# Corporate Spin-offs and the Determinants of Stock Price Changes in Malaysia\*

#### By

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#### Abstract:

This study appraises the impact of Spin-off decisions in addition to the determinants of share price movement for Malaysian listed companies between 1986 to 2002. The empirical evidence from a sample of 85 Spin-offs shows positive and affirmative announcement effects on stock prices. The parent of the Spin-off companies encounters positive abnormal returns for the two days before and after the announcement day while the Spin-off companies experience comparable effect after the listing date. The analysis is done over a period of 100 days prior and 50 days subsequent to the announcement day. Three different approaches incorporating non-synchronous \_ adjustment, i.e. Risk-adjusted, Market-adjusted and Control Sample-adjusted Market Models, were drawn on in the research methodology. Tax, Age, Market Capitalization and Focus factors were considered as possible determinants of Spin-off performance. However, the findings reveal that only Market Capitalization and Age factors are significant to the market price variation. The Cumulative Abnormal Returns surrounding the spin-off announcement day is positively correlated to the Market Capitalization but negatively correlated to the Age. In conclusion, this study validates that the impact of the returns is determined by the size and conventional age of the companies. The large companies and those that are newly incorporated tend to have a bigger magnitude of the positive wealth effect.

Key words: Spin-offs, Restructuring, Emerging Markets, Tax Motivation, Size, and Age

#### Introduction

This study intends to analyze the impact of corporate spin-off phenomenon as well as the determinants in Bursa Malaysia, an emerging market. The earliest recorded spin-off in this capital market occurred in 1970 in the case of a popular conglomerate called Magnum Corporation. Since then, there have been 125 spin-offs until year 2002. This accounting-cum-finance phenomenon that is occurring at an increasing frequency in several Asian countries has yet to be studied systematically. Hence, this provides the current researcher both an opportunity and motivation to make new contributions in this area via this study.

<sup>\*</sup> This paper was presented and given the best paper award at the Asian Finance Association International Conference 2005.

The capital market in Malaysia is classified by the World Bank as an emerging market for the simple reason that per capital income in this country is less that the threshold<sup>1</sup> for warranting a classification as developed. However, market specialists such as Dow Jones and others have included this capital market as among the 20 plus markets in the world for international diversification of investments. There are about 800 firms on the Bursa Malaysia, the single Malaysian exchange for the capital market<sup>2</sup>. Of these, about 500 were listed on the main board and 300 were listed on the second board. In total, these companies had a market capitalization of averaging over RM400 billion in which the main board had about RM380 billion and second board RM20 billion. There is also a bond market with a capitalization equal to averaging about 25 percent of the Gross Domestic Products (GDP). The economy is an industrializing one with industrial output accounting for 35 percent of the GDP. For many years, Malaysia is the most open country among the developing countries to foreign investment<sup>3</sup>. It was quick to recognize the powerful role that foreign investors could play in fuelling export-led growth, and it is well-placed to attract such investment during the years of regional structural adjustment in the late 1980s. Partly as a result of Foreign Direct Investment (FDI) inflows, Malaysia was among the world's fastest growing economies prior the crisis.<sup>4</sup> At the same time, however, the years leading up to the crisis revealed a growing disquiet in some Asian countries about their continuing ability to attract FDI in the face of competition from countries such as China. Related to the issue of possible investment diversion, questions were also raised about whether FDI inflows were contributing sufficiently to technology transfer and industrial upgrading.

<sup>&</sup>lt;sup>1</sup> The World Bank defines a developing country as one having a per capita GNP that would place it in the lower or middle-income category; i.e. at the end of 1995, a developing country had an annual per capita GNP less than USD8,955.

<sup>&</sup>lt;sup>2</sup> Two stock exchanges, the then Kuala Lumpur Stock Exchange (KLSE) and Malaysian Exchange of Securities Dealing and Automated Quotation Bhd (MESDAQ) had merged to form Bursa Malaysia. KLSE was incorporated in 1976 and MESDAQ was incorporated in 1997.

<sup>&</sup>lt;sup>3</sup> Rank by Stephen Thomsen in 1999 for Organization for Economic Co-operation and Development.

<sup>&</sup>lt;sup>4</sup> From the early 1980s through the mid-1990s, the economy experienced a period of broad diversification and sustained growth averaging almost 8 percent annually. By 1999, nominal per capita GDP had reached RM3,238. New foreign and domestic investment played a significant role in the transformation of Malaysia's economy. Manufacturing grew from 13.9 percent of GDP in 1970 to 30 percent in 1999, while agriculture and mining, which together had accounted for 42.7 percent of GDP in 1970, dropped to 9.3 percent and 7.3 percent, respectively, in 1999. Manufacturing accounted for 30 percent of GDP in 1999. Source of statistics taken from the 2001 Bank Negara Malaysia Report

In the wake of the financial crisis which has swept through the Asian region<sup>5</sup>, it is useful to look at the experience of various Asian countries and the role of foreign investors in their economic development. In all the four countries, i.e. Malaysia, Indonesia, Philippines and Thailand, development strategies include a selective approach to investment promotion with a clearly circumscribed role for foreign direct investors. Such partial openness allows foreign firms to contribute to rapid economic growth driven by exports, but it has been less adept at delivering sustainable development. In many cases, indigenous capabilities have not been developed sufficiently in those export sectors dominated by foreign multinational enterprises leaving the host country vulnerable to changes in investor sentiment and to growing competition for such investment from other countries.

The growth of the emerging markets has received much attention in the past few years. Investors have been attracted to the potential for high returns along with diversification benefits of such markets.<sup>6</sup> Managers and trustees of US. pension funds have begun for the first time to commit a portion of their pension assets to emerging market debt and equity securities. The unique characteristics of emerging markets are helping academics to better understand the development and application of appropriate financial management techniques in companies operating in such environment.

If applying financial management techniques makes the spin-off appropriately on a voluntarily manner, then the Bursa Malaysia is supposed to react positively to the information. With the data set of the Malaysian capital market, it will be useful to have a general assessment of the reaction of spin-offs in this emerging capital market as a first of many that may be done in several emerging markets. Such assessment will hold lessons on the reaction of similar capital markets and have implications for corporate finance and investment management in emerging capital markets. In addition, the study will attempt to reveal the relationship between spin-offs, improved focus and managerial efficiency. Arising from this analysis, this study will be able to assess the extensive effect to which age and market capitalization of spin-offs have on shareholders welfare. Knowledge of factors such as age and size of spin-offs would also assist

<sup>&</sup>lt;sup>5</sup> After nearly a decade of strong economic growth averaging 8.7 percent annually, Malaysia was hard hit by the regional financial crisis of 1997 to 1999. The GDP suffered a sharp 7.5 percent contraction in 1998 but rebounded in 1999 to grow by 5.6 percent for the year. Source of statistics taken from the 2001 Bank Negara Malaysia Report.

<sup>&</sup>lt;sup>6</sup> Based on the International Finance Corporation's Emerging Markets Data Base for period 1985-1995, a commonly held view is emerging stock markets are characterized by high returns and high volatility.

financial decision maker in the areas regarding regulatory compliances in smaller domestic versus bigger foreign companies.

#### **Regulation of Spin-offs**

The legal concept of Tax-free Spin-off can be found in the Inland Revenue Service (IRS) code Section 355 of the Securities and Exchange Commission Tax Code and the Treasury regulations Section 1, 355-2 in the United States<sup>7</sup>. There was an amendment in the legal framework after 1969 to forbid tax avoidance. In fact, after the Tax Reform Act of 1986, a spin-off or other divisive reorganization is the only way a company can distribute appreciated property to shareholders without incurring a corporate-level tax. An added appeal is that corporations have considerable latitude in reporting spin-offs in their financial statements. The regulation on Spin-off became more pronounce in Europe recently as Spin-offs only became more in vogue during the last decade. In Malaysia, legal representation was initially rest on the Capital Issues Committee and the Foreign Issues Committee. Spin-offs are regulated under the Arrangements and Reconstruction Section of the Companies Act 1965, ever since 1996.

In Malaysia, following the procedure of companies going for listing, spin-off application are reviewed by the Securities Commission, Companies Commission of Malaysia and the Bursa Malaysia on difference premises.<sup>8</sup> Spin-offs are regulated under Arrangements and Reconstruction, Section 176 of the Companies Act 1965. In any scheme of arrangement or reconstruction which results in the transfer of assets or undertakings of a foreign incorporated company to Malaysia, the Securities Commission requires that the entries in the books of accounts of "mirror company" comply with the provision of Section 60 of the Companies Act 1965.

<sup>&</sup>lt;sup>7</sup> IRS Section 355 includes four key requirements for tax-free treatment: 1. Controlled corporation, 2. Securities distribution, 3. Active businesses, and 4. Not a distribution device. Treasury regulations Section 1, 355-2 adds two additional requirements: 5 Business purpose, and 6. Continuity of interest. See Appendix A for details.

<sup>&</sup>lt;sup>8</sup> Prior to 1995, Capital Issues Committee (CIC) and the Foreign Issues Committee were reviewing. CIC was set up in 1968 by the Minister of Finance to ensure the orderly development of the capital market by regulating the issue of securities by public companies and the listing of such securities on Bursa Malaysia including Spin-offs. See the requirements for Spin-offs in Appendix A.

The listing of spin-off subsidiary and or associated companies of a listed holding company could be considered if the pretax profits and net tangible assets of the subsidiary and or associated company to be listed should not account for more than 35 percent respectively of the consolidated pretax profits and net tangible assets of the Group in respect of the past five years for a Main Board listing or three years for a Second Board listing. The threshold level of after tax profits and or net tangible asset contribution for the listing of subsidiary and or associated companies has been raised from 35.5 percent to 50 percent in 1997 onwards.

Another consideration is the parent company excluding the subsidiary and or associated company to be listed and existing listed subsidiary and or associated companies should on its own meet Securities Commission's requirements for listing as if were a new company seeking listing.

The applicant subsidiary and or associated company should also be involved in a particular business of its own with profits able to meet Securities Commission's criteria for listing with respect to track record and future prospects. The relationship between the subsidiary and or associated company seeking listing and the other companies within the group, including the holding company, should not give rise to intra-group competition or conflict of interest situation, and the subsidiary and or associated company to be listed should demonstrate that it is not overly dependent on the other companies with the Group including the holding company, in term of its operations, including purchases and sales of goods, management policies and finance.

There has been no Capital Gains Tax on share disposal. However, an acquisition of shares in a real property company shall be deemed to be an acquisition of chargeable assets, and where such shares are disposed of shall attract Real Property Gains Tax (RPGT) – Schedule 2, Section 34A RPGT Act (1976). It is difficult to rely on Section 17.1 (c) to claim exemption for this RPGT. After 1997, it is not possible to utilize the "bonus shares"<sup>9</sup> approaches to exempt RPGT on share disposal of real property companies.

Claiming Section 17 of the RPGT involves assets that are transferred between companies in the same group to bring about greater efficiency in operation for a consideration consisting of shares in the company or substantially of shares in the company and the balance of a money payment. Another group of including assets that are being transferred for any consideration

<sup>&</sup>lt;sup>9</sup> It was possible to use distribution of bonus shares as consideration to save RPGT on selling of land together with the real property companies before 1977.

between companies in any scheme of reorganization, reconstruction or amalgamation; and assets that are distributed by a liquidator of a company and the liquidation of the company was made under a scheme of reorganization, reconstruction or amalgamation.

## Literature Review

Study /Place	Methodology	Variables
Schipper & Smith (1983) / US	Market Model	Tax, Efficiency & Size
Hite & Owers (1983) / US	Market Model	Merger, Focus , Tax & Size
Miles & Rosenfeld (1983) / US	Mean- adjusted	Voluntary & Involuntary
Rosenfeld (1984) / US	Mean-adjusted	Spin-off & Sell-off
Copeland, Lemgruber & Mayers (1987) / US	Market Model & Mean- adjusted	Success, Size & Tax
Kudla & McInish (1988) / US	Market Model	Pure play & Size
Cusatis, Miles & Woolridge (1993) / US	Market Model & Mean- adjusted	Merger
Seward &Walsh (1996) / US	Market Model	Governance
Johnson & Klein (1996) / US	Market Model	Investment Improvement
Uddin & Ariff (1998) / Singapore	Market Model	Stakeholders Revaluation
Krishnaswami & Subramaniam (1999) / US	Market Model	Pure play, Merger & Size

### Table 1: Prior Research Methodologies and Variables

Veld & Merkoulova (2003) / Europe	Market Model	Governance, Focus & Size

Chronologically, positive finance theory in general, and those related to Spin-off, developed initially in two stages. The first stage was capital market research, which drew on the Efficient Market Hypothesis (EMH) and the Capital Asset Pricing Model (CAPM) from financial economics. The semi strong form of the EMH is the form most directly related to finance. Spin-off and the price impact of the event have been explained by reference to seven models:

1). Valuation, [Hearth & Zaima (1986); and Leshchinski (2002)]

2). Agency, [Jensen & Meckling (1976)]

3). Wealth-Transfer, [Galai & Masulis (1976); and Maxwell & Rao (2003)]

4). Clientele, [Hakansson (1982); Vijh (1994); and Schnabel (1992)]

5). Divergence of Opinion, [Miller (1977)]

6). Information Asymmetry, [Habib, Johnson & Naik (1997), Gilson, Healy, Noe & Palepu, Krishnaswami & Subramaniam (1999), and Veld & Merkoulova (2003)]
7). Debt Allocation, [Chemmanur (2003)]

Empirical tests on the Spin-offs events have confirmed that historical significant information content had effects for the marketplace in terms of Cumulative Abnormal Return. The seven models prevailing on the firm and management affects the responsiveness and the nature of price changes following spin-off announcements<sup>10</sup>.

Market Model is the most common research model used in the previous studies as chronicled in Table 1 while Tax, Size and Focus are the most common variables analyzed, amongst these studies.

#### Data and Methodology

<sup>&</sup>lt;sup>10</sup> However, there is still no agreement among the researchers on the factors influencing on the significant wealth effects created by the Spin-off decision particularly the wealth redistribution from bondholders to the shareholders.

Sharpe (1963) developed the standard form of the general equilibrium relationship for asset returns now known as Market Model<sup>11</sup>. It is a statistical model, which relates the return of any given security to the return of the market portfolio. It is based on the empirical version of the Capital Asset Pricing Model (CAPM). In the CAPM, all economy-wide news is lumped together into one single term in the equation i.e. the stock's beta as the sensitivity to all types of economy-wide news.

Considering the information content of spin-off study with daily data, the event will be the spin-off announcement and the analysis period consists of a defined period around the announcement day. This permits examination of periods surrounding the events. The analysis period in this event study is defined as -100 to +50 days around the announcement day. Negative sign means before the date of announcement whereas positive sign means after the announcement date.

Notation and time line are defined to facilitate the measurement and analysis of abnormal returns. Returns will be indexed in event time using t. Defining t = 0 as the event date, t = -100 days to t = +50 days represent the event window for analysis, and t = -63 months to t = -3 months constitutes the estimation window to apply the Market Model for obtaining  $\alpha$  and  $\beta$ .<sup>12</sup>

The alpha,  $\alpha$ , or the Regression intercept measures the unexplainable performance relative to the market model, which means the intercept of the alpha should be zero when using the market model. The alpha is the intercept from a regression of abnormal return of the risk-free return on the market's abnormal returns. The  $\alpha_j$  represents the average incremental rate of return on the portfolio per unit of time. A randomly constructed portfolio can be expected to have a zero value for  $\alpha_j$ . In addition, if the company is not doing as well as a random selection of buys and hold policy,  $\alpha_j$  will be negative.

It is interesting to note that a positive intercept in any sample of returns on a portfolio might be due to random chance or to the superior performance of the companies. Thus in order to make inferences regarding company's performance, we need a measure of the standard error of

<sup>&</sup>lt;sup>11</sup> The Market Model differ from CAPM in that there is no imposition of constraints and the model "allows for" changes in firm's stock price relative to the market.

<sup>&</sup>lt;sup>12</sup> The study chooses day -100 to day +50 as the window period of analysis for the parent company because pre and post spin-off days are needed for the research. In the event of the spun-off firm, only 50 days were used as there were no trading days before the listing.

estimate of the performance measure. Least square regression provides an estimate of the dispersion of the sampling distribution of the intercept.

The,  $\beta$ , Beta or the Slope of characteristic line is being estimated using daily data. However, alpha  $\alpha$  mentioned earlier estimated from monthly returns data  $\alpha$ m is being changed to daily alpha  $\alpha$ d as in the following equation:

$\alpha d = (1 + \alpha m)^{1/22} - 1$	(1)
$\alpha_{i} = E(R_{i,t}) - \beta_{i} E(R_{m,t});$	(2)

 $\alpha_i$  is not constrained to zero, treated as a parameter of the equilibrium return generating process and assuming there is no  $\in_{i,t}$ , the stochastic error term.

Therefore,

$$\beta_i = \text{covariance} (R_{i,t}, R_{m,t}) / \text{variance} R_{m,t}$$
 .....(3)

The study here adopt three different models in the estimation of the abnormal return as follows:

- 1) Risk-adjusted Market Model,
- 2) Market-adjusted Market Model, and
- 3) Control Sample adjusted Market Model

#### **Principal Hypotheses**

Hypotheses 1

#### Null Hypothesis

Ho: The market value of the post-spin-off companies after the announcement of spinoffs is the same as the pre-spin-off entities in Malaysia. There is no wealth effect from the announcement of spin-offs.

i.e. 
$$MV(P)_{as} + MV(S)_{as} = MV(E)_{bs}$$
,  $AR = 0$  .....(4)

#### Alternate Hypothesis

Ha: The market value of the post-spin-off companies after the announcement of spinoffs is greater than the pre-spin-off entities in Malaysia. There is wealth effect from the announcement of spin-offs.

i.e. 
$$MV(P)_{as} + MV(S)_{as} > MV(E)_{bs}, AR > 0$$
 .....(5)

Where, MV = market value;

 $(P)_{as} = post-spin-off parent company;$ 

(S)<sub>as</sub> = post-spin-off subsidiary company;

 $(E)_{bs}$  = pre-spin-off entity; and

AR = abnormal return.

Here, the null hypothesis is rejected if greater abnormal return exists for the post spin-off companies than the pre-spin-off entity during the analysis period of the spin-off announcement. This means that there is wealth effect created by spin-offs by such comparison.

#### Hypothesis 2

#### Null Hypothesis

Ho: The market value of the spin-off companies after the announcement of Spin-offs is the same as the matched non-spin-off companies during the same period. There is no wealth effect from the announcement of Spin-offs.

i.e.  $MV(P)_{as} + MV(S)_{as} = MV(K), AR = 0$  .....(6)

#### Alternate Hypothesis

Ha: The market value of the spin-off companies after the announcement of Spin-offs is greater than the matched non-spin-off companies during the same period.There is wealth effect from the announcement of Spin-offs

i.e.  $MV(P)_{as} + MV(S)_{as} > MV(K), AR > 0$  .....(7)

Where,

K = matched non-spin-off company

Here, the null hypothesis is rejected if greater abnormal return is found for the spin-off companies than the matched non-spin-off companies during the analysis period of the spin-

off announcement. This means that there is wealth effect created by spin-offs by such comparison.

#### Hypotheses 3

#### Null Hypothesis

Ho: Similar characteristics occurs in Malaysian spin-offs and non-spin-offs companies. Alternate Hypothesis

Ha: There are different characteristics.

The characteristics to be look into are improved focus, tax status, age and market capitalization. Here, the null hypothesis is rejected if there are different characteristics prevailing, comparing the spin-off and non-spin-off companies.

#### **Subsidiary Hypotheses**

Four subsidiary hypotheses are formulated by considering the possible determinants. The alternative hypotheses of these subsidiary hypotheses to be tested are:

(1). The magnitude of the capital market reaction to the spin-off announcement depends on the size of the spin-off company in relation to the size of the parent company before spin-off.

(2). The longer the age of parent company at spin-off, the larger the wealth effect of the shareholders.

- (3). Tax status is one of the factors inducing corporate spin-off.
- (4). Improved focus is one of the determinants for corporate spin-off.

For the regression model, as dependent variables are the various cumulative abnormal returns over selected intervals that were significant. The cumulative abnormal return is explained by means of regression as a function of several independent variables:

$$CAR_{j} = \alpha_{0} + \alpha_{1}Focus + \alpha_{2}Tax + \alpha_{3}Age + \alpha_{4}Size + \in_{j} \qquad \dots \dots (9)$$

#### **Descriptive Statistics**

In Table 2, descriptive statistics are presented on the abnormal returns of spin-off parent companies. There are three sets of numbers, for the 85 observations, making a total of 255 data points on the spin-off companies. There is a corresponding set of 85 firms matched with the sample. The statistics for all the three data sets indicate that 75 percent of the abnormal returns were positive while the matched sample of non-spin offs had just 39 percent positive price changes. This indicates that there is a high probability of stock price increases with spin-off decision compared to firms that were not undergoing spin-off event.

The mean of the spin-off abnormal returns is 21 percent compared to 4 percent for the non-spin-off samples. The standard deviation is quite close across the firms which seems to suggest that these companies have similar risk patterns probably because spin-off parents are well established firms with long experience, larger capitalization, which would lead to higher price volatility. The range between the minimum and the maximum for the spin-off samples is more than five times than the non-spin-off samples. This great disparity is explainable as being caused by the spin-off effect on the measured variable. There is no spin-off impact on the non-spin-off companies: implicitly, spin-off firms must have greater variability. The high Jarque-Bera test value in both samples indicates normality of the distribution of both the samples selected.

	<b>Parent Companies</b>	Matched Sample	Spin-Offs
Percentage Positive	75	39	84
Mean	0.21	0.04	0.27
Standard Error	0.4966	1.549	0.2750
Median	0.182	0.062	0.3527
Standard Deviation	0.045	0.047	0.011875
Sample Variance	0.00203	0.00221	0.00014
Kurtosis	4.73	7.35	4.053663
Skewness	0.428	0.199	0.112949
Minimum	-0.085	-0.037	-0.767
Maximum	0.461	0.067	3.457
Count	85	85	85
Jarque-Bera	117	80	74

# Table 2: Descriptive Statistics of the abnormal returns for the Parent and Spin-Off companiesSample and Matched Sample, Bursa Malaysia, 1986 to 2002

These statistics indicate significant positive abnormal returns of 9 percent higher than that of the parent companies. The mean is also higher by 6 percent. By presenting these average abnormal returns values, we can see that there is a better performance in terms of wealth generation for the spun-off companies as compared to the parent companies. The Skewness value shows more of the Spin-off companies have abnormal returns more than 27 percent. This validates that there are actual returns from the Spin-off phenomenon for the Spin-off companies. The range between the minimum and the maximum abnormal returns is more than seven times. The Kurtosis value of 4 which is closed to 3 and the high Jarque-Bera test value of 74 shows normal distribution of the data set.

From the statistics, it can be deduced that in Bursa Malaysia which is an emerging market, there has been wealth gains from Spin-offs. In addition, wealth garnered from the spin-off companies are more certain and greater in absolute terms than that of the parent companies in general.

#### **Spin-off Announcement and Ex-Date Effects**

Table 3: Risk Adjusted Mean Abnormal Returns surrounding the Spin-off Announcement for the<br/>parent companies, Bursa Malaysia, 1986 to 2002

	Abnormal R	eturns	Cumulat Abnormal	tive Returns
Interval Days	Mean (t-value)	Median	Percentage Positive	Mean (t-value)
-50 to -2	0.091 (1.551)*	0.554	77%	0.176 (0.340)
-1 to 0	1.795 (1.933)*	1.793	86%	0.227 (0.278)
+1 to +50	0.153 (0.689)	0.652	79%	0.266 (0.245)

Significant at 0.1 (\*), 0.05 (\*\*) and 0.01 (\*\*\*) levels





Figure 2: Plot of CAR using the market risk-adjusted model for the period day -100 through +50 for the parent companies relative to the announcement date, Bursa Malaysia, 1986 to 2002;n=85





Figure 3: Plot of CAR using the control sample-adjusted model for the period day -100 through day +50 for the parent companies relative to the announcement date, Bursa Malaysia, 1986 to 2002; n=85

Figure 4: Plot of CAR for the period day of Spin-off companies listing to +50, Bursa Malaysia, 1986 to 2002; n=85



The CAR trend of the two entities, the parent company and the spun-off company during the analysis period is the same i.e. upwards. The market reacted to the Spin-off announcement for both entities. However, the reaction is not significant during the announcement day but at various days during the analysis period. This phenomena is consistent to a study of stock price reaction to share repurchases in Malaysia Lim and Obiyathulla (2002). However, in a study of the impact of Accounting Earnings disclosure on stock prices in Malaysia Cheng (2000), the market reaction is significant during the announcement day and the two days surrounding it. These findings can be explained by the familiarity of the market participants towards Spin-offs and Share repurchases, which is less understood than earnings. In any case, they interpreted these phenomena as good news but reacted not immediately on announcement of Spin-offs and share repurchases than in the case of earnings.

As there is no regular interval between the date of announcement and the date of listing, which is the official date of spin-off, the abnormal returns of the spun-off companies are kept separated in analyzing the shareholders wealth effect. In Malaysia, most spun-off companies took two to three months to list their companies after announcing to the public. However, there were incidences that listing was only done after 4 years.

It is pertinent to stress here that in Malaysia, the government-controlled firms may spinoff their subsidiaries because they want to tow the socio-economic aspirations of the New Economic Policy<sup>13</sup> and the later National Development Policy aiming to redistribute the ownership of equity capital investments amongst various ethnic groups.

Following the reason often advanced for a spin-off that the parent company wants to reduce the diversity of its business operations, the parent spins off the subsidiary because its core business is very different from that of the rest of the parent's operations. Focus may be a determinant of Spin-off. In most efficient economies, resources flow to where they are best utilized for the benefit of society. Therefore, since material resources are generally scarce and

<sup>&</sup>lt;sup>13</sup> Malaysia's New Economic Policy (NEP), first established in 1971, seeks to eradicate poverty and end the identification of economic function with ethnicity. In particular, it was designed to enhance the economic standing of ethnic Malays and other indigenous peoples (collectively known as "bumiputeras" in Bahasa Malaysia, the National Language of Malaysia). Rapid growth through the mid-1990s made it possible to expand the share of the economy for bumiputeras without reducing the economic attainment of other groups. One controversial NEP goal was to alter the pattern of ownership of corporate equity in Malaysia, with the government providing funds to purchase foreign-owned shareholdings on behalf of the bumiputera population. In June 1991, after the NEP expired, the government unveiled its National Development Policy, which contained many of the NEP's objectives.

inequalities exist in entrepreneurial skills, some members of society will own means of production while others will not, even though they may lose their focus to do so.

Owners of corporate organizations and their agents should understand that they are using these resources to produce goods and services to improve the quality of life of society. Corporate organizations are to use these resources efficiently for the benefit of the society. To the consumer, efficiency means the product is of good quality, affordable and has the ability to provide the services it was designed for. To move into a responsible position to carry out such business philosophy, a company must be first be established. Hence, age of a company is offered here in this study as a predictor to such a motive. Generally, the older a company, the more establish she becomes.

Malaysian companies have been announcing Spin-off for the purposes of consolidating efforts on core operations. The Genting Group's spin-offs Resort World focuses on the casino operations and the Tan Chong Group spinning-off its spare-parts division are good examples. Such Spin-offs may benefit the parent company in three primary ways:

- 1. The parent company may be better able to concentrate on its managerial, personnel, distributional and production resources in one or a small number of operational areas.
- 2. Spinning off areas of operations unrelated to the parent company's core business will decrease diversification. This decrease will raise the firm's volatility of earnings and subsequently, increase the value of the leveraged firm.
- 3. Spinning off the company into multiple operating units will enable investors to purchase just those operations which will provide a proper fit into their own portfolios. This "clientele" effect may serve to increase the total value of the company.

During the 1990s, some of the largest public companies have spun-off major chunks of their assets in an effort to increase their share values. Reversing their efforts towards conglomerate formation begun in the 1980s and continued into the early 1990s, Berjaya Group Bhd spun-off into three distinct companies, Berjaya Capital Bhd, Cosway Corporation Bhd and Nam Fatt Corporation Bhd. The conglomerate Sunway Holding Incorporation Bhd separated Sunway Building Technology Bhd when it spun-off this division. YTL Corporation Bhd, in a

more conventional manner, spun-off its' YTL Cement Bhd. At this writing, Telekom Bhd is planning to spin-off its subsidiary Celcom Bhd after acquiring the unit two years earlier. From the above mentioned Spin-off cases involving large companies, it can be seen that Market Capitalization can be a factor to Spin-off.

Under certain circumstances, spin-off can reduce the overall tax burden of a corporation. That is to say that the combined taxes of the parent and spin-off company being less than the taxes of the parent prior to the spin-off. This is because the spin-off can derive tax benefit from unused capital allowance and investment tax credit . Spin-off activity can prevent the permanent loss of tax credits that would otherwise accrue to companies with negative incomes. Companies losing money frequently cannot benefit from tax credits. Spinning-off such firms to contract with profit making firms can create value by preventing the permanent loss of such credits. There are situations that exist where after the spin-off, it can be more highly geared, thus reducing it's overall tax amount. However, tax gains cannot be realized more than the case of mergers and acquisitions as there is no group relief for tax i.e. each entity is tax separately in Malaysia.

There can still be a number of rationale to the increasing Spin-off activity. Spin-off increases Shareholders wealth, presumably at the expense of the Bondholders wealth though no evidence can be forwarded. The resultant increase in stability can also increase a company's borrowing capacity. These extemporaneous factors are not included in the regression model in view of their ambiguity as outlined in previous studies. Hite and Owers (1983), Schipper & Smith (1983)

#### **Regression Analysis**

	Focus	Tax	Market Capitalization	Age
Mean	0.289474	0.302632	8.700774	2.329330
Standard Error	0.164113	0.177076	7.905258	24.35138
Median	0	0	8.705606	2.439330
Standard Deviation	0.456532	0.462450	0.525041	0.347751
Sample Variance	0.208421	0.21386	0.275668	0.120931
Kurtosis	1.861953	1.738310	-0.277379	7.086336
Skewness	0.928414	0.859250	-0.277379	-1.930480
Minimum	0	0	7.230238	0.903090
Maximum	1	1	9.957892	2.758155
Jarque Bera	75	26	19	3
Count	85	85	85	85

#### Table 4: Descriptive Statistics of Focus, Tax, Market Capitalization and Age

The median for the variables of Focus and Tax were 0 because dummy figures of 1 and 0 were used. Following the same note, minimum and maximum figures of 0 and 1 are used for Focus and Tax respectively. As for the Market Capitalization and Age, the median is not far from the mean indicating that the related values are quite close in absolute amounts. Here, the large absolute values for Market Capitalization were in Common Logarithm for accuracy and simplicity reasons. Except for the age variable where the Kurtosis value is very large and the Jarque-Bera test value is small, the statistics for all the variables shows normal distribution of the data set as the Kurtosis value is closed to 3 and the Jarque-Bera test records a high value.

	Effect on Dependent Variable: CAR interval							
Coefficient (t-value)								
Interval	-1 to 0	0	0 to +1	-1 to +1	-5 to +5			
<b>Variable</b> Focus	0.607 (0.682)	0.455 (0.531)	0.332 (0.403)	0.560 (0.682)	0.110 (0.275)			
Tax	0.506 (0.730)	-0.037 (-0.052)	0.065 (0.087)	0.013 (0.028)	0.022 (0.031)			
Capitalization	7.591 (11.58***)	6.721 (8.678***)	6.328 (8.168***)	5.190 (7.253***)	4.091 (5.960***)			
Age	-7.345 (-0.035)	-2.001 (-2.154***)	-1.530 (-1.647)	-0.706 (-0.978)	-0.156 (-0.265)			
Regression Model								
R -squared	0.639	0.762	0.905	0.704	0.341			
Adjusted R Squared	0.619	0.740	0.900	0.688	0.305			
S.E. of Regression	2.728	2.644	0.390	0.100	0.160			
F- Statistic	31.967	35.188	13.011	5.706	8.549			
Probability (F-statisti	c) 0.000	0.000	0.000	0.000	0.000			
Durbin-Watson Statis	stic 1.801	1.673	1.678	1.696	2.750			

# Table 5: Summary of causal relations of explanatory variables to CARfor Parent Companies, Bursa Malaysia, 1986 to 2002; n=85

Effect on Dependent Variable: CAR interval							
	Coefficient (t-value)						
	-1 to 0	0	0 to +1	-1 to +1	-5 to +5		
Variable							
Focus	0.652	0.332	0.392	0.503	0.453		
	(0.732)	(0.510)	(0.572)	(0.670)	(0.505)		
Tax	0.240	0.670	0.850	0.166	0.135		
	(0.614)	(0.930)	(1.409)	(0.251)	(0.148)		
Capitalization	0.175	0.255	0.172	0.140	0.045		
	(0.155)	(0.331)	(0.324)	(0.191)	(0.057)		
Age	1.920	0.740	0.561	0.120	0.863		
C	(2.068***)	(1.089)	(0.826)	(1.380)	(0.125)		
Regression Model							
R -squared	0.709	0.596	0.826	0.704	0.657		
Adjusted R Squared	0.687	0.556	0.797	0.688	0.635		
S.E. of Regression	1.070	2.644	0.820	0.609	0.420		
F-statistic	33.590	17.103	30.874	11.362	35.907		
Probability (F-statistic)	0.000	0.000	0.000	0.000	0.000		
Durbin-Watson Statistic	1.891	1.965	1.704	1.932	1.872		

#### Table 6: Summary of causal relations of explanatory variables to CAR for Spin-off Companies, Bursa Malaysia, 1986 to 2002; n=85

Note: Significant at 0.05 (\*), 0.01 (\*\*) and 0.001 (\*\*\*) levels

From the tabulation of the regression results in Tables 5 and 6, it can be deduced that the regression methodology is valid. The coefficient of determination, R-squared and adjusted Rsquared of average 70 percent shows high incidences the sample regression line fits the data. The F-statistic was found to be significant as the Probability was 0. Thus, the regression model is valid and there is no risk in rejecting the Null Hypothesis. The Durbin-Watson test values which were more than 1.65 indicated that there is no first-order autocorrelation in the regression. Also,

with the Durbin-Watson test values exceeding 1.65, the statistics can accurately explained more than 66 percent changes in the CAR found in the study.

On the independent variables, Tax and Focus were not statistically significant whereas the Market Capitalization and the Age of the firm indicated a significant relationship with the CAR. Unlike prior studies by Hite and Owers (1983), Veld and Merkoulova (2003), focus factor is not relevant in the level of information on Spin-off announcement. The same goes to Tax factor, it does not appeared as a predictor even though it is well taken as a determinant in prior studies in the United States market Hite and Owers (1983), Copeland, Lemgruber and Mayers (1987). This is an agreement to the argument<sup>14</sup> that Malaysia has no specific tax regulations on Spin-off and does not practice group tax loss relief. The regulations that were used for guidance for Spin-off confined to listed companies listing their subsidiaries and RPGT concerns for transferor transferring shares in Land-based companies.

The regressions as shown in Table 5 and 6 show the higher the Market Capitalization, the higher the CAR. This result is conforming to the experience of the United States studies: Schipper and Smith (1983) Hite and Owers (1983) Copeland, Lemgruber and Mayer (1987) Kudla and McInish (1988) Krishnaswami and Subramaniam (1999).

Generally, market capitalization grows with the age of a company in that the longer hence, frequently more established the company becomes, it's market capitalization increases as well. If this case is prevailing in this study, then it will give rise to high correlation between the variables, capitalization and age. In order to ensure that the regression analysis is not affected by multicollinearity problems caused by these two variables, extended effort has been taken to regress CAR again without either one of the two variables. Second regression is performed without the age variable and third regression is done without the capitalization variable. However, the results of the second and third regressions show no differences with the initial regression output in Table 5 and 6.<sup>15</sup> Therefore, the initial regression results where the four independent variables were regressed contemporaneously are retained

<sup>&</sup>lt;sup>14</sup> The argument offered here is that there is an absence of tax motivation for spin-off in the Malaysia compared to the United States. See Appendix A and B for the legal framework in these countries.

<sup>&</sup>lt;sup>15</sup> The results of these second and third regressions can be referred in Appendix C, D, E and F.

The Market Capitalization factor can be supported by Freeman (1987)'s argument that larger firms provide a greater variety of information than smaller firms and larger firms have greater exposure in the media. Large firms are more likely to have additional information reported in the form of interim financial reports, analyst forecasts, industry forecasts, management forecasts and even litigation. Another explanation is that trading by informed investors reveals private information. Atiase (1985) argued that the partial revelation of private information by informed investors reduces the potential for profits in small firms to a greater extent because private information is more noticeable in thinly traded stocks. This factor limits the potential to exploit the knowledge of a misinformation in a small firm, and is added incentive to undertake research on large firms rather than small firms. Institutional investors are likely to concentrate on large firms due to liquidity constraints. For example, institutions cannot hold a large percentage of stock of a small firm and expect to be able to sell the stock immediately without price discounts. Further, because institutions are a major source of demand for information, financial analysts may concentrate their search activities on larger firms.

In the case of the Age variable, and referring to Table 6, for the parent companies, the age is negatively correlated to the CAR i.e. the longer the Age, the lower the CAR and vice-versa. However, as shown in Table 7, for the Spin-off companies, the age is positively correlated to the CAR. i.e. the longer the Age, the higher the CAR. Here it can be deduced that high premium is attached to shorter aged companies when they spin-off their subsidiaries. This is complimenting the Finance theory that a higher risk premium is required for less established companies which have a shorter age.

#### Summary

In this study, we analyzed a sample of 85 parent companies and their Spin-off business units from Bursa Malaysia that were announced between January 1986 and December 2002. The average CAR over the 150 days event window was more than 20 percent for the parent companies and more than 25 percent for the spun-off companies. The trend of the abnormal returns charted in the study shows that the wealth performance in Malaysian Spin-off are long term in perspective as upward trends continue after fifty days.

Tax, Age, Market Capitalization and Focus factors were considered as possible determinants of Spin-off performance. The study reveals that Market Capitalization and Age

factors are significant to the market price variation. The CAR surrounding the spin-off announcement day is positively interrelated to the Market Capitalization but negatively correlated to the age.

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#### APPENDIX A

#### Key requirements of Spin-off of a Listed Company and Real Property Company, : Malaysia

#### 1. Profitability of Parent

The pretax profits, profits after tax and net tangible assets of the subsidiary or associated company to be listed should not account for more than 35 percent respectively of the consolidated pretax profits, profits after tax and net tangible assets of the Group in respect of the past five years for a Main Board listing or three years for a Second Board listing. In addition, if the consolidated pretax profit of the holding company is reduced by more than 15 percent in the financial year following that in which the subsidiary or associated company is listed, the parent company, consequently upon listing of its subsidiary or associated company, will have to make good the shortfall within six months in the following year, failing which the parent company will be suspended;

#### 2. Capital Issuing Committee (CIC)

The parent company excluding the subsidiary or associated company to be listed and existing listed subsidiary or associated companies should on its own meet CIC's requirements for listing as if it were a new company seeking listing.

#### 3. Separate Business

The applicant subsidiary or associated company should be involved in a particular business of its own with profits able to meet CIC's criteria for listing with respect to track record and future prospects;

#### 4. No Intra-Group Competition

The relationship. between the subsidiary or associated company seeking listing and the other companies within the group, including the parent company, should not give rise to intra-group competition or conflict of interest situation.

#### 5. Independence

The subsidiary or associated company to be listed should demonstrate that it is not overly dependent on the other companies within the Group, including the parent company, in terms of its operations, including purchases and sales of goods, management policies and finance;

#### 6. Real Property Companies

Prior to 1997, Real Property Company (RPC) shares are deemed to be acquired on the date the relevant company becomes a real property company or on the date of acquisition of the RPC shares, whichever is later. If the relevant company acquires additional real property or shares or both equivalent to 50 percent or more than those which it already owns, the date of acquisition of the RPC shares will shift forward to the date of acquisition of the additional real property or shares. After 1997, the deemed date of acquisition of RPC shares will no longer shift forward on purchase of additional real property or shares. If at that date of acquisition of shares, the relevant company was already a RPC, the deemed acquisition price will be either the consideration paid together with the incidental costs for the RPC shares or the deemed market value of the RPC shares in the event that the shares were not acquired at arms length. The acquisition price of bonus RPC shares will be zero since no consideration has been paid for the shares. However, the acquisition price of shares acquired through right issues will be the consideration paid for the rights issue. The new rule after 1997 may be unfair to disposers of RPC shares if the appreciation in value of the shares is not due solely to appreciation in value of the underlying property but to the retention of profits in the RPC and appreciation of other properties purchased subsequent to the date of acquisition of the RPC shares.

#### **APPENDIX B**

#### Key requirements of Tax-free Spin-off, United States

#### 1. Controlled Corporation

To qualify as a tax-free spin-off, the distributing corporation must distribute the stock of a controlled corporation preexisting or newly created to its shareholders. Provided the companies meet the active business requirement (see requirement 3 below), the distributing corporation has significant latitude in the assets it transfers to the controlled corporation. For purposes of this requirement, control is defined as owning at least 80 percent of the voting power and at least 80 percent of the shares of each class of nonvoting stock.

#### 2. Securities Distribution

The distributing corporation generally must distribute all its controlled corporation stock and securities immediately before the transaction. Revenue procedure 96-30, however, allows the distributing corporation to retain a limited amount of the stock or securities if the stock is widely held, the retention satisfies a significant business purpose, the controlled corporation officers and directors are officers and directors of the distribution corporation, the retained stock and securities are disposed of as soon as possible but no later than five years after the separation and the distributing corporation votes the retained stock in the same proportion as the stock distributed. In all cases, stock meeting the control definition must be distributed.

#### 3. Active Businesses

Following the distribution, both the controlled and distributing corporations must be actively engaged in a trade or business with a five-year history. Regulations section 1.355-3(b) defines an active trade or business as one in which all the necessary steps or activities take place to earn a profit. An active business does not include ownership of investments such as stock or land or the leasing of real or personal property unless the corporation provides significant services related to the property.

#### 4. Not A Distributing Device

Neither the distributing nor the controlled corporation can use the spin-off as a device for distributing earnings and profits. Because of its vagueness, this requirement usually is the most troublesome. The key issue is whether the spin-off is indistinguishable from an ordinary dividend. Regulations section 1.355 -2 (d) tries to help by listing factors that indicate when the spin-off (or other corporate division) is or is not a device for distributing earnings. A spin-off starts with one strike against it: The first device factor is "pro rata distribution," the very essence of a spin-off. Regulations section 1.355-2 (d)(5), however, discusses distributions that have no tax avoidance potential and thus may satisfy the device requirement even if one or more device factors are present. For example, a distribution ordinarily would not be a device if the distributing and controlled corporations have no accumulated earnings and profits.

#### 4. Business Purpose

Regulations section 1.355-2(b) requires a spin-off to be "motivated, in whole or substantial part, by one or more corporate business purposes." The purposes must be "real and substantial" and "germane" to the distributing or controlled corporation's business or to the affiliated group of which the distributing corporation is a member. Neither reducing federal income taxes nor satisfying a shareholder purpose is a corporate business purpose. However, a distribution made primarily to achieve a corporate business that also achieves a shareholder purpose is not disqualified. A corporate business purpose also fails the test if it could be accomplished in a nontaxable transaction that is not "impractical or unduly expensive."

The subjectivity inherent in the above rules, as well as intense IRS scrutiny, has made the business purpose requirement one of the most difficult hurdles a company must overcome to ensure tax-free treatment. The revenue procedure 96-30 removes some of the subjectivity by discussing at length the qualifying criteria and the information companies must submit for advance rulings for each of nine business purposes that may qualify a spin-off for tax-free treatment.

## 6. Continuity Of Interest

Regulations section 1.355-2 (c) says that following the distribution of the controlled corporation's stock, the distributing corporation shareholders must maintain continuity of interest in both companies. Revenue procedure 96-30 further says this requirement generally is met if one or more persons who directly own the distributing corporation before the distribution also own 50 percent or more of the stock in each of the modified companies after the separation.

# **APPENDIX C**

# Second Regression Summary of causal relations of explanatory variables to CAR for Parent Companies, Bursa Malaysia, 1986 to 2002; n=85

Effect on Dependent Variable: CAR interval							
			Coefficien (t-value)	t			
Interval	-1 to 0	0	0 to +1	-1 to +1	-5 to +5		
Variable							
Focus	0.704 (0.761)	0.825 (0.917)	0.956 (1.530)	0.317 (0.387)	0.518 (0.470)		
Tax	0.505 (0.735)	0.429 (0.561)	0.867 (1.065)	(0.710 (0.734)	0.732 (0.985)		
Capitalization	6.585 (11.19***)	4.742 (5.613***)	2.090 (2.642***)	5.409 (6.153***)	4.083 (5.092***)		
Regression Model							
R -squared	0.639	0.785	0.643	0.707	0.976		
Adjusted R Squared	0.624	0.620	0.603	0.689	0.964		
S.E. of Regression	2.709	1.073	2.462	3.754	6.030		
F- Statistic	43.21	42.77	3.475	10.863	12.751		
Probability (F-statist	ic) 0.000	0.000	0.000	0.000	0.000		
Durbin-Watson Stati	stic 1.870	1.825	2.526	1.738	2.571		

# **APPENDIX D**

	Effe	ct on Depend	ent Variab	le: CAR interv	al				
Coefficient (t-value)									
Interval	-1 to 0	0	0 to +1	-1 to +1	-5 to +5				
<b>Variable</b> Focus	0.516 (0.675)	0.775 (0.832)	0.693 (0.567)	0.511 (0.673)	0.581 (0.470)				
Tax	0.670 (0.728)	0.378 (0.540)	0.732 (0.640)	0.504 (0.734)	0.993 (0.795)				
Age	-0.716 (-0.753)	-0.732 (-2.688***)	-0.961 (-0.825)	-0.430 (-0.609)	-0.519 (-0.482)				
Regression Model									
R -squared	0.705	0.914	0.814	0.486	0.994				
Adjusted R Squared	0.692	0.865	0.809	0.420	0.397				
S.E. of Regression	1.560	5.919	7.637	1.003	4.968				
F- Statistic	10.721	13.112	8.401	18.216	22.45				
Probability (F-statistic)	0.000	0.000	0.000	0.000	0.000				
Durbin-Watson Statistic	1.838	2.568	2.027	1.677	1.804				

# Third Regression Summary of causal relations of explanatory variables to CAR for Parent Companies, Bursa Malaysia, 1986 to 2002; n=85

# **APPENDIX E**

## Second Regression Summary of causal relations of explanatory variables to CAR for Spin-off Companies, Bursa Malaysia, 1986 to 2002; n=85

Effect on Dependent Variable: CAR interval							
	-1 to 0	0	0 to +1	-1 to +1	-5 to +5		
<b>Variable</b> Focus	0.743 (0.808)	0.852 (0.967)	0.563 (0.619)	0.768 (0.809)	0.603 (0.688)		
Tax	0.632 (0.757)	0.721 (0.796)	0.590 (1.612)	0.549 (0.619)	0.742 (0.865)		
Capitalization	2.065 (2.643***) (	4.317 6.221***)	2.922 (3.643***)	1.045 (1.612*)	1.303 (1.825*)		
Regression Model							
R -squared	0.635	0.856	0.759	0.560	0.408		
Adjusted R Squared	0.618	0.821	0.732	0.477	0.384		
S.E. of Regression	11.891	16.334	10.930	12.681	8.064		
F-statistic	41.492	42.203	11.347	10.806	16.07		
Probability (F-statistic)	0.000	0.000	0.000	0.000	0.000		
Durbin-Watson Statistic	2.054	1.852	1.745	1.689	1.845		

# **APPENDIX F**

# Third Regression Summary of causal relations of explanatory variables to CAR for Spin-off Companies, Bursa Malaysia, 1986 to 2002; n=85

	Effe	ct on Depe	ndent Varia	ble: CAR inte	erval		
Coefficient (t-value)							
	-1 to 0	0	0 to +1	-1 to +1	-5 to +5		
<b>Variable</b> Focus	0.636	0.853	0.665	0.750	0.782		
	(0.711)	(0.925)	(0.784)	(0.759)	(0.801)		
Tax	0.652 (0.717)	0.724 (0.850)	0.543 (0.619)	0.541 (0.601)	0.730 (0.769)		
Age	2.781 (2.825***)	0.831 (0.912)	0.577 (0.602)	0.819 (0.864)	0.845 (0.967)		
Regression Model							
R -squared	0.564	0.759	0.870	0.635	0.640		
Adjusted R Squared	0.513	0.645	0.829	0.608	0.629		
S.E. of Regression	2.302	2.694	2.773	3.511	1.004		
F-statistic	24.218	13.775	31.905	10.806	24.612		
Probability (F-statistic)	0.000	0.000	0.000	0.000	0.000		
Durbin-Watson Statistic	1.538	2.062	3.147	1.792	2.688		