DIVERGENCE OF OPINION, REPRESENTATIVE HEURISTICS, DISPOSITION EFFECT AND NOISE TRADING IN THE MALAYSIAN NEW LISTINGS MARKET

by

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ABSTRAK

Seperti juga di kebanyakan negara lain, fenomena anomali harga jangka pendek dan jangka panjang dalam pasaran penyenaraian baru di Malaysia telah didokumenkan secara meluas. Walau bagaimanapun, kajian dan pengertian yang mendalami tentang wawasan pasaran penyenaraian baru dari perpektif kewangan tingkah laku serta bagaimana teori tingkah laku dikaitkan dengan ketidakcekapan selepas penyenaraian baru adalah terbatas. Dengan purata 91.35% daripada peserta pasaran merupakan pelabur individu yang biasanya kurang berpengetahuan, banyak penyelidikan mengutarakan bukti tentang ketidakcekapan pasaran saham di Malaysia. Berpandukan profil pelabur dan bukti yang diutarakan, maka objektif kajian ini adalah untuk mengurangkan jurang yang ada melalui penelitian pasaran penyenaraian baru dari perpektif kewangan tingkah laku. Dengan menggunakan 132 sampel daripada saham baru yang tersenarai di papan utama dari tahun 1991 sehingga 2003, pasaran penyenaraian baru Malaysia telah dikaji dengan menggunakan 4 teori kewangan tingkah laku berikut, iaitu: teori perbezaan pendapat, representatif heuristik, kesan disposisi dan dagangan-hinggar.

Penemuan kajian mendapati kekurangan harga pada tahap permulaan berpurata 66.51% dan prestasi jangka panjang menyamai nilai muka dengan pulangan pasaran apabila kedua-dua pulangan iaitu pulangan berpemberat sama dan pulangan berpemberat nilai digunakan. Didapati juga bahawa proksi bagi perbezaan pendapat dan representatif heuristik mempunyai kuasa ramalan yang signifikan terhadap pulangan jangka pendek daripada penyenaraian baru. Pengenaan penangguhan didapati tidak memberi kesan penyederhanaan terhadap perkaitan di antara kedua-dua

proksi tersebut. Namun begitu, tiada kuasa penjelasan ditemui di antara proksi perbezaan pendapat dan pulangan jangka panjang daripada penyenaraian baru. Ia bagaikan penilaian pelabur kembali kepada penilaian asas iaitu merujuk kepada pencapaian operasi lalu.

Sementara itu, keputusan ujian empirik juga membuktikan bahawa tingkah laku mencampak oleh pemegang saham baru adalah signifikan tertakluk pada kesan disposisi. Penilaian prestasi *ex post* penyenaraian baru menunjukkan motivasi untuk mencampak pemenang disebabkan takut pemenang akan gagal di *ex-post* adalah berjustifikasi. Sebaliknya, motivasi untuk memegang saham baru yang rugi disebabkan kepercayaan bahawa saham yang rugi mungkin akan secara signifikan bertambah baik tidak dapat dijustifikasi. Di samping itu, motivasi untuk memegang saham baru yang rugi berdasarkan jangkaan bahawa ia akan '*mean revert*' atau akan berprestasi lebih baik daripada pemenang semasa *ex-post,* ternyata suatu kepercayaan yang salah.

Akhir sekali, analisis bagi faktor *ex-ante* dan proksi dagangan-hinggar terhadap tingkah laku selepas pasaran menunjukkan bahawa tingkah laku selepas-pasaran secara signifikan terkesan disebabkan oleh hinggar. Di sebaliknya, varibel faktor *ex-ante* seperti sejarah operasi, nisbah langganan dan krisis Dami didapati tidak mempunyai kuasa penjelasan yang signifikan terhadap tingkah laku selepas-pasaran.

Secara amnya, berdasarkan dapatan di atas, kajian ini merumuskan bahawa tingkah laku pelabur selepas-pasaran bagi pelabur penyenaraian baru di Malaysia adalah tidak rasional. Penemuan ini adalah menyerupai gambaran pasaran yang baru muncul di mana majority pelabur adalah pelabur individu yang kurang berpengetahuan. Tambahan pula, kelemahan tingkah laku sebegini dapat menjelaskan secara signifikan anomali jangka pendek dalam pasaran penyenaraian baru.

DIVERGENCE OF OPINION, REPRESENTATIVE HEURISTICS, DISPOSITION EFFECT AND NOISE TRADING IN THE MALAYSIAN NEW LISTING MARKET

ABSTRACT

Similar to those in many other countries, the phenomena of short-run and long-run pricing anomalies of the Malaysian new listings market have been widely documented. Nevertheless, studies which provide insights into the new listing market from the behavioural finance theory perspective that relates to the new listings' aftermarket inefficiency is limited. With an emerging market status and an average of 91.35% of market participants made up of individual investors who are normally not-well-informed, numerous researches have provided evidences on the inefficiency of the Malaysian stock market. Driven by the investors' profile and these evidences, it is the objective of this study to reduce the existing gap by examining the new listing market from the behavioural finance perspective. Using 132 samples of new issues listed on the main board from 1991 to 2003, the new listing market has been accessed using four behavioural finance theories; divergence of opinion, representative heuristics, disposition effect and noise trading theories.

Findings reveal an average initial underpricing of 66.51% and a long-run performance which is almost at par with the market return when both equally-weighted and value-weighted returns are calculated. Furthermore, it is found that proxies for divergence of opinion and representative heuristics have significant predictive power over short-run return of new listings. The imposition of moratorium is found to have no moderating effect over the relationship between proxies of divergence of opinion and short-run return. Nevertheless, no explanatory power is found between proxies of divergence of opinion and long-run return of the new

listings. It seems that investors' valuation system falls back to fundamental such as operating history after a lapse of time.

Meanwhile, empirical test results also prove that the behaviour of flipping and holding new issues of the new listing investors is significantly subject to disposition effect. Assessments of the new listings' ex-post performance show that the motivation to flip winners due to the fear that winners will become losers in the ex-post is justifiable while the motivation to hold on to losers due to the belief that losers will perform significantly better in the ex-post is unjustifiable. Besides, the motivation of holding the losers due to anticipation of a mean revert, whereby losers will perform better than winners in the ex-post is proven to be an erroneous belief.

Finally, analyses on the explanatory power of ex-ante factors and noise trading proxy on immediate aftermarket behaviours show that the behaviours of the new listing investors are significantly affected by noise. On the other hand, fundamental variables proxied using ex-ante factors such as operating history, subscription ratio and crisis dummy are found to have no significant explanatory power over immediate aftermarket behaviour.

Generally, based upon the findings, this study concludes that the aftermarket behaviours of the Malaysian new listing investors are irrational and resemble that of an emerging market whereby majority of the investors are individuals who are not-well-informed. Moreover, these behavioural drawbacks are able to explain the short-run anomaly in the new listing market significantly.

CHAPTER ONE

INTRODUCTION

1.1   Background of Study

The new issue market is an integral part of the capital market, enabling companies to raise capital through the issuance and sale of shares. It also plays an important role in enhancing the liquidity of the capital market as well as pushing the country's economy to greater heights.

New listing or Initial Public Offerings (IPO) may be undertaken in the form of public listing, offer for sale or a combination of both. Over the past forty years, a substantial number of companies worldwide have participated in this momentous event to become listed companies. The Malaysian stock market was not left behind in this IPO trend. Since the formation of the Kuala Lumpur Stock Exchange in 1973, the number of listed companies has grown steadily from a mere 262 companies to 1028 companies in 2006. This rapid increase in the number of new listings is attributed to a number of factors, mainly to raise financing for expansion, to reduce the cost of new funds and to reduce the level of leverage (Shamsher, Nassir and Ariff, 1994).

Research interest on new listings was generally concentrated on the pricing performance which was motivated by three anomalies, namely, the initial underpricing, the 'hot issue' market phenomenon and the long-run underperformance. Ex-ante factors such as size, operating history, underwriter's reputation and market condition have also been widely examined for their impact

on pricing performance. Initial underpricing refers to the initial abnormal returns measured as the difference between the offer price and the closing price at the end of the first trading day relative to a benchmark which is usually the market performance. International evidences on the initial underpricing are rampant as have been documented by Ritter (1998). The occurrence of the 'hot issue' market was reported in the U.S. markets in the 80s. A 'hot issue' market refers to the high initial returns period that is associated with an increasing number of new listings in the rising market. On the other hand, the long run returns are generally referred to as the cumulative return or buy-and-hold returns one year or more after the listing date. Empirical evidences on long run performance are inconclusive; with the majority of the developed stock markets reporting underperformance whilst their developing counterparts reporting overperformance.

Past researches on IPO performance in the Malaysian context show that the degree of underpricing in Malaysia is found to be higher than that in other developing markets. Long-run returns are reported to be declining after the listing date. However, due to extremely high underpricing despite the relatively similar rate of decline in the aftermarket, Malaysia's new listings' long-run performance was found to overperform rather than underperform the market portfolio as reported by the majority of the Western markets. Ritter and Welch (2002) believe the non-concensusneous of the long-run performance results could be related to the period and selection criteria adopted in the sample selection.

In terms of explaining the anomalous phenomena, large amount of researchers in the past thirty years have adhered to the explanation that new listings are intentionally underpriced and that market is rational. Among the theories used under the rational market assumption are the various information asymmetries models and the agency problem models. Meanwhile, explanations based on aftermarket inefficiencies due to investors' behaviour, i.e. failure in pricing new listings at its intrinsic value and responding rationally in the aftermarket trading have been given little attention.

The debate on the rationality of the market behaviour has constituted a substantial portion of recent finance literatures. Golberg and Nitzsch (2001) in their book entitled "*Behaviour Finance*" propounded that asset price and its movement is a mirror of the behaviour of the participants in the market, and this behaviour is a reflection of the investors' interpretation of information and opinions formed after the interpretation. With advances in modern media, information from published data is readily available. Hence, some might conclude that the efficient market hypothesis (EMH) made famous by Fama in 1970, which asserts that market is rational because it is "informationally efficient", in actual fact prevails. Nevertheless, past records show that the occurrences of market anomalies are rampant. In fact, a total of 43 major financial crises were reported worldwide from 1557 to 2000 (Tvede, 2002). Apparently, EMH is not realistic and at times, irrational behaviours such as market overreactions, market bubbles and stock market crises are observed. The inability of EMH in explaining these anomalies has prompted the resurgence of behavioural finance.

Contradictory to EMH, behavioural theories argue that market is inefficient as not all the information is reflected in asset prices instantaneously. This is because despite the advances achieved in modern media, certain information is still unavailable. Some information is missing while others might be interpreted wrongly depending on the skills and knowledge acquired by an individual. Studies and experiments in social psychology prove that people are always subjected to misinterpretation and false conclusions when perceiving and processing data (Golderg and Nitzch, 2001). Furthermore, fundamentalists' forecasts are rarely accurate as stated by Nobel Prize winner Wassily Leontief (Tvede, 2002). Besides, diffusion of information is not instantaneous and manipulations do occur especially in developing markets. As such, there exist two groups of investors, namely, the well-informed and the not-well-informed in the market. The well-informed group possesses superior information probably because this group is 'closer' to the company and/or knows how to interpret the acquired information well (normally institutional investors, such as fund managers) whilst the not well-informed group usually consists of the individual traders who possess the contrasting characteristics.

Thus far, market efficiency of the Malaysian stock market has been studied by a few researchers. Yong (1987) has documented that Malaysian market exhibits weak conformity to the weak form of EMH while Lim (1992) profiled the Malaysian investors as short-term investors in the bull market while reverting to long term gain when the market is in a bear condition. More recent studies by Mat Nor, Lai and Hussin (2002) who used data from 1977 to 1999, and Husni (2005) whose data was from 1988 to 2002, concluded that the Malaysian

market do not follow the random walk hypothesis. On the other hand, Lai, Low and Lai (2001) found that the Malaysian institutional investors are rational. In terms of whether overreaction occurs in the Malaysian market, Lai, Guru and Mat Nor (2003) provided evidence favouring overreaction hypothesis. Apart from institutional investors, most evidences show that Malaysian share market investors are inefficient.

With an average market participants of 91.35% made up of individuals from 1991 to 2003 (Source: Bursa Malaysia Research and Data Centre) who are normally not-well informed and a developing market status, it is not difficult to accept the above mentioned evidences that the Malaysian stock market is inefficient and could be irrational. Furthermore, past researchers have provided supports on the inefficiency of the new listing market, which shows that the occurrences of short-run and long-run anomalies in the Malaysian new listing context are of common knowledge (Dawson, 1987; Yong, 1991; Ismail, Abidin and Nasruddin, 1993; Isa and Ahmad, 1996; Yong, 1997; Yong, Yatim and Sapian, 1999; Leong, Vos and Tourani-Rad, 2000; Abdullah and Taufil-Mohd, 2004; Chong *et al.*, 2005 and Ahmad-Zaluki, Campbell and Goodacre, 2007).

In terms of initial return, based on the researches carried out in the past two decades, it is reported to be on average above 100%. Amongst others, Dawson (1987) reported initial return of 166.7% for the study period of 1978 to 1983; Ismail, Abidin and Nasarudin (1993) documented initial return of 114.6% for the period of 1980 to 1989; Leong, Vos and Tourani-Rad (2000) found an initial return of 107% for new listings undertaken from 1992 to 1998; Abdullah and

Taufil-Mohd (2004) reported an average of 78.44% for new issues listed during the period of 1992 to 1998 while Chong *et.al* (2005) uncovered an initial return of 90.4% for new listings listed within the period of 1991 to 2000. As postulated by many researchers who studied new listings, undeniably, intentional underpricing was responsible for part of the extraordinarily high initial return. However, excessive underpricing does not only jeopardize an underwriter's future market share (Beatty and Ritter, 1986), but also causes tremendous loss to the issuer. Therefore, in a market with excessive returns like that in Malaysia, besides intentional underpricing, aftermarket investors' behaviour explanation would offer considerable promise.

With the above evidences in mind, coupled with the lack of research based on behavioural finance perspective, it is the purpose of this study to seek explanations on anomalies in the Malaysian new listing market from the behavioural finance perspective. To do so, this study uses four theories of investor behaviour, namely, divergence of opinion theory, disposition effect theory, representative heuristics and noise trading theory.

The theory of divergence of opinion was introduced by Miller (1977). It postulates that due to the variations in terms of information acquired and information interpreted, different levels of uncertainty arise among investors; and since every person is unique, different estimates and forecasts will be assigned to the same asset. This difference in estimation is termed divergence of opinion in the theory of investor behaviour (Miller, 1977). Moreover, Miller (1977) also posits that divergence of opinion is especially high in high risk asset markets like

IPO. Additionally, Miller (2000) contends that the higher the level of divergence of opinion, the higher the short run overreaction would be. But over time, when more information is available, overreaction will subside.

On top of the possibility of not being able to price new listing at its intrinsic value in the aftermarket due to heterogeneous opinions formed under high uncertainty, there is also a possibility that some investors might not be able to respond to the market condition rationally and hence, predisposed to sell the winners too early while holding on the losers for too long. The act of selling new listing on the first trading day is termed flipping. In this study, the disposition effect theory is used to explore the possible disposition in flipping activity. This theory is an extension of Kahneman and Tversky (1979)'s prospect theory. According to Shefrin and Statman (1985), the disposition effect theory asserts that investors are irrational because in order to avoid regret, they have the tendency to hold their losing investment too long while dispose their winning investment too soon. Related to the motivations which have driven disposition, Shefrin and Statman (1985), Giorgi and Hens (2006) and Muermann and Volkman (2006) suggest regret aversion theory while Odean (1998) blames it on investors' anticipation of mean reverts.

Representative heuristics is another behavioural finance theory which was first introduced by Tversky and Kahneman (1974) when documenting the findings of their laboratory results. This theory posits that intuitive predictions or judgments under uncertainty are often based on the relation of similarity or representativeness between evidences and possible outcomes. In other words,

representative heuristics leads people to overestimate the likelihood and frequency of events that come easily to mind because they are more readily available in memory. In the stock market, representative heuristics can act as stereotypes which lead investors to be more optimistic or pessimistic about the performance of a stock based on what has happened in the recent past few sequences rather than looking on the fundamentals.

Quick decisions under uncertainty are not only made by investors based upon representative heuristics but are also based on noisy signals. The notion of 'noise' trading was introduced by Black (1986) and he states" Noise trading is trading on noise as if it were information" (pg. 529). Two related studies by De long *et al*. (1987) and (1991) consider noise traders as irrational traders who are extremely uncertain and hard to predict. Due to this unpredictability of noise traders, it is very risky for rational arbitrageurs to inhibit them. Consequently, prices can diverge significantly from the fundamentals. They contend that at times, it would be better off for rational investors to follow and predict the guesses of noise traders than choosing an appropriate portfolio based on fundamentals in the short-run. Later studies by Lux and Marchesi (1999) and Brown (1999) describe noise traders as investors who do not believe in fundamentals but rely on the behaviours of others or noisy signals as the primary source of information in assigning the value of an asset. Additionally, Jones's (2004) description of noise traders, as small speculators with no special information, also fits well with the Malaysian investors' profile which is mostly made up of uninformed individuals.

Generally, past researchers have provided numerous evidences on the inefficiency of the Malaysian stock market. This inefficiency is obvious especially in the new listing market where anomalies are commonly documented. Since market efficiency is a reflection of the rationality of investors' behaviour, the need to examine the new listing market from the behavioural finance theories perspective is urgent. Furthermore, Montier (2002) has asserted that the real engine that drives new listings is the demand side rather than the supply side. Ritter and Welch (2002), on the other hand, have conjectured that research related to non-rational and agency conflict explanations would lead the future progress of IPO literature.

With the existing evidences and market profile, the quest to examine investors' behaviour in the Malaysian new listing market from the behavioral finance perspective using divergence of opinion theory, disposition effect theory, representative heuristics and noise trading would hold excellent promise in advancing our understanding of the Malaysian new listing market.

1.2   Problem Statement

A large number of researches in the past have documented pricing performance of the short-run and long-run returns (anomalies) of new listings. The majority of the explanations on anomalies are based on the assumption that market is rational and therefore, new listings are underpriced intentionally. Popular theories used to explain pricing performance under this assumption are based on information asymmetries theories and agency problems. Ex-ante uncertainty factors have been proven to have a predictive power on pricing performance of

new listing in some but not all of the studies. Meanwhile, in Malaysia, apart from the reports on pricing performance, researches which provide insights based on investors' behavioural perspective and how they relate to aftermarket inefficiency are limited.

From 1991 to 2003, an average of 91.35% market participants are made up of individual investors (Source: Bursa Malaysia Research and Data Centre) who are normally not-well informed and trade based on noises (Chen, Hung and Wu, 2002). Coupled with a developing market status, the Malaysian market can be classified as relatively illiquid and with limited disclosure (Campos, Newell and Willson, 2002). Indeed, the inefficiency of the Malaysian market was empirically proven by local researchers (Mat Nor, Lai and Hussin, 2002; Lai, Guru and Mat Nor, 2003 and Husni, 2005).

Based on traditional explanation, anomalies in new listing context are due to intentional underpricing as investors are rational in the aftermarket trading. However, driven by the evidences above, as well as the rampant occurrences of anomalies and the failure of EMH in explaining them, the need to examine the new listing market from the behavioural finance perspective has to be attended to urgently.

Since the predictive power of divergence of opinion on the new listings market performance, the occurrence or non-occurrence of disposition in aftermarket trading and the impacts of representative heuristics and noise trading in the new issue market are unknown, hence, divergences of opinion theory,

disposition effect theory, representative heuristics and noise trading theory have been selected as the basis for this study in exploring explanations on the aftermarket inefficiency from the behavioural finance perspective.

1.3 Research Questions

Based on the problem statement above, the following research questions are raised for this study.

1. Are the phenomena of short-run overreaction and long-run underperformance asserted by divergence of opinion theory relevant to the Malaysian new listing market?

2. How does divergence of opinion impact the short-run performance of new listings listed from 1991 to 2003?

3. Does the imposition of moratorium moderate the relationship between divergence of opinion and short-run return?

4. To what extent does divergence of opinion predict the long-run performance (1991 to 2006) of the new listings market?

5. Does representative heuristics predict short-run return?

6. Are new listing investors subject to the disposition effect for flipping or holding new listings on the first trading day?

7. Are the motivations of disposition; i.e. fear of regret and mean revert anticipation justifiable by new listings' ex-post performance?

8. How do ex-ante factors and noisy signal affect aftermarket investors' behaviour?

1.4   Research Objectives

The main objective of this study is to examine the Malaysian new listing market from the perspective of divergence of opinion theory, disposition effect theory, representative heuristics and noise trading. In order to answer the research questions, specific objectives are developed and listed as follows:

1. To examine the relevance of the divergence of opinion theory to the Malaysian new listing market phenomena.

2. To assess the short-run performance of the new listing market and its relationship with divergence of opinion.

3. To study the impact of moratorium on the relationship between divergence of opinion and short-run return.

4. To investigate the long-run return of the new listing market and its relationship with divergence of opinion.

5. To assess the predictive power of representative heuristics on short-run return.

6. To investigate whether the new listing investors flip the winners too early and keep the losers too long or not.

7. To examine whether 'fear of regret' and mean revert anticipation, which have driven the disposition effect, are justifiable by ex-post performance or not.

8. To determine the impact of ex-ante factors and noisy signal on immediate aftermarket investors' behaviour.

1.5   Significance of Study

Pricing anomalies in the Malaysian new issues market have been reported since the 80s. Thus far, few have assessed the relationship between investors' behaviour and pricing performance. The same applies to the implications of flipping behaviour and disposition effect. Additionally, whether ex-ante uncertainty factors and noisy signal affect investors' behaviour in the Malaysian new listing market is also unknown. Coupled with the evidences of market inefficiency provided by past researchers and the existing investors' profile on the Malaysian stock market, there is an urgent need to study the new listing context from the perspective of behavioural finance since investor behaviour is a mirror image of market efficiency. By studying the Malaysian new listing market using behavioral finance theories, namely, divergence of opinion theory, disposition effect theory, representative heuristics and noise trading, this study would shed some light on these areas.

Besides filling the abovementioned knowledge gap, empirical results from this study would have its practical implications. The findings on the relationship between divergence of opinion and initial performance as well as the predictive power of divergence of opinion on the long-run performance of new listings can provide useful inputs, which enable better analysis and decision making on the part of the investors. Findings on the impact of moratorium on the relationship between divergence of opinion proxies and short-run returns allow investors and policy makers to assess the effectiveness of the policy in serving its purpose.

Results from the analysis on the behaviour of flipping and disposition effect as well as the assessments on the 'fear of regret' belief and mean revert anticipation allow investors to make more accurate judgments in deciding to flip or hold the winner or loser new listings which they have invested in. Moreover, the findings can also be used as a guideline to assist investors in timing the selling and holding of their investment.

On the other hand, findings on the relationship between ex-ante variables and investors' immediate aftermarket behaviour provide clues for investors and analysts to facilitate better decision making based on the pre-listing information made available in the prospectus. Finally, evidence of noisy signal influence on investors' behaviour allows better understanding on the investors' decision-making process in assigning value to new issues.

Overall, the empirical findings generated would not only benefit investors, but also enrich the knowledge content of the Malaysian new listing market. This study opens a new chapter of IPO literature focusing on investors' immediate aftermarket behaviour in the context of a developing market.

Theoretically, this study has advanced the disposition effect framework to the new listing context. This is one of the first few studies exploring the relationship between flipping and disposition effect. Besides, studies that examine representative heuristics and noisy signal in the new listing market are rare. Last but not least, despite the limited attention that Miller's (1977, 2000)

theory of divergence of opinion received, this study examines it in an emerging market like Malaysia.

1.6 Organisation of Thesis

This thesis is organized into six chapters. Following this introductory chapter is the chapter on institutional background of the Malaysian stock market. Chapter Three discusses the literature review which includes new listing phenomena, theoretical explanations and variables affecting new listing phenomena and lastly, information, market efficiency and the behavioural finance aspects of the new listing market. The research framework, hypotheses and methodology are presented in Chapter Four. Chapter Five will highlight data analysis and empirical findings. Conclusions and recommendations are presented in Chapter Six.

1.7 Definition of Terms

Behavioural finance – The application of psychology to finance. It is based on the study of behavioural biases and their effects on financial markets, such as anomalies and inefficiencies on prices and returns.

Buy-and-hold return – The return obtained from holding shares for a long interval.

Divergence of opinion – A state when two or more investors fail to show confirming trend of thinking on the value of the same asset (Miller, 1977).

Disposition effect – Investors' behaviour to sell winners too early and ride losers too long (Shefrin and Statman, 1985).

Efficient market hypothesis – Market participant is rational and all information is reflected in the security valuation unbiasedly. As such, the change in the

price of a security is completely unrelated to the change in price that took place in the past.

Ex-ante factors – Variables, usually information about a company disclosed in the prospectus, made available for the public before listing.

Ex-post returns –The buy-and-hold return three years after listing.

Flipping ratio – The percentage of opening-day trading volume divided by the number of shares offered on the first trading day (Miller and Reily, 1987; Krigman, Shaw and Womack, 1999; Houge *et.al*, 2000 and Cheng, Mak and Chan, 2002).

Immediate aftermarket behaviour –Investors' reaction on new listings' first trading day.

Initial premium – The difference between opening price on the first trading day and offer price divided by offer price.

Initial public offerings (IPO) – A company's first sale of stock to the public.

Irrational investors - The not well-informed investors who tend to overprice the IPO and are not able to respond efficiently to the changes in the aftermarket (Miller, 2000). Investors who trade based on noise rather than fundamentals (Black, 1986; Delong *et.al*, 1987 and 1990).

Long-run performance – The cumulative return or the buy- and- hold returns of an IPO one year or more after the listing date.

Market adjusted initial return (MAIR) – The difference between offer price and closing price at the end of the first trading day after adjusting for market return.

Market conditions – The average market index return over one week prior to the first trading day.

Market volume – The total number of shares changing hands on a particular trading day.

Mean revert – A state when losing investments outperform the winning investments in the ex-post.

Moratorium – The standard requirements that govern the disposal of shares imposed on promoters and issuers of newly listed shares.

New listings – A security that has just been entered on a stock exchange for trading. It is also referred to as IPO in this study.

Noise trading – Trading on noise as if it were information (Black, 1986).

Opening-day spread – The difference between day high and day low. Used to measure the level of divergence of opinion between the most optimistic and the most pessimistic traders on the first trading day.

Operating history – The duration of existence of a company prior to a new listing. It is also referred to as the firm age.

Overreaction – A state when investors respond to information or market events with the wrong intensity, in this case too excessive (DeBondt & Thaler, 1985).

Regret aversion theory – Implies that investors hold on stocks that have gone down to avoid facing the error they have made and selling stocks that have gone up so that they do not feel regret for failing to do so if the stock later fell (Shiller, 1999).

Rational investors – Well-informed investors who know the intrinsic value of high risk assets like IPO and are able to respond efficiently to changes in the aftermarket (Miller, 2000).

Raw initial return – The difference between new listing's offer price and closing price at the end of the first trading day.

Representative heuristics – A tendency for people to categorize events as typical or representative of a well-known class and then, when making estimates, overstress the importance of such a categorization, disregarding evidence about underlying probabilities (Shiller, 2003).

Short-run performance – Initial abnormal returns of an IPO measured as the difference between offer price and closing price at the end of the first trading day.

Size of offer – The total amount of shares floated in a particular offering multiplied by subscription price. It is also referred to as issue size. Size of offer is used to measure firm size at IPO.

Subscription ratio – The demand of a particular new listing. It is measured as the percentage of new listings subscripted over total new listings offered.

Underwriter's reputation – The quality of lead underwriter who manages the IPO.

Well-informed investors – Investors who possess quality information about a new listing and are able to respond rationally in a new listing market.

CHAPTER 2

INSTITUTIONAL BACKGROUND OF THE MALAYSIAN STOCK MARKET

2.1   Introduction

Since every stock market has its own unique background, therefore, it is crucial to have some knowledge about the stock market before the study is conducted. This chapter provides a brief overview of the Malaysian Stock Market with a specific focus on the regulatory framework, listing requirements, the IPO process, underwriting agreement and aftermarket obligations.

2.2   Background

The Malaysian Stock Market was first established as the Malaysian Stock Exchange in 1960 and continued as the Stock Exchange of Malaysia and Singapore until the setting up of the Kuala Lumpur Stock Exchange Berhad (KLSEB) and Singapore Stock Exchange (SES) in 1973. Nevertheless, Singapore-incorporated companies were listed on the KLSEB until 1990. In 1973, KLSEB had 262 listed counters and the number of listed counters has increased steadily to 1028 counters in 2007 (sources: http://bursamalaysia.com.my).

Since its establishment, the Malaysian Stock Market has been an important vehicle in facilitating the growth of the economy. It consists of the trading of stocks and related securities of the exchange. It also has offered investors liquidity by bringing together enterprises intending to raise funds through the issuance of new securities to individuals and organisations seeking to invest their savings or surplus funds.

The Kuala Lumpur Stock Exchange (KLSE) provides a market place to facilitate the buying and selling of stocks and shares. It is a company limited by guarantee incorporated under the Companies Act 1965. After the demutualization exercise in 2004, KLSE was renamed and is currently known as Bursa Malaysia. It was subsequently listed on the Main Board on 18 March, 2005.

Bursa Malaysia comprises of the Main Board, the Second Board and The Malaysian Exchange of Securities Dealing and Quotation Berhad (MESDAQ). The Main Board is the funding and investing avenue for bigger capitalized companies whilst smaller companies will seek to be listed on the Second Board. MESDAQ provides a means for high growth and technology related companies in Malaysia to raise capital. It was absorbed into Bursa Malaysia on 18 March, 2002. Kuala Lumpur Stock Exchange Composite Index (KLCI) is a capitalization weighted index and is used as indicators of the performance of the stock market as a whole.

Comparing to other capital markets around the globe, Bursa Malaysia is relatively new and it is still very much considered as a developing or emerging market. Despite that, the expansion of Bursa Malaysia was spectacular since its inception. Among others, the market valuation of Bursa Malaysia was estimated at RM 43 billion in the 80's and has grown to about a trillion in 2007. In addition, the number of listed companies has also increased steadily from 262 counters in 1973 to 1028 counters in 2007. Bursa Malaysia has also experienced two extreme conditions in the 90s, i.e. the super bull market from 1994 to 1996 and then followed by the financial crisis from 1997 to 1998.
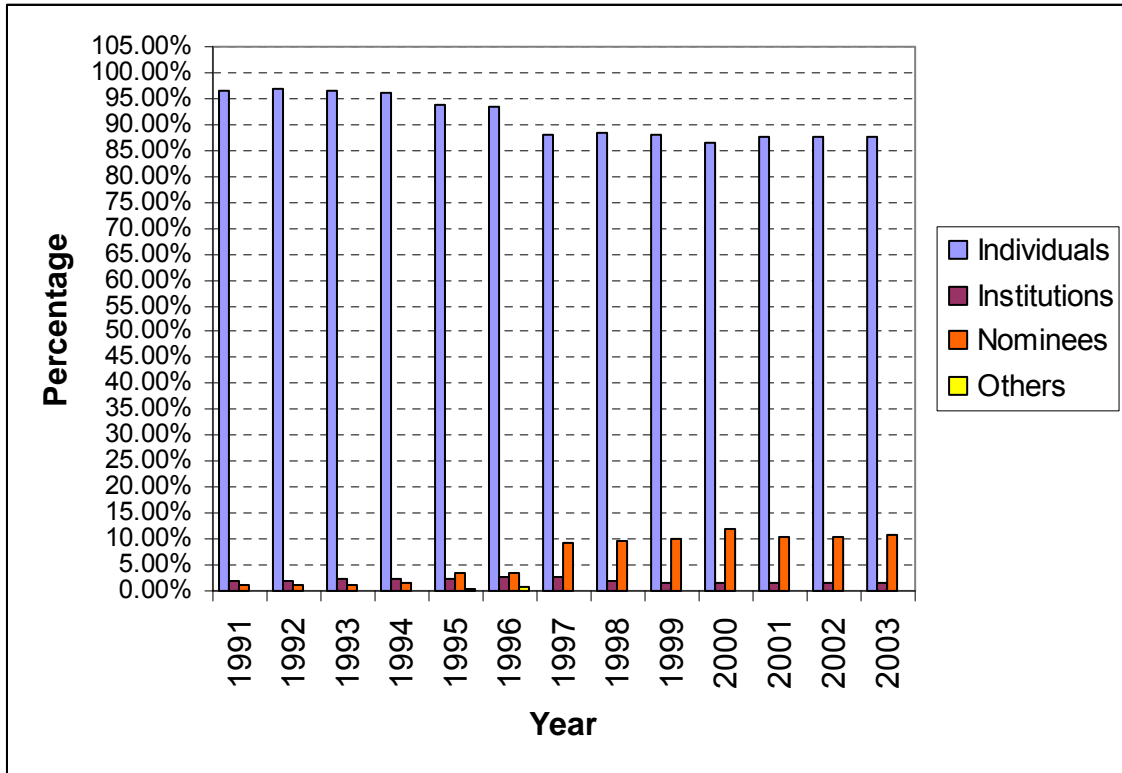
Figure 2.1: Shareholders by type of investors by cohort year from 1991 to 2003

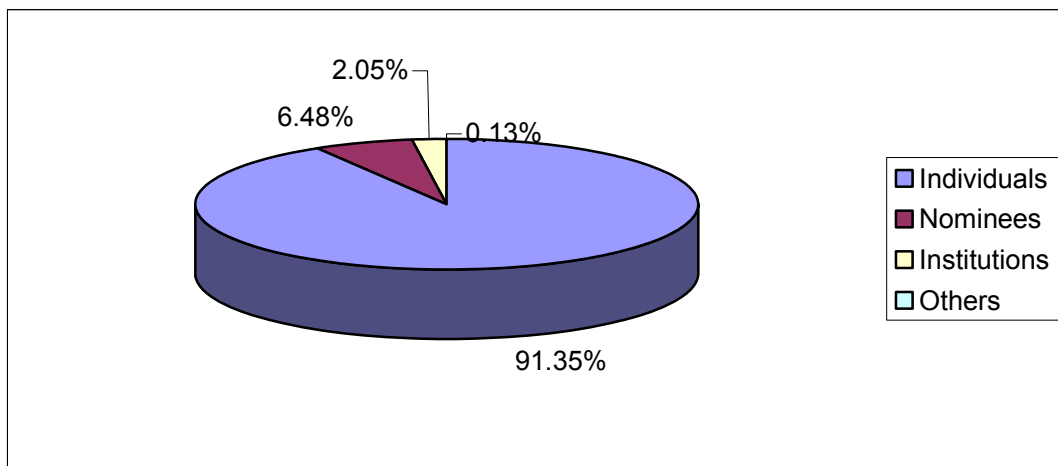Source: *Bursa Malaysia Research and Data Centre*

Figure 2.2: Shareholders by type of investors from 1991 to 2003.

Source: *Bursa Malaysia Research and Data Centre*

Referring to Figure 2.1 and Figure 2.2 above, the three major groups of investors in the Malaysian Stock Market are the nominees, the institutional investors and the retail investors. Nominee is defined as a company formed by a

stockbroking company, bank or other institution for the purpose of holding shares on behalf of the beneficial owners of the shares (refer to www. Bursamalaysia. com/ market terminology). Institutional investors are the pension funds, insurance funds and unit trust funds while the retail investors consists of both the short and long term investors who are speculators and blue chip holders.

Based on the information provided by Bursa Malaysia Research and Data Centre, an average of 91.35% of the market participants from 1991 to 2003 are individuals. Referring to Figure 2.1, it is rather obvious that individual retailers have consistently constituted more than 85% of the market players over the 1991 to 2003 period. Followed by nominees with an average of 6.48% of the market participants and this percentage is increasing since 1991. Comparing to the individual retailers group, institutional investors group is reporting a smaller average at 2.05%. The remaining 0.13% of the market participants is consisting of others. From this profile, it is obvious that the Malaysian share market is dominated by a vast majority of individual investors.

2.3   Regulatory Framework

The regulatory body of the securities and future industry is the Securities Commission (SC) while Bursa Malaysia is a self-regulatory organization with its own Memorandum and Articles of Association. Securities Commission was established on 1 March 1993 under the Security Commission Act 1993. It provides regulations and governance for the capital market and at the same time act as advisor to the Ministry of Finance on matters related to the capital market.

Bursa Malaysia on the other hand has its own set of rules that govern the conduct of its members in securities dealings. It also serves as an enforcer of its Listing Requirements. In addition to the Securities Commission, the conducts of all the share market listed participants are also governed by the Commissioner of Companies which was formerly known as Registrar of Companies.
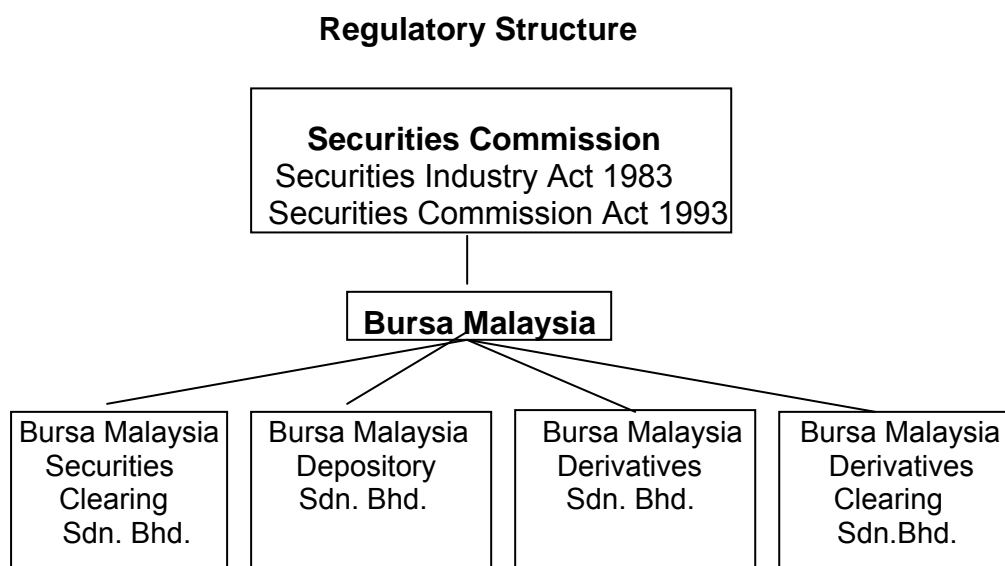
Regulatory Structure

Figure 2.3: Regulatory Structure of the Malaysian Stock Market.

Figure 2.3 portrays the regulatory structure of the Malaysian stock market. Bursa Malaysia Central Depository Sdn Bhd was incorporated on 26 October, 1987 and is a subsidiary of Bursa Malaysia. It operates Bursa Malaysia Depository Sdn Bhd (formerly known as Central Depository System (CDS)), which is the Bursa Malaysia's scripless electric settlement system. Bursa Malaysia Securities Clearing Sdn Bhd, formerly known as SCANS was set up in 1984 as the centralized clearing house for Bursa Malaysia. On the other hand, Bursa Malaysia Derivatives Berhad was known as Malaysian Derivative Exchange (MDEX) previously and is the official exchange for derivatives.

Clearing and settlement activities for derivatives are managed by the Bursa Malaysia Derivatives Clearing Berhad.

The approach to regulate the stock markets in Malaysia was based on the merit-based regime inherited by the Securities Commission upon its establishment in 1993. Under the merit-based securities regulation, new issues or offers are subjected to review by regulators on their investment merit, only 'fair, just and equitable' securities will be approved.

Later, on 1 January, 1996, the disclosure-based regulation was introduced to replace the merit-based regime on a gradual basis. Under this new regime, regulators would not assess or pass the applications of new issues nor do they determine the fairness of the new securities. Here, the issuers are expected to provide all the relevant information accurately with due diligence following the parameters established by the securities law and regulations in setting their own offer prices. The issuers are expected to closely follow a Securities Commission publication known as "Due Diligence Practices' which was introduced in August 1996. The investors would have to judge on the fairness of the investments in new securities based on the information provided usually in the prospectus. This move is carried out to enhance the efficiency of the capital market, improve transparency and facilitate a market-driven discipline. This disclosure-based regime are enforced in full fledge after its final phase from 2003 onwards.