampling design. Section four describes data analysis and section five describes the summary of this chapter.

3.1 Research Design

The purpose of this research project is to find out if stock prices exhibit abnormal returns and abnormal volatilities surrounding the periods of 12th Malaysian general election. Thus, a quantitative research is employed. The framework for this study would be based on a method called event study.

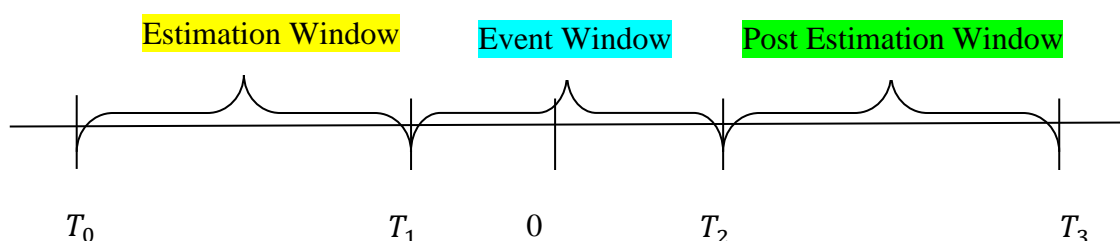
3.1.1 Event Study

The event study is proposed by Fama, Fisher, Jensen and Roll (1969). It is an econometric technique being used to estimate and draw inferences about the impact of an event in a particular period or over several periods. It is used to find out how a particular event affects the value of a firm (i.e. its stock price).

It should also be noted that event study assumes that the capital market being researched follows semi-strong market efficiency (Fama, Fisher, Jensen & Roll, 1969). According to EMH by Fama (1965), in a semi-strong market, stock prices reflect all publically available information. As such, under normal circumstances, it should be impossible to earn abnormal returns, given that investors receive the same publically available information. Hence, an event is said to have impact on a firm's value when there is an observed abnormal stock price movement following that particular event.

An event study has three time frames: The estimation window (T_0 to T_1), the event window (T_1 to T_2) and the post event window (T_2 to T_3).

Figure 3.1: Event Window



Source: Developed for Research

The estimation window, true to its name, is used to estimate the parameters of a stock return model under “normal” circumstances (Binder, 1998).

After that, the parameters would be used to generate expected returns for the event window. The expected returns would be a simulation of what stock returns would be, given that the event has no impact on stock returns. Actual returns would be compared to the expected returns. If both values are same, then it would mean stock prices exhibit no abnormal returns.

According to Binder (1998), The event window is a period encompassing the date of the event itself. Brooks (2008) describes an event to be a point in time when a company makes an announcement or when a significant market event occurs. Lastly, the post event window is used to measure the long-term impact of the event.

In a study by Campbell, Lo and MacKinlay (1997), common steps in event studies were summarized. They are listed as follows:

1. *Define the event and establish the event window.* This means to establish exactly what the event is (eg. The announcement of earnings for a firm) and determine the period during which security prices will be affected by this event.
2. *Establish firm selection criteria.* Here, the researcher determines exactly which firms to include in the data set, over which time periods and which securities and security prices to examine. It is important that each security in the sample be frequently traded during the event window to avoid stale prices. Appropriate periods need to be set for calculating security return (eg. daily).

3. *Estimate model parameters using data in an estimation window.*
The model parameters include intercept and coefficient of market return. The estimation window is typically the period prior to the event window, sometimes 120 days. The event window is normally excluded from the estimation period so that parameters are not biased by the events. Event studies are usually more effective when event windows are fairly short.
4. *Calculate normal and abnormal return for securities in the sample set.* This process will be described in 3.5 Data Analysis.
5. *Conduct test.* Define null and alternative hypotheses, aggregate returns over time during the event period and across securities. Determine levels of significance for tests.
6. *Present results and diagnostics.*
7. *Interpret results and draw inferences and conclusions.* This might also mean to choose between competing explanations for the results.

3.1.2 Event Study on 12th Malaysian General Election

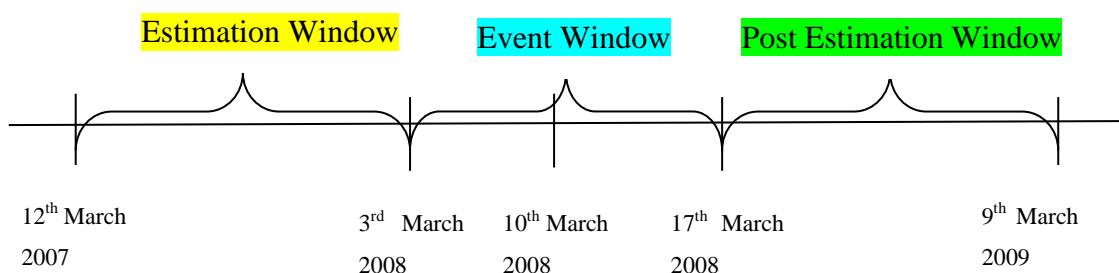
This paper aims to investigate the impact of 12th Malaysian general election's results on the stock market. The election was held on 8th March 2008. The methodology strictly follows every step of an event study albeit some modifications proposed by Savickas (2003). To capture information leakage, Krivin, Patton, Roe and Tabak (2003) proposed a 11-day event window.

Step 1: Define The Event And Establish The Event Window

Since the event of this study, is the 12th Malaysian general election, the event date should be 8th March 2008. Because 8th March is a Saturday, changes in stock price returns will only be captured on Monday, the 10th March 2008.

As proposed by Krivin, Patton, Rose and Tabak (2003), a 11-day window would be used to capture information leaks. As such, the event window would start 5 weekdays before 10th March and end 5 weekdays after 10th March. They are illustrated as follows.

Figure 3.2: Event Window for 12th Malaysian General Election



Source: Developed for Research

According to Fama, Fisher, Jensen and Roll (1969), a one year estimation window and post estimation window is sufficient to generate parameters for the model. Savickas (2003) also advocates the use of 1-year estimation windows [-260, event date, +260]. As such, the start date of the estimation period would be 12 March 2007 and end at 9 March 2009, a total of 521 observations for each firm.

Step 2: Establish Firm Selection Criteria

Because this study only concerns big-capital firms, 100 companies out of Bursa Malaysia's KLCI are the target population. Out of the 100 companies listed as big-capital firms, 98 are already listed on Bursa Malaysia's main board at the time of 12th Malaysian general election. As such the 98 companies will be studied in this research (please refer to Appendix 1.1 for the list of companies).

Due to the fact that the 12th Malaysian general election is an external event (not firm-specific events), it affects all firms at the same point of time. Hence, the estimation and event windows remain stationary throughout all companies studied.

Step 3: Estimate Model Parameters Using Data in an Estimation Window

Applying the methodology by Savickas (2003) the estimation window, event window and post estimation window are estimated together in one single mean equation:

$$r_t = \alpha + \beta_t r_{mt} + \gamma_i D_{it} + e_t \quad \text{-----(eq 2.2.3)}$$

The dummy term D_{it} would be used as a variable to capture effects of the event. Thus, between the dates of 3rd March 2008 to 17th March 2008, the dummy term would be equal to 1 ($D_{it} = 1$). For the remaining days between 9th March 2007 and 11th March 2009, the dummy term would be equal to 0 ($D_{it} = 0$).

According to Bacmann and Dubois (2003) eq. 2.2.3 allows users to simultaneously obtain the expected value of the abnormal returns and their

standard deviations. It is much more convenient compared to the classical market model proposed by Fama, Fisher, Jensen and Roll (1969).

Apart from abnormal returns, this research projects aims to find out if stock prices exhibit abnormal volatilities during the 12th Malaysian general election. Volatilities will be modeled into the equation below:

$$h_t^2 = \alpha_0 + \alpha_1 h_{t-1}^2 + \alpha_2 e_{t-1} + \delta_i D_{it} \text{-----(eq 2.2.4)}$$

Similar to the mean equation, the model also includes an exogenous variable, the dummy term, D_{it} . The dummy term D_{it} will again, be used as a variable to capture effects of the event. Thus, between the dates of 3rd March 2008 to 17th March 2008, the dummy term would be equal to 1 ($D_{it} = 1$). For the remaining days between 12th March 2007 and 9th March 2009, the dummy term would be equal to 0 ($D_{it} = 0$).

Steps 4 and 5, proposed by Campbell Lo and MacKinlay (1997) will be continued in 3.5 Data Analysis.

3.2 Data Collection Methods

This research deals entirely with secondary data. Stock prices as well as the KLCI are historical data. 100 firms with the highest market capitalization (listed in Bursa Malaysia's KLCI) are selected.

Out of the 100 firms, 98 that are listed on Bursa Malaysia at the event date are selected (please refer to Appendix 1.1 for the list of companies). Datastream was used to generate the firms' daily stock prices and the KLCI from 12th March 2007 to 9th March 2009, a total of 521 observations per firm.

3.3 Research Instrument

3.3.1 The GARCH Model

In the year of 1982, Engle proposed a volatility process with time varying conditional variance which is known as Autoregressive Conditional Heteroskedasticity (ARCH) process. However, there are some empirical evidence shows that high ARCH order has to be selected in order to catch the dynamic of the conditional variance. This means that many parameters have to be estimated and the calculations get burdensome.

Four years after Engle's introduction of the ARCH process, Bollerslev (1986) proposed the Generalised ARCH (GARCH) model to solve the problem with the high ARCH orders. This model is based on an infinite ARCH specification and it dramatically reduces the number of estimated parameters from an infinite number to just a few.

Using the traditional market model, many researchers faced problems with heteroscedasticity and conditional volatility (Bollerslev, 1986; Engle & Russell, 1998; Savickas, 2003). According to Engle and Russell (1998), the statistical assumptions of the traditional model- i.e. homoscedastic error values- are unrealistic.

As such, when data exhibit such temperaments, OLS cannot be used for GARCH model estimation. There are few reasons for this, but the simplest and most fundamental is that OLS minimizes the residual sum of squares (RSS). The RSS depends only on the parameters in the conditional mean

equation, and not the conditional variance, hence RSS minimization is no longer an appropriate objective.

In order to estimate models from the GARCH family, maximum likelihood (ML) technique is employed. Essentially, the method works by finding the most likely values of the parameters given the actual data. More specifically, a log-likelihood function is formed and the values of the parameter that maximize it are sought. Maximum likelihood estimation can be employed to find parameter values for both linear and non-linear models.

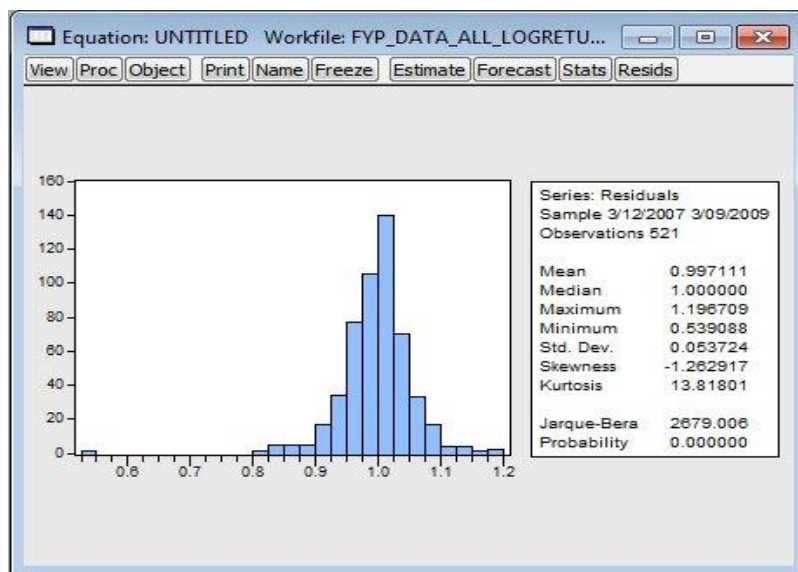
There are two main assumptions pertaining to the use of the GARCH model: Leptokurtosis and Volatility Clustering. They will be further explained and proven in the subsections. 3.4.1.1 and 3.4.1.2

3.3.1.1 Leptokurtosis

According to Brooks (2008), leptokurtosis is very commonly observed in financial time series. Researchers studying the volatility in stocks usually find that variances of stocks to be leptokurtic. It means the distribution is more peaked in the center and thicker tailed than the normal distribution with the same mean and variance.

Occasionally, leptokurtosis is also identified with a moment-based kurtosis measure large than 3. In other words, it means that most of the time the stock moves around somewhat randomly. But when it deviates from this random pattern, for example, when it suddenly starts running in one direction or the other, it runs a lot further and a lot faster than what is normally expected (Engle, 2001; Karlsson, 2002; Brooks, 2008).

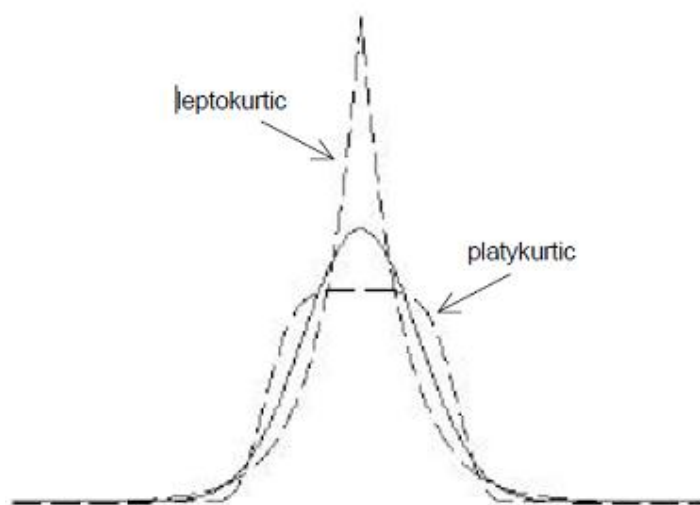
Figure 3.3 Histogram Distribution for KLCI



Source: Developed for research.

The diagram above is a histogram of KLCI plotted for 2 years, the time period within this study. According to Karlsson (2002), kurtosis is a measure of the extent to which observed data fall near the center of a distribution or in the tails. The kurtosis distribution is shown in the diagram below.

Figure 3.4 Leptokurtic Distribution



Source: Karlsson, L. (2002). *GARCH-Modelling : Theoretical Survey, Model Implementation and Robustness Analysis*. Royal Institute of Technology.

Compared to the Eviews histogram of KLCI data, leptokurtosis undoubtedly exists.

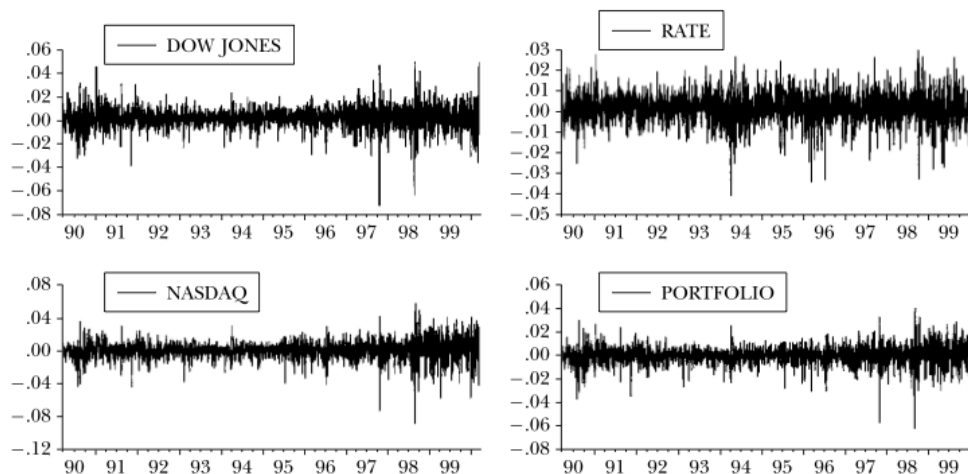
Moreover, shown in the histogram, the kurtosis is 13.81801, larger than 3. It means that leptokurtosis exists in the data. This highlights the need for GARCH model. Besides that, the Jarque-Bera is 2679.006, a very large figure. This shows that the KLCI data is seriously not normally distributed. Therefore, OLS is no longer suitable to model the KLCI data.

3.3.1.2 Volatility Clustering

Mentioned in section 2.4.4.2, volatility clustering is the main culprit rendering a traditional OLS model useless. It is also one of the prerequisites for using the GARCH model.

According to Engle (2001), if volatility clustering exists, the residual graph will look like the figures below.

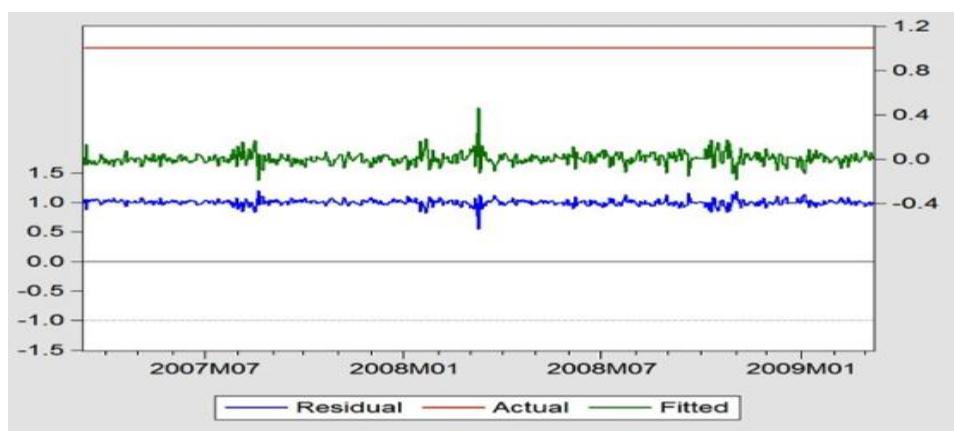
Figure 3.5 Stock Returns for Dow Jones, Nasdaq, Bond returns and Portfolio Returns



Source: Engle, Robert F. (2001). *GARCH 101: The Use of ARCH/GARCH Models in Applied Econometrics*. Journal of Economic Perspectives, Volume 15, Issue 4 (Fall 2001), 157-168

From the KLCI data gathered, a residual graph was generated using Eviews and it is shown in the figure below. The residual graph shows that volatility clustering exists. Thus a GARCH model is appropriate under this situation.

Figure 3.6 Stock Returns for KLCI from March 2007 to March 2009



Source: Developed for research.

3.4 Data Processing

The market model (eq. 2.2.1) deals with stock returns (r_t) as well as stock market returns (r_{mt}). Therefore daily stock prices and the daily KLCI generated from Datastream are transformed into daily continuously compounded returns using the following equation:

$$r_{it} = \left(\ln \frac{p_{it}}{p_{it-1}} \right)$$

(eq. 3.1.1)

Where:

p_{it} = stock price of firm i at time t (today's stock price)

p_{it-1} = stock price of firm i at time t-1 (yesterday's stock price)

Daily returns were calculated for all 98 companies as well as the KLCI from 12th March 2011 to 9th March 2012.

3.5 Data Analysis

This section will be a continuation of event study methodology proposed by Campbell, Lo and MacKinlay (1997), starting from step 4. Estimation of models will be performed using Eviews.

Step 4: Calculate Normal and Abnormal Return for Securities in the Sample Set

As mentioned in chapter 2, abnormal returns and abnormal volatilities are captured in the dummy coefficient.

$$r_t = \alpha + \beta_t r_{mt} + \gamma_i D_{it} + e_t \quad \text{-----(eq 2.2.3)}$$

Dummy coefficient captures abnormal return during event period

$$h_t^2 = \alpha_0 + \alpha_1 h_{t-1}^2 + \alpha_2 e_{t-1} + \delta_i D_{it} \quad \text{-----(eq 2.2.4)}$$

Dummy coefficient captures abnormal volatility during event period

The dummy coefficient γ_i will determine if stock returns for firm i exhibit abnormal returns during the event period; the dummy coefficient δ_i will determine if stock returns of firm i exhibit abnormal volatilities.

Hypothesis testing as well as significance testing will be explained in the following sub-sections.

3.5.1 Presence of Abnormal Return

H_0 = stock returns of firm i do not exhibit abnormal returns during the 12th Malaysian general election.

H_1 = stock returns of firm i exhibit abnormal returns during the 12th Malaysian general election.

According, to Savickas (2003), if the dummy coefficient γ_i is zero, it would mean the firm does not exhibit abnormal return during the event.

As such, if the dummy coefficient γ_i is not zero, the null hypothesis of stock returns of firm i not exhibiting abnormal return during the 12th Malaysian general election would be rejected.

This hypothesis testing is done on all 98 firms studied in this research project.

3.5.2 Presence of Abnormal Volatility

H_0 = stock returns of firm i do not exhibit abnormal volatilities during the 12th Malaysian general election

H_1 = stock returns of firm i exhibit abnormal volatilities during the 12th Malaysian general election

Based on a study by Savickas (2003), if the dummy coefficient δ_i is zero, it would mean the firm does not exhibit abnormal volatility during the event.

Hence, if the dummy coefficient δ_i is not zero, the null hypothesis of stock returns of firm i not exhibiting abnormal volatility during the 12th Malaysian general election would be rejected.

This hypothesis testing is done on all 98 firms studied in this research project.

3.5.3 Significance Testing for Dummy Variable of Individual Firms in Mean Equation (eq. 2.2.3)

H_0 = dummy variable, D_{it} in mean equation is not significant in explaining eq. 2.2.3

H_1 = dummy variable, D_{it} in mean equation is significant in explaining eq. 2.2.3

This hypothesis testing would reveal if the dummy variable D_{it} , is significant in eq. 2.2.3. The p-value of D_{it} , generated from Eviews will be examined. If the p-value falls below the significance level of 5%, the null hypothesis would be rejected.

This hypothesis testing is done on all 98 firms studied in this research project.

3.5.4 Significance Testing for Dummy Variable of Individual Firms in Variance Equation (eq. 2.2.4)

H_0 = dummy variable, D_{it} in variance equation is not significant in explaining eq. 2.2.4

H_1 = dummy variable, D_{it} in variance equation is significant in explaining eq. 2.2.4

This hypothesis testing would reveal if the dummy variable D_{it} , is significant in eq. 2.2.4. The p-value of D_{it} , generated from Eviews will be

examined. If the p-value falls below the significance level of 5%, the null hypothesis will be rejected.

This hypothesis testing is done on all 98 firms studied in this research project.

3.5.5 Global Testing For Presence of Abnormal Return

H_0 = there is zero mean abnormal return during the 12th Malaysian general election across all firms

H_1 = there is no zero mean abnormal return during the 12th Malaysian general election across all firms

This is a cross-sectional test statistic to test for abnormal return significance across all firms being studied. It was first introduced in a paper by Brown and Warner (1980). The test statistic is listed as follows:

$$\text{Test}_1(\hat{\gamma}) = \frac{\left(\frac{\sum_{i=1}^n \hat{\gamma}_i}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{\gamma}_i - \frac{\sum_{i=1}^n \hat{\gamma}_i}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.5)

Where:

$\hat{\gamma}_i$ = estimated dummy coefficient in eq. 2.2.3 of firm i

n = number of firms in sample

This test, obtaining estimated dummy coefficient data, $\hat{\gamma}_i$ from individual eq. 2.2.3 studying all 98 firms, is only performed once. The figure calculated would be a t-statistic figure. Once it is transformed into a p-value, it can be compared to the significance level of this study. If the p-value falls below the significance level of 5%, the null hypothesis will be rejected.

It should be noted that the above test statistics do not consider firm-specific volatility. As such, Savickas (2003) developed another test to incorporate firm-specific volatility. The null hypothesis and alternative hypothesis are listed as follows:

H_0 = considering firm-specific volatility, there is zero mean abnormal return during the 12th Malaysian general election across all firms

H_1 = considering firm-specific volatility, there is no zero mean abnormal return during the 12th Malaysian general election across all firms

The test statistic for abnormal volatility whilst at the same time, considering firm-specific volatility, is listed as follows:

$$\text{Test}_3(\hat{\gamma}) = \frac{\left(\frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{S}_{it} - \frac{\sum_{i=1}^n \hat{S}_{it}}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.7)

Where,

$$S_{it} = \frac{\hat{Y}_i}{\widehat{h_{it}}}$$

n = number of firms in sample

$\widehat{h_{it}}$ = estimated conditional variance of firm i on the event date

This test, obtaining estimated dummy coefficient data, $\hat{\gamma}_i$ from individual eq. 2.2.3 studying all 98 firms, is only performed once. Similar to the test statistic by Brown and Warner (1980), the t-statistic figure is transformed into p-value and compared with the significance level.

If the p-value falls below the significance level of 5%, the null hypothesis will be rejected. This would mean after considering firm specific volatility, stock returns, on average, exhibit abnormal returns during the 12th Malaysian general election across all firms.

3.5.6 Global Testing for Presence of Abnormal Volatility

H_0 = there is zero mean abnormal volatility during the 12th Malaysian general election across all firms

H_1 = there is no zero mean abnormal volatility during the 12th Malaysian general election across all firms

The procedure for a global test for abnormal volatility is exactly the same as the global test for abnormal return. First, the equation by Brown and Warner (1985) is computed to obtain its t-statistic value.

$$\text{Test}_2(\hat{\delta}) = \frac{\left(\frac{\sum_{i=1}^n \hat{\delta}_i}{n}\right)}{\left\{\left[\frac{1}{n(n-1)}\right] \sum_{i=1}^n \left[\hat{\delta}_i - \frac{\sum_{i=1}^n \hat{\delta}_i}{n}\right]^2\right\}^{0.5}}$$

(eq 2.2.6)

Where:

$\hat{\delta}_i$ = estimated dummy coefficient in eq. 2.2.4 of firm i

n = number of firms in sample

This test, obtaining estimated dummy coefficient data, $\hat{\delta}_i$ from individual eq. 2.2.4 studying all 98 firms, is only performed once. The figure calculated would be a t-statistic figure. Once it is transformed into a p-value, it can be compared to the significance level of this study. If the p-value falls below the significance level of 5%, the null hypothesis will be rejected.

Moving on, the global test is followed by another test statistic developed by Savickas (2003), which incorporates firm-specific volatility. The null and alternative hypothesis is listed as follows:

H_0 = considering firm-specific volatility, there is zero mean abnormal volatility during the 12th Malaysian general election across all firms

H_1 = considering firm-specific volatility, there is no zero mean abnormal volatility during the 12th Malaysian general election across all firms

Then, the test statistic below is calculated.

$$\text{Test}_4(\hat{\delta}) = \frac{\left(\frac{\sum_{i=1}^n \widehat{S}_{it}}{n} \right)}{\left\{ \left[\frac{1}{n(n-1)} \right] \sum_{i=1}^n \left[\widehat{S}_{it} - \frac{\sum_{i=1}^n \widehat{S}_{it}}{n} \right]^2 \right\}^{0.5}}$$

(eq 2.2.8)

Where:

$$S_{it} = \frac{\hat{\delta}}{\sqrt{\widehat{h}_{it}}}$$

$\widehat{\delta}_i$ = estimated dummy coefficient in eq. 2.2.4 of firm i

n = number of firms in sample

This test, obtaining estimated dummy coefficient data, $\widehat{\delta}_i$ from individual eq. 2.2.4 studying all 98 firms, is only performed once. Similar to the test statistic by Brown and Warner (1980), the t-statistic figure is transformed into p-value and compared with the significance level.

If the p-value falls below the significance level of 5%, the null hypothesis will be rejected. This would mean after considering firm specific volatility, stock returns, on average, exhibit abnormal volatilities during the 12th Malaysian general election across all firms.

3.6 Conclusion

In this chapter, secondary data was chosen and the targeted population is big-capital firm within Bursa Malaysia. Event study methodology was chosen, following closely studies performed by Savickas (2003) and Balaban and Constantinou (2006). The study is performed to find out if stock returns exhibit abnormal returns and abnormal volatilities during the 12th Malaysian general election. The improved methodology by Savickas (2003) will be the main statistical test used in this research project. The next chapter discloses results of data analysis.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter will be a continuation of Step 6: present results and diagnostics, as proposed by Campbell, Lo and Mac Kinlay (1997). It will be divided into three sections, which are Descriptive Analysis, Scale Measurement and Conclusion.

4.1 Descriptive Analysis

This section will start with a summary of all results obtained from the data analysis. Using the GARCH model, assuming a normal Gaussian distribution, 41 out of the sample of 98 companies were found to be unsuitable for the model. The models were misspecified.

As such, the results in this research paper are obtained from the remaining 57 companies with correctly specified GARCH model. The chapter will continue with subsections explaining each hypothesis testing proposed in Chapter 3.

The summary for all results is listed in the tables below:

Table 4.1: Summary of Results on Day (-5)

Day (-5) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	0	0.00	0	0.00		
Insignificant	30	52.63	27	47.37	57	100.00	X	X
Abnormal Volatility								
Significant	2	3.51	0	0.00	2	3.51		X
Insignificant	8	14.04	47	82.46	55	96.49	X	

Source: Developed for the research

Table 4.2: Summary of Results on Day (-4)

Day (-4) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	3	5.26	0	0.00	3	5.26		
Insignificant	37	64.91	17	29.82	54	94.74	X	X
Abnormal Volatility								
Significant	3	5.26	0	0.00	3	5.26		X
Insignificant	12	21.05	42	73.68	54	94.74	X	

Source: Developed for the research

Table 4.3: Summary of Results on Day (-3)

Day (-3) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	0	0.00	0	0.00		
Insignificant	32	56.14	25	43.86	57	100.00	X	X
Abnormal Volatility								
Significant	3	5.26	1	1.75	4	7.02		
Insignificant	17	29.82	36	63.16	53	92.98	X	X
	0	0.00	0	0.00	0	0.00		

Source: Developed for the research

Table 4.4: Summary of Results on Day (-2)

Day (-2) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	0	0.00	0	0.00		
Insignificant	22	38.60	35	61.40	57	100.00	X	X
Abnormal Volatility								
Significant	3	5.26	0	0.00	3	5.26		X
Insignificant	19	33.33	35	61.40	54	94.74	X	

Source: Developed for the research

Table 4.5: Summary of Results on Day (-1)

Day (-1) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	2	3.51	0	0.00	2	3.51		
Insignificant	34	59.65	21	36.84	55	96.49	X	X
Abnormal Volatility								
Significant	2	3.51	0	0.00	2	3.51		
Insignificant	26	45.61	29	50.88	55	96.49	X	X

Source: Developed for the research

Table 4.6: Summary of Results on Day (0)

Day (0) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	2	3.51	0	0.00	2	3.51		
Insignificant	34	59.65	21	36.84	55	96.49	X	X
Abnormal Volatility								
Significant	2	3.51	0	0.00	2	3.51		
Insignificant	26	45.61	29	50.88	55	96.49	X	X

Source: Developed for the research

Table 4.7: Summary of Results on Day (1)

Day (1) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	1	1.75	0	0.00	1	1.75		
Insignificant	24	42.11	32	56.14	56	98.25	X	X
Abnormal Volatility								
Significant	2	3.51	0	0.00	2	3.51		X
Insignificant	10	17.54	45	78.95	55	96.49	X	

Source: Developed for the research

Table 4.8: Summary of Results on Day (2)

Day (2) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	1	1.75	1	1.75		
Insignificant	19	33.33	37	64.91	56	98.25	X	X
Abnormal Volatility								
Significant	1	1.75	0	0.00	1	1.75		X
Insignificant	12	21.05	44	77.19	56	98.25	X	

Source: Developed for the research

Table 4.9: Summary of Results on Day (3)

Day (3) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	0	0.00	0	0.00		
Insignificant	32	56.14	25	43.86	57	100.00	X	X
Abnormal Volatility								
Significant	2	3.51	0	0.00	2	3.51		X
Insignificant	12	21.05	43	75.44	55	96.49	X	

Source: Developed for the research

Table 4.10: Summary of Results on Day (4)

Day (4) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	1	1.75	1	1.75	2	3.51	X	
Insignificant	24	42.11	31	54.39	55	96.49		X
Abnormal Volatility								
Significant	1	1.75	0	0.00	1	1.75		X
Insignificant	18	31.58	38	66.67	56	98.25	X	

Source: Developed for the research

Table 4.11: Summary of Results on Day (5)

Day (5) AR/AV	Positive		Negative		Total		Global Test	
	#	%	#	%	#	%	B&W	SVK
Abnormal Return								
Significant	0	0.00	0	0.00	0	0.00	X	
Insignificant	21	36.84	36	63.16	57	100.00		X
Abnormal Volatility								
Significant	1	1.75	0	0.00	1	1.75		X
Insignificant	15	26.32	41	71.9	56	98.25	X	

Source: Developed for the research

4.1.1 Presence of Abnormal Return

H_0 = stock returns of firm i do not exhibit abnormal returns during the 12th Malaysian general election

H_1 = stock returns of firm i exhibit abnormal returns during the 12th Malaysian general election

Table 4.12: Presence of Abnormal Return

Day	No. of Companies With No AR	No of Companies With (+) AR	No of Companies With (-) AR
Day (-5)	0	30	27
Day (-4)	0	40	17
Day (-3)	0	32	25
Day (-2)	0	22	35
Day (-1)	0	36	21
Day (0)	0	29	28

Day (1)	0	25	32
Day (2)	0	19	38
Day (3)	0	32	25
Day (4)	0	25	32
Day (5)	0	21	36

Source: Developed for the research

The dummy variable, D_{it} in the mean equation captures effects during the event window. If stock return for the event period equals to the average return, the coefficient value would be zero. If not, then abnormal return is presumably present.

Judging from the table above, results show all companies exhibit non-zero dummy coefficients. However, this is not enough to conclude the presence of abnormal return. Significance testing of each of these dummy coefficients will be conducted in section 4.1.3.

Significance testing will provide evidence of the reliability of the dummy variable, D_{it} for each company and thus conclude the presence or absence of abnormal return.

4.1.2 Presence of Abnormal Volatility

H_0 = stock returns of firm i do not exhibit abnormal volatilities during the 12th Malaysian general election

H_1 = stock returns of firm i exhibit abnormal volatilities during the 12th Malaysian general election

Table 4.13: Presence of Abnormal Volatility

Day	No. of Companies With No AV	No of Companies With (+) AV	No of Companies With (-) AV
Day (-5)	0	10	47
Day (-4)	0	15	42
Day (-3)	0	20	37
Day (-2)	0	22	35
Day (-1)	0	28	29
Day (0)	0	39	18
Day (1)	0	12	45
Day (2)	0	13	44
Day (3)	0	14	43
Day (4)	0	19	38
Day (5)	0	16	41

Source: Developed for the research

Similar to section 4.1.1, the results show non-zero coefficients for all companies throughout the event window. To determine the reliability of abnormal volatility, significance testing will be conducted for each coefficient in section 4.1.4.

4.1.3 Significance Testing for Dummy Variable of Individual Firms in Mean Equation (eq. 2.2.3)

H_0 = dummy variable, D_{it} in mean equation is not significant in explaining eq. 2.2.3

H_1 = dummy variable, D_{it} in mean equation is significant in explaining eq. 2.2.3

Table 4.14: Significance of Abnormal Return

Day	No. of Companies With Significant (+) AR	No of Companies With Significant (-) AR	Total Companies with Significant AR
Day (-5)	0	0	0
Day (-4)	3	0	3
Day (-3)	0	0	0
Day (-2)	0	0	0
Day (-1)	2	0	2
Day (0)	1	3	4
Day (1)	1	0	1
Day (2)	0	1	1
Day (3)	0	0	0
Day (4)	1	1	2
Day (5)	0	0	0
Total	8	5	13

Source: Developed for the research

In section 4.1.1, it was found that all companies throughout the event window (627 observations) have non-zero dummy coefficients. However, only a total of 13 observations out of these 627 observations are significant. Hence, there are 13 observations showing abnormal returns throughout the event window.

8 out of 13 of these observations are positive abnormal returns, the remaining are negative. The day with the highest frequency of abnormal return is Day (0), with four companies exhibiting abnormal returns.

This result is synonymous with a study by Chen, Bin and Chen (2005). Also using the GARCH model, the authors found only a limited number of companies with abnormal return after negative political announcements.

4.1.4 Significance Testing for Dummy Variable of Individual Firms in Variance Equation (eq. 2.2.4)

H_0 = dummy variable, D_{it} in variance equation is not significant in explaining eq. 2.2.4

H_1 = dummy variable, D_{it} in variance equation is significant in explaining eq. 2.2.4

Table 4.15: Significance of Abnormal Volatility

Day	No. of Companies With Significant (+) AV	No of Companies With Significant (-) AV	Total Companies with Significant AV
Day (-5)	2	0	2
Day (-4)	3	0	3
Day (-3)	3	1	4
Day (-2)	3	0	3
Day (-1)	2	0	2
Day (0)	6	3	9
Day (1)	2	0	2
Day (2)	1	0	1
Day (3)	2	0	2
Day (4)	1	0	1
Day (5)	1	0	1
Total	26	4	30

Source: Developed for the research

Out of the 627 observations with non-zero coefficients in section 4.1.2, only 30 are found to have significant abnormal volatility. Out of these 30 observations, 26 are positive, four are negative. Positive abnormal

volatility signifies increasing volatility; negative abnormal volatility signifies decreasing volatility.

It should be noted that volatility is the highest on Day (0), the event date. On this day, six companies exhibit significant positive volatility and three companies exhibit significant negative volatility.

It is also interesting to know that the number of companies exhibiting abnormal volatilities before the event date is more than the number of companies exhibiting abnormal volatilities after the event date (14 observations before event date and seven observations after event date). This implies that the market is more volatile prior to the 12th Malaysian general election than after.

Results from Chen, Bin and Chen (2005) also confirms that stock return volatility increases surrounding political uncertainty. Using the GARCH model, the authors discovered that stock return volatility increases significantly following government deregulation.

4.1.5 Global Testing for Presence of Abnormal Return

H_0 = there is zero mean abnormal return during the 12th Malaysian general election across all firms

H_1 = there is no zero mean abnormal return during the 12th Malaysian general election across all firms

Table 4.16: Global Significance of Abnormal Returns

Day \ AR	Brown and Warner (1985) P-value	Significance at 5% CI	Savickas (2003) P-value	Significance at 5% CI
Day(-5)	0.781542779	INSIG	0.313050919	INSIG
Day(-4)	0.054332392	INSIG	0.337093354	INSIG
Day(-3)	0.545324401	INSIG	0.455191844	INSIG
Day(-2)	0.354647502	INSIG	0.13068069	INSIG
Day(-1)	0.068811622	INSIG	0.098963605	INSIG
Day(0)	0.197846701	INSIG	0.480328606	INSIG
Day(1)	0.32275729	INSIG	0.316565096	INSIG
Day(2)	0.054515776	INSIG	0.517271447	INSIG
Day(3)	0.369424406	INSIG	0.338872799	INSIG
Day(4)	0.014730798	SIG	0.53449016	INSIG
Day(5)	0.002416015	SIG	0.303498451	INSIG

Source: Developed for the research

Two different methodologies were used to determine if global abnormal return is present. The first test is created by Brown and Warner (1985). The second test is attempt by Savickas (2003) to improve the methodology by Brown and Warner (1985). It incorporates firm-specific volatility into his test.

Results from both tests are roughly consistent. It is proven, using the test by Savickas (2003) that no abnormal return exists throughout the event period. Similar results were obtained using the test by Brown and Warner (1985), with the exception of Day (4) and Day (5). On these two days, abnormal return is significantly present.

The likeliest reason behind such a phenomenon may lie with the rigid assumption made in the test by Brown and Warner (1985). The authors assume every company in the market has the same volatility. Savickas (2003) does not. Instead, he divides each dummy coefficient using their respective firm-specific volatilities. As such, his test is adjusted for firm-specific volatility.

The difference in findings between both tests on Day (4) and Day (5) is due to firm-specific volatility. In other words, the abnormal return on these two days are caused by firm-specific volatility, not truly abnormal returns. The rejection of null hypothesis on these two days are false positive occurrences.

This study confirms to a research by Norli, Annuar, Taufiq and Sazali (2010) on Bursa Market's reaction to general election. The authors found that general elections in Malaysia do not significantly affect the Malaysian stock market. And as such, investors in Malaysia, on average, cannot earn abnormal returns during general election period. Studies by Setyaningrum (2004) and Tiamono (2009) also found that abnormal returns are absent during election periods in the Jakarta Stock Exchange. Li and Born (2006) and Abidin, Old and Martin (2010) also discovered that general elections do not cause abnormal returns in the US and New Zealand stock markets respectively. The results also confirms to a study by Floros (2008). The author found that there are no abnormal returns during general elections in Greece.

However, the results go against the findings of Wang, Lee and Lin (2008) and Chuang and Wang (2010). Both papers discovered that stock markets in the United States, Japan, United Kingdom and France are negatively affected by political events. Perhaps the conflicting conclusions from Wang, Lee and Lin (2008) and Chuang and Wang (2010) is a result of different methodologies employed in each individual study.

4.1.6 Global Testing for Presence of Abnormal Volatility

H_0 = there is zero mean abnormal volatility during the 12th Malaysian general election across all firms

H_1 = there is no zero mean abnormal volatility during the 12th Malaysian general election across all firms

Table 4.17: Global Significance of Abnormal Volatilities

Day \ AV	Brown and Warner (1985)	Significance at 5% CI	Savickas (2003) P-value	Significance at 5% CI
Day(-5)	0.316454092	INSIG	8.79707E-06	SIG
Day(-4)	0.290619091	INSIG	0.000539244	SIG
Day(-3)	0.272574506	INSIG	0.9774262	INSIG
Day(-2)	0.254585594	INSIG	0.000746976	SIG
Day(-1)	0.239970707	INSIG	0.179822256	INSIG
Day(0)	0.195431719	INSIG	0.054494142	INSIG
Day(1)	0.260467363	INSIG	0.043563481	SIG
Day(2)	0.882453456	INSIG	2.81347E-06	SIG
Day(3)	0.609658736	INSIG	0.000166243	SIG
Day(4)	0.334363647	INSIG	0.000434108	SIG
Day(5)	0.623443796	INSIG	0.000383429	SIG

Source: Developed for the research

Similar to the global tests for abnormal return, the global tests for abnormal volatility also uses methodology by Brown and Warner (1985) and Savickas (2003). Even so, the results differ from the global tests for abnormal return.

Using the test by Brown and Warner (1985), it is found that abnormal volatility is absent throughout the event window. When the test by Savickas (2003) is applied, abnormal volatility is found almost everyday, except Day (-3), Day (-1) and Day (0).

The magnitudes of abnormal volatility present is summarized in the table below.

Table 4.18: Magnitude of Abnormal Volatilities Present

Days with AV	Mean AV (decimal)	Mean AV (%)
Day(-5)	0.006452506	0.65%
Day(-4)	0.006259208	0.63%
Day(-2)	0.00563675	0.56%
Day(1)	-0.00033532	-0.03%
Day(2)	7.30424E-05	0.01%
Day(3)	0.0002912	0.03%
Day(4)	0.000593833	0.06%
Day(5)	0.000165758	0.02%

Source: Developed for the research

The reason for differing results is the same as the global test for abnormal return. The test by Savickas (2003) adjusts for firm-specific volatility and thus, abnormal volatility is found on most days within the event window.

The study by Floros (2008) found that abnormal volatilities are found during general elections in Greece. Combined with his findings of no abnormal returns, the conclusion of this research paper fully confirms to Floros (2008).

On the other hand, in a study by Wang and Lin (2009), it was found that political uncertainty in Taiwan significantly affects stock returns, but not stock return volatilities. This is in total opposite to the results of this study. Wang and Lin (2009) attributes their findings to immature development of political democratization in Taiwan.

The difference in findings may be due to the different temperaments of stock markets. Wang and Lin (2009) studies the Taiwan Stock Exchange; this study focuses on Bursa Malaysia.

4.2 Conclusion

Because of its improved accuracy, results from the cross-sectional test by Savickas (2003) will be used as the conclusion of this study. All in all, the results for abnormal returns confirm to findings by Chen, Bin and Chen (2005) and Norli, Annuar, Taufiq and Sazali (2010). The results of this research paper show that there is zero mean abnormal return during the period of the 12th Malaysian general election. This research paper confirms fully to findings by Floros (2008). Floros (2008) also discovered that general elections in Greece causes abnormal volatility but does not cause abnormal return.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter attempts to summarize all the findings of this research project. It will be divided into five sections. The first section will be a summary of Chapter 4's statistical analysis and a discussion of the results. It will be followed by implications and limitations of this study. The last two sections will be dedicated to recommendation for future research and a general conclusion of this whole chapter.

5.1 Summary of Statistical Analyses

	Brown and Warner (1985)		Savickas (2003)	
	AR	AV	AR(firm-specific)	AV(firm-specific)
Day(-5)	NO	NO	NO	YES
Day(-4)	NO	NO	NO	YES
Day(-3)	NO	NO	NO	NO
Day(-2)	NO	NO	NO	YES
Day(-1)	NO	NO	NO	NO
Day(0)	NO	NO	NO	NO
Day(1)	NO	NO	NO	YES
Day(2)	NO	NO	NO	YES
Day(3)	NO	NO	NO	YES
Day(4)	YES	NO	NO	YES
Day(5)	YES	NO	NO	YES

Source: Developed for the research

Yes = Null hypothesis is rejected at 5 % confidence interval; abnormal return or abnormal volatility exists.

No = Null hypothesis is not rejected at 5% confidence interval; abnormal return or abnormal volatility do not exist.

AR = Abnormal return

AV = Abnormal volatility

5.2 Discussions of Major Findings

Using the cross-sectional test-statistics proposed by Brown and Warner (1985), two out of eleven days within the event window exhibit abnormal return. It should also be noted both days are post-event dates (after 10th March 2010). Abnormal volatility is not found throughout the event window.

When the methodology proposed by Savickas (2003) is used, it is statistically proven that no abnormal return exists. It is also discovered that eight out of eleven days within the event window exhibit abnormal volatility. The exceptions are Day (-3), Day (-1) and Day (0).

There are reasons why results using both methods differ. The test-statistics by Brown and Warner (1985) assumes all companies have the same volatility (i.e. constant throughout the whole cross-section). Savickas (2003), on the other hand, does not make the same impractical assumption. His test-statistics originates from Brown and Warner (1985), but they are adjusted for firm-specific volatility.

On Day (4) and Day (5), when it is found that test-statistics by Brown and Warner (1985) exhibit abnormal return yet the test by Savickas (2003) do not, it is safe to say that the abnormal volatilities are induced by firm-specific volatilities.

The same could also be said when abnormal volatility is not found using the method by Brown and Warner (1985). It assumes volatility to be constant throughout the cross-section. When the test-statistics is adjusted for volatility as proposed by Savickas (2003), abnormal volatility exists on almost all days within the event window.

In short, no abnormal return can be made during the 12th Malaysian General Election. As such, the Bursa Malaysia market is proven to be semi-strong efficient. Even so, the event caused abnormal volatility in stock returns.

5.3 Implications of the Study

The implications of this study can be divided into two categories, one for policy makers and investors and the other specifically for researchers.

5.3.1 For Policy Makers and Investors

The findings in this study can help local stockholders to better understand and evaluate the political risk for investing in the Malaysian stock market. It is widely assumed that general elections bring political uncertainty and thus, many investors choose to exit the equities market and purchase more conservative securities such as bonds and fixed-deposits. This study proves that this is a result of misconception. The results indicate that it is highly unlikely for investors to earn consistent abnormal returns within the 12th Malaysian general election period. As such, given that investors have a diversified portfolio, holding on to them should not result in abnormal gains or losses.

As for policy makers, the results would indicate their effectiveness in maintaining the Malaysian stock market as an efficient market. Insofar, the Malaysian stock market during the period of the 12th Malaysian General Elections has been proven efficient. However, this does not prove that other events do not cause abnormal returns. As such, it is up to policy makers to conduct similar researches to determine if the Malaysian stock market is truly efficient. If abnormal return is found, policy makers can then take swift action, making sure the market remains efficient.

5.3.2 For Researchers

This is one of the first papers attempting to understand the impact of the 12th Malaysian General Election on the Malaysian stock market, making use of the GARCH model and event study methodology. Incorporating the GARCH model into event studies is a relatively new practice.

The GARCH model is used because of impractical assumptions in classical event studies. The methodology in this research project accounts and adjusts for volatility clustering in stock returns. And thus, this study paves the road for future researchers who wish employ the GARCH model to better understand effects of general elections in Malaysia.

5.4 Limitations of the Study

Due to the restraints in time and resources, this research project is unable to overcome several problems found during the course of research. And thus, readers should take note of the limitations present in the scope of this study.

5.4.1 Small Sample Size

At the start of this research project, 100 firms with the highest market capitalization (listed on Bursa Malaysia) were selected. Two of these firms were not listed on Bursa Malaysia's main board at the time of the 12th Malaysian general election. They were removed from the sample. During the process of diagnostic testing, 41 companies showed misspecification errors.

Models using these 41 companies are misspecified and the parameters estimated are not efficient. They were also dropped from the sample. Only the remaining 57 companies adequately specified to utilize the GARCH model.

5.4.2 Only One General Election

This study is only concerned about the 12th Malaysian general election. It focuses solely on studying if abnormal return and/or abnormal volatility is present during that period.

As such, all results pertaining to this study is only true in explaining the 12th Malaysian general election, not any previous general elections. The results should not be used as a generalization of all future or past general elections in Malaysia.

5.4.3 The Reason for Abnormal Volatility

Abnormal volatility is a well-documented phenomenon. According to Engle and Russell (1998), the GARCH model was invented for the sole

reason of capturing volatility clustering- periods of high volatility are followed by high volatility; periods of low volatility are followed by low volatility.

And in this study, it is statistically proven that abnormal volatility is present throughout the event window surrounding the 12th Malaysian General Election.

Even so, this research project only investigates the presence or absence of abnormal volatility. It does not give indication of why stock returns exhibit abnormal volatilities during the 12th Malaysian General Election. In addition, there is little or no literature when it comes to why abnormal volatility is present during general elections.

5.5 Recommendations for Future Research

Considering the myriad limitations present in this research project, there are several improvements future researchers could attempt when conducting a similar study.

5.5.1 Improvements in GARCH Methodology

There is a reason why the 30 companies from the initial sample produce misspecified models. A traditional GARCH model assumes data to be distributed based on the Normal Gaussian curve. But in actual fact, stock returns for the 30 dropped companies could be distributed based on Student's t-distribution or even Generalized Error distribution.

As such, for future research, it is prudent to model data based on their behavior, be it Normal Gaussian, Student's t-distribution or even Generalized Error distribution.

It would also be wise to try out more advance GARCH models, such as the Exponential GARCH (E-GARCH) or even the Threshold GARCH (T-GARCH) models, depending on the data's temperament.

5.5.2 Compare amongst General Elections in Malaysia

Mentioned in the previous section, this research project only studies the 12th Malaysian General Election. Therefore, the results are not a representation of general elections, as a whole, in Malaysia.

It would be interesting to compare amongst the 11 previous general elections in Malaysia, to find out if the results are consistent throughout the years. It would also give readers a rough picture of the impact of general elections on stock returns in general.

It would be best if future research makes it possible for them to forecast the impact of general elections in Malaysia on stock returns.

5.5.3 Investigate the Reason for Abnormal Volatility

In this research, it was found that abnormal volatility occurs during the 12th Malaysian general election yet there is little or no clue as to why it happened.

To understand the phenomenon would require a research dedicated entirely to understanding why abnormal volatility happens and does it occur in other events apart from general elections.

5.4.4 The Reason for the Huge Plunge in Stock Prices during Event Date

In the first chapter, it was highlighted that there was a huge plunge in stock prices on 10th March 2008, the event date. The findings within this study show that there is no abnormal return during that particular period. Even so, it does not explain why stock prices exhibit such a phenomenon on that particular day.

As such, to investigate this issue, it would be better to take a deeper look into Malaysia's stock market at that point of time. A better method for future research would be to analyze stock prices at hourly intervals. This would give researchers a blow-by-blow picture of stock price fluctuations during the event date.

5.6 Conclusion

In conclusion, the main objective of this study is to investigate whether abnormal return and abnormal volatility is present during the 12th Malaysian general election, utilizing the GARCH model to adjust for volatility clustering. Based on the results of data analysis and discussion on findings, it is concluded that abnormal return does not exist during the 12th Malaysian general election but abnormal volatility does exist.

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Appendix 1.0: List of Companies

1. Affin Holdings
2. Air Asia
3. Alliance
4. AMMB Holdings
5. Ann Joo Resources
6. Astro All Asia Networks
7. Axiata Group (yet to be listed)
8. Bandar Raya Devs.
9. Berjaya Sports Toto
10. Boustead Holdings
11. British America Tobacco
12. Bursa Malaysia
13. Carlsberg Brewery Malaysia
14. CIMB Group Holdings
15. Dialog Group
16. Digi.com
17. DRB-Hicom
18. Eon Capital
19. Gamuda
20. Genting
21. Guocoland
22. Hap Seng Consolidated
23. Hong Leong Bank
24. IGB
25. IJM
26. IOI
27. Kencana Petroleum
28. KFC Holdings
29. Kinsteel
30. KLCC Property Holdings
31. KNM Group
32. KSK Group
33. Kuala Lumpur Kepong
34. Kulim
35. Kumpulan Perangsang Selangor
36. Lafarge Malayan Cement
37. Landmarks
38. Lingkaran Trans Kota Holdings
39. Lingui Developments
40. Lion Diversified Holdings
41. Lion Industries
42. Mahsing Group
43. Malayan Banking
44. Malaysia Airports Holdings
45. Malaysian Airline Systems
46. Malaysian Bulk Carriers
47. Malaysian Pacific Industry
48. Malaysian Resources
49. Media Chinese International (Yet to be listed)

50. Media Prima
51. MISC Bhd.
52. MK Land Holdings
53. MMC
54. Muhibbah Engineering
55. Mulpha International
56. Multi Purpose Holdings
57. Oriental Holdings
58. OSK Holdings
59. Padiberas Nasional
60. Pelikan International
61. Perdana Petroleum
62. Petronas Dagangan
63. Petronas Gas
64. Plus Expressway
65. Pos Malaysia
66. PPB Group
67. Proton Holdings
68. Public Bank
69. Puncak Niaga
70. RHB Capital
71. Sapuracrest Petroleum
72. Sarawak Energy
73. Scomi Group
74. Selangor Properties
75. Shell Refining
76. Sime Darby
77. SP Setia
78. Star Publications
79. Sunrise
80. Sunway City
81. Suria Capital Holdings
82. Ta Ann Holdings
83. TA Enterprise
84. Tan Chong Motor Holdings
85. Tanjong
86. Telekom Malaysia
87. Tenaga Nasional
88. Titan Chemicals
89. Top Glove
90. Tradewinds Plantation
91. TSH Resources
92. UCHI Techs
93. UMW Holdings
94. UNISEM
95. Wah Seong
96. WCT
97. WTK
98. YNH
99. YTL
100. Zelan Bhd

Appendix 1.1: List of Companies with Correctly Specified Garch Model

1. Affin Holdings
2. Air Asia
3. AMMB Holdings
4. Ann Joo Resources
5. Astro All Asia Networks
6. Bandar Raya Devs.
7. Berjaya Sports Toto
8. British America Tobacco
9. Dialog Group
10. DRB-Hicom
11. Genting
12. Guocoland
13. Hong Leong Bank
14. IGB
15. IJM
16. IOI
17. Kencana Petroleum
18. Kinsteel
19. KLCC Property Holdings
20. KSK Group
21. Kumpulan Perangsang Selangor
22. Lafarge Malayan Cement
23. Landmarks
24. Lingui Developments
25. Malayan Banking
26. Malaysia Airports Holdings
27. Malaysian Airline Systems
28. Malaysian Pacific Industry
29. Malaysian Resources
30. Media Prima
31. MK Land Holdings
32. MMC
33. Oriental Holdings
34. Padiberas Nasional
35. Pelikan International
36. Perdana Petroleum
37. Petronas Gas
38. Plus Expressway
39. Pos Malaysia
40. Proton Holdings
41. Puncak Niaga
42. RHB Capital
43. Sapuracrest Petroleum
44. Scomi Group
45. Selangor Properties
46. Sime Darby
47. SP Setia
48. Suria Capital Holdings
49. TA Enterprise
50. Tanjong
51. Telekom Malaysia
52. Tenaga Nasional
53. Titan Chemicals
54. TSH Resources

55. Wah Seong
56. WCT
57. Zelan Bhd

Appendix 1.2: List of Companies with Misspecified Garch Model

1. Alliance
2. Axiata Group (yet to be listed)
3. Boustead Holdings
4. Bursa Malaysia
5. Carlsberg Brewery Malaysia
6. CIMB Group Holdings
7. Digi.com
8. Eon Capital
9. Gamuda
10. Hap Seng Consolidated
11. KFC Holdings
12. KNM Group
13. Kuala Lumpur Kepong
14. Kulim
15. Lingkaran Trans Kota Holdings
16. Lion Diversified Holdings
17. Lion Industries
18. Mahsing Group
19. Malaysian Bulk Carriers
20. Media Chinese International (Yet to be listed)
21. MISC Bhd.
22. Muhibbah Engineering
23. Mulpha International
24. Multi Purpose Holdings
25. OSK Holdings
26. Petronas Dagangan
27. PPB Group
28. Public Bank
29. Sarawak Energy
30. Shell Refining
31. Star Publications
32. Sunrise
33. Sunway City
34. Ta Ann Holdings
35. Tan Chong Motor Holdings
36. Top Glove
37. Tradewinds Plantation
38. UCHI Techs
39. UMW Holdings
40. UNISEM
41. WTK
42. YNH
43. YTL

Appendix 1.3: Results on Day (-5)

Mean Equation	
Sum Gamma Cap	0.044552565
n	58
Sum Gamma Cap/n	0.000768148
1/(n(n-1))	0.00030248
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.025128092
Denominator	0.002756946
T-stat for Mean Dum Coefficient	0.278622626
P-value	0.781542779

Mean Equation (firm-specific test)	
sum sm	5.24E+07
n	58
sum sm/n	902768.5062
1/(n(n-1))	0.00030248
sum(sm- sum sm/n)squared	2.60E+15
Denominator	886937.9964
T-stat for Mean Dum Coefficient	1.017848497
P-value	0.313050919

Variance Equation	
Sum Delta Cap	0.367792845
n	58
Sum Delta Cap/n	0.006341256
1/(n(n-1))	0.00030248
Sum(Delta Cap-Sum Delta Cap/n)squared	0.130151786
Denominator	0.006274421
T-stat for Variance Dum Coefficient	1.010652002
P-value	0.316454092

Variance Equation (firm-specific test)	
sum sv	-2.59E+02
n	58
sum sv/n	-4.458701088
1/(n(n-1))	0.00030248
sum(sv-sum sv/n)squared	2.76E+03
Denominator	0.912953229
T-stat for Variance Dum Coefficient	-4.883822026
P-value	8.79707E-06

		Mean Equation			Variance Equation			
SUMMATIONS		57	0	1	25	26	27	2
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0928	(0.0188)	(0.0003)	0.0002	0.0864	0.3344	(0.0003)
		0.0000	0.9741	0.7300	0.0002	0.0349	0.0695	0.7427
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
2	Air Asia	0.8200	(0.0024)	(0.0006)	0.0003	0.0239	0.5083	(0.0007)
		0.0000	0.9999	0.6726	0.5505	0.6976	0.5311	0.7145
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7160	(0.0006)	0.0013	0.0004	0.0375	0.5085	(0.0007)
		0.0000	0.9717	0.4619	0.4444	0.1293	0.4157	0.7070
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3617	0.0108	0.0000	0.0000	0.0326	0.9085	0.0018
		0.0000	0.9998	0.9710	0.0143	0.0100	0.0000	0.0532
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

5	Ann Joo	1.1764	(0.0074)	0.0003	0.0004	0.0676	0.4981	(0.0009)
		0.0000	0.0926	0.8922	0.0346	0.1546	0.0226	0.6573
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8805	0.0015	(0.0008)	0.0003	0.0408	(0.0006)	(0.0006)
		0.0000	0.9950	0.6298	0.4867	0.2369	0.4113	0.6478
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	0.9620	(0.0012)	(0.0015)	0.0003	0.1977	0.5199	0.0013
		0.0000	1.0000	0.2586	0.0000	0.0001	0.0000	0.8521
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
8	British American Tobacco (BAT)	0.3190	0.0293	0.0001	0.0000	0.0515	0.8223	0.0001
		0.0000	0.9969	0.8752	0.0322	0.0242	0.0000	0.6816
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
9	Padiberas Nasional (Beras)	0.6581	0.0082	(0.0003)	0.0002	0.1082	0.4719	(0.0003)
		0.0000	0.9301	0.8068	0.0002	0.0017	0.0003	0.7599
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6581	0.0082	(0.0003)	0.0002	0.1082	0.4719	(0.0003)
		0.0000	0.9301	0.8068	0.0002	0.0017	0.0003	0.7599
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.4781	(0.0476)	(0.0002)	0.0004	0.1083	0.4498	(0.0008)
		0.0000	0.9993	0.9202	0.0001	0.0114	0.0006	0.8226
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2775	(0.0024)	(0.0010)	0.0004	0.0174	0.4973	(0.0009)
		0.0000	1.0000	0.5604	0.7205	0.2885	0.7182	0.9359
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.0879	(0.0153)	(0.0010)	0.0001	0.2626	0.5183	(0.0003)
		0.0000	0.2112	0.1252	0.0004	0.0000	0.0000	0.0529
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
14	Guocoland	1.0463	(0.0437)	(0.0007)	0.0010	0.0639	0.4967	(0.0019)
		0.0000	0.9996	0.7930	0.1512	0.1252	0.1426	0.6683
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6563	0.0129	0.0001	0.0001	0.0931	0.5068	(0.0003)
		0.0000	0.9999	0.8487	0.0794	0.1273	0.0546	0.8418
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
16	IGB Corporation	1.2277	(0.0069)	0.0001	0.0002	0.0969	0.5290	(0.0005)
		0.0000	0.9720	0.9383	0.0523	0.0339	0.0131	0.3308
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.3175	0.0060	(0.0002)	0.0004	0.1477	0.5324	(0.0009)
		0.0000	0.9957	0.9366	0.0000	0.0056	0.0000	0.7421

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.8062	0.0099	0.0009	0.0004	0.0896	0.4871	(0.0007)
		0.0000	0.9997	0.5825	0.0406	0.2749	0.0593	0.8561
		SIG	INSIG	INSIG	SIG	INSIG	INSIG	INSIG
19	Kencana Petroleum	1.6073	(0.0259)	0.0012	0.0005	0.0664	0.4400	(0.0010)
		0.0000	0.9593	0.4886	0.1194	0.0676	0.1846	0.7036
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
20	Kinsteel	1.5668	0.0087	(0.0001)	0.0006	0.0391	0.5064	(0.0012)
		0.0000	0.9734	0.9673	0.3934	0.3654	0.3725	0.8174
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Propertiy Holdings	0.6090	(0.0277)	0.0006	0.0002	0.0498	0.4842	(0.0004)
		0.0000	0.1382	0.5300	0.3836	0.3774	0.3893	0.6525
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
22	Kurnia Asia (KSK)	0.6675	0.0137	(0.0009)	0.0009	0.1293	0.5243	(0.0019)
		0.0080	0.9555	0.7729	0.0174	0.0398	0.0051	0.6084
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3822	0.0083	0.0019	0.0002	0.1595	0.6708	0.3634
		0.0000	1.0000	0.3306	0.0000	0.0000	0.0000	0.2186
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.4027	0.0075	0.0010	0.0004	(0.0219)	0.5140	(0.0008)
		0.0000	0.9997	0.5203	0.6203	0.5634	0.6085	0.7695
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.3874	(0.0234)	(0.0017)	0.0003	0.1941	0.4800	0.0005
		0.0000	0.9997	0.1820	0.0000	0.0000	0.0000	0.8610
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
26	Lingui Development	1.1745	(0.0105)	(0.0024)	0.0002	0.2156	0.4590	0.0027
		0.0000	0.9999	0.0320	0.0000	0.0000	0.0000	0.8614
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
27	Malaysian Pacific Industries	0.3890	(0.0085)	(0.0008)	0.0002	0.1015	0.5010	(0.0005)
		0.0000	0.9997	0.5491	0.0260	0.0421	0.0140	0.6305
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
28	Malaysian Resources Corporation	2.0089	(0.0107)	(0.0000)	0.0000	0.0451	0.8919	0.0075
		0.0000	1.0000	0.9911	0.0000	0.0000	0.0000	0.0071
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
29	Malaysian Airline System (MAS)	1.0869	(0.0078)	(0.0009)	0.0003	0.0908	0.4528	(0.0006)
		0.0000	0.9818	0.4802	0.2235	0.0277	0.2811	0.6958
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG

30	Malayan (Maybank) Banking	0.9849	0.0042	(0.0011)	0.0001	0.0810	0.4868	(0.0003)
		0.0000	0.9999	0.2393	0.1799	0.0762	0.1805	0.7356
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
31	Media Prima	0.7492	0.0114	(0.0006)	0.0001	0.1618	0.7044	0.0011
		0.0000	0.9997	0.4998	0.0000	0.0000	0.0000	0.6157
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
32	MK Land Holdings	1.8374	0.0381	(0.0016)	0.0012	0.0037	0.5133	(0.0025)
		0.0000	0.9985	0.5774	0.6052	0.9315	0.5856	0.7483
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.4175	0.0282	0.0000	0.0004	0.0449	0.4676	(0.0008)
		0.0000	0.9995	0.9898	0.4093	0.4295	0.4527	0.7194
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7737	0.0065	0.0004	0.0002	0.0794	0.5024	(0.0003)
		0.0000	1.0000	0.7035	0.0764	0.2142	0.0651	0.8334
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
35	Pelikan International Corporation	1.0861	(0.0707)	(0.0016)	0.0005	0.0430	0.4872	(0.0011)
		0.0000	0.8757	0.3415	0.0836	0.3430	0.0900	0.7360
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
36	Petra Perdana (Perdana)	1.2796	(0.0036)	(0.0006)	0.0004	0.1484	0.4971	(0.0008)
		0.0000	0.9075	0.7402	0.0447	0.0937	0.0407	0.7099
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.4607	(0.0064)	0.0006	0.0001	0.0977	0.5139	(0.0003)
		0.0000	0.9998	0.4849	0.2099	0.1765	0.1531	0.6797
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
38	Plus Expressways	0.6721	0.0133	(0.0000)	0.0001	0.1079	0.5064	(0.0003)
		0.0000	0.9994	0.9849	0.0299	0.0109	0.0104	0.4251
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.4494	(0.0005)	(0.0001)	0.0002	0.1240	0.5485	(0.0005)
		0.0001	0.9985	0.9624	0.0666	0.2697	0.0156	0.8579
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
40	Proton Holdings	0.8270	(0.0125)	(0.0018)	0.0004	(0.0126)	0.5376	(0.0008)
		0.0000	0.8451	0.2795	0.4275	0.5256	0.3583	0.8053
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	0.8265	0.0477	0.0001	0.0000	0.0991	0.8647	0.0156
		0.0000	0.9999	0.8859	0.0000	0.0000	0.0000	0.0141
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
42	RHB Capital	0.9467	0.0064	0.0004	0.0000	0.1201	0.7984	(0.0001)

		0.0000	0.9987	0.6007	0.0000	0.0000	0.0000	0.8499
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9238	0.0228	0.0004	0.0008	0.0278	0.4818	(0.0016)
		0.0000	0.9786	0.8772	0.3754	0.5893	0.4031	0.8396
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9735	0.0136	(0.0005)	0.0006	(0.0027)	0.4916	(0.0012)
		0.0000	0.7035	0.7804	0.5847	0.9136	0.5988	0.7317
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
45	Selangor Properties	0.6626	(0.0129)	0.0006	0.0003	0.0491	0.5316	(0.0007)
		0.0000	0.9915	0.7548	0.3395	0.2877	0.2719	0.5710
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2876	(0.0201)	0.0013	0.0003	0.1294	0.5265	(0.0007)
		0.0000	0.9710	0.5016	0.0323	0.0000	0.0103	0.8196
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	1.0293	0.0041	0.0004	0.0002	0.1163	0.5250	(0.0004)
		0.0000	0.9990	0.6453	0.0000	0.0200	0.0000	0.7157
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
48	Suria Capital	1.2427	0.0480	(0.0014)	0.0006	0.1398	0.4793	(0.0015)
		0.0000	0.9984	0.5366	0.0696	0.0004	0.0697	0.2935
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.3049	(0.0176)	(0.0013)	0.0003	0.0380	0.5063	(0.0008)
		0.0000	0.9993	0.3985	0.3108	0.4647	0.2878	0.6870
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
50	Tanjong Public Limited Company	0.8090	(0.0096)	0.0004	0.0002	0.0616	0.4801	(0.0004)
		0.0000	0.9999	0.7238	0.2432	0.0590	0.2456	0.7692
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
51	Telekom Malaysia	0.5937	(0.0075)	0.0014	0.0003	0.0695	0.5582	(0.0008)
		0.0000	0.9926	0.4689	0.2919	0.4221	0.1717	0.5720
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0697	0.0116	(0.0015)	0.0002	0.1575	0.5411	(0.0006)
		0.0000	0.9930	0.3830	0.0912	0.0198	0.0361	0.7619
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7729	0.0100	(0.0019)	0.0003	0.0150	0.5275	(0.0006)
		0.0000	0.9975	0.1755	0.7530	0.8163	0.7227	0.8553
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1296	0.0045	(0.0003)	0.0001	0.0134	0.5787	0.0111
		0.0000	1.0000	0.7260	0.0061	0.5229	0.0001	0.4635
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9709	0.0248	(0.0005)	0.0004	0.0337	0.5253	(0.0008)

		0.0000	0.5070	0.7467	0.5406	0.5607	0.4893	0.6674
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5505	0.0246	(0.0016)	0.0007	0.1490	0.5223	(0.0018)
		0.0000	0.1704	0.6041	0.0642	0.0139	0.0276	0.5173
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.6129	0.0217	(0.0022)	0.0006	0.0716	0.4808	(0.0013)
		0.0000	0.7635	0.2694	0.1975	0.0803	0.2073	0.7541
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

Appendix 1.4: Results on Day (-4)

Mean Equation		
Sum Gamma Cap		0.657026106
n		58
Sum Gamma Cap/n		0.011328036
1/(n(n-1))		0.00030248
Sum(Gamma Cap-Sum Gamma Cap/n)squared		0.109907535
Denominator		0.005765836
T-stat for Mean Dum Coefficient		1.964682261
P-value		0.054332392

Mean Equation (firm-specific test)		
sum sm		2.17E+09
n		58
sum sm/n		37463209.32
1/(n(n-1))		0.00030248
sum(sm- sum sm/n)squared		4.95E+18
Denominator		38698390.34
T-stat for Mean Dum Coefficient		0.96808185
P-value		0.337093354

Variance Equation		
Sum Delta Cap		0.356774874
n		58
Sum Delta Cap/n		0.006151291
1/(n(n-1))		0.00030248
Sum(Delta Cap-Sum Delta Cap/n)squared		0.109945393
Denominator		0.005766829
T-stat for Variance Dum Coefficient		1.066667777
P-value		0.290619091

Variance Equation (firm-specific test)		
sum sv		-2.05E+02
n		58
sum sv/n		-3.535781572
1/(n(n-1))		0.00030248
sum(sv-sum sv/n)squared		3.07E+03
Denominator		0.96397802
T-stat for Variance Dum Coefficient		3.667906837
P-value		0.000539244

		Mean Equation			Variance Equation			
	SUMMATIONS	56	3	1	28	27	31	3
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0932	0.0046	(0.0004)	0.0001	0.0581	0.5182	0.0013
		0.0000	1.0000	0.5951	0.0335	0.0602	0.0243	0.5351

		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
2	Air Asia	0.8223	0.0050	(0.0008)	0.0003	0.0142	0.4992	(0.0006)
		0.0000	0.9700	0.5604	0.6211	0.7812	0.6194	0.7751
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7254	0.0066	0.0013	0.0004	0.0517	0.5108	(0.0007)
		0.0000	0.8377	0.4904	0.3502	0.1421	0.3129	0.7475
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3572	0.0225	0.0000	0.0000	0.0336	0.9053	0.0019
		0.0000	0.9995	0.9557	0.0128	0.0096	0.0000	0.0479
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
5	Ann Joo	1.1709	0.0071	0.0009	0.0004	0.0815	0.4974	(0.0009)
		0.0000	0.9976	0.6198	0.0192	0.1378	0.0115	0.4375
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8803	0.0002	(0.0008)	0.0003	0.0393	0.5288	(0.0006)
		0.0000	0.9955	0.6216	0.4920	0.2355	0.4177	0.7357
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	0.9528	0.0620	(0.0015)	0.0003	0.1923	0.5287	0.0003
		0.0000	0.9981	0.2596	0.0000	0.0001	0.0000	0.9233
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
8	British American Tobacco (BAT)	0.0003	0.3018	(0.0253)	0.0001	0.0893	0.5099	(0.0003)
		0.7221	0.0000	0.9985	0.2001	0.2841	0.1561	0.7381
		INSIG	SIG	INSIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.6534	0.0074	(0.0001)	0.0001	0.2864	0.4792	(0.0002)
		0.0000	0.5591	0.8807	0.0000	0.0000	0.0000	0.7757
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6534	0.0074	(0.0001)	0.0001	0.2864	0.4792	(0.0002)
		0.0000	0.5591	0.8807	0.0000	0.0000	0.0000	0.7757
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.5422	0.0187	0.0001	0.0004	0.1064	0.4704	(0.0011)
		0.0000	0.9640	0.9398	0.0004	0.0178	0.0009	0.1397
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2746	(0.0199)	(0.0011)	0.0004	0.0167	0.4875	(0.0009)
		0.0000	0.9988	0.4973	0.6987	0.2686	0.7077	0.9239
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.1198	0.0152	(0.0011)	0.0001	0.2311	0.5722	0.0013
		0.0000	0.9998	0.0998	0.0014	0.0000	0.0000	0.6991
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

14	Guocoland	0.8762	(0.0078)	(0.0021)	0.0002	0.2594	0.6336	0.0018
		0.0000	1.0000	0.0744	0.0000	0.0000	0.0000	0.8029
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
15	Hong Leong Bank	0.6500	(0.0101)	0.0002	0.0001	0.0871	0.5004	(0.0002)
		0.0000	0.9988	0.7712	0.0597	0.1148	0.0449	0.3492
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
16	IGB Corporation	1.2862	(0.0006)	0.0001	0.0001	0.0651	0.7087	0.0027
		0.0000	1.0000	0.8756	0.0757	0.0459	0.0000	0.5227
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.3148	0.0242	(0.0001)	0.0003	0.1481	0.5297	(0.0008)
		0.0000	0.7143	0.9528	0.0000	0.0030	0.0000	0.6126
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.7419	0.0145	0.0010	0.0001	0.1601	0.5788	(0.0004)
		0.0000	0.9949	0.3121	0.0001	0.0029	0.0000	0.5602
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.3911	(0.0122)	0.0003	0.0001	0.1362	0.6902	0.0026
		0.0000	0.9997	0.8223	0.0008	0.0000	0.0000	0.6567
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.5696	0.0202	(0.0004)	0.0006	0.0273	0.4987	(0.0012)
		0.0000	0.9992	0.8404	0.4505	0.4602	0.4470	0.7012
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Property Holdings	0.6118	0.0001	0.0009	0.0001	0.0858	0.4400	(0.0003)
		0.0000	0.9999	0.2470	0.0621	0.0830	0.1039	0.3332
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
22	Kurnia Asia (KSK)	0.6724	0.0122	(0.0008)	0.0009	0.1364	0.5251	(0.0020)
		0.0078	0.7996	0.8004	0.0161	0.0382	0.0044	0.5894
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3832	0.0271	0.0019	0.0002	0.1668	0.6501	0.3341
		0.0000	1.0000	0.3124	0.0000	0.0000	0.0000	0.2803
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.3985	(0.0112)	0.0009	0.0004	(0.0361)	0.4978	(0.0008)
		0.0000	0.9997	0.5612	0.4080	0.1011	0.4313	0.6941
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.5118	(0.0482)	(0.0014)	0.0006	0.0375	0.4918	(0.0012)
		0.0000	0.9605	0.5412	0.3658	0.3843	0.3690	0.7453
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
26	Lingui Development	1.1429	0.0586	(0.0024)	0.0002	0.2218	0.4180	(0.0006)
		0.0000	0.0000	0.0329	0.0000	0.0000	0.0000	0.3264
		SIG	SIG	SIG	SIG	SIG	SIG	INSIG

27	Malaysian Pacific Industries	0.3917	(0.0000)	(0.0008)	0.0002	0.1010	0.5060	(0.0005)
		0.0000	1.0000	0.5488	0.0328	0.0510	0.0167	0.8195
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
28	Malaysian Resources Corporation	2.0057	0.0251	(0.0000)	0.0000	0.0464	0.8873	0.0075
		0.0000	0.9998	0.9778	0.0000	0.0000	0.0000	0.0089
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
29	Malaysian Airline System (MAS)	0.9830	(0.0257)	(0.0014)	0.0002	0.2426	0.2145	0.0014
		0.0000	0.9999	0.1123	0.0000	0.0000	0.1653	0.9998
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
30	Malayan Banking (Maybank)	0.9843	(0.0034)	(0.0011)	0.0001	0.0927	0.4944	(0.0002)
		0.0000	0.9999	0.1813	0.0897	0.0302	0.0766	0.6633
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
31	Media Prima	0.8501	(0.0526)	(0.0004)	0.0004	0.0841	0.5048	(0.0008)
		0.0000	0.9548	0.8192	0.1546	0.0097	0.1092	0.8120
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
32	MK Land Holdings	1.8267	0.0177	(0.0016)	0.0012	0.0055	0.5144	(0.0025)
		0.0000	0.9923	0.5959	0.5953	0.9022	0.5735	0.8368
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.5571	0.0022	(0.0031)	0.0004	0.0918	0.5168	(0.0010)
		0.0000	0.9973	0.0820	0.2281	0.2528	0.1703	0.6259
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7722	0.0094	0.0004	0.0001	0.0755	0.4919	(0.0003)
		0.0000	0.9987	0.7034	0.0617	0.1973	0.0620	0.8718
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
35	Pelikan International Corporation	0.9611	0.0133	(0.0012)	0.0001	0.0892	0.7884	0.0000
		0.0000	0.9996	0.3081	0.0095	0.0058	0.0000	0.9878
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
36	Petra Perdana (Perdana)	1.2775	0.0112	(0.0002)	0.0004	0.1462	0.4906	(0.0007)
		0.0000	0.9982	0.9268	0.0356	0.0802	0.0369	0.6473
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.4615	(0.0049)	0.0006	0.0001	0.0964	0.5137	(0.0002)
		0.0000	0.9999	0.4940	0.2124	0.1765	0.1558	0.7806
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
38	Plus Expressways	0.6383	0.0079	0.0001	0.0000	0.1549	0.6252	0.0017
		0.0000	0.9999	0.8312	0.0000	0.0000	0.0000	0.5075

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.4540	0.0152	0.0001	0.0002	0.1420	0.5638	(0.0006)
		0.0003	0.9374	0.9596	0.0638	0.2543	0.0095	0.6032
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
40	Proton Holdings	0.8391	0.0225	(0.0020)	0.0003	(0.0112)	0.5259	(0.0007)
		0.0000	0.9994	0.2163	0.4588	0.5935	0.4129	0.6212
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	0.7937	0.0008	0.0003	0.0000	0.1031	0.8582	0.0157
		0.0000	1.0000	0.7478	0.0000	0.0000	0.0000	0.0228
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
42	RHB Capital	1.1069	0.0257	0.0010	0.0002	0.1238	0.4820	(0.0005)
		0.0000	0.9060	0.4225	0.0076	0.0508	0.0085	0.6063
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9641	0.0261	(0.0002)	0.0008	0.0304	0.5197	(0.0018)
		0.0000	0.9345	0.9501	0.4036	0.5959	0.3572	0.4939
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9532	0.0343	(0.0009)	0.0005	0.0138	0.4423	(0.0010)
		0.0000	0.1285	0.5980	0.5339	0.5839	0.6176	0.6645
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
45	Selangor Properties	0.6720	0.0271	0.0002	0.0003	0.0504	0.5343	(0.0007)
		0.0000	0.9970	0.9039	0.3397	0.2871	0.2670	0.8324
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2957	0.0144	0.0012	0.0003	0.1315	0.5235	(0.0007)
		0.0000	0.7785	0.5465	0.0284	0.0000	0.0093	0.7756
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.8457	(0.0104)	0.0003	0.0001	0.0166	0.8323	0.0073
		0.0000	0.9999	0.7170	0.0054	0.2545	0.0000	0.1506
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2349	(0.0450)	(0.0016)	0.0006	0.1430	0.4852	(0.0017)
		0.0000	0.9515	0.4905	0.0757	0.0005	0.0692	0.6696
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1127	0.0045	(0.0015)	0.0002	0.2163	0.3971	(0.0006)
		0.0000	0.0022	0.1187	0.0000	0.0000	0.0000	0.4335
		SIG	SIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.8123	0.0099	0.0003	0.0002	0.0563	0.4600	(0.0004)
		0.0000	0.9997	0.7830	0.2030	0.0378	0.2429	0.6731
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
51	Telekom Malaysia	0.5923	(0.0029)	0.0016	0.0004	0.1223	0.5791	(0.0009)
		0.0002	0.9999	0.4514	0.2005	0.3114	0.0670	0.6242
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

52	Tenaga Nasional	1.0711	(0.0194)	(0.0013)	0.0002	0.1586	0.5071	(0.0005)
		0.0000	0.9984	0.3760	0.0497	0.0106	0.0343	0.4840
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7731	0.0200	(0.0019)	0.0003	0.0109	0.5255	(0.0006)
		0.0000	0.9681	0.1630	0.7501	0.8548	0.7224	0.7953
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1370	0.0146	(0.0003)	0.0001	0.0121	0.5499	0.0103
		0.0000	0.9999	0.7298	0.0097	0.5720	0.0014	0.4790
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9644	0.0040	(0.0005)	0.0004	0.0336	0.5245	(0.0008)
		0.0000	0.9967	0.7856	0.5461	0.5609	0.4967	0.7016
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5432	(0.0042)	(0.0017)	0.0007	0.1546	0.5181	(0.0017)
		0.0000	0.9999	0.5746	0.0582	0.0103	0.0255	0.7939
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.6045	0.0145	(0.0022)	0.0006	0.0746	0.4697	(0.0011)
		0.0000	0.5056	0.2437	0.1655	0.0594	0.1921	0.6435
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

Appendix 1.5: Results on Day (-3)

Mean Equation		
Sum Gamma Cap		0.118999182
n		58
Sum Gamma Cap/n		0.00205171
1/(n(n-1))		0.00030248
Sum(Gamma Cap-Sum Gamma Cap/n)squared		0.037594518
Denominator		0.003372181
T-stat for Mean Dum Coefficient		0.608422333
P-value		0.545324401

Mean Equation (firm-specific test)		
sum sm		-5.03E+07
n		58
sum sm/n		-
1/(n(n-1))		867690.8084
sum(sm- sum sm/n)squared		0.00030248
Denominator		4.40E+15
T-stat for Mean Dum Coefficient		1153964.139
P-value		-
		0.751921814
		0.455191844

Variance Equation		
Sum Delta Cap		0.342732608
n		58
Sum Delta Cap/n		0.005909183
1/(n(n-1))		0.00030248

Variance Equation (firm-specific test)		
sum sv		-5.03E+00
n		58
sum sv/n		-0.08674712
1/(n(n-1))		0.00030248

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Sum(Delta Cap-Sum Delta Cap/n)squared	0.094055976
Denominator	0.005333862
T-stat for Variance Dum Coefficient	1.107861982
P-value	0.272574506

sum(sv-sum sv/n)squared	3.08E+04
Denominator	3.052293306
T-stat for Variance Dum Coefficient	0.028420309
P-value	0.9774262

Mean Equation

Variance Equation

SUMMATIONS		57	0	2	30	29	32	4
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0968	0.0101	(0.0004)	0.0001	0.0771	0.4003	0.0017
		0.0000	0.9998	0.5814	0.0021	0.0372	0.0459	0.6577
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
2	Air Asia	0.8189	0.0079	(0.0004)	0.0003	(0.0057)	0.4874	(0.0006)
		0.0000	0.9208	0.7552	0.6825	0.8716	0.7005	0.7888
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7181	0.0241	0.0008	0.0004	0.0365	0.5047	(0.0007)
		0.0000	0.8050	0.6377	0.4471	0.1254	0.4254	0.6855
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3902	(0.0375)	0.0004	0.0002	0.0631	0.4890	(0.0005)
		0.0000	0.9973	0.7114	0.2197	0.2342	0.2219	0.6570
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
5	Ann Joo	1.1873	0.0360	0.0010	0.0005	0.0813	0.5108	(0.0009)
		0.0000	0.7885	0.6186	0.0347	0.1717	0.0169	0.8594
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8648	(0.0217)	(0.0007)	0.0003	0.0303	0.5209	(0.0006)
		0.0000	0.8700	0.6176	0.5467	0.2124	0.4955	0.7130
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	1.1926	0.0593	(0.0002)	0.0007	0.0587	0.4754	(0.0016)
		0.0000	0.1111	0.9082	0.2294	0.1717	0.2564	0.6140
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
8	British American Tobacco (BAT)	0.3094	0.0079	0.0001	0.0001	0.0850	0.5025	(0.0003)
		0.0000	0.9998	0.8458	0.1801	0.2716	0.1501	0.5566
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.6758	0.0081	(0.0002)	0.0001	0.2138	0.6184	0.0024
		0.0000	0.9999	0.7728	0.0000	0.0000	0.0000	0.5598
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

10	Berjaya Sports TOTO	0.6472	(0.0038)	0.0003	0.0001	0.1099	0.4716	(0.0002)
		0.0000	0.9995	0.5972	0.0409	0.0054	0.0351	0.6194
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.3072	0.0416	(0.0007)	0.0002	0.2406	0.5038	0.0011
		0.0000	0.9997	0.4888	0.0000	0.0000	0.0000	0.8725
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2874	0.0192	(0.0011)	0.0004	0.0172	0.4790	(0.0008)
		0.0000	0.9990	0.4975	0.6839	0.2337	0.7028	0.9148
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.1375	0.0076	(0.0011)	0.0001	0.2282	0.5623	0.0023
		0.0000	0.9999	0.1063	0.0012	0.0000	0.0000	0.6640
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
14	Guocoland	1.0410	(0.0696)	(0.0016)	0.0010	0.0781	0.4835	(0.0019)
		0.0000	0.4980	0.5425	0.1110	0.0937	0.1198	0.8354
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6589	0.0169	0.0002	0.0001	0.1051	0.5163	(0.0002)
		0.0000	0.9996	0.7329	0.0322	0.0548	0.0133	0.7856
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
16	IGB Corporation	1.2915	(0.0344)	0.0001	0.0001	0.0705	0.6762	0.0029
		0.0000	0.9993	0.8677	0.0551	0.0419	0.0000	0.5074
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.2986	(0.0095)	(0.0003)	0.0003	0.1734	0.5197	(0.0007)
		0.0000	0.9147	0.8352	0.0000	0.0001	0.0000	0.6611
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.6955	(0.0163)	0.0011	0.0001	0.1527	0.6075	0.0010
		0.0000	0.9997	0.2808	0.0003	0.0022	0.0000	0.6193
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.3732	(0.0471)	0.0003	0.0000	0.0577	0.8984	0.0027
		0.0000	0.9915	0.7993	0.0044	0.0000	0.0000	0.2212
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.5682	(0.0056)	(0.0003)	0.0006	0.0318	0.4949	(0.0012)
		0.0000	0.9721	0.8909	0.4186	0.3982	0.4206	0.7004
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Property Holdings	0.7078	0.0247	0.0003	0.0000	0.0944	0.8397	0.0009
		0.0000	0.9993	0.6724	0.0061	0.0003	0.0000	0.3296
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.6637	(0.0053)	(0.0015)	0.0009	0.1317	0.5276	(0.0020)
		0.0097	1.0000	0.6447	0.0198	0.0445	0.0055	0.8622
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3813	0.0222	0.0020	0.0003	0.1753	0.6252	0.3092

		0.0000 SIG	1.0000 INSIG	0.2858 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.3642 INSIG
24	Lafarge Malayan Cement	1.4043 0.0000 SIG	0.0072 0.9986 INSIG	0.0007 0.6499 INSIG	0.0004 0.2899 INSIG	(0.0389) 0.0000 SIG	0.4893 0.3365 INSIG	(0.0008) 0.4881 INSIG
25	Landmarks	1.5133 0.0000 SIG	(0.0135) 0.9851 INSIG	(0.0013) 0.5573 INSIG	0.0006 0.3407 INSIG	0.0437 0.3664 INSIG	0.4957 0.3351 INSIG	(0.0013) 0.6646 INSIG
26	Lingui Development	1.1773 0.0000 SIG	0.0260 0.9998 INSIG	(0.0024) 0.0346 SIG	0.0002 0.0000 SIG	0.2178 0.0000 SIG	0.4579 0.0000 SIG	0.0015 0.8742 INSIG
27	Malaysian Pacific Industries	0.3957 0.0000 SIG	0.0111 0.9995 INSIG	(0.0008) 0.5567 INSIG	0.0002 0.0329 SIG	0.1012 0.0513 INSIG	0.5062 0.0166 SIG	(0.0005) 0.8304 INSIG
28	Malaysian Resources Corporation	1.9933 0.0000 SIG	0.0144 0.9999 INSIG	(0.0000) 0.9917 INSIG	0.0001 0.0000 SIG	0.0512 0.0000 SIG	0.8738 0.0000 SIG	0.0081 0.0159 SIG
29	Malaysian Airline System (MAS)	1.0801 0.0000 SIG	(0.0405) 0.9759 INSIG	(0.0008) 0.6102 INSIG	0.0003 0.3044 INSIG	0.0950 0.0638 INSIG	0.4939 0.2832 INSIG	(0.0007) 0.7472 INSIG
30	Malayan Banking (Maybank)	0.9306 0.0000 SIG	0.0137 0.9989 INSIG	(0.0009) 0.0976 INSIG	0.0000 0.0446 SIG	0.0446 0.0000 SIG	0.9425 0.0000 SIG	0.0003 0.0234 SIG
31	Media Prima	0.8638 0.0000 SIG	0.0222 0.9711 INSIG	(0.0005) 0.7685 INSIG	0.0004 0.1398 INSIG	0.0828 0.0074 SIG	0.4928 0.1131 INSIG	(0.0010) 0.5751 INSIG
32	MK Land Holdings	1.7998 0.0000 SIG	0.0378 0.9417 INSIG	(0.0011) 0.6757 INSIG	0.0012 0.5846 INSIG	(0.0084) 0.7643 INSIG	0.5014 0.5842 INSIG	(0.0023) 0.8273 INSIG
33	MMC Corporation	1.3193 0.0000 SIG	(0.0140) 0.9543 INSIG	(0.0009) 0.7348 INSIG	0.0005 0.4024 INSIG	0.0720 0.4410 INSIG	0.5531 0.2791 INSIG	(0.0012) 0.8061 INSIG
34	Oriental Holdings	0.7504 0.0000 SIG	0.0106 0.9993 INSIG	0.0002 0.8271 INSIG	0.0000 0.0007 SIG	0.0777 0.0005 SIG	0.7562 0.0000 SIG	0.0002 0.5655 INSIG
35	Pelikan International Corporation	0.9393 0.0000	(0.0431) 0.9980	(0.0011) 0.3394	0.0001 0.0147	0.0831 0.0062	0.8066 0.0000	(0.0000) 0.9747

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
36	Petra Perdana (Perdana)	1.2560	0.0028	(0.0009)	0.0003	0.1543	0.4730	(0.0007)
		0.0000	0.9994	0.5824	0.0186	0.0524	0.0295	0.0031
		SIG	INSIG	INSIG	SIG	INSIG	SIG	SIG
37	Petronas Gas (Petronasgas)	0.5706	0.0077	0.0010	0.0001	0.0987	0.5022	(0.0002)
		0.0000	0.9997	0.2389	0.1551	0.0363	0.1192	0.6008
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
38	Plus Expressways	0.6303	0.0164	0.0002	0.0000	0.1586	0.5977	0.0020
		0.0000	0.9996	0.7751	0.0000	0.0000	0.0000	0.5305
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.4458	(0.0090)	0.0001	0.0002	0.1321	0.5483	(0.0005)
		0.0000	0.9592	0.9353	0.0455	0.2346	0.0083	0.1728
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
40	Proton Holdings	0.8170	(0.0266)	(0.0031)	0.0004	0.0598	0.5588	(0.0009)
		0.0000	0.9980	0.1666	0.4140	0.5210	0.2933	0.4386
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	0.7896	0.0203	0.0003	0.0000	0.1041	0.8564	0.0150
		0.0000	0.9999	0.7483	0.0000	0.0000	0.0000	0.0291
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
42	RHB Capital	0.9504	(0.0084)	0.0004	0.0000	0.1191	0.7991	0.0000
		0.0000	0.9997	0.5954	0.0000	0.0000	0.0000	0.9589
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9761	0.0490	0.0022	0.0008	0.0120	0.4906	(0.0015)
		0.0000	0.9606	0.3367	0.3910	0.7818	0.4065	0.7563
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9922	0.0444	(0.0014)	0.0006	(0.0031)	0.4802	(0.0011)
		0.0000	0.9985	0.4392	0.5955	0.8878	0.6257	0.7257
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
45	Selangor Properties	0.6646	(0.0160)	0.0013	0.0003	0.0790	0.5565	(0.0009)
		0.0000	0.9989	0.5628	0.2923	0.2547	0.1768	0.7819
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.3017	0.0147	0.0010	0.0003	0.1301	0.5215	(0.0007)
		0.0000	0.9993	0.6021	0.0280	0.0000	0.0098	0.5818
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.8478	(0.0035)	0.0003	0.0001	0.0210	0.8164	0.0077
		0.0000	1.0000	0.7121	0.0068	0.1846	0.0000	0.1752
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2391	(0.0120)	(0.0021)	0.0006	0.1433	0.4833	(0.0017)
		0.0000	0.9885	0.3618	0.0715	0.0004	0.0674	0.6351

		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1254	0.0214	(0.0016)	0.0002	0.1825	0.4944	(0.0005)
		0.0000	0.8676	0.0976	0.0000	0.0000	0.0000	0.4604
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.7809	(0.0057)	0.0001	0.0000	0.0373	0.9364	0.0001
		0.0000	0.9988	0.8928	0.0135	0.0008	0.0000	0.4336
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
51	Telekom Malaysia	0.5941	0.0039	0.0018	0.0003	0.1067	0.5720	(0.0008)
		0.0001	0.5212	0.3859	0.2255	0.3325	0.0928	0.5903
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0591	(0.0146)	(0.0013)	0.0001	0.4093	0.3505	0.0095
		0.0000	1.0000	0.0448	0.0000	0.0000	0.0000	0.9999
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7781	0.0229	(0.0019)	0.0003	0.0106	0.5239	(0.0005)
		0.0000	0.7749	0.1569	0.7654	0.8577	0.7411	0.7930
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1378	(0.0532)	(0.0003)	0.0001	0.0119	0.5292	0.0076
		0.0000	0.9996	0.7546	0.0083	0.5879	0.0027	0.4280
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9716	0.0081	(0.0008)	0.0003	0.0240	0.5159	(0.0007)
		0.0000	0.9887	0.6057	0.6071	0.6121	0.5776	0.7084
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5495	(0.0095)	(0.0012)	0.0007	0.1465	0.5290	(0.0017)
		0.0000	0.9085	0.6869	0.0714	0.0195	0.0285	0.7628
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5928	(0.0007)	(0.0023)	0.0005	0.0753	0.4681	(0.0011)
		0.0000	1.0000	0.2147	0.1614	0.0575	0.1907	0.9854
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

Appendix 1.6: Results on Day (-2)

Mean Equation		
Sum Gamma Cap		-0.15515805
n		98
Sum Gamma Cap/n		-0.00158325
1/(n(n-1))		0.000105197
Sum(Gamma Cap-Sum Gamma Cap/n)squared		0.027546714

Mean Equation (firm-specific test)		
sum sm		5.53E+07
n		98
sum sm/n		564140.8044
1/(n(n-1))		0.000105197
sum(sm- sum sm/n)squared		1.30E+15

Denominator	0.0017023
T-stat for Mean Dum Coefficient	-0.9300627
P-value	0.354647502

Denominator	370091.5432
T-stat for Mean Dum Coefficient	1.524327737
P-value	0.13068069

Variance Equation	
Sum Delta Cap	0.321294723
n	98
Sum Delta Cap/n	0.003278518
1/(n(n-1))	0.000105197
Sum(Delta Cap-Sum Delta Cap/n)squared	0.077791195
Denominator	0.00286066
T-stat for Variance Dum Coefficient	1.146070148
P-value	0.254585594

Variance Equation (firm-specific test)	
sum sv	-1.67E+02
n	98
sum sv/n	-1.70015827
1/(n(n-1))	0.000105197
sum(sv-sum sv/n)squared	2.27E+03
Denominator	0.488216671
T-stat for Variance Dum Coefficient	-3.48238472
P-value	0.000746976

		Mean Equation			Variance Equation			
SUMMATIONS		57	0	2	30	32	32	3
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0612	0.0490	(0.0001)	0.0002	0.0558	0.5167	(0.0004)
		0.0000	0.9985	0.9415	0.4152	0.4111	0.3867	0.8428
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
2	Air Asia	0.8378	(0.0061)	(0.0005)	0.0003	0.0204	0.5008	(0.0006)
		0.0000	0.9996	0.7224	0.5688	0.6935	0.5600	0.8608
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7371	(0.0069)	0.0013	0.0004	0.0549	0.5032	(0.0008)
		0.0000	0.4777	0.4645	0.3210	0.1318	0.2974	0.7464
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.4064	(0.0041)	0.0002	0.0002	0.0611	0.4812	(0.0005)
		0.0000	0.9996	0.8306	0.2052	0.2301	0.2221	0.6464
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
5	Ann Joo	1.1672	0.0211	0.0010	0.0005	0.0838	0.5102	(0.0010)
		0.0000	0.4974	0.6116	0.0313	0.1670	0.0151	0.6267
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8788	(0.0061)	(0.0007)	0.0003	0.0336	0.5195	(0.0006)
		0.0000	0.1383	0.6421	0.5190	0.2095	0.4670	0.6762
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	1.1618	(0.0024)	(0.0007)	0.0007	0.0595	0.4734	(0.0016)

		0.0000 SIG	0.9983 INSIG	0.7496 INSIG	0.2199 INSIG	0.1669 INSIG	0.2504 INSIG	0.6269 INSIG
8	British American Tobacco (BAT)	0.3072 0.0000 SIG	0.0010 0.9999 INSIG	0.0002 0.7475 INSIG	0.0001 0.1801 INSIG	0.0791 0.2720 INSIG	0.4978 0.1580 INSIG	(0.0002) 0.6702 INSIG
9	Padiberas Nasional (Beras)	0.6772 0.0000 SIG	(0.0051) 0.9999 INSIG	(0.0002) 0.7852 INSIG	0.0001 0.0000 SIG	0.2182 0.0000 SIG	0.6079 0.0000 SIG	0.0025 0.6227 INSIG
10	Berjaya Sports TOTO	0.6535 0.0000 SIG	0.0020 0.9998 INSIG	0.0002 0.7407 INSIG	0.0000 0.0325 SIG	0.0823 0.0003 SIG	0.8018 0.0000 SIG	0.0007 0.3064 INSIG
11	Dialog Group	1.2487 0.0000 SIG	0.0520 0.9880 INSIG	(0.0006) 0.5534 INSIG	0.0002 0.0000 SIG	0.2505 0.0000 SIG	0.4864 0.0000 SIG	(0.0008) 0.3130 INSIG
12	DRB-Hicom	1.2985 0.0000 SIG	(0.0178) 0.9999 INSIG	(0.0017) 0.2328 INSIG	0.0004 0.8988 INSIG	0.0031 0.7151 INSIG	0.4782 0.9068 INSIG	(0.0008) 0.9560 INSIG
13	Genting	1.1426 0.0000 SIG	0.0219 0.9998 INSIG	(0.0011) 0.1064 INSIG	0.0001 0.0009 SIG	0.2312 0.0000 SIG	0.5479 0.0000 SIG	0.0024 0.6758 INSIG
14	Guocoland	1.0166 0.0000 SIG	(0.0256) 0.9605 INSIG	(0.0007) 0.7921 INSIG	0.0010 0.1125 INSIG	0.0788 0.0977 INSIG	0.4831 0.1220 INSIG	(0.0023) 0.5690 INSIG
15	Hong Leong Bank	0.6543 0.0000 SIG	0.0080 0.9994 INSIG	0.0001 0.7845 INSIG	0.0000 0.1212 INSIG	0.0582 0.0328 SIG	0.7087 0.0000 SIG	0.0002 0.6263 INSIG
16	IGB Corporation	1.3126 0.0000 SIG	(0.0492) 0.9987 INSIG	0.0001 0.9020 INSIG	0.0001 0.0435 SIG	0.0730 0.0412 SIG	0.6601 0.0000 SIG	0.0026 0.4435 INSIG
17	IJM Corporation	1.1944 0.0000 SIG	(0.0109) 0.9997 INSIG	0.0003 0.7567 INSIG	0.0000 0.0009 SIG	0.1597 0.0000 SIG	0.7512 0.0000 SIG	0.0021 0.5043 INSIG
18	IOI Corporation	1.7432 0.0000 SIG	(0.0004) 1.0000 INSIG	0.0010 0.3034 INSIG	0.0001 0.0002 SIG	0.1577 0.0024 SIG	0.5920 0.0000 SIG	0.0019 0.5730 INSIG
19	Kencana Petroleum	1.3970 0.0000 SIG	(0.0114) 0.9973 INSIG	0.0003 0.8257 INSIG	0.0000 0.0055 SIG	0.0541 0.0000 SIG	0.9030 0.0000 SIG	0.0027 0.2294 INSIG
20	Kinsteel	1.5533	0.0101	(0.0004)	0.0006	0.0277	0.4895	(0.0011)

		0.0000	0.9829	0.8570	0.4403	0.4238	0.4529	0.6769
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Propertiy Holdings	0.7007	(0.0109)	0.0003	0.0000	0.0974	0.8347	0.0009
		0.0000	0.9997	0.6088	0.0057	0.0003	0.0000	0.4027
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.6965	(0.0354)	(0.0003)	0.0009	0.1303	0.5224	(0.0019)
		0.0050	0.9161	0.9179	0.0153	0.0345	0.0045	0.5870
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3731	(0.0170)	0.0021	0.0003	0.1835	0.6001	0.2806
		0.0000	1.0000	0.2653	0.0000	0.0000	0.0000	0.4610
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.3931	0.0344	0.0008	0.0004	(0.0335)	0.5054	(0.0008)
		0.0000	0.9911	0.6081	0.4744	0.1686	0.4817	0.8619
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.5167	0.0043	(0.0003)	0.0006	0.0427	0.4908	(0.0012)
		0.0000	0.9639	0.8847	0.3422	0.3668	0.3460	0.7336
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
26	Lingui Development	1.2155	(0.0377)	(0.0024)	0.0002	0.2237	0.4160	0.0040
		0.0000	0.9997	0.0321	0.0000	0.0000	0.0000	0.7986
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
27	Malaysian Pacific Industries	0.3884	0.0121	(0.0008)	0.0002	0.1014	0.5004	(0.0004)
		0.0000	0.9989	0.5199	0.0254	0.0415	0.0139	0.6196
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
28	Malaysian Resources Corporation	1.9709	(0.0031)	(0.0000)	0.0001	0.0632	0.8368	0.0099
		0.0000	1.0000	0.9809	0.0002	0.0006	0.0000	0.0462
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
29	Malaysian Airline System (MAS)	1.0908	0.0221	(0.0009)	0.0003	0.0965	0.4923	(0.0008)
		0.0000	0.9999	0.5710	0.3005	0.0610	0.2819	0.8821
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
30	Malayan Banking (Maybank)	0.9229	0.0097	(0.0009)	0.0000	0.0455	0.9411	0.0003
		0.0000	0.9996	0.1077	0.0412	0.0000	0.0000	0.0225
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
31	Media Prima	0.8612	(0.0000)	(0.0005)	0.0004	0.0815	0.4918	(0.0009)
		0.0000	1.0000	0.7489	0.1409	0.0068	0.1157	0.6130
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
32	MK Land Holdings	1.8344	(0.0274)	(0.0010)	0.0012	(0.0040)	0.4984	(0.0023)

		0.0000	0.9498	0.7100	0.6000	0.9020	0.6027	0.7550
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.3553	(0.0272)	0.0000	0.0005	0.0363	0.5301	(0.0011)
		0.0000	0.6637	0.9931	0.5220	0.5990	0.4580	0.6709
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7548	(0.0115)	0.0002	0.0000	0.0811	0.7430	0.0003
		0.0000	0.9989	0.8072	0.0006	0.0005	0.0000	0.5049
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
35	Pelikan International Corporation	0.9453	(0.0433)	(0.0011)	0.0001	0.0819	0.8111	(0.0002)
		0.0000	0.9975	0.3561	0.0170	0.0068	0.0000	0.8208
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
36	Petra Perdana (Perdana)	1.2548	(0.0079)	0.0001	0.0003	0.1687	0.4693	(0.0006)
		0.0000	0.9241	0.9382	0.0057	0.0204	0.0105	0.6105
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.4603	0.0076	0.0006	0.0001	0.0892	0.4992	(0.0002)
		0.0000	0.9959	0.4686	0.1626	0.1370	0.1342	0.5125
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
38	Plus Expressways	0.6181	(0.0224)	0.0002	0.0000	0.1642	0.5644	0.0022
		0.0000	0.9998	0.6922	0.0000	0.0000	0.0000	0.5873
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.4596	(0.0282)	0.0001	0.0002	0.1331	0.5445	(0.0005)
		0.0000	0.9300	0.9348	0.0352	0.2150	0.0063	0.7120
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
40	Proton Holdings	0.8182	0.0363	(0.0027)	0.0004	0.0239	0.5471	(0.0008)
		0.0000	0.9989	0.1706	0.6044	0.7135	0.5294	0.7304
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	0.7763	(0.0076)	0.0004	0.0000	0.1062	0.8537	0.0145
		0.0000	1.0000	0.7267	0.0000	0.0000	0.0000	0.0414
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
42	RHB Capital	0.9693	(0.0067)	0.0004	0.0000	0.1213	0.7913	0.0002
		0.0000	0.9997	0.5979	0.0000	0.0000	0.0000	0.7558
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.6284	(0.0168)	0.0004	0.0000	0.0691	0.8996	0.0028
		0.0000	0.9997	0.7788	0.0005	0.0000	0.0000	0.2492
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
44	Scomi Group	1.9705	0.0008	(0.0014)	0.0006	(0.0029)	0.4820	(0.0011)
		0.0000	0.9997	0.4576	0.5746	0.8976	0.6034	0.7393
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

45	Selangor Properties	0.5971	0.0228	0.0001	0.0001	0.0749	0.5527	(0.0004)
		0.0000	0.9995	0.9217	0.0147	0.0122	0.0018	0.3624
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
46	Sime Darby	1.3424	(0.0026)	0.0005	0.0003	0.1226	0.4840	(0.0005)
		0.0000	0.9999	0.7369	0.0044	0.0000	0.0035	0.6972
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.8499	(0.0219)	0.0003	0.0001	0.0264	0.7979	0.0080
		0.0000	0.9999	0.6927	0.0075	0.1285	0.0000	0.1976
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2180	(0.0123)	(0.0015)	0.0006	0.1432	0.4877	(0.0015)
		0.0000	0.9793	0.5133	0.0827	0.0007	0.0733	0.5170
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1733	0.0039	(0.0016)	0.0002	0.1922	0.4706	0.0018
		0.0000	1.0000	0.0941	0.0000	0.0000	0.0000	0.7114
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.7992	0.0320	0.0004	0.0002	0.0555	0.4566	(0.0003)
		0.0000	0.7144	0.6799	0.1914	0.0335	0.2378	0.6882
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
51	Telekom Malaysia	0.5922	0.0078	0.0014	0.0003	0.1000	0.5678	(0.0008)
		0.0000	0.9997	0.4674	0.2321	0.3437	0.1036	0.5710
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0495	0.0458	(0.0012)	0.0001	0.4433	0.3065	0.0056
		0.0000	0.9999	0.0464	0.0000	0.0000	0.0002	0.9999
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7702	(0.0022)	(0.0018)	0.0003	0.0154	0.5260	(0.0006)
		0.0000	0.9999	0.2087	0.7557	0.8123	0.7274	0.7836
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1761	(0.0174)	(0.0004)	0.0002	0.0062	0.5007	0.0065
		0.0000	0.9999	0.6755	0.0050	0.7797	0.0047	0.4270
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9622	0.0007	(0.0004)	0.0003	0.0212	0.5126	(0.0007)
		0.0000	0.9981	0.7829	0.6319	0.6286	0.6092	0.7437
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5630	(0.0327)	(0.0013)	0.0007	0.1459	0.5292	(0.0017)
		0.0000	0.9768	0.6799	0.0727	0.0204	0.0293	0.7977
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.6077	(0.0224)	(0.0018)	0.0005	0.0745	0.4578	(0.0010)
		0.0000	0.9996	0.3133	0.1410	0.0445	0.1850	0.8884
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG

Appendix 1.7: Results on Day (-1)

Mean Equation	
Sum Gamma Cap	0.2730584
n	98
Sum Gamma Cap/n	0.0027863
1/(n(n-1))	0.0001052
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.0217959
Denominator	0.0015142
T-stat for Mean Dum Coefficient	1.8400982
P-value	0.0688116

Mean Equation (firm-specific test)	
sum sm	5.61E+02
n	98
sum sm/n	5.7234635
1/(n(n-1))	0.0001052
sum(sm- sum sm/n)squared	1.12E+05
Denominator	3.4356985
T-stat for Mean Dum Coefficient	1.6658806
P-value	0.0989636

Variance Equation	
Sum Delta Cap	0.299797
n	98
Sum Delta Cap/n	0.0030592
1/(n(n-1))	0.0001052
Sum(Delta Cap-Sum Delta Cap/n)squared	0.0636405
Denominator	0.0025874
T-stat for Variance Dum Coefficient	1.1823154
P-value	0.2399707

Variance Equation (firm-specific test)	
sum sv	1.04E+01
n	98
sum sv/n	0.1063886
1/(n(n-1))	0.0001052
sum(sv-sum sv/n)squared	5.89E+01
Denominator	0.0787451
T-stat for Variance Dum Coefficient	1.3510505
P-value	0.1798223

		Mean Equation			Variance Equation			
SUMMATIONS		57	2	3	38	39	39	2
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0737	0.0116	0.0001	0.0002	0.0737	0.5285	(0.0006)
		0.0000	0.9990	0.9468	0.3530	0.3562	0.2997	0.5060
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
2	Air Asia	0.8430	(0.0171)	(0.0008)	0.0000	0.0651	0.8330	0.0009
		0.0000	0.9995	0.3745	0.0020	0.0067	0.0000	0.3087
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7120	(0.0128)	0.0012	0.0003	0.0497	0.4882	(0.0007)
		0.0000	0.9881	0.4683	0.2967	0.1047	0.3021	0.5483
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.4149	(0.0024)	0.0003	0.0002	0.0580	0.4801	(0.0004)

		0.0000 SIG	1.0000 INSIG	0.7829 INSIG	0.1485 INSIG	0.1700 INSIG	0.1655 INSIG	0.7144 INSIG
5	Ann Joo	1.1735 0.0000 SIG	0.0094 0.9663 INSIG	0.0011 0.6102 INSIG	0.0005 0.0390 SIG	0.0858 0.1850 INSIG	0.5173 0.0170 SIG	(0.0010) 0.7484 INSIG
6	Astro All Asia Networks	0.7489 0.0000 SIG	(0.0025) 0.9995 INSIG	(0.0012) 0.1270 INSIG	0.0000 0.0000 SIG	0.0950 0.0005 SIG	0.8247 0.0000 SIG	(0.0002) 0.5825 INSIG
7	Bandar Raya Developments	1.1569 0.0000 SIG	0.0003 0.9965 INSIG	(0.0001) 0.9543 INSIG	0.0007 0.2499 INSIG	0.0583 0.1875 INSIG	0.4814 0.2662 INSIG	(0.0015) 0.7302 INSIG
8	British American Tobacco (BAT)	0.3070 0.0000 SIG	0.0065 0.9992 INSIG	0.0001 0.8356 INSIG	0.0000 0.0349 SIG	0.0564 0.0247 SIG	0.8142 0.0000 SIG	0.0001 0.7935 INSIG
9	Padiberas Nasional (Beras)	0.6784 0.0000 SIG	(0.0080) 0.9999 INSIG	(0.0002) 0.7690 INSIG	0.0001 0.0001 SIG	0.2219 0.0000 SIG	0.5978 0.0000 SIG	0.0027 0.6686 INSIG
10	Berjaya Sports TOTO	0.6576 0.0000 SIG	0.0195 0.9995 INSIG	0.0002 0.7416 INSIG	0.0000 0.0287 SIG	0.0867 0.0003 SIG	0.7797 0.0000 SIG	0.0008 0.3103 INSIG
11	Dialog Group	1.2169 0.0000 SIG	0.0302 0.9913 INSIG	(0.0006) 0.5495 INSIG	0.0002 0.0000 SIG	0.2652 0.0000 SIG	0.4674 0.0000 SIG	(0.0012) 0.3666 INSIG
12	DRB-Hicom	1.2137 0.0000 SIG	0.0196 0.9999 INSIG	(0.0011) 0.2766 INSIG	0.0004 0.0101 SIG	0.0826 0.0082 SIG	0.1698 0.5776 INSIG	0.0048 0.8611 INSIG
13	Genting	1.1582 0.0000 SIG	(0.0186) 0.9998 INSIG	(0.0010) 0.1241 INSIG	0.0001 0.0007 SIG	0.2316 0.0000 SIG	0.5343 0.0000 SIG	0.0021 0.7331 INSIG
14	Guocoland	1.0507 0.0000 SIG	0.0063 0.8700 INSIG	(0.0011) 0.7087 INSIG	0.0010 0.1495 INSIG	0.0778 0.1224 INSIG	0.4979 0.1369 INSIG	(0.0023) 0.6243 INSIG
15	Hong Leong Bank	0.6631 0.0000 SIG	0.0015 0.9998 INSIG	0.0001 0.7762 INSIG	0.0000 0.0837 INSIG	0.0621 0.0281 SIG	0.6772 0.0001 SIG	0.0003 0.6587 INSIG
16	IGB Corporation	1.3067 0.0000 SIG	0.0032 0.9999 INSIG	0.0001 0.9502 INSIG	0.0001 0.0265 SIG	0.0877 0.0327 SIG	0.5976 0.0002 SIG	0.0026 0.5858 INSIG

17	IJM Corporation	1.1894	0.0098	0.0003	0.0001	0.1620	0.7451	0.0023
		0.0000	0.9998	0.7560	0.0006	0.0000	0.0000	0.6041
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.7621	(0.0165)	0.0010	0.0001	0.1624	0.5786	0.0019
		0.0000	0.9997	0.3090	0.0001	0.0024	0.0000	0.6142
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.6882	0.0643	0.0011	0.0005	0.0563	0.4509	(0.0010)
		0.0000	0.0478	0.5361	0.1945	0.1142	0.2538	0.5463
		SIG	SIG	INSIG	INSIG	INSIG	INSIG	INSIG
20	Kinsteel	1.5359	0.0038	0.0003	0.0005	0.0366	0.4370	(0.0009)
		0.0000	0.9994	0.8620	0.2331	0.1781	0.3426	0.5272
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Property Holdings	0.7025	0.0016	0.0003	0.0000	0.0979	0.8316	0.0010
		0.0000	0.9999	0.6206	0.0056	0.0003	0.0000	0.4577
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.7104	0.0008	(0.0001)	0.0009	0.1508	0.5145	(0.0020)
		0.0035	0.9992	0.9789	0.0083	0.0223	0.0024	0.6426
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3695	0.0015	0.0021	0.0003	0.1920	0.5737	0.2538
		0.0000	1.0000	0.2650	0.0000	0.0000	0.0000	0.5629
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.3986	(0.0171)	0.0007	0.0004	(0.0334)	0.4978	(0.0008)
		0.0000	0.9949	0.6509	0.4707	0.1597	0.4911	0.8767
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.5133	0.0132	(0.0007)	0.0006	0.0379	0.4886	(0.0012)
		0.0000	0.7206	0.7637	0.3690	0.3824	0.3778	0.7959
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
26	Lingui Development	1.2491	(0.0017)	(0.0025)	0.0003	0.2434	0.3310	0.0043
		0.0000	1.0000	0.0258	0.0000	0.0000	0.0024	0.9143
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
27	Malaysian Pacific Industries	0.3914	0.0018	(0.0007)	0.0002	0.1008	0.5000	(0.0004)
		0.0000	0.9999	0.5543	0.0259	0.0416	0.0143	0.6233
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
28	Malaysian Resources Corporation	1.9562	0.0262	(0.0001)	0.0001	0.0714	0.8074	0.0110
		0.0000	0.9998	0.9569	0.0012	0.0037	0.0000	0.0937
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
29	Malaysian Airline System (MAS)	1.0958	0.0196	(0.0009)	0.0003	0.0946	0.4873	(0.0007)

		0.0000 SIG	0.9990 INSIG	0.5454 INSIG	0.2937 INSIG	0.0579 INSIG	0.2855 INSIG	0.7751 INSIG
30	Malayan Banking (Maybank)	0.9279 SIG	0.0089 INSIG	(0.0009) INSIG	0.0000 SIG	0.0470 SIG	0.9387 SIG	0.0003 SIG
		0.0000 SIG	0.9999 INSIG	0.1171 INSIG	0.0369 SIG	0.0000 SIG	0.0000 SIG	0.0208 SIG
31	Media Prima	0.8652 SIG	0.0044 INSIG	(0.0013) INSIG	0.0004 INSIG	0.0833 SIG	0.4816 INSIG	(0.0008) INSIG
		0.0000 SIG	0.9775 INSIG	0.4016 INSIG	0.1196 INSIG	0.0063 SIG	0.1097 INSIG	0.6614 INSIG
32	MK Land Holdings	1.7033 SIG	0.0153 INSIG	(0.0032) INSIG	0.0007 SIG	0.2365 SIG	0.3233 SIG	(0.0009) INSIG
		0.0000 SIG	0.9986 INSIG	0.0511 INSIG	0.0000 SIG	0.0000 SIG	0.0001 SIG	0.9288 INSIG
33	MMC Corporation	1.2405 SIG	(0.0029) INSIG	0.0004 INSIG	0.0000 SIG	0.1432 SIG	0.8118 SIG	0.0005 INSIG
		0.0000 SIG	0.9999 INSIG	0.6624 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.5769 INSIG
34	Oriental Holdings	0.7597 SIG	0.0019 INSIG	0.0001 INSIG	0.0000 SIG	0.0858 SIG	0.7251 SIG	0.0004 INSIG
		0.0000 SIG	0.9998 INSIG	0.8454 INSIG	0.0004 SIG	0.0006 SIG	0.0000 SIG	0.5438 INSIG
35	Pelikan International Corporation	0.9120 SIG	0.0395 INSIG	(0.0011) INSIG	0.0001 SIG	0.0890 SIG	0.7965 SIG	(0.0004) INSIG
		0.0000 SIG	0.9974 INSIG	0.3195 INSIG	0.0111 SIG	0.0051 SIG	0.0000 SIG	0.5858 INSIG
36	Petra Perdana (Perdana)	0.9102 SIG	0.0257 SIG	(0.0009) INSIG	0.0001 SIG	0.3050 SIG	0.5515 SIG	(0.0002) INSIG
		0.0000 SIG	0.0053 SIG	0.3198 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.4034 INSIG
37	Petronas Gas (Petronasgas)	0.3246 SIG	0.0154 INSIG	0.0004 INSIG	0.0000 SIG	0.0681 SIG	0.9072 SIG	0.0003 INSIG
		0.0000 SIG	0.9999 INSIG	0.4325 INSIG	0.0003 SIG	0.0000 SIG	0.0000 SIG	0.0862 INSIG
38	Plus Expressways	0.6102 SIG	0.0144 INSIG	0.0002 INSIG	0.0001 SIG	0.1745 SIG	0.5213 SIG	0.0021 INSIG
		0.0000 SIG	0.9997 INSIG	0.7023 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.7425 INSIG
39	Pos Malaysia	0.2755 SIG	(0.0274) INSIG	(0.0012) SIG	0.0000 SIG	(0.0232) SIG	1.0071 SIG	0.0015 SIG
		0.0000 SIG	0.6969 INSIG	0.0431 SIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.0000 SIG
40	Proton Holdings	0.8260 SIG	0.0096 INSIG	(0.0024) INSIG	0.0004 INSIG	0.0266 INSIG	0.5474 INSIG	(0.0008) INSIG
		0.0000 SIG	0.9999 INSIG	0.2225 INSIG	0.5778 INSIG	0.6935 INSIG	0.4988 INSIG	0.7006 INSIG
41	Puncak Niaga Holdings	0.7695 SIG	0.0017 INSIG	0.0003 INSIG	0.0000 SIG	0.1076 INSIG	0.8516 INSIG	0.0139 INSIG
		0.0000 SIG	1.0000 INSIG	0.7364 INSIG	0.0000 SIG	0.0000 INSIG	0.0000 INSIG	0.0578 INSIG

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
42	RHB Capital	0.9800	0.0103	0.0004	0.0000	0.1242	0.7825	0.0003
		0.0000	0.9992	0.6126	0.0000	0.0000	0.0000	0.6878
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9588	0.0679	0.0022	0.0007	0.0675	0.5001	(0.0015)
		0.0000	0.9886	0.3211	0.0948	0.2401	0.0758	0.6699
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9540	0.0339	(0.0015)	0.0004	0.0978	0.4386	(0.0005)
		0.0000	0.9903	0.2522	0.0159	0.0308	0.0465	0.7318
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
45	Selangor Properties	0.6359	(0.0049)	0.0001	0.0001	0.0829	0.5814	0.0003
		0.0000	0.9994	0.8911	0.0094	0.0088	0.0002	0.7480
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
46	Sime Darby	1.3076	(0.0052)	0.0006	0.0003	0.1278	0.5153	(0.0007)
		0.0000	0.8076	0.7427	0.0280	0.0000	0.0116	0.5715
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.8420	(0.0024)	0.0003	0.0001	0.0309	0.7773	0.0083
		0.0000	1.0000	0.7196	0.0083	0.1045	0.0000	0.2260
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2292	0.0018	(0.0017)	0.0006	0.1429	0.4908	(0.0014)
		0.0000	0.9977	0.4754	0.0911	0.0009	0.0778	0.6379
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1892	(0.0052)	(0.0016)	0.0002	0.2104	0.3977	0.0021
		0.0000	0.9999	0.0989	0.0000	0.0000	0.0000	0.8197
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.7818	(0.0044)	0.0001	0.0000	0.0374	0.9356	0.0000
		0.0000	0.9992	0.8671	0.0133	0.0009	0.0000	0.7425
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
51	Telekom Malaysia	0.7263	(0.0271)	0.0021	0.0003	0.0284	0.5407	(0.0006)
		0.0000	0.9915	0.1744	0.4445	0.5845	0.3605	0.8170
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0460	0.0283	(0.0012)	0.0001	0.4656	0.2732	0.0029
		0.0000	0.9995	0.0444	0.0000	0.0000	0.0008	0.9996
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7685	(0.0032)	(0.0019)	0.0003	0.0113	0.5255	(0.0006)
		0.0000	0.9986	0.1748	0.7713	0.8519	0.7455	0.8137
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1759	(0.0374)	(0.0004)	0.0002	0.0067	0.4797	0.0042
		0.0000	0.9997	0.6449	0.0023	0.7684	0.0047	0.4637

		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9594	0.0070	(0.0001)	0.0003	0.0151	0.5067	(0.0007)
		0.0000	0.9943	0.9461	0.6771	0.6777	0.6652	0.7279
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5474	(0.0267)	(0.0015)	0.0007	0.1490	0.5243	(0.0017)
		0.0000	0.9949	0.6296	0.0650	0.0149	0.0268	0.8988
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5421	(0.0203)	(0.0010)	0.0002	0.2293	0.5254	(0.0001)
		0.0000	0.9952	0.3629	0.0000	0.0000	0.0000	0.9727
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

Appendix 1.8: Results on Day (0)

Mean Equation		
Sum Gamma Cap		0.23141132
n		58
Sum Gamma Cap/n		0.00398985
1/(n(n-1))		0.00030248
Sum(Gamma Cap-Sum Gamma Cap/n)squared		0.03100211
Denominator		0.00306228
T-stat for Mean Dum Coefficient		-1.3029039
P-value		0.1978467

Mean Equation (firm-specific test)		
sum sm		1.62E+02
n		58
sum sm/n		2.80046749
1/(n(n-1))		0.00030248
sum(sm- sum sm/n)squared		5.14E+04
Denominator		3.94188211
T-stat for Mean Dum Coefficient		0.71043918
P-value		0.48032861

Variance Equation		
Sum Delta Cap		0.04732034
n		58
Sum Delta Cap/n		0.00081587
1/(n(n-1))		0.00030248
Sum(Delta Cap-Sum Delta Cap/n)squared		0.00128222
Denominator		0.00062277
T-stat for Variance Dum Coefficient		1.31005693
P-value		0.19543172

Variance Equation (firm-specific test)		
sum sv		2.94E-01
n		58
sum sv/n		0.00506978
1/(n(n-1))		0.00030248
sum(sv-sum sv/n)squared		2.20E-02
Denominator		0.00258225
T-stat for Variance Dum Coefficient		1.96332236
P-value		0.05449414

		Mean Equation			Variance Equation			
	SUMMATIONS	57	4	6	54	54	53	9
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy

Efficient Market Hypothesis: Impact of 12th Malaysian General Election on the Stock Market

1	Affin Holdings Bhd	1.1116	0.0164	(0.0004)	0.0001	0.0774	0.4161	0.0002
		0.0000	0.1022	0.5905	0.0028	0.0380	0.0391	0.5857
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
2	Air Asia	0.8370	0.0074	(0.0009)	0.0000	0.0657	0.8304	0.0002
		0.0000	0.6064	0.3531	0.0019	0.0069	0.0000	0.2360
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.6271	(0.0029)	0.0006	0.0000	0.0673	0.9228	0.0001
		0.0000	0.8218	0.4604	0.0001	0.0000	0.0000	0.1772
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
4	AMMB Holdings	1.3718	(0.0045)	(0.0000)	0.0000	0.0337	0.8947	0.0003
		0.0000	0.9602	0.9921	0.0107	0.0143	0.0000	0.0215
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
5	Ann Joo	1.0141	(0.0035)	0.0005	0.0001	0.1744	0.6350	(0.0002)
		0.0000	0.2626	0.6456	0.0000	0.0001	0.0000	0.0000
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
6	Astro All Asia Networks	0.7655	0.0040	(0.0013)	0.0000	0.0955	0.8255	(0.0000)
		0.0000	0.7012	0.1122	0.0000	0.0006	0.0000	0.7225
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
7	Bandar Raya Developments	0.9160	(0.0083)	(0.0014)	0.0003	0.1979	0.5292	(0.0002)
		0.0000	0.5423	0.2956	0.0000	0.0001	0.0000	0.5061
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
8	British American Tobacco (BAT)	0.3079	(0.0028)	0.0001	0.0000	0.0551	0.8208	0.0000
		0.0000	0.7304	0.8019	0.0381	0.0260	0.0000	0.7972
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
9	Padiberas Nasional (Beras)	0.6694	0.0052	(0.0002)	0.0001	0.2288	0.5809	0.0004
		0.0000	0.8490	0.7527	0.0001	0.0000	0.0000	0.4923
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6694	0.0052	(0.0002)	0.0001	0.2288	0.5809	0.0004
		0.0000	0.8490	0.7527	0.0001	0.0000	0.0000	0.4923
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.2773	0.0198	(0.0008)	0.0002	0.2414	0.5069	(0.0001)
		0.0000	0.1783	0.4378	0.0000	0.0000	0.0000	0.7880
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2287	(0.0075)	(0.0011)	0.0005	0.0906	0.0126	0.0004
		0.0000	0.6484	0.2852	0.0004	0.0081	0.9619	0.7422
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
13	Genting	1.1424	0.0167	(0.0012)	0.0001	0.2419	0.5288	0.0002

		0.0000	0.1470	0.0854	0.0006	0.0000	0.0000	0.5587
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
14	Guocoland	0.9472	(0.0205)	(0.0019)	0.0002	0.2464	0.6522	(0.0004)
		0.0000	0.0862	0.1166	0.0000	0.0000	0.0000	0.0654
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
15	Hong Leong Bank	0.6529	0.0101	0.0001	0.0000	0.0622	0.6808	0.0000
		0.0000	0.1283	0.8538	0.0910	0.0285	0.0001	0.8356
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
16	IGB Corporation	1.3243	(0.0015)	0.0001	0.0001	0.0871	0.5839	0.0009
		0.0000	0.9395	0.9259	0.0349	0.0375	0.0008	0.3567
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
17	IJM Corporation	1.1989	(0.0241)	0.0003	0.0000	0.1606	0.7508	0.0003
		0.0000	0.1314	0.7024	0.0009	0.0000	0.0000	0.6325
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.7376	0.0138	0.0009	0.0001	0.1665	0.5758	0.0002
		0.0000	0.3387	0.3570	0.0001	0.0023	0.0000	0.7069
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.4111	(0.0018)	0.0003	0.0000	0.0511	0.9044	0.0006
		0.0000	0.9340	0.8163	0.0047	0.0000	0.0000	0.1402
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.3802	0.0096	(0.0012)	0.0003	0.1459	0.4367	(0.0002)
		0.0000	0.2448	0.3789	0.0000	0.0000	0.0001	0.1918
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
21	KLCC Property Holdings	0.6954	0.0019	0.0003	0.0000	0.0973	0.8314	0.0002
		0.0000	0.9048	0.6096	0.0056	0.0003	0.0000	0.3819
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.4349	(0.0086)	(0.0017)	0.0000	0.0844	0.9192	0.0001
		0.0000	0.3180	0.0276	0.0000	0.0000	0.0000	0.0321
		SIG	INSIG	SIG	SIG	SIG	SIG	SIG
23	Kumpulan Perangsang Selangor	1.3898	(0.1367)	0.0022	0.0003	0.2018	0.5446	0.0361
		0.0000	0.4249	0.2504	0.0000	0.0000	0.0000	0.3191
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.3798	(0.0055)	0.0001	0.0001	(0.0211)	0.8779	(0.0001)
		0.0000	0.3071	0.8946	0.0127	0.0115	0.0000	0.1350
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
25	Landmarks	1.3613	(0.0101)	(0.0017)	0.0003	0.1951	0.4801	(0.0002)
		0.0000	0.3679	0.1802	0.0000	0.0000	0.0000	0.5152
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
26	Lingui Development	1.2330	0.0119	(0.0025)	0.0003	0.2467	0.3308	0.0003

		0.0000 SIG	0.4896 INSIG	0.0254 SIG	0.0000 SIG	0.0000 SIG	0.0023 SIG	0.6894 INSIG
27	Malaysian Pacific Industries	0.3422 SIG	0.0036 INSIG	(0.0009) INSIG	0.0000 SIG	0.2739 SIG	0.6293 SIG	(0.0000) INSIG
		0.0000 SIG	0.4057 INSIG	0.1548 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.6266 INSIG
28	Malaysian Resources Corporation	1.9686 SIG	(0.0385) INSIG	(0.0000) INSIG	0.0001 SIG	0.0744 SIG	0.8051 SIG	0.0020 INSIG
		0.0000 SIG	0.3250 INSIG	0.9845 INSIG	0.0017 SIG	0.0040 SIG	0.0000 SIG	0.2124 INSIG
29	Malaysian Airline System (MAS)	1.0256 SIG	0.0024 INSIG	(0.0014) INSIG	0.0003 SIG	0.2483 SIG	0.1686 INSIG	(0.0002) INSIG
		0.0000 SIG	0.7415 INSIG	0.1062 INSIG	0.0000 SIG	0.0000 SIG	0.2632 INSIG	0.6042 INSIG
30	Malayan Banking (Maybank)	0.9214 SIG	0.0095 INSIG	(0.0009) INSIG	0.0000 SIG	0.0474 SIG	0.9382 SIG	0.0001 SIG
		0.0000 SIG	0.1881 INSIG	0.1028 INSIG	0.0358 SIG	0.0000 SIG	0.0000 SIG	0.0054 SIG
31	Media Prima	0.7658 SIG	0.0082 INSIG	(0.0007) INSIG	0.0001 SIG	0.1544 SIG	0.7021 SIG	0.0001 INSIG
		0.0000 SIG	0.6287 INSIG	0.4171 INSIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.7009 INSIG
32	MK Land Holdings	1.7442 SIG	0.0021 INSIG	(0.0032) SIG	0.0007 SIG	0.2405 SIG	0.3328 SIG	0.0002 INSIG
		0.0000 SIG	0.9467 INSIG	0.0458 SIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.9253 INSIG
33	MMC Corporation	1.3325 SIG	(0.0236) SIG	0.0005 INSIG	0.0000 SIG	0.1330 SIG	0.8275 SIG	(0.0001) INSIG
		0.0000 SIG	0.0001 SIG	0.5321 INSIG	0.0002 SIG	0.0000 SIG	0.0000 SIG	0.1819 INSIG
34	Oriental Holdings	0.7462 SIG	0.0093 INSIG	0.0001 INSIG	0.0000 SIG	0.0816 SIG	0.7473 SIG	0.0000 INSIG
		0.0000 SIG	0.1572 INSIG	0.8963 INSIG	0.0006 SIG	0.0005 SIG	0.0000 SIG	0.8395 INSIG
35	Pelikan International Corporation	0.8269 SIG	0.0008 INSIG	(0.0009) INSIG	0.0001 SIG	0.0864 SIG	0.8321 SIG	(0.0003) SIG
		0.0000 SIG	0.9216 INSIG	0.4193 INSIG	0.0182 SIG	0.0027 SIG	0.0000 SIG	0.0382 SIG
36	Petra Perdana (Perdana)	0.9493 SIG	0.0082 INSIG	(0.0014) INSIG	0.0002 SIG	0.5486 SIG	0.1883 SIG	(0.0001) INSIG
		0.0000 SIG	0.1875 INSIG	0.0670 INSIG	0.0000 SIG	0.0000 SIG	0.0055 SIG	0.7169 INSIG
37	Petronas Gas (Petronasgas)	0.3258 SIG	(0.0047) INSIG	0.0004 INSIG	0.0000 SIG	0.0695 SIG	0.9053 SIG	0.0001 SIG
		0.0000 SIG	0.4973 INSIG	0.4075 INSIG	0.0002 SIG	0.0000 SIG	0.0000 SIG	0.0373 SIG

38	Plus Expressways	0.6119	(0.0091)	0.0003	0.0001	0.1815	0.4660	0.0004
		0.0000	0.5928	0.5876	0.0000	0.0000	0.0000	0.6615
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.2810	(0.0138)	(0.0008)	0.0000	(0.0176)	0.9997	0.0003
		0.0000	0.4333	0.1366	0.0000	0.0000	0.0000	0.0000
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
40	Proton Holdings	0.8383	0.0096	(0.0023)	0.0001	0.0429	0.7074	0.0001
		0.0000	0.4604	0.0308	0.1403	0.1820	0.0003	0.6251
		SIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
41	Puncak Niaga Holdings	0.7823	(0.0678)	0.0004	0.0000	0.1082	0.8537	0.0023
		0.0000	0.0266	0.7026	0.0000	0.0000	0.0000	0.0908
		SIG	SIG	INSIG	SIG	SIG	SIG	INSIG
42	RHB Capital	0.9694	0.0097	0.0003	0.0000	0.1206	0.7938	0.0000
		0.0000	0.2249	0.6658	0.0000	0.0000	0.0000	0.8761
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.6348	0.0069	0.0003	0.0000	0.0710	0.8968	0.0006
		0.0000	0.7002	0.8044	0.0004	0.0000	0.0000	0.1410
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
44	Scomi Group	1.8892	(0.0131)	(0.0014)	0.0005	0.1296	0.3235	0.0002
		0.0000	0.3944	0.2818	0.0013	0.0104	0.0994	0.8646
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
45	Selangor Properties	0.6182	0.0090	0.0001	0.0001	0.0728	0.6890	(0.0000)
		0.0000	0.4115	0.9000	0.0045	0.0034	0.0000	0.9086
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
46	Sime Darby	1.3307	(0.0093)	0.0010	0.0002	0.1715	0.1638	(0.0002)
		0.0000	0.2395	0.2215	0.0000	0.0000	0.1660	0.2138
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
47	SP Setia	0.8573	(0.0224)	0.0004	0.0001	0.0351	0.7664	0.0014
		0.0000	0.4941	0.6507	0.0052	0.0801	0.0000	0.1114
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.4283	0.0169	0.0021	0.0003	0.2668	0.3833	(0.0004)
		0.0000	0.0000	0.0394	0.0000	0.0000	0.0000	0.0000
		SIG	SIG	SIG	SIG	SIG	SIG	SIG
49	TA Enterprise	1.1504	0.0182	(0.0017)	0.0002	0.2257	0.3848	(0.0000)
		0.0000	0.0964	0.0780	0.0000	0.0000	0.0000	0.9801
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.7870	0.0132	0.0000	0.0000	0.0362	0.9391	0.0000
		0.0000	0.0620	0.9985	0.0139	0.0007	0.0000	0.5962
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
51	Telekom Malaysia	0.5711	(0.0041)	(0.0001)	0.0000	(0.0152)	1.0092	0.0001

		0.0000	0.6907	0.8843	0.0000	0.0000	0.0000	0.0011
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
52	Tenaga Nasional	1.0645	(0.0288)	(0.0012)	0.0001	0.4740	0.2709	0.0000
		0.0000	0.0061	0.0495	0.0000	0.0000	0.0008	0.9591
		SIG	SIG	SIG	SIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7743	0.0044	(0.0008)	(0.0000)	0.0041	1.0065	0.0000
		0.0000	0.6553	0.2892	0.0000	0.0000	0.0000	0.0662
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
54	TSH Resources	1.1713	(0.0038)	(0.0004)	0.0002	0.0088	0.4628	0.0008
		0.0000	0.8729	0.6641	0.0010	0.7104	0.0044	0.3817
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9096	0.0070	(0.0006)	0.0001	0.0950	0.7405	(0.0000)
		0.0000	0.5041	0.5053	0.0005	0.0040	0.0000	0.8812
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
56	WCT Engineering	1.3700	(0.0143)	0.0002	0.0001	0.3761	0.5631	0.0001
		0.0000	0.4284	0.8623	0.0000	0.0000	0.0000	0.8445
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5526	(0.0010)	(0.0010)	0.0002	0.2557	0.4542	0.0003
		0.0000	0.9570	0.3860	0.0000	0.0000	0.0000	0.6803
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

Appendix 1.9: Results on Day (1)

Mean Equation		
Sum Gamma Cap		-0.2410772
n		58
Sum Gamma Cap/n		-0.0041565
1/(n(n-1))		0.00030248
Sum(Gamma Cap-Sum Gamma Cap/n)squared		0.05740749
Denominator		0.00416709
T-stat for Mean Dum Coefficient		-0.9974594
P-value		0.32275729

Mean Equation (firm-specific test)		
sum sm		-1.05E+09
n		58
sum sm/n		-18048332
1/(n(n-1))		0.00030248
sum(sm- sum sm/n)squared		1.05E+18
Denominator		17862240.5
T-stat for Mean Dum Coefficient		-1.0104181
P-value		0.3165651

Variance Equation		
Sum Delta Cap		-0.0191132
n		58
Sum Delta Cap/n		-0.0003295
1/(n(n-1))		0.00030248

Variance Equation (firm-specific test)		
sum sv		-2.80E+02
n		58
sum sv/n		-4.8223839
1/(n(n-1))		0.00030248

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Sum(Delta Cap-Sum Delta Cap/n)squared	0.00027791
Denominator	0.00028994
T-stat for Variance Dum Coefficient	-1.1365858
P-value	0.26046736

sum(sv-sum sv/n)squared	1.80E+04
Denominator	2.33623253
T-stat for Variance Dum Coefficient	-2.0641712
P-value	0.04356348

		Mean Equation			Variance Equation			
SUMMATIONS		2	1	57	23	23	27	2
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0744	(0.0017)	0.0000	0.0002	0.0634	0.5207	(0.0005)
		0.0000	1.0000	0.9830	0.3753	0.3796	0.3385	0.7359
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
2	Air Asia	0.8070	0.0325	(0.0007)	0.0002	0.0932	0.5078	(0.0006)
		0.0000	0.9890	0.5242	0.0100	0.1146	0.0050	0.6289
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7341	(0.0221)	0.0015	0.0004	0.0636	0.5274	(0.0009)
		0.0000	1.0000	0.4439	0.3304	0.1752	0.2609	0.7556
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3700	(0.0188)	(0.0000)	0.0000	0.0352	0.8852	0.0022
		0.0000	0.9990	0.9663	0.0081	0.0139	0.0000	0.0528
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
5	Ann Joo	1.1828	(0.0236)	0.0012	0.0005	0.0853	0.5162	(0.0010)
		0.0000	0.8410	0.5736	0.0363	0.1809	0.0159	0.5886
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8847	(0.0128)	(0.0007)	0.0003	0.0440	0.5309	(0.0006)
		0.0000	0.9510	0.6796	0.4672	0.2422	0.3849	0.7485
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	1.1788	(0.0422)	(0.0002)	0.0007	0.0579	0.4760	(0.0014)
		0.0000	0.0001	0.9318	0.2298	0.1736	0.2560	0.6647
		SIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
8	British American Tobacco (BAT)	0.3029	0.0095	0.0001	0.0001	0.0922	0.5147	(0.0003)
		0.0000	1.0000	0.8863	0.2233	0.2983	0.1691	0.7606
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.5798	(0.0161)	(0.0002)	0.0001	0.2394	0.5617	0.0027
		0.0000	1.0000	0.8211	0.0000	0.0000	0.0000	0.6665
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG

10	Berjaya Sports TOTO	0.6253	(0.0056)	0.0003	0.0000	0.1087	0.6713	0.0010
		0.0000	1.0000	0.6267	0.0201	0.0004	0.0000	0.4261
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.5000	0.0079	(0.0000)	0.0005	0.1034	0.4755	(0.0014)
		0.0000	0.9990	0.9943	0.0021	0.0375	0.0035	0.6385
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2784	0.0009	(0.0011)	0.0005	0.0207	0.5122	(0.0010)
		0.0000	1.0000	0.5514	0.7089	0.2911	0.6887	0.8527
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.1036	(0.0059)	(0.0011)	0.0001	0.2641	0.5288	(0.0004)
		0.0000	1.0000	0.0994	0.0008	0.0000	0.0000	0.8626
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
14	Guocoland	1.0429	(0.0263)	(0.0010)	0.0010	0.0786	0.4947	(0.0022)
		0.0000	0.9520	0.7215	0.1388	0.1155	0.1313	0.6834
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6418	(0.0089)	0.0002	0.0000	0.0657	0.6536	0.0001
		0.0000	0.9990	0.7214	0.0666	0.0259	0.0002	0.8862
		INSIG	INSIG	SIG	INSIG	SIG	SIG	INSIG
16	IGB Corporation	1.2023	(0.0024)	0.0001	0.0003	0.0107	0.4513	(0.0006)
		0.0000	0.9970	0.9067	0.6586	0.8092	0.7148	0.8177
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
17	IJM Corporation	1.3475	(0.0807)	0.0002	0.0003	0.1517	0.5249	(0.0009)
		0.0000	0.8400	0.9259	0.0000	0.0008	0.0000	0.6141
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.8109	(0.0148)	0.0011	0.0004	0.0976	0.5018	(0.0013)
		0.0000	0.9970	0.5232	0.0626	0.2952	0.0654	0.7011
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
19	Kencana Petroleum	1.4289	0.0079	(0.0001)	0.0002	0.1834	0.5330	(0.0019)
		0.0000	0.9710	0.9338	0.0000	0.0000	0.0000	0.1916
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.5575	0.0072	0.0003	0.0006	0.0464	0.5102	(0.0013)
		0.0000	0.9920	0.8946	0.3591	0.3247	0.3292	0.7553
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Propertiy Holdings	0.6259	(0.0315)	0.0006	0.0002	0.0531	0.4847	(0.0004)
		0.0000	0.9920	0.5252	0.3547	0.3518	0.3576	0.6450
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
22	Kurnia Asia (KSK)	0.9879	0.0282	(0.0024)	0.0004	0.4896	0.4232	(0.0011)
		0.0000	0.9490	0.1260	0.0000	0.0000	0.0000	0.9418
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	2.5431	(0.0482)	0.0004	0.0004	0.2644	0.6250	0.0128

		0.0000 INSIG	1.0000 INSIG	0.8334 SIG	0.0000 SIG	0.0000 SIG	0.0000 SIG	0.9170 INSIG
24	Lafarge Malayan Cement	1.4088 0.0000 SIG	(0.0232) 0.0008 INSIG	0.0011 0.4766 SIG	0.0004 0.5442 INSIG	(0.0286) 0.3511 INSIG	0.5076 0.5446 INSIG	(0.0008) 0.7038 INSIG
25	Landmarks	1.5305 0.0000 INSIG	(0.0274) 0.9140 INSIG	(0.0006) 0.7726 SIG	0.0006 0.3431 INSIG	0.0356 0.3619 INSIG	0.4769 0.3744 INSIG	(0.0011) 0.6134 INSIG
26	Lingui Development	1.3290 0.0000 INSIG	0.0035 0.9890 INSIG	(0.0021) 0.2539 SIG	0.0004 0.1141 INSIG	0.0801 0.0647 INSIG	0.4776 0.1265 INSIG	(0.0014) 0.4776 INSIG
27	Malaysian Pacific Industries	0.3959 0.0000 INSIG	(0.0103) 1.0000 INSIG	(0.0007) 0.5856 SIG	0.0002 0.0352 SIG	0.1019 0.0535 INSIG	0.5081 0.0172 SIG	(0.0004) 0.9000 INSIG
28	Malaysian Resources Corporation	2.2065 0.0000 INSIG	0.0569 0.9990 INSIG	(0.0001) 0.9093 SIG	0.0000 0.0002 SIG	0.0656 0.0000 SIG	0.8897 0.0000 SIG	(0.0001) 0.9662 INSIG
29	Malaysian Airline System (MAS)	1.0966 0.0000 INSIG	(0.0062) 0.9970 INSIG	(0.0009) 0.5090 SIG	0.0003 0.2939 INSIG	0.0911 0.0553 INSIG	0.4806 0.2990 INSIG	(0.0006) 0.7845 INSIG
30	Malayan Banking (Maybank)	0.8811 0.0000 INSIG	0.0168 0.9980 INSIG	(0.0009) 0.1232 SIG	0.0000 0.0509 INSIG	0.0419 0.0001 SIG	0.9468 0.0000 SIG	0.0002 0.0217 SIG
31	Media Prima	0.8370 0.0000 INSIG	0.0372 0.9980 INSIG	(0.0001) 0.9688 SIG	0.0004 0.1407 INSIG	0.0854 0.0092 SIG	0.5131 0.0854 INSIG	(0.0008) 0.6600 INSIG
32	MK Land Holdings	1.8408 0.0000 INSIG	(0.0487) 0.9800 INSIG	(0.0017) 0.5754 SIG	0.0012 0.5685 INSIG	0.0159 0.7677 INSIG	0.5238 0.5294 INSIG	(0.0027) 0.7409 INSIG
33	MMC Corporation	1.3126 0.0000 INSIG	0.0045 1.0000 INSIG	(0.0007) 0.7884 SIG	0.0005 0.3843 INSIG	0.0761 0.4312 INSIG	0.5547 0.2582 INSIG	(0.0015) 0.7619 INSIG
34	Oriental Holdings	0.7384 0.0000 INSIG	(0.0118) 0.9980 INSIG	0.0002 0.7708 SIG	0.0000 0.0009 SIG	0.0754 0.0006 SIG	0.7683 0.0000 SIG	(0.0001) 0.7516 INSIG
35	Pelikan International Corporation	1.1030 0.0000	(0.0213) 0.8920	(0.0019) 0.3181	0.0005 0.1139	0.0522 0.3826	0.5068 0.0943	(0.0014) 0.7167

		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
36	Petra Perdana (Perdana)	1.2882	(0.0032)	(0.0006)	0.0004	0.1487	0.4888	(0.0012)
		0.0000	1.0000	0.7500	0.0420	0.0879	0.0445	0.8488
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.3505	(0.0208)	0.0004	0.0000	0.0672	0.9097	0.0002
		0.0000	0.9970	0.3951	0.0005	0.0000	0.0000	0.0989
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
38	Plus Expressways	0.6626	0.0200	0.0001	0.0000	0.2025	0.5219	0.0002
		0.0000	1.0000	0.8109	0.0000	0.0000	0.0000	0.9397
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.3542	0.0311	(0.0015)	0.0000	(0.0229)	1.0077	0.0014
		0.0000	0.8680	0.0157	0.0000	0.0000	0.0000	0.0000
		INSIG	SIG	SIG	SIG	SIG	SIG	SIG
40	Proton Holdings	0.8192	0.0164	(0.0030)	0.0004	0.0287	0.5439	(0.0008)
		0.0000	0.8930	0.1231	0.4776	0.6398	0.3949	0.5726
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	1.5443	(0.1095)	0.0011	0.0006	0.0930	0.5110	(0.0048)
		0.0000	0.9790	0.6300	0.1005	0.1213	0.0590	0.1979
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
42	RHB Capital	1.1283	(0.0284)	0.0011	0.0003	0.1191	0.5039	(0.0009)
		0.0000	1.0000	0.4498	0.0614	0.1249	0.0452	0.5760
		INSIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9168	0.0807	0.0017	0.0008	0.0354	0.5104	(0.0019)
		0.0000	0.9520	0.5373	0.4276	0.5830	0.3992	0.8365
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9424	0.0032	(0.0014)	0.0003	0.0741	0.6158	0.0005
		0.0000	1.0000	0.3076	0.0428	0.0357	0.0005	0.8414
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
45	Selangor Properties	0.6701	(0.0138)	0.0006	0.0003	0.0705	0.5507	(0.0009)
		0.0000	0.9810	0.7791	0.2977	0.2660	0.1932	0.6039
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2949	0.0036	0.0011	0.0003	0.1323	0.5242	(0.0008)
		0.0000	0.9910	0.5909	0.0292	0.0000	0.0095	0.5583
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.9925	0.0569	0.0002	0.0001	0.0222	0.7806	0.0050
		0.0000	1.0000	0.8318	0.0196	0.2440	0.0000	0.1478
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2298	0.0072	(0.0013)	0.0006	0.1390	0.5005	(0.0013)
		0.0000	1.0000	0.5992	0.1232	0.0021	0.0956	0.8654

		INSIG	INSIG	SIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.3054	0.0184	(0.0010)	0.0003	0.0435	0.5037	(0.0009)
		0.0000	0.9840	0.5067	0.3208	0.4590	0.3014	0.5928
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
50	Tanjong Public Limited Company	0.8137	(0.0034)	0.0003	0.0002	0.0706	0.5010	(0.0005)
		0.0000	1.0000	0.7764	0.2699	0.0853	0.2310	0.6136
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
51	Telekom Malaysia	0.5827	0.0365	0.0013	0.0003	0.0901	0.5665	(0.0009)
		0.0001	0.9708	0.5008	0.2464	0.3712	0.1186	0.7097
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0854	(0.0498)	(0.0012)	0.0002	0.1447	0.5238	(0.0009)
		0.0000	0.9990	0.4407	0.0928	0.0203	0.0539	0.5394
		INSIG	INSIG	SIG	INSIG	SIG	INSIG	INSIG
53	Titan Chemicals Corp	0.7719	(0.0036)	(0.0018)	0.0003	0.0218	0.5307	(0.0006)
		0.0000	1.0000	0.2053	0.7482	0.7669	0.7128	0.9452
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1232	(0.0456)	(0.0004)	0.0003	0.0385	0.5444	(0.0010)
		0.0000	0.9990	0.8461	0.0950	0.6037	0.0437	0.6854
		INSIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9542	0.0215	(0.0005)	0.0004	0.0346	0.5246	(0.0008)
		0.0000	0.9980	0.7872	0.5599	0.5603	0.5110	0.8673
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.3767	0.0128	0.0001	0.0001	0.3827	0.5599	(0.0002)
		0.0000	1.0000	0.8974	0.0000	0.0000	0.0000	0.9750
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5244	0.0261	(0.0010)	0.0002	0.2525	0.4562	0.0019
		0.0000	1.0000	0.3660	0.0000	0.0000	0.0000	0.8483
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG

Appendix 2.0: Results on Day (2)

Mean Equation	
Sum Gamma Cap	0.3425797
n	58
Sum Gamma Cap/n	0.0059065
1/(n(n-1))	0.0003025
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.0299273

Mean Equation (firm-specific test)	
sum sm	-5.11E+07
n	58
sum sm/n	880814.06
1/(n(n-1))	0.0003025
sum(sm- sum sm/n)squared	6.04E+15

Denominator	0.0030087
T-stat for Mean Dum Coefficient	1.9631407
P-value	0.0545158

Denominator	1351750
T-stat for Mean Dum Coefficient	0.6516102
P-value	0.5172714

Variance Equation	
Sum Delta Cap	0.0041634
n	58
Sum Delta Cap/n	7.178E-05
1/(n(n-1))	0.0003025
Sum(Delta Cap-Sum Delta Cap/n)squared	0.0007722
Denominator	0.0004833
T-stat for Variance Dum Coefficient	0.148524
P-value	0.8824535

Variance Equation (firm-specific test)	
sum sv	-1.82E+02
n	58
sum sv/n	3.1434477
1/(n(n-1))	0.0003025
sum(sv-sum sv/n)squared	1.21E+03
Denominator	0.6045596
T-stat for Variance Dum Coefficient	5.1995661
P-value	2.813E-06

		Mean Equation			Variance Equation			
SUMMATIONS		1	1	57	21	22	25	1
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0834	(0.0178)	(0.0006)	0.0002	0.0496	0.5062	(0.0005)
		0.0000	0.9967	0.6208	0.3904	0.4100	0.3827	0.6397
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
2	Air Asia	0.8075	(0.0033)	(0.0008)	0.0000	0.0661	0.8243	0.0007
		0.0000	0.9998	0.4088	0.0021	0.0087	0.0000	0.3232
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7288	(0.0135)	0.0012	0.0004	0.0602	0.5233	(0.0009)
		0.0000	0.9933	0.5507	0.3314	0.1687	0.2699	0.5845
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3645	(0.0034)	(0.0001)	0.0000	0.0369	0.8777	0.0023
		0.0000	0.9999	0.9067	0.0076	0.0136	0.0000	0.0654
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
5	Ann Joo	1.1755	(0.0058)	0.0009	0.0005	0.0850	0.5162	(0.0010)
		0.0000	0.9976	0.6780	0.0371	0.1820	0.0164	0.6303
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8781	0.0108	(0.0007)	0.0003	0.0372	0.5227	(0.0006)
		0.0000	0.2158	0.6190	0.4937	0.2194	0.4317	0.6780
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG

7	Bandar Raya Developments	1.1649	(0.0068)	(0.0004)	0.0007	0.0587	0.4793	(0.0015)
		0.0000	0.9604	0.8604	0.2401	0.1822	0.2604	0.4168
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
8	British American Tobacco (BAT)	0.3082	(0.0068)	0.0002	0.0001	0.0906	0.5134	(0.0002)
		0.0000	0.9999	0.8075	0.2189	0.2961	0.1679	0.8311
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.5719	(0.0171)	(0.0002)	0.0001	0.2465	0.5452	0.0027
		0.0000	1.0000	0.8003	0.0000	0.0000	0.0000	0.6764
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6288	(0.0097)	0.0003	0.0001	0.1267	0.5297	0.0016
		0.0000	0.9997	0.5449	0.0244	0.0010	0.0019	0.6407
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.5040	(0.0111)	(0.0001)	0.0005	0.1032	0.4802	(0.0012)
		0.0000	0.9857	0.9697	0.0031	0.0432	0.0044	0.6453
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2685	0.0302	(0.0012)	0.0005	0.0791	0.0315	(0.0005)
		0.0000	0.5792	0.2780	0.0044	0.0106	0.9220	0.9868
		INSIG	INSIG	SIG	SIG	SIG	INSIG	INSIG
13	Genting	1.2051	0.0285	(0.0006)	0.0002	0.0662	0.4691	(0.0005)
		0.0000	0.9994	0.5825	0.2385	0.1373	0.2629	0.6108
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
14	Guocoland	1.0295	(0.0125)	(0.0011)	0.0010	0.0784	0.4974	(0.0022)
		0.0000	0.9889	0.6909	0.1475	0.1204	0.1356	0.8461
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6452	0.0221	0.0002	0.0001	0.0946	0.5123	(0.0002)
		0.0000	0.9948	0.7810	0.0951	0.1351	0.0612	0.5572
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
16	IGB Corporation	1.2371	(0.0084)	0.0002	0.0001	0.0882	0.6251	0.0006
		0.0000	0.9994	0.8654	0.1169	0.0494	0.0029	0.7075
		INSIG	INSIG	SIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.2207	(0.0087)	0.0002	0.0001	0.1831	0.7231	(0.0005)
		0.0000	0.9998	0.7833	0.0001	0.0000	0.0000	0.8707
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.7961	0.0235	0.0010	0.0004	0.0950	0.4991	(0.0010)
		0.0000	0.0159	0.5622	0.0544	0.2843	0.0598	0.5140
		SIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
19	Kencana Petroleum	1.4696	(0.0207)	0.0001	0.0003	0.1832	0.4784	(0.0011)
		0.0000	0.0783	0.9573	0.0000	0.0000	0.0000	0.1885
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG

20	Kinsteel	1.5649	(0.0168)	0.0003	0.0006	0.0387	0.5018	(0.0012)
		0.0000	0.9954	0.9000	0.3836	0.3602	0.3712	0.6630
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Property Holdings	0.6164	(0.0010)	0.0009	0.0001	0.0644	0.4906	(0.0004)
		0.0000	0.9984	0.3120	0.2249	0.2275	0.2079	0.6899
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
22	Kurnia Asia (KSK)	0.6784	(0.0121)	(0.0007)	0.0009	0.1357	0.5252	(0.0021)
		0.0074	0.9587	0.8221	0.0162	0.0380	0.0044	0.6704
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	2.5414	(0.0537)	0.0005	0.0004	0.2575	0.6155	0.0251
		0.0000	1.0000	0.8030	0.0001	0.0000	0.0000	0.8181
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.3996	0.0006	0.0010	0.0004	(0.0290)	0.5092	(0.0008)
		0.0000	1.0000	0.5104	0.5446	0.3454	0.5427	0.7028
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.5181	(0.0356)	(0.0017)	0.0006	0.0395	0.4745	(0.0011)
		0.0000	0.9851	0.4224	0.2932	0.3152	0.3279	0.8431
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
26	Lingui Development	1.3331	(0.0047)	(0.0020)	0.0004	0.0805	0.4877	(0.0012)
		0.0000	0.9902	0.2833	0.1376	0.0812	0.1359	0.5843
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
27	Malaysian Pacific Industries	0.3860	0.0159	(0.0010)	0.0002	0.1016	0.5056	(0.0004)
		0.0000	0.9995	0.4585	0.0315	0.0501	0.0160	0.8144
		INSIG	INSIG	SIG	SIG	INSIG	SIG	INSIG
28	Malaysian Resources Corporation	2.2182	(0.0609)	(0.0001)	0.0000	0.0647	0.8908	0.0000
		0.0000	0.9992	0.9443	0.0002	0.0000	0.0000	0.9974
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
29	Malaysian Airline System (MAS)	1.0875	0.0119	(0.0011)	0.0003	0.0906	0.4782	(0.0006)
		0.0000	0.9821	0.4588	0.2920	0.0531	0.3021	0.5523
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
30	Malayan Banking (Maybank)	0.9922	(0.0318)	(0.0009)	0.0001	0.0856	0.4950	(0.0003)
		0.0000	0.9919	0.3472	0.1712	0.0855	0.1577	0.5652
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
31	Media Prima	0.7680	0.0286	(0.0006)	0.0001	0.1542	0.6997	0.0007
		0.0000	0.9984	0.4633	0.0000	0.0000	0.0000	0.7586
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG

32	MK Land Holdings	1.8401	(0.0189)	(0.0025)	0.0012	0.0162	0.5228	(0.0026)
		0.0000	0.9972	0.4168	0.5688	0.7619	0.5313	0.9496
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.3265	(0.0279)	(0.0006)	0.0005	0.0618	0.5487	(0.0013)
		0.0000	0.9970	0.8088	0.4289	0.4872	0.3196	0.6288
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7643	0.0272	0.0005	0.0002	0.0950	0.5247	(0.0004)
		0.0000	0.9991	0.6691	0.0930	0.2221	0.0546	0.7282
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
35	Pelikan International Corporation	1.0965	(0.0159)	(0.0018)	0.0005	0.0503	0.5044	(0.0012)
		0.0000	0.9917	0.3463	0.1158	0.3817	0.0989	0.8314
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
36	Petra Perdana (Perdana)	1.2925	(0.0177)	0.0000	0.0004	0.1459	0.5057	(0.0010)
		0.0000	0.9885	0.9999	0.0591	0.1087	0.0458	0.8160
		INSIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.4678	(0.0213)	0.0006	0.0001	0.0943	0.5083	(0.0003)
		0.0000	0.9997	0.4666	0.1840	0.1603	0.1399	0.7324
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
38	Plus Expressways	0.6646	0.0196	0.0001	0.0001	0.1970	0.5186	0.0006
		0.0000	0.9996	0.7952	0.0000	0.0000	0.0000	0.8437
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.3684	0.0330	(0.0010)	0.0000	(0.0191)	1.0009	0.0014
		0.0000	0.7640	0.0760	0.0000	0.0000	0.0000	0.0000
		INSIG	INSIG	SIG	SIG	SIG	SIG	SIG
40	Proton Holdings	0.8401	(0.0315)	(0.0022)	0.0001	0.0389	0.7263	0.0002
		0.0000	0.9955	0.0421	0.1721	0.1993	0.0002	0.7086
		INSIG	SIG	SIG	INSIG	INSIG	SIG	INSIG
41	Puncak Niaga Holdings	1.3196	(0.0012)	(0.0005)	0.0000	0.1473	0.8333	(0.0025)
		0.0000	1.0000	0.6736	0.0006	0.0000	0.0000	0.5163
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
42	RHB Capital	1.1116	0.0208	0.0010	0.0002	0.1183	0.5030	(0.0008)
		0.0000	0.7863	0.5245	0.0567	0.1197	0.0417	0.0892
		INSIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9528	(0.0252)	0.0014	0.0008	0.0298	0.5027	(0.0020)
		0.0000	0.8391	0.5919	0.4142	0.6141	0.4019	0.6350
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	2.0036	(0.0570)	(0.0008)	0.0006	0.0053	0.4579	(0.0010)
		0.0000	0.9948	0.6481	0.5390	0.8162	0.6025	0.8041

		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
45	Selangor Properties	0.6673	(0.0090)	0.0006	0.0003	0.0655	0.5484	(0.0009)
		0.0000	0.9924	0.7961	0.3084	0.2700	0.2079	0.5843
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2986	(0.0098)	0.0011	0.0003	0.1317	0.5237	(0.0007)
		0.0000	0.8855	0.5652	0.0291	0.0000	0.0095	0.5547
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
47	SP Setia	1.0111	(0.0512)	0.0004	0.0001	0.0616	0.6764	0.0076
		0.0000	0.9998	0.6398	0.0071	0.0343	0.0000	0.2422
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
48	Suria Capital	1.2224	0.0277	(0.0013)	0.0006	0.1392	0.4961	(0.0013)
		0.0000	0.9453	0.5985	0.1093	0.0015	0.0885	0.7598
		INSIG	INSIG	SIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.3110	0.0037	(0.0010)	0.0003	0.0324	0.4910	(0.0007)
		0.0000	0.9987	0.4775	0.3460	0.5115	0.3535	0.7238
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
50	Tanjong Public Limited Company	0.8117	0.0016	0.0003	0.0002	0.0686	0.4999	(0.0004)
		0.0000	0.9999	0.7732	0.2753	0.0843	0.2389	0.6768
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
51	Telekom Malaysia	0.6010	(0.0139)	0.0015	0.0003	0.0894	0.5662	(0.0010)
		0.0001	0.9926	0.4550	0.2502	0.3745	0.1218	0.5383
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0716	(0.0217)	(0.0012)	0.0002	0.1449	0.5250	(0.0011)
		0.0000	0.9999	0.4422	0.0927	0.0208	0.0530	0.5001
		INSIG	INSIG	SIG	INSIG	SIG	INSIG	INSIG
53	Titan Chemicals Corp	0.7645	0.0171	(0.0018)	0.0003	0.0172	0.5293	(0.0006)
		0.0000	0.9989	0.2006	0.7365	0.7969	0.7019	0.7952
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1012	0.0130	(0.0005)	0.0003	0.0358	0.5427	(0.0009)
		0.0000	0.9998	0.7793	0.0911	0.6091	0.0426	0.7771
		INSIG	INSIG	SIG	INSIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9696	(0.0204)	(0.0003)	0.0004	0.0284	0.5187	(0.0008)
		0.0000	0.9997	0.8658	0.5864	0.5883	0.5501	0.7005
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.2374	0.0409	(0.0002)	0.0003	0.3377	0.3910	(0.0009)
		0.0000	0.9996	0.8419	0.0000	0.0000	0.0000	0.9383
		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5239	(0.0145)	(0.0010)	0.0003	0.2539	0.4480	0.0033
		0.0000	1.0000	0.4034	0.0000	0.0000	0.0000	0.9025
		INSIG	INSIG	SIG	INSIG	INSIG	INSIG	INSIG

		INSIG	INSIG	SIG	SIG	SIG	SIG	INSIG
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Appendix 2.1: Results on Day (3)

Mean Equation	
Sum Gamma Cap	0.1189992
n	58
Sum Gamma Cap/n	0.0020517
1/(n(n-1))	0.0003025
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.0375945
Denominator	0.0033722
T-stat for Mean Dum Coefficient	0.6084223
P-value	0.5453244

Mean Equation (firm-specific test)	
sum sm	5.03E+07
n	58
sum sm/n	867690.81
1/(n(n-1))	0.0003025
sum(sm- sum sm/n)squared	4.40E+15
Denominator	1153964.1
T-stat for Mean Dum Coefficient	0.7519218
P-value	0.4551918

Variance Equation	
Sum Delta Cap	0.3427326
n	58
Sum Delta Cap/n	0.0059092
1/(n(n-1))	0.0003025
Sum(Delta Cap-Sum Delta Cap/n)squared	0.094056
Denominator	0.0053339
T-stat for Variance Dum Coefficient	1.107862
P-value	0.2725745

Variance Equation (firm-specific test)	
sum sv	5.03E+00
n	58
sum sv/n	0.0867471
1/(n(n-1))	0.0003025
sum(sv-sum sv/n)squared	3.08E+04
Denominator	3.0522933
T-stat for Variance Dum Coefficient	0.0284203
P-value	0.9774262

		Mean Equation			Variance Equation			
	SUMMATIONS	57	0	2	30	29	32	4
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0968	0.0101	(0.0004)	0.0001	0.0771	0.4003	0.0017
		0.0000	0.9998	0.5814	0.0021	0.0372	0.0459	0.6577
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
2	Air Asia	0.8189	0.0079	(0.0004)	0.0003	(0.0057)	0.4874	(0.0006)
		0.0000	0.9208	0.7552	0.6825	0.8716	0.7000	0.7888
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

3	Malaysia Airport Holdings (Airport)	0.7181	0.0241	0.0008	0.0004	0.0365	0.5047	(0.0007)
		0.0000	0.8050	0.6377	0.4471	0.1254	0.4254	0.6855
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3902	(0.0375)	0.0004	0.0002	0.0631	0.4890	(0.0005)
		0.0000	0.9973	0.7114	0.2197	0.2342	0.2220	0.6570
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
5	Ann Joo	1.1873	0.0360	0.0010	0.0005	0.0813	0.5108	(0.0009)
		0.0000	0.7885	0.6186	0.0347	0.1717	0.0169	0.8594
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.8648	(0.0217)	(0.0007)	0.0003	0.0303	0.5209	(0.0006)
		0.0000	0.8700	0.6176	0.5467	0.2124	0.4955	0.7130
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
7	Bandar Raya Developments	1.1926	0.0593	(0.0002)	0.0007	0.0587	0.4754	(0.0016)
		0.0000	0.1111	0.9082	0.2294	0.1717	0.2564	0.6140
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
8	British American Tobacco (BAT)	0.3094	0.0079	0.0001	0.0001	0.0850	0.5025	(0.0003)
		0.0000	0.9998	0.8458	0.1801	0.2716	0.1501	0.5566
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.6758	0.0081	(0.0002)	0.0001	0.2138	0.6184	0.0024
		0.0000	0.9999	0.7728	0.0000	0.0000	0.0000	0.5598
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6472	(0.0038)	0.0003	0.0001	0.1099	0.4716	(0.0002)
		0.0000	0.9995	0.5972	0.0409	0.0054	0.0351	0.6194
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.3072	0.0416	(0.0007)	0.0002	0.2406	0.5038	0.0011
		0.0000	0.9997	0.4888	0.0000	0.0000	0.0000	0.8725
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2874	0.0192	(0.0011)	0.0004	0.0172	0.4790	(0.0008)
		0.0000	0.9990	0.4975	0.6839	0.2337	0.7028	0.9148
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.1375	0.0076	(0.0011)	0.0001	0.2282	0.5623	0.0023
		0.0000	0.9999	0.1063	0.0012	0.0000	0.0000	0.6640
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
14	Guocoland	1.0410	(0.0696)	(0.0016)	0.0010	0.0781	0.4835	(0.0019)
		0.0000	0.4980	0.5425	0.1110	0.0937	0.1198	0.8354
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6589	0.0169	0.0002	0.0001	0.1051	0.5163	(0.0002)

		0.0000	0.9996	0.7329	0.0322	0.0548	0.0133	0.7856
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
16	IGB Corporation	1.2915	(0.0344)	0.0001	0.0001	0.0705	0.6762	0.0029
		0.0000	0.9993	0.8677	0.0551	0.0419	0.0000	0.5074
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.2986	(0.0095)	(0.0003)	0.0003	0.1734	0.5197	(0.0007)
		0.0000	0.9147	0.8352	0.0000	0.0001	0.0000	0.6611
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.6955	(0.0163)	0.0011	0.0001	0.1527	0.6075	0.0010
		0.0000	0.9997	0.2808	0.0003	0.0022	0.0000	0.6193
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.3732	(0.0471)	0.0003	0.0000	0.0577	0.8984	0.0027
		0.0000	0.9915	0.7993	0.0044	0.0000	0.0000	0.2212
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.5682	(0.0056)	(0.0003)	0.0006	0.0318	0.4949	(0.0012)
		0.0000	0.9721	0.8909	0.4186	0.3982	0.4206	0.7004
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
21	KLCC Property Holdings	0.7078	0.0247	0.0003	0.0000	0.0944	0.8397	0.0009
		0.0000	0.9993	0.6724	0.0061	0.0003	0.0000	0.3296
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.6637	(0.0053)	(0.0015)	0.0009	0.1317	0.5276	(0.0020)
		0.0097	1.0000	0.6447	0.0198	0.0445	0.0055	0.8622
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	1.3813	0.0222	0.0020	0.0003	0.1753	0.6252	0.3092
		0.0000	1.0000	0.2858	0.0000	0.0000	0.0000	0.3642
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.4043	0.0072	0.0007	0.0004	(0.0389)	0.4893	(0.0008)
		0.0000	0.9986	0.6499	0.2899	0.0000	0.3365	0.4881
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
25	Landmarks	1.5133	(0.0135)	(0.0013)	0.0006	0.0437	0.4957	(0.0013)
		0.0000	0.9851	0.5573	0.3407	0.3664	0.3351	0.6646
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
26	Lingui Development	1.1773	0.0260	(0.0024)	0.0002	0.2178	0.4579	0.0015
		0.0000	0.9998	0.0346	0.0000	0.0000	0.0000	0.8742
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG
27	Malaysian Pacific Industries	0.3957	0.0111	(0.0008)	0.0002	0.1012	0.5062	(0.0005)
		0.0000	0.9995	0.5567	0.0329	0.0513	0.0166	0.8304
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG

28	Malaysian Corporation	Resources	1.9933	0.0144	(0.0000)	0.0001	0.0512	0.8738	0.0081
			0.0000	0.9999	0.9917	0.0000	0.0000	0.0000	0.0159
			SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
29	Malaysian Airline System (MAS)		1.0801	(0.0405)	(0.0008)	0.0003	0.0950	0.4939	(0.0007)
			0.0000	0.9759	0.6102	0.3044	0.0638	0.2832	0.7472
			SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
30	Malayan (Maybank)	Banking	0.9306	0.0137	(0.0009)	0.0000	0.0446	0.9425	0.0003
			0.0000	0.9989	0.0976	0.0446	0.0000	0.0000	0.0234
			SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
31	Media Prima		0.8638	0.0222	(0.0005)	0.0004	0.0828	0.4928	(0.0010)
			0.0000	0.9711	0.7685	0.1398	0.0074	0.1131	0.5751
			SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
32	MK Land Holdings		1.7998	0.0378	(0.0011)	0.0012	(0.0084)	0.5014	(0.0023)
			0.0000	0.9417	0.6757	0.5846	0.7643	0.5842	0.8273
			SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation		1.3193	(0.0140)	(0.0009)	0.0005	0.0720	0.5531	(0.0012)
			0.0000	0.9543	0.7348	0.4024	0.4410	0.2791	0.8061
			SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings		0.7504	0.0106	0.0002	0.0000	0.0777	0.7562	0.0002
			0.0000	0.9993	0.8271	0.0007	0.0005	0.0000	0.5655
			SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
35	Pelikan Corporation	International	0.9393	(0.0431)	(0.0011)	0.0001	0.0831	0.8066	(0.0000)
			0.0000	0.9980	0.3394	0.0147	0.0062	0.0000	0.9747
			SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
36	Petra Perdana (Perdana)		1.2560	0.0028	(0.0009)	0.0003	0.1543	0.4730	(0.0007)
			0.0000	0.9994	0.5824	0.0186	0.0524	0.0295	0.0031
			SIG	INSIG	INSIG	SIG	INSIG	SIG	SIG
37	Petronas Gas (Petronasgas)		0.5706	0.0077	0.0010	0.0001	0.0987	0.5022	(0.0002)
			0.0000	0.9997	0.2389	0.1551	0.0363	0.1192	0.6008
			SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
38	Plus Expressways		0.6303	0.0164	0.0002	0.0000	0.1586	0.5977	0.0020
			0.0000	0.9996	0.7751	0.0000	0.0000	0.0000	0.5305
			SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia		0.4458	(0.0090)	0.0001	0.0002	0.1321	0.5483	(0.0005)
			0.0000	0.9592	0.9353	0.0455	0.2350	0.0083	0.1730
			SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG

40	Proton Holdings	0.8170	(0.0266)	(0.0031)	0.0004	0.0598	0.5588	(0.0009)
		0.0000	0.9980	0.1666	0.4140	0.5210	0.2933	0.4386
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	0.7896	0.0203	0.0003	0.0000	0.1041	0.8564	0.0150
		0.0000	0.9999	0.7483	0.0000	0.0000	0.0000	0.0291
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
42	RHB Capital	0.9504	(0.0084)	0.0004	0.0000	0.1191	0.7991	0.0000
		0.0000	1.0000	0.5954	0.0000	0.0000	0.0000	0.9589
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
43	Sapuracrest Petroleum	1.9761	0.0490	0.0022	0.0008	0.0120	0.4906	(0.0015)
		0.0000	0.9606	0.3367	0.3910	0.7818	0.4065	0.7563
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
44	Scomi Group	1.9922	0.0444	(0.0014)	0.0006	(0.0031)	0.4802	(0.0011)
		0.0000	0.9985	0.4392	0.5955	0.8878	0.6257	0.7257
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
45	Selangor Properties	0.6646	(0.0160)	0.0013	0.0003	0.0790	0.5565	(0.0009)
		0.0000	0.9989	0.5628	0.2923	0.2547	0.1768	0.7819
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.3017	0.0147	0.0010	0.0003	0.1301	0.5215	(0.0007)
		0.0000	0.9993	0.6021	0.0280	0.0000	0.0098	0.5818
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.8478	(0.0035)	0.0003	0.0001	0.0210	0.8164	0.0077
		0.0000	1.0000	0.7121	0.0068	0.1846	0.0000	0.1752
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
48	Suria Capital	1.2391	(0.0120)	(0.0021)	0.0006	0.1433	0.4833	(0.0017)
		0.0000	0.9885	0.3618	0.0715	0.0004	0.0674	0.6351
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1254	0.0214	(0.0016)	0.0002	0.1825	0.4944	(0.0005)
		0.0000	0.8676	0.0976	0.0000	0.0000	0.0000	0.4604
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.7809	(0.0057)	0.0001	0.0000	0.0373	0.9364	0.0001
		0.0000	0.9988	0.8928	0.0135	0.0008	0.0000	0.4336
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
51	Telekom Malaysia	0.5941	0.0039	0.0018	0.0003	0.1067	0.5720	(0.0008)
		0.0001	0.5212	0.3859	0.2255	0.3325	0.0928	0.5903
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0591	(0.0146)	(0.0013)	0.0001	0.4093	0.3505	0.0095
		0.0000	1.0000	0.0448	0.0000	0.0000	0.0000	0.9999
		SIG	INSIG	SIG	SIG	SIG	SIG	INSIG

53	Titan Chemicals Corp	0.7781	0.0229	(0.0019)	0.0003	0.0106	0.5239	(0.0005)
		0.0000	0.7749	0.1569	0.7654	0.8577	0.7411	0.7930
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1378	(0.0532)	(0.0003)	0.0001	0.0119	0.5292	0.0076
		0.0000	0.9996	0.7546	0.0083	0.5879	0.0027	0.4280
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9716	0.0081	(0.0008)	0.0003	0.0240	0.5159	(0.0007)
		0.0000	0.9887	0.6057	0.6071	0.6121	0.5776	0.7084
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5495	(0.0095)	(0.0012)	0.0007	0.1465	0.5290	(0.0017)
		0.0000	0.9085	0.6869	0.0714	0.0195	0.0285	0.7628
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5928	(0.0007)	(0.0023)	0.0005	0.0753	0.4681	(0.0011)
		0.0000	1.0000	0.2147	0.1610	0.0575	0.1910	0.9854
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

Appendix 2.2: Results on Day (4)

Mean Equation	
Sum Gamma Cap	- 0.4318612
n	58
Sum Gamma Cap/n	- 0.0074459
1/(n(n-1))	0.0003025
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.0289668
Denominator	0.0029601
T-stat for Mean Dum Coefficient	- 2.5154574
P-value	0.0147308

Mean Equation (firm-specific test)	
sum sm	- 1.34E+07
n	58
sum sm/n	- 230926.45
1/(n(n-1))	0.0003025
sum(sm- sum sm/n)squared	4.51E+14
Denominator	369504.96
T-stat for Mean Dum Coefficient	- 0.6249617
P-value	0.5344902

Variance Equation	
Sum Delta Cap	0.0338485
n	58
Sum Delta Cap/n	0.0005836
1/(n(n-1))	0.0003025
Sum(Delta Cap-Sum Delta Cap/n)squared	0.0011878
Denominator	0.0005994

Variance Equation (firm-specific test)	
sum sv	- 1.36E+02
n	58
sum sv/n	- 2.3520862
1/(n(n-1))	0.0003025
sum(sv-sum sv/n)squared	1.31E+03
Denominator	0.6295301

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T-stat for Variance Dum Coefficient	0.9736107
P-value	0.3343636

T-stat for Variance Dum Coefficient	3.7362567
P-value	0.0004341

		Mean Equation			Variance Equation			
SUMMATIONS		57	2	1	28	29	32	1
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0875 0.0000 SIG	(0.0122) 1.0000 INSIG	(0.0003) 0.6974 INSIG	0.0001 0.0069 SIG	0.0682 0.0510 INSIG	0.4293 0.0477 SIG	0.0007 0.7775 INSIG
2	Air Asia	0.8084 0.0000 SIG	(0.0228) 0.9996 INSIG	(0.0008) 0.4032 INSIG	0.0000 0.0022 SIG	0.0680 0.0091 SIG	0.8153 0.0000 SIG	0.0007 0.3022 INSIG
3	Malaysia Airport Holdings (Airport)	0.7253 0.0000 SIG	(0.0044) 0.9983 INSIG	0.0012 0.5162 INSIG	0.0004 0.3439 INSIG	0.0549 0.1546 INSIG	0.5178 0.2931 INSIG	(0.0008) 0.6611 INSIG
4	AMMB Holdings	1.3539 0.0000 SIG	0.0263 0.9995 INSIG	(0.0001) 0.9323 INSIG	0.0000 0.0079 SIG	0.0394 0.0142 SIG	0.8639 0.0000 SIG	0.0023 0.0823 INSIG
5	Ann Joo	1.1759 0.0000 SIG	0.0089 0.9984 INSIG	0.0009 0.6754 INSIG	0.0005 0.0367 SIG	0.0829 0.1792 INSIG	0.5143 0.0169 SIG	(0.0010) 0.6172 INSIG
6	Astro All Asia Networks	0.8815 0.0000 SIG	(0.0121) 0.7675 INSIG	(0.0001) 0.9632 INSIG	0.0003 0.3360 INSIG	0.0637 0.2454 INSIG	0.5438 0.2159 INSIG	(0.0006) 0.5731 INSIG
7	Bandar Raya Developments	1.1623 0.0000 SIG	0.0070 0.0429 SIG	0.0002 0.9182 INSIG	0.0007 0.2906 INSIG	0.0566 0.2190 INSIG	0.4906 0.2907 INSIG	(0.0015) 0.6239 INSIG
8	British American Tobacco (BAT)	0.3068 0.0000 SIG	0.0075 0.9991 INSIG	0.0002 0.7784 INSIG	0.0001 0.1855 INSIG	0.0812 0.2865 INSIG	0.5020 0.1592 INSIG	(0.0002) 0.6305 INSIG
9	Padiberas Nasional (Beras)	0.5625 0.0000 SIG	(0.0176) 0.9999 INSIG	(0.0002) 0.7527 INSIG	0.0001 0.0000 SIG	0.2591 0.0000 SIG	0.5144 0.0000 SIG	0.0019 0.7512 INSIG
10	Berjaya Sports TOTO	0.6494 0.0000	0.0117 0.9931	0.0002 0.7032	0.0000 0.0207	0.1162 0.0001	0.7094 0.0000	(0.0001) 0.9182

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
11	Dialog Group	1.2948	(0.0057)	(0.0007)	0.0002	0.2619	0.4690	(0.0005)
		0.0000	0.9992	0.4775	0.0000	0.0000	0.0000	0.6080
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2761	(0.0342)	(0.0010)	0.0004	0.0187	0.4991	(0.0009)
		0.0000	0.9688	0.5497	0.6940	0.2714	0.6891	0.8447
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
13	Genting	1.2166	(0.0312)	(0.0008)	0.0002	0.0684	0.4591	(0.0004)
		0.0000	0.4831	0.4703	0.2437	0.1394	0.2869	0.6441
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
14	Guocoland	1.0548	(0.0114)	(0.0018)	0.0010	0.0770	0.4937	(0.0021)
		0.0000	0.9822	0.5233	0.1414	0.1153	0.1357	0.8365
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6517	(0.0149)	0.0003	0.0001	0.0913	0.5089	(0.0002)
		0.0000	0.9979	0.6804	0.0940	0.1356	0.0639	0.2565
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
16	IGB Corporation	1.2335	0.0066	0.0001	0.0002	0.1008	0.5202	0.0018
		0.0000	0.9999	0.9078	0.0692	0.0475	0.0265	0.7233
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.2202	(0.0477)	0.0002	0.0001	0.1772	0.7308	(0.0002)
		0.0000	0.9978	0.7856	0.0002	0.0000	0.0000	0.9158
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.8037	(0.0052)	0.0010	0.0004	0.0919	0.4917	(0.0008)
		0.0000	0.9975	0.5184	0.0468	0.2772	0.0594	0.7596
		SIG	INSIG	INSIG	SIG	INSIG	INSIG	INSIG
19	Kencana Petroleum	1.4552	(0.0419)	0.0003	0.0002	0.1150	0.6723	0.0093
		0.0000	0.9997	0.7814	0.0019	0.0000	0.0000	0.4442
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.5064	(0.0017)	(0.0006)	0.0004	0.0984	0.3892	(0.0007)
		0.0000	0.7358	0.6808	0.0004	0.0005	0.0158	0.8811
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
21	KLCC Propertiy Holdings	0.6375	(0.0036)	0.0004	0.0000	0.0983	0.8301	0.0008
		0.0000	0.9999	0.5651	0.0083	0.0004	0.0000	0.5186
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.6924	0.0031	(0.0014)	0.0009	0.1579	0.5139	(0.0020)
		0.0044	0.9997	0.6667	0.0071	0.0226	0.0019	0.7096
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	2.5330	(0.0641)	0.0006	0.0004	0.2444	0.5895	0.0316
		0.0000	0.9996	0.7397	0.0001	0.0000	0.0000	0.7586
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

24	Lafarge Malayan Cement	1.4005	0.0116	0.0008	0.0004	(0.0386)	0.4975	(0.0008)
		0.0000	0.9201	0.5810	0.4255	0.2983	0.4456	0.8048
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
25	Landmarks	1.3899	(0.0067)	(0.0017)	0.0003	0.1883	0.5037	0.0003
		0.0000	0.9999	0.1782	0.0000	0.0000	0.0000	0.9316
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
26	Lingui Development	1.3338	0.0243	(0.0021)	0.0004	0.0799	0.4888	(0.0009)
		0.0000	0.9993	0.2736	0.1381	0.0840	0.1348	0.8129
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
27	Malaysian Pacific Industries	0.3915	0.0029	(0.0008)	0.0002	0.1014	0.5012	(0.0005)
		0.0000	1.0000	0.5401	0.0263	0.0429	0.0142	0.6521
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
28	Malaysian Resources Corporation	2.2140	0.0046	(0.0001)	0.0000	0.0656	0.8881	0.0003
		0.0000	0.9999	0.9157	0.0002	0.0000	0.0000	0.8407
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
29	Malaysian Airline System (MAS)	1.0915	(0.0214)	(0.0007)	0.0003	0.0939	0.4868	(0.0007)
		0.0000	0.0000	0.6501	0.2982	0.0593	0.2906	0.8861
		SIG	SIG	INSIG	INSIG	INSIG	INSIG	INSIG
30	Malayan Banking (Maybank)	0.9861	0.0239	(0.0011)	0.0001	0.0880	0.5006	(0.0003)
		0.0000	0.9951	0.2560	0.1746	0.0948	0.1538	0.6327
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
31	Media Prima	0.8654	0.0099	(0.0007)	0.0004	0.0848	0.5040	(0.0011)
		0.0000	0.9997	0.6777	0.1568	0.0106	0.1124	0.3833
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
32	MK Land Holdings	1.8227	(0.0424)	(0.0005)	0.0011	0.0048	0.4922	(0.0023)
		0.0000	0.9054	0.8501	0.6203	0.9020	0.6309	0.6643
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.3145	0.0087	(0.0004)	0.0005	0.0513	0.5444	(0.0012)
		0.0000	0.9797	0.8525	0.4758	0.5372	0.3803	0.6526
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7735	0.0037	0.0005	0.0002	0.0914	0.5201	(0.0004)
		0.0000	0.9998	0.6764	0.0911	0.2230	0.0582	0.7102
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
35	Pelikan International Corporation	1.1013	0.0016	(0.0017)	0.0005	0.0572	0.5231	(0.0012)
		0.0000	1.0000	0.4146	0.1304	0.3992	0.0885	0.6839
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG

36	Petra Perdana (Perdana)	1.2786	(0.0149)	(0.0000)	0.0004	0.1455	0.4962	(0.0009)
		0.0000	0.9937	0.9919	0.0458	0.0901	0.0417	0.2724
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.3380	0.0068	0.0004	0.0000	0.0744	0.9003	0.0002
		0.0000	0.9990	0.4546	0.0002	0.0000	0.0000	0.1073
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
38	Plus Expressways	0.6608	(0.0372)	0.0002	0.0001	0.2029	0.4974	0.0001
		0.0000	0.9990	0.6890	0.0000	0.0000	0.0000	0.9710
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.3793	(0.0857)	(0.0014)	0.0000	(0.0228)	1.0078	0.0012
		0.0000	0.3699	0.0173	0.0000	0.0000	0.0000	0.0000
		SIG	INSIG	SIG	SIG	SIG	SIG	SIG
40	Proton Holdings	0.8237	(0.0084)	(0.0024)	0.0004	0.0434	0.5528	(0.0009)
		0.0000	0.9958	0.2449	0.4840	0.5970	0.3821	0.6129
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	1.3245	0.0243	(0.0005)	0.0000	0.1427	0.8305	0.0006
		0.0000	0.9999	0.6699	0.0004	0.0000	0.0000	0.8894
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
42	RHB Capital	1.1188	0.0047	0.0010	0.0003	0.1183	0.5067	(0.0007)
		0.0000	0.9959	0.5236	0.0677	0.1320	0.0479	0.5477
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
43	Sapuracrest Petroleum	1.7000	(0.0458)	0.0004	0.0000	0.0810	0.8900	0.0012
		0.0000	0.9990	0.7446	0.0007	0.0000	0.0000	0.4133
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
44	Scomi Group	1.9441	0.0072	(0.0014)	0.0001	0.0461	0.7813	0.0009
		0.0000	0.9966	0.2893	0.0253	0.0335	0.0000	0.5750
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
45	Selangor Properties	0.6651	(0.0178)	0.0006	0.0003	0.0592	0.5440	(0.0008)
		0.0000	0.6415	0.7861	0.3179	0.2755	0.2257	0.5882
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2993	0.0025	0.0004	0.0003	0.1288	0.5205	(0.0007)
		0.0000	0.9140	0.8302	0.0295	0.0000	0.0108	0.6411
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.9981	(0.0102)	0.0005	0.0001	0.0860	0.5840	0.0074
		0.0000	1.0000	0.6058	0.0024	0.0196	0.0000	0.4488
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
48	Suria Capital	1.2299	(0.0117)	(0.0017)	0.0006	0.1392	0.4859	(0.0013)
		0.0000	0.8789	0.4545	0.0848	0.0007	0.0777	0.6312
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG

49	TA Enterprise	1.1221	0.0161	(0.0016)	0.0002	0.2005	0.4658	0.0023
		0.0000	0.9999	0.0871	0.0000	0.0000	0.0000	0.7020
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.8123	(0.0024)	0.0003	0.0002	0.0647	0.4932	(0.0004)
		0.0000	1.0000	0.8023	0.2753	0.0763	0.2523	0.8525
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
51	Telekom Malaysia	0.5952	(0.0076)	0.0014	0.0003	0.0831	0.5635	(0.0008)
		0.0001	0.9999	0.4754	0.2655	0.3902	0.1390	0.8834
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0625	0.0217	(0.0010)	0.0002	0.1460	0.5269	(0.0008)
		0.0000	0.9862	0.5305	0.0888	0.0214	0.0490	0.5292
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7709	0.0138	(0.0019)	0.0003	0.0280	0.5339	(0.0006)
		0.0000	0.9990	0.2002	0.6823	0.7155	0.6334	0.8381
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1061	(0.0151)	(0.0006)	0.0003	0.0441	0.5445	(0.0008)
		0.0000	0.9997	0.7600	0.0939	0.5502	0.0419	0.5691
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9669	0.0147	(0.0002)	0.0003	0.0184	0.5072	(0.0007)
		0.0000	0.9794	0.9202	0.6152	0.6371	0.6001	0.6692
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.5481	(0.0071)	(0.0027)	0.0008	0.1615	0.5411	(0.0019)
		0.0000	0.9986	0.3967	0.0660	0.0158	0.0180	0.7193
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5429	(0.0405)	(0.0010)	0.0003	0.2465	0.4563	0.0030
		0.0000	0.9999	0.3671	0.0000	0.0000	0.0000	0.8893
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

Appendix 2.3: Results on Day (5)

Mean Equation		Mean Equation (firm-specific test)	
Sum Gamma Cap	1.1052219	sum sm	-9.51E+06
n	60	n	60
Sum Gamma Cap/n	0.0184204	sum sm/n	158537.86
1/(n(n-1))	0.0002825	1/(n(n-1))	0.0002825
Sum(Gamma Cap-Sum Gamma Cap/n)squared	0.1195167	sum(sm- sum sm/n)squared	8.26E+13
Denominator	0.0058105	Denominator	152731.73
T-stat for Mean Dum Coefficient	-	T-stat for Mean Dum Coefficient	-

	3.1701919
P-value	0.002416

	1.0380153
P-value	0.3034985

Variance Equation	
Sum Delta Cap	0.0094482
n	60
Sum Delta Cap/n	0.0001575
1/(n(n-1))	0.0002825
Sum(Delta Cap-Sum Delta Cap/n)squared	0.0003603
Denominator	0.000319
T-stat for Variance Dum Coefficient	0.4935678
P-value	0.6234438

Variance Equation (firm-specific test)	
sum sv	-1.32E+02
n	60
sum sv/n	2.1927082
1/(n(n-1))	0.0002825
sum(sv-sum sv/n)squared	1.20E+03
Denominator	0.582067
T-stat for Variance Dum Coefficient	-3.767106
P-value	0.0003834

		Mean Equation			Variance Equation			
SUMMATIONS		57	0	0	28	32	29	1
#	Stock	KLCI	Dummy	C1	C2	arch	garch	Dummy
1	Affin Holdings Bhd	1.0827	(0.0345)	(0.0002)	0.0001	0.0660	0.4125	(0.0003)
		0.0000	0.8805	0.7542	0.0055	0.0527	0.0581	0.2001
		SIG	INSIG	INSIG	SIG	INSIG	INSIG	INSIG
2	Air Asia	0.8064	(0.0687)	(0.0007)	0.0000	0.0591	0.8524	0.0000
		0.0000	0.9932	0.4505	0.0024	0.0078	0.0000	0.8742
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
3	Malaysia Airport Holdings (Airport)	0.7279	0.0043	0.0014	0.0004	0.0563	0.5141	(0.0008)
		0.0000	0.9993	0.4499	0.3259	0.1464	0.2818	0.8172
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
4	AMMB Holdings	1.3532	0.0010	(0.0000)	0.0000	0.0421	0.8500	0.0024
		0.0000	1.0000	0.9711	0.0100	0.0152	0.0000	0.1261
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
5	Ann Joo	1.1764	0.0058	0.0010	0.0005	0.0824	0.5128	(0.0010)
		0.0000	0.9993	0.6327	0.0356	0.1764	0.0168	0.6209
		SIG	INSIG	INSIG	SIG	INSIG	SIG	INSIG
6	Astro All Asia Networks	0.7534	(0.0245)	(0.0013)	0.0000	0.0986	0.8212	0.0002
		0.0000	0.9973	0.1188	0.0000	0.0004	0.0000	0.4915
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
7	Bandar Raya Developments	1.1624	0.0010	0.0002	0.0007	0.0554	0.4899	(0.0014)
		0.0000	0.9840	0.9341	0.2937	0.2204	0.2953	0.6693

		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
8	British American Tobacco (BAT)	0.3038	(0.0139)	0.0003	0.0001	0.0713	0.4879	(0.0002)
		0.0000	0.9983	0.6674	0.1467	0.2692	0.1479	0.4270
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
9	Padiberas Nasional (Beras)	0.6452	(0.0614)	(0.0001)	0.0002	0.1156	0.5026	(0.0005)
		0.0000	0.9988	0.9405	0.0027	0.0070	0.0012	0.5520
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
10	Berjaya Sports TOTO	0.6506	0.0303	0.0002	0.0001	0.0866	0.4981	(0.0003)
		0.0000	0.9972	0.8445	0.3063	0.1575	0.2654	0.1516
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
11	Dialog Group	1.4926	(0.0201)	(0.0001)	0.0005	0.1027	0.4698	(0.0009)
		0.0000	0.3453	0.9562	0.0013	0.0310	0.0027	0.5652
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
12	DRB-Hicom	1.2639	(0.0264)	(0.0011)	0.0006	0.0829	(0.1049)	(0.0006)
		0.0000	0.1326	0.3102	0.0001	0.0089	0.6954	0.9117
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
13	Genting	1.2174	0.0022	(0.0007)	0.0002	0.0686	0.4604	(0.0005)
		0.0000	1.0000	0.5030	0.2482	0.1443	0.2889	0.6990
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
14	Guocoland	1.0413	(0.0260)	(0.0016)	0.0010	0.0746	0.4898	(0.0020)
		0.0000	0.9991	0.5644	0.1373	0.1137	0.1384	0.7948
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
15	Hong Leong Bank	0.6572	0.0185	0.0002	0.0001	0.1010	0.5219	(0.0002)
		0.0000	0.9952	0.8501	0.1241	0.1564	0.0731	0.3935
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
16	IGB Corporation	1.2344	0.0550	0.0001	0.0002	0.1028	0.5023	0.0005
		0.0000	0.9989	0.9544	0.0689	0.0473	0.0388	0.8093
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
17	IJM Corporation	1.2882	(0.0387)	(0.0001)	0.0003	0.1508	0.5234	(0.0012)
		0.0000	0.9372	0.9328	0.0000	0.0006	0.0000	0.3798
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
18	IOI Corporation	1.6657	0.0160	0.0010	0.0001	0.1619	0.5810	0.0003
		0.0000	0.9996	0.2995	0.0001	0.0024	0.0000	0.8343
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
19	Kencana Petroleum	1.4537	(0.0580)	0.0002	0.0002	0.1247	0.6358	0.0103
		0.0000	0.9997	0.8494	0.0009	0.0000	0.0000	0.4436
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
20	Kinsteel	1.4443	(0.0222)	(0.0009)	0.0004	0.1390	0.3789	(0.0005)
		0.0000	0.9909	0.5283	0.0000	0.0000	0.0009	0.6268

		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
21	KLCC Propertiy Holdings	0.6315	(0.0324)	0.0004	0.0000	0.0953	0.8318	0.0008
		0.0000	0.9981	0.5587	0.0083	0.0004	0.0000	0.4352
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
22	Kurnia Asia (KSK)	0.6801	0.0134	(0.0007)	0.0009	0.1387	0.5244	(0.0020)
		0.0070	0.9675	0.8253	0.0147	0.0357	0.0039	0.4919
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
23	Kumpulan Perangsang Selangor	2.5429	(0.2730)	0.0006	0.0004	0.2443	0.6094	0.0135
		0.0000	0.9925	0.7524	0.0001	0.0000	0.0000	0.7773
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
24	Lafarge Malayan Cement	1.4031	0.0153	0.0006	0.0004	(0.0388)	0.4902	(0.0008)
		0.0000	0.9997	0.7010	0.2963	0.0000	0.3418	0.6397
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
25	Landmarks	1.5032	(0.0458)	0.0010	0.0004	0.0861	0.4661	(0.0008)
		0.0000	0.7444	0.5374	0.0103	0.0282	0.0145	0.8922
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
26	Lingui Development	1.3276	(0.0158)	(0.0021)	0.0004	0.0774	0.4797	(0.0009)
		0.0000	0.9908	0.2536	0.1220	0.0717	0.1322	0.6627
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
27	Malaysian Pacific Industries	0.3913	0.0007	(0.0008)	0.0002	0.1006	0.5028	(0.0004)
		0.0000	1.0000	0.5463	0.0292	0.0466	0.0156	0.7124
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
28	Malaysian Resources Corporation	2.2156	(0.0667)	(0.0001)	0.0000	0.0634	0.8901	0.0005
		0.0000	0.9991	0.9375	0.0002	0.0000	0.0000	0.6946
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
29	Malaysian Airline System (MAS)	1.0876	(0.0180)	(0.0008)	0.0003	0.0917	0.4778	(0.0007)
		0.0000	0.9502	0.5507	0.2782	0.0502	0.2889	0.6586
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
30	Malayan Banking (Maybank)	0.9875	0.0043	(0.0012)	0.0001	0.0967	0.5028	(0.0003)
		0.0000	0.9906	0.1605	0.0856	0.0438	0.0664	0.4974
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
31	Media Prima	0.8476	(0.0257)	(0.0004)	0.0004	0.0829	0.4932	(0.0009)
		0.0000	0.9497	0.8315	0.1421	0.0073	0.1145	0.6547
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
32	MK Land Holdings	1.8479	(0.0552)	(0.0022)	0.0012	0.0132	0.5202	(0.0026)
		0.0000	0.9887	0.4642	0.5617	0.7948	0.5283	0.7989

		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
33	MMC Corporation	1.3191	(0.0066)	(0.0005)	0.0005	0.0343	0.5407	(0.0011)
		0.0000	0.9682	0.8207	0.5705	0.6519	0.4961	0.6703
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
34	Oriental Holdings	0.7721	(0.0074)	0.0006	0.0002	0.0934	0.5247	(0.0004)
		0.0000	0.9994	0.6413	0.0983	0.2295	0.0590	0.7433
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
35	Pelikan International Corporation	1.1064	0.0291	(0.0015)	0.0005	0.0512	0.5148	(0.0011)
		0.0000	0.4525	0.4367	0.1275	0.3953	0.0965	0.6586
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
36	Petra Perdana (Perdana)	1.2832	(0.0380)	(0.0002)	0.0004	0.1461	0.5116	(0.0009)
		0.0000	0.9955	0.9258	0.0650	0.1174	0.0460	0.6040
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
37	Petronas Gas (Petronasgas)	0.4657	0.0223	0.0006	0.0001	0.0936	0.5089	(0.0002)
		0.0000	0.9964	0.5037	0.1582	0.1638	0.1198	0.6457
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
38	Plus Expressways	0.6639	0.0198	0.0001	0.0000	0.2060	0.5233	(0.0001)
		0.0000	0.9986	0.8029	0.0000	0.0000	0.0000	0.9221
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
39	Pos Malaysia	0.3194	(0.0063)	(0.0006)	0.0000	0.0319	0.9344	0.0027
		0.0000	1.0000	0.3355	0.0000	0.0000	0.0000	0.0000
		SIG	INSIG	INSIG	SIG	SIG	SIG	SIG
40	Proton Holdings	0.8271	0.0051	(0.0026)	0.0004	0.0307	0.5507	(0.0009)
		0.0000	0.9994	0.1975	0.5552	0.6643	0.4661	0.6803
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
41	Puncak Niaga Holdings	1.3260	(0.0624)	(0.0005)	0.0000	0.1405	0.8300	0.0015
		0.0000	0.9997	0.6829	0.0004	0.0000	0.0000	0.6984
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
42	RHB Capital	1.1209	0.0021	0.0009	0.0003	0.1194	0.5157	(0.0007)
		0.0000	0.9979	0.5839	0.0912	0.1534	0.0584	0.7972
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
43	Sapuracrest Petroleum	1.6974	(0.0234)	0.0004	0.0000	0.0823	0.8885	0.0013
		0.0000	0.9996	0.7713	0.0007	0.0000	0.0000	0.4162
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
44	Scomi Group	1.9068	(0.0440)	(0.0015)	0.0004	0.1143	0.3510	0.0028
		0.0000	0.9995	0.2561	0.0037	0.0182	0.0953	0.7329
		SIG	INSIG	INSIG	SIG	SIG	INSIG	INSIG
45	Selangor Properties	0.6659	(0.0048)	0.0006	0.0003	0.0591	0.5438	(0.0008)

		0.0000	0.9891	0.7966	0.3190	0.2767	0.2272	0.6537
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
46	Sime Darby	1.2991	(0.0076)	0.0006	0.0003	0.1287	0.5132	(0.0006)
		0.0000	0.9955	0.7695	0.0250	0.0000	0.0107	0.4447
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
47	SP Setia	0.9973	(0.1217)	0.0005	0.0001	0.0741	0.6443	0.0015
		0.0000	0.9954	0.6290	0.0128	0.0248	0.0000	0.6757
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
48	Suria Capital	1.2298	(0.0014)	(0.0012)	0.0006	0.1396	0.4939	(0.0013)
		0.0000	0.9708	0.6243	0.1057	0.0014	0.0879	0.7978
		SIG	INSIG	INSIG	INSIG	SIG	INSIG	INSIG
49	TA Enterprise	1.1159	(0.0008)	(0.0016)	0.0002	0.2246	0.3936	0.0024
		0.0000	1.0000	0.0942	0.0000	0.0000	0.0000	0.8527
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
50	Tanjong Public Limited Company	0.8142	0.0118	0.0002	0.0002	0.0602	0.4820	(0.0004)
		0.0000	0.9972	0.8656	0.2592	0.0628	0.2586	0.7225
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
51	Telekom Malaysia	0.5995	0.0169	0.0012	0.0003	0.0778	0.5619	(0.0008)
		0.0001	0.9968	0.5293	0.2664	0.3993	0.1427	0.5687
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
52	Tenaga Nasional	1.0622	(0.0047)	(0.0013)	0.0002	0.1446	0.5261	(0.0007)
		0.0000	0.9874	0.4352	0.0878	0.0216	0.0492	0.4518
		SIG	INSIG	INSIG	INSIG	SIG	SIG	INSIG
53	Titan Chemicals Corp	0.7733	0.0136	(0.0019)	0.0003	0.0174	0.5281	(0.0006)
		0.0000	0.9942	0.1733	0.7102	0.7934	0.6743	0.7608
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
54	TSH Resources	1.1063	(0.0054)	(0.0007)	0.0003	0.0407	0.5441	(0.0007)
		0.0000	0.9999	0.7167	0.0940	0.5701	0.0426	0.8260
		SIG	INSIG	INSIG	INSIG	INSIG	SIG	INSIG
55	Wah Seong Corporation	0.9599	(0.0305)	0.0007	0.0003	0.0204	0.5087	(0.0007)
		0.0000	0.9976	0.6700	0.5980	0.6168	0.5795	0.6517
		SIG	INSIG	INSIG	INSIG	INSIG	INSIG	INSIG
56	WCT Engineering	1.3791	(0.0361)	0.0001	0.0001	0.3706	0.5664	0.0017
		0.0000	0.9996	0.9006	0.0000	0.0000	0.0000	0.9009
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG
57	Zelan Bhd	1.5383	(0.0659)	(0.0013)	0.0003	0.2624	0.3869	(0.0013)
		0.0000	0.2178	0.2749	0.0000	0.0000	0.0000	0.3529
		SIG	INSIG	INSIG	SIG	SIG	SIG	INSIG

