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**THE PERFORMANCE OF MALAYSIAN INITIAL PUBLIC
OFFERINGS AND EARNINGS MANAGEMENT**

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Abstract

An initial public offering (IPO) of equity provides a significant source of finance for Malaysian companies. Due to the existence of inequalities of wealth within Malaysian society as a result of its colonial heritage, the government has used IPOs to redistribute wealth among ethnic groups with the main objective being to increase the involvement of the Bumiputera (local indigenous people) in the corporate sector.

This thesis consists of three inter-related studies on Malaysian IPOs that were listed on the Bursa Malaysia (formerly known as the Kuala Lumpur Stock Exchange) during the period 1990 to 2000. In particular, this study investigates post-IPO performance using alternative performance approaches (market-based and accounting-based) and the earnings management explanation for observed performance.

The results from the first study indicate that Malaysian IPOs significantly *overperform* their benchmarks when performance is measured using both equally-weighted cumulative abnormal returns (*CARs*) and buy-and-hold abnormal returns (*BHARs*), except when matched companies are used as the benchmark. However, this significant *overperformance* disappears when returns are calculated on a value-weighted basis and also when Fama-French (1993) three-factor regressions are employed. Cross-sectional analysis reveals differential performance related to year of listing, issue proceeds and initial returns.

The results from the second study using accounting-based measures provide strong evidence of declining operating performance in the IPO year and up to three years following an IPO. The year-to-year analysis reveals that the declining performance is greatest in the year immediately following the IPO. The deterioration in performance is

more pronounced when accrual-based operating performance measures are used. The difference in the results using accrual-based and cash flow-based approaches suggests the existence of earnings manipulation by the IPO manager. The investigation of the possible sources of operating performance changes suggests that post-IPO declines in asset turnover partially explain the poorer operating performance. Univariate analysis of the association between family relationships, retained ownership and post-IPO operating performance produces little evidence to explain the deterioration in operating performance. However, underpricing partially explains the deterioration when the cash flow-based performance measure is used.

The results from the third study reveal that Malaysian IPO companies employ income-increasing strategies around offerings, and that these strategies were more prevalent during the East Asian crisis period, especially for those companies that provided a profit guarantee. Analysis of the association between the magnitude of earnings management in the IPO year and post-IPO performance provides some evidence to support the view that aggressive earnings management at the time of an IPO subsequently leads to poor stock market and operating performance.

Overall, the evidence in this thesis supports the consensus that has emerged from the international debate on studies involving long horizon returns, which suggests that the magnitude of long run performance depends on the method employed to measure performance. The evidence derived from the accounting-based measure of operating performance supports the existing international evidence that operating performance declines following IPOs. The results also provide a degree of support for the earnings management explanation of post-IPO performance. These findings have implications for investors, security analysts, companies and accounting standard setters.

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Chapter 1

Introduction

1.1 Background and motivation to the present study

An initial public offering (IPO) or ‘going public’ is when a security, either debt or equity, is sold to the general public for the first time. The main objective is to raise capital for companies for the expansion of their business operations as an alternative to borrowing from banks.

In Malaysia, equity IPOs are important for several reasons. First, they have been used by the government as a part of its policy to redistribute wealth among ethnic groups, with the main objective of increasing Bumiputera¹ ownership in the corporate sector to 30% by the end of 1990 from a level of 2.4% in 1970 (Koon, 1997). Under the New Economic Policy (NEP, 1970-1990), which was replaced by the National Development Policy (NDP) in 1991, companies making IPOs are required to reserve 30% of the shares allocated to the public to be set aside for Bumiputera applicants. Second, IPOs have been used by Malaysian companies as a means of raising funds. Over the period from 1973 to 2004, a total of RM49.9 billion (about £6.8 billion)² was raised through IPOs (Bank Negara Malaysia, 2005). This accounted for 36% of all capital raised from the equity market, including ordinary shares (i.e. public issues, rights issues, special

¹ Bumiputera is an official definition widely used in Malaysia, embracing ethnic Malays as well as other indigenous ethnic groups.

² The exchange rate used is taken as at 31 December 2004. It is approximately £1 = RM7.32.

issues, private placements, restricted issues and offers for sale), preference shares and warrants; the percentage of total funds raised was approximately 11%. Another important motive for going public in Malaysia is ownership diversification. The importance of IPOs as a means of redistributing wealth, increasing Bumiputera ownership, raising funds, and ownership diversification attests to the practical relevance of research into Malaysian IPOs.

The Malaysian economy was growing prior to 1997 but suffered an economic crisis in 1997 and 1998, with most companies suffering a decline in profitability. Overall, the total earnings after tax of listed non-financial companies declined by RM3 billion and RM14 billion in 1997 and 1998, respectively (Mohd Saleh and Ahmed, 2005). Given that accounting earnings convey information about company values to investors (DuCharme, Malatesta and Sefcik, 2004), it is expected that earnings management might have been more prevalent in such a period of high uncertainty. Managers might also have perceived a greater need to increase investors' confidence in their new share offerings due to the economic crisis.

In addition to the unfavourable economic conditions suffered by Malaysia, there is a *mandatory* requirement for Malaysian companies making an IPO to provide a profits forecast in the prospectus. One of the unique features of Malaysian IPOs is that since January 1996 certain Main Board³ applicant companies and all Second Board companies have been required to provide a guarantee of meeting 90% of the profits

³ Companies listed on the Second Board are typically (but not always) smaller than those listed on the Main Board of the KLSE. As of January 2001, companies seeking a listing on the Second Board must have a minimum issued and paid-up capital of RM40 million comprising ordinary shares of RM1.00 each. Meanwhile, those companies with paid-up capital of RM60 million or more are listed on the Main Board (Listing Requirements of the Kuala Lumpur Stock Exchange, Chapter 3: Section 3.04).

forecast in their prospectuses and 90% of the forecast profits for the two years following the IPO. These provisions might increase the likelihood that IPO companies manage their earnings following IPOs, particularly to achieve the guaranteed profits. Thus, the Malaysian environment during the period of the present study provides a unique opportunity to study IPO performance and earnings management in a developing country with unusual profits forecast regulations, under both favourable and unfavourable economic conditions. Therefore, addressing and understanding IPO performance and earnings management in a developing country such as Malaysia, with its unique circumstances, is of a great interest and importance.

Academically, there are several interesting issues relating to IPOs including, in particular, persistent anomalies in the pricing of equity IPOs, namely underpricing and long run underperformance.⁴ Underpricing, or positive initial returns to IPO investors, refers to the situation where the offer price of shares to investors of IPO companies is considerably lower than the price at which they are subsequently traded on the stock market. As summarised in Ritter (2003), there is pervasive evidence of underpricing in virtually all markets, including Malaysia. Ritter (2003) reports that the average underpricing for US IPOs over the period 1960 to 2001 is 19%, and he suggests that US IPO companies leave a considerable amount of ‘money on the table’.⁵ He states that the degree of underpricing is even greater in Malaysia, with an average value of 104%

⁴ There is another pattern associated with an IPO, namely ‘hot issue’ markets. This refers to the time-series behaviour of first day returns and the number of companies coming to market, in which high initial returns tend to be followed by rising IPO volumes (Ritter, 1984). Ibbotson and Ritter (1995), Ritter (1998), and Ritter and Welch (2002) have reviewed the literature concerning all three patterns.

⁵ The dollar amount of underpricing per share, multiplied by the number of shares offered, is referred to as the amount of ‘money left on the table’ (Ritter, 1998).

during the period 1980 to 1998. Underpricing is regarded as costly to IPO companies in general, and to existing shareholders in particular. This is because both the absolute holdings and the percentage holdings of the existing shareholders in the company are reduced after the IPO but the shares are sold at an offer price which is lower relative to the market's valuation on the first day of trading. However, from the new investors' point of view, positive initial returns will benefit them as they gain higher returns for purchasing shares at a lower offer price.

The second anomaly is IPO long run underperformance, whereby the long run returns of the IPO companies are lower than an appropriate benchmark. In this scenario, investors appear to lose out by continuing to hold the shares of IPO companies. The findings of significant long run under/*over*performance can be regarded as evidence inconsistent with market efficiency and '*imply a profitable trading rule (ignoring trading costs)*' (Kothari and Warner, 2004).

While the majority of studies in the UK and the US find that IPO companies in general are found to underperform their benchmarks in the three to five years post-IPO period, the international empirical evidence on long run stock market performance is less clear. Different findings are observed when different methods are used to measure long run stock market performance. There is a debate in the IPO literature (e.g., Loughran and Ritter, 1995; Barber and Lyon, 1997; Kothari and Warner, 1997; Fama, 1998; Lyon, Barber and Tsai, 1999; Gompers and Lerner, 2003) on the measurement problems involved in estimating long run stock market performance, such as which benchmark to use to estimate abnormal returns, how to calculate long run returns and how to construct test statistics. This is due to the fact that the benchmark used may not adequately adjust for risk and the methods used are subject to various statistical biases (Fama, 1998). The

underperformance phenomenon might merely be a function of poor research design or measurement. These measurement problems may provide a possible explanation for the conflicting evidence found in different countries.

In prior research on long run stock market performance Malaysian IPO companies are found to *overperform* their market benchmarks over a three year period (e.g., Wu, 1993; Mohamad, Nassir and Ariff, 1994; Paudyal, Saadouni and Briston, 1998; Jelic, Saadouni and Briston, 2001; Corhay, Teo and Rad, 2002; Sun and Tong, 2002). The method used to calculate long run stock market performance by these studies is based on the event-time approach, using metrics such as the cumulative abnormal return (*CAR*) and the buy-and-hold abnormal return (*BHAR*). The event-time approach is adopted when performance is measured relative to the date of the IPO. For the *CAR* metric, the abnormal return for each period is cumulatively summed over the holding period, with rebalancing. On the other hand, when the *BHAR* metric is used, the return is compounded over the holding period without rebalancing. Fama (1998) and Mitchell and Stafford (2000) argue that both metrics suffer from the cross-sectional dependence of observations in addition to rebalancing bias and skewness bias inherent in the *CAR* and *BHAR* metrics, respectively. They suggest the alternative calendar-time⁶ approach to control for event clustering and cross-correlation in IPO returns. This approach is adopted by obtaining the returns for each sample company which had an IPO event in the last post-event period of interest (e.g., three or five years). The portfolios of these companies are re-formed every month and the portfolio return in that month is then

⁶ The calendar-time approach was developed by Jaffe (1974) and Mandelker (1974).

calculated. The abnormal returns are then estimated using a return-generating model such as the Fama and French (1993) three-factor.

The existing Malaysian evidence on IPO long run stock market performance has some limitations. Some studies have used relatively small samples (e.g., Wu, 1993; Mohamad *et al.*, 1994), others have examined only those companies listed on the Main Board of the KLSE (e.g., Wu, 1993; Mohamad *et al.*, 1994; Paudyal *et al.*, 1998; Jelic *et al.*, 2001), while all the studies have examined periods up to the year 1997. Several studies are restricted in scope; e.g., by focusing on the effect of underwriter reputation (Paudyal *et al.*, 1998; Jelic *et al.*, 2001), privatisation (Paudyal *et al.*, 1998; Sun and Tong, 2002), management earnings forecasts (Jelic *et al.*, 2001) or the effect of growth-value stocks (Corhay *et al.*, 2002). In addition, all the studies on the Malaysian market employ the event-time approach and none have fully addressed the measurement problems which have been subject to intense debate in studies involving long-horizon returns.

In line with the focus of recent studies on long horizon returns, the first empirical component of this thesis takes steps to address the measurement problems and re-examines the robustness of existing Malaysian evidence by using several methods to measure returns, using different market benchmarks to adjust the returns, and by using more robust statistical tests. The variety of methods will enable a view to be formed as to whether the findings of this study are sensitive to the methods employed. This study therefore adds to the growing body of international evidence on the long run performance of IPOs. It is also of interest to examine long run returns as they may capture the impact of share trading by investors who did not have an opportunity to buy shares at the initial offering price.

Operating performance is an alternative performance approach that provides a potential explanation of the somewhat anomalous short run and long run stock market performance of IPOs. In general, existing international studies find that operating performance declines in the post-IPO period (e.g., Jain and Kini, 1994; Cai and Wei, 1997; Balatbat, Taylor and Walter, 2004). However, the majority of prior studies are based on the accrual measure of accounting profits. Although this approach draws attention to the existence of poor operating performance following IPOs, by its nature it fails to capture the impact of earnings management at the time of IPOs. This is due to the fact that accrual-based profit measures are potentially subject to accounting manipulation by managers, for example through working capital adjustments (Teoh, Welch and Wong, 1998a). Furthermore, the operating cash flow measure adopted by several studies (e.g., Jain and Kini, 1994; Kim, Kitsabunnarat and Nofsinger, 2004) has not always been ‘properly’ calculated, thereby resulting in a poor proxy (Bowen, Burgstahler and Daley, 1986).

Only one study has been carried out on the Malaysian market to examine operating performance (Sun and Tong, 2002). This employs the accrual-based profit approach on a sample of just 24 privatisation IPOs (PIPOs), and finds that the operating performance of Malaysian PIPOs insignificantly improves in the post-PIPO period. This small sample is unlikely to be representative of the overall IPO population which consists mainly of private companies rather than previously state-owned companies. There also appears to be a distinct lack of investigation into the use of both accrual- and cash flow-based measures of operating performance: using both accrual- and cash flow-based proxies to examine IPO companies’ operating performance should improve reliability. Thus, the second empirical component of this thesis explores post-IPO operating performance using both accrual- and cash flow-based approaches for a large sample of

both private and privatisation IPOs. Comparison between these results will also allow some broad inferences to be reached about the likelihood of pre-IPO earnings management in Malaysian IPOs.

The earnings management hypothesis suggests a potential explanation for poor post-IPO performance. According to this hypothesis, investors may overvalue new issues because of misinterpreted high earnings reported at the time of offerings, and fail to realise that the earnings management symbolises a transitory increase in earnings (Teoh *et al.*, 1998a). Therefore, investors are likely to be disappointed by the declining post-IPO operating performance and adjust their valuation downwards, which in turn causes the poor stock market performance. Existing literature in the US and the Netherlands (e.g., Teoh *et al.*, 1998a; Roosenboom, van der Goot and Mertens, 2003) provides evidence in support of this hypothesis.

In Malaysia, a working paper by Abdul Rahman and Wan Abdullah (2003) is the only study to investigate earnings management by companies involved in IPOs. It finds evidence to support the existence of earnings management prior to the IPO, but no significant relationship between earnings management and post-IPO long run stock market performance. However, it examines only earnings management prior to the IPO and its relationship with post-IPO share returns for a sample period up to the year 1998. The time-series and cross-sectional patterns of post-IPO earnings management are not analysed. In addition, the relationship between IPO year earnings management and post-IPO operating performance is not investigated.

The third empirical component of this thesis addresses this earnings management issue by assessing the earnings management from the IPO year up to three years post-IPO,

