LONG-RUN PERFORMANCE OF REDEEMABLE CONVERTIBLE UNSECURED LOAN STOCKS (RCULS) AND IRREDEEMABLE CONVERTIBLE UNSECURED LOAN STOCKS (ICULS)

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ABSTRACT

This study examines the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS). Using the monthly data on corporations listed on the Main Board, Bursa Malaysia, that issued the RCULS and ICULS; buy-and-hold abnormal returns (BHAR) and cumulative abnormal returns (CAR) methods are conducted to examine the long – run performance of the two instruments. The findings and analysis of this thesis were made based on the data collected from Bursa Malaysia Bloomberg and Investor's Digest and Datastream. The results indicate that overperformance exists on the issuing firms' stock returns for all one - year, two - year and three - year periods, regardless whether buy-and-hold abnormal returns (BHAR) or cumulative abnormal returns (CAR) is applied. Although, the results do contra with Gompers and Lerner (2003), Ritter and Welch (2002), Loughran and Ritter (1995) and Loughran (1993), the argument is based on the sample size being used in the study.

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LIST OF ABBREVIATIONS

KLCI	:	Kuala Lumpur Composite Index
BHAR	:	Buy-and-Hold Abnormal Returns
CAR	:	Cumulative Abnormal Returns
RCULS	:	Redeemable Convertible Unsecured Loan Stocks
ICULS	:	Irredeemable Convertible Unsecured Loan Stocks
RSLS	:	Redeemable Secured Loan Stocks
RGLS	:	Redeemable Guaranteed Loan Stocks
RULS	:	Redeemable Unsecured Loan Stocks
BMB	:	Bursa Malaysia Berhad
CLS	:	Convertible Loan Stocks

DEFINITION OF TERMS

a) **Stock prices**

Stock prices are set by a combination of factors that no analyst can consistently understand or predict, the researcher uses closing price as the data in this study.

b) **Redeemable Convertible Unsecured Loan Stocks**

The holder has two options upon their maturity. They could convert the loan stocks into ordinary shares or alternatively, they could sell them back to the issuing company which is obligated to redeem these securities at par value plus interest upon its maturity.

c) **Irredeemable Convertible Unsecured Loan Stocks**

ICULS will, upon maturity, be converted into ordinary shares. (the holder must convert the instruments into ordinary shares)

d) **Conversion Period**

The initial period is followed by period, often of several years, during which the convertible loan stocks can be converted into the company's ordinary shares.

e) **Stock Market**

A concept for the mechanism that enables the trading of company stocks (collective shares), other securities, and derivative.

INTRODUCTION

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS)"

Chapter 1

1.0 INTRODUCTION

There is considerable evidence of long-run stock price underperformance following corporate events like initial public offerings (IPOs) and seasoned equity offerings (SEOs) (Loughran and Ritter (1995), Spiess and Affleck-Graves (1995) and Ritter (1991)). Yet, at the same time, some corporations are seen interested in the relative merits of issuing corporate debt through a public offerings or a private placement. Prior research has focused on returns in a short window surrounding the date of the announcement of a public offerings or a private placement of debt. Mikkelson and Partch (1986), Eckbo (1986), and Dann and Mikkelson (1984), all found an insignificant negative reaction to the announcement of public straight debt offerings, but a significant negative effect to the announcement of public convertible debt offerings. Field and Mais (1991) find a statistically significant positive stock price response to the announcement of private convertible debt placement. James (1987) and Mikkelson and Partch (1986) document either a non-positive price effect, or a statistically significant negative stock price response to private debt placement.

Other than examining the short-run announcement returns, there have been many studies focused on the long-run performance following securities offerings. Long-run studies can provide additional evidence about the information content of security issues. Past research suggests that the equity issuers underperform various stock return benchmarks in the long run either using public offerings or private placement (Jaskiewicz et al. (2005), Hertzel et al. (2002), Loughran and Ritter (1997, 1995); and Spiess and Affleck-Graves (1995)). According to Brav, Geczy and Gompers (2000), in a sample of initial public offerings (IPOs) and seasoned equity offerings (SEOs) firms from 1975 to

1992, they found that underperformance is concentrated primarily in small issuing firms with low book-to-market ratios. SEO firms that underperform these standard benchmarks have time series returns that covary with factor returns constructed from non issuing firms. They conclude that the stock returns following equity issues reflect a more pervasive return pattern in the broader set of publicly traded companies. It is suggested that managers time equity issues to take advantage of "window of opportunity" to issue overvalued equity.

Recent research by Eckbo, Masulis, and Norli (2000), Dichev and Piotroski (1999), Spiess and Affeck-Graves (1999), Lee and Loughran (1998), and McLaughlin, Safieddine, and Vasudevan (1998) on long-run performance following convertible security issues relies on U.S. market data and also reports substantial stock price underperformance. Ahmad-Zaluki, Campbell and Goodacre (2007) use Malaysian Main Board data and find a significant long-run overperformance following the IPOs. Kang, Kim, and Stulz (1999), using Japanese market data, find long-run underperformance subsequent to issues of convertible debt and Abhyankar & Ho (2004), using the United Kingdom market data, do not find any evidence of long-run stock price underperformance following the issuance of convertible bonds.

Studies have also documented large post-issue declines in operating performance for straight- and convertible-debt issuing firms. Bae, Jeong, Sun, and Tang (2002) show that convertible debt issuers experience a significant decline in operating performance from the pre to post-issue period, but that straight debt issuers do not. Spiess and Affleck-Graves (1999) find a substantial long-run post-issue under-performance in smaller, younger and NASDAQ-listed firms that had made straight and convertible debt offerings. They attribute this to investor's underestimation of cash flow problems after the offerings or to management's over optimism about future prospects.

Lee and Loughran (1998) and McLaughlin, Safieddine and Vasudevan (1998) implemented the buy-and-hold abnormal return method to examine convertible debt offerings. They report that the buy-and-hold returns significantly under-performed their matched counterparts in the long-run by −3.9% and −11.4%, suggesting that a firm tends to issue convertible debt when its stock is overvalued.

These studies empirically evaluated the long-run performance over an extended period following equity and debt offerings and most of them cast doubt on the efficient market concept. They show that the market price of the issuing firm does not fully reflect the information content of security offerings during the announcement period, due to significant long-run under- or over-performance. Various theoretical models have been proposed to explain the long-run abnormal performances. Daniel, Hirshleifer, and Subrahmanyam (1998), Barberis, Shleifer, and Vishny (1998) and Odean (1998) presented theoretical models based on the well-known psychological biases that are consistent with investors' under- or over-reaction to information events.

Most of the long-run studies on debt issuances have been limited to public debt offerings, except for Dichev and Piotroski (1999), who apply the balance approach (i.e., identify public vs. private debt issuances by examining the relative increases in corporate debentures account and long-term notes payable account) to indirectly identify private debt issuances. They find no abnormal returns for the five years following straight debt issues. They also found that public debt issuers and large convertible debt issuers tend to underperform the market, while private debt issuers tended to outperform the market. Nevertheless, the balance-sheet-based approach does not yield a clean classification of public or private debt offerings.

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In this study, the researcher search for the exact announcement dates of public offerings and investigate the long-run stock return following public convertible-debt offerings. With the time constrain, this research investigates only on Redeemable Convertible Unsecured Loan Stocks (**RCULS**) and Irredeemable Convertible Unsecured Loan Stocks (**ICULS**). This is believed to be, as far as the researcher aware, the first to study on the long-run stock price performance of firms following convertible debt issues in Malaysia. Hopefully the results will provide additional evidence for accessing investors' behaviour during the time of public debt offerings.

1.1 BACKGROUND OF STUDY

Given the development and evolution of products in our capital market, there are now some *hybrid investments* that combines both debt and equity investments.

Unsecured loan stocks carry higher risk than debentures, and in the event of a winding-up, unsecured loan stockholders rank alongside all other unsecured creditors.

Convertible loan stocks carry the right to convert into ordinary shares of the company on pre-arranged terms and within a limited period. The objective of issuing a convertible loan stock is to obtain fixed interest finance at a relatively low rate of interest and at the same time make it attractive to potential holders by the offer of equity participation at a later date.

Reader may have heard of loan stocks, which can be issued in the form of Redeemable (RCULS) or Irredeemable Convertible Unsecured Loan Stocks (ICULS).

CULS are convertible unsecured loan stocks. A loan is a security issued by a company for a loan made to it by investors. CULS combine certain advantages of a bond

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with the option of exchanging the bond for common shares. In effect, CULS give a call at a specified price on the common shares of the company within a specified time, normally four to five years. CULS have a special right to be exchanged into common shares on specifically determined terms, called the conversion privilege.

But why are CULS issued? Companies issue CULS because they make the bonds more saleable with the addition of a conversion privilege. The addition of a conversion privilege makes a bond more attractive for purchase. It tends to lower the cost of the money borrowed and may enable the company to raise equity indirectly on terms more favourable than through the sale of common shares.

CULS give the holder the security that combines much of the safety and certainty of income of a bond with the option to convert into common shares and benefit from any increase in share prices. It appeals to the investor who wants to share in the company's growth but wishes to avoid any substantial risk and is willing to accept the lower yield of the convertible in order to have a call on the common share.

1.2 PROBLEM STATEMENT

Given the development and the evolution of products in our capital market, there are now some hybrid investments that are part-equity and part-debt. Most loan stocks that are listed are usually the ones with the convertible nature as non-convertible loan stocks are less attractive and will have to carry a higher coupon rate.

This research is conducted to examine:

- The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS).[1]

Table 1: ICULS and RCULS issued within the time frame.

YEAR	INSTRUMENTS	TOTAL	TOTAL
1990	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	3	
	Redeemable Conv. Unsecured Loan Stocks (RCULS)		2
1991	Redeemable Conv. Unsecured Loan Stocks (RCULS)		1
1992	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	2	
	Redeemable Conv. Unsecured Loan Stocks (RCULS)		1
1993	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	1	
1994	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	3	
	Redeemable Conv. Unsecured Loan Stocks (RCULS)		1
1995	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	2	
1996	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	2	
1997	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	3	
1999	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	5	
2000	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	5	
2001	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	1	
2002	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	10	
	Redeemable Conv. Unsecured Loan Stocks (RCULS)		1
2003	Irredeemable Conv. Unsecured Loan Stocks (ICULS)	10	
	Redeemable Conv. Unsecured Loan Stocks (RCULS)		1
	OVERALL	**47**	**7**

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[1] The researcher would also like to compare the long-run performance of ICULS & RCULS. However, because of the small sample size of RCULS, this is not possible. From January 1990 to March 2004, there are only 7 firms issuing RCULS.

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1.3 OBJECTIVE OF THE STUDY

The objective of this research is to determine the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) or Irredeemable Convertible Unsecured Loan Stocks (ICULS).

1.4 SIGNIFICANCE OF STUDY

- This research will open the investors mind that instead of purchasing stocks or saving their money with banks, there is now some hybrid investments which are part-equity and part-debt and can give them more benefits to enjoy in return of their investment. Couple of them are Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS).

- If overperformance exists for Convertible Unsecured Loan Stocks (CULS), then this presents an opportunity for investors to invest in CULS.

- First study of its kind in Malaysia, as other studies analyse the performance of either ordinary shares or preferred shares, concentrating on Initial Public Offerings (IPOs).

1.5 SCOPE OF THE STUDY

The scope of this research is to examine:

- The performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) for one (1) year period.

- The performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) for two (2) year period.

- The performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) for three (3) year period.

REVIEW OF THE RELATED LITERATURE

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks
(RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) "

Chapter 2

2.0 LITERATURE REVIEW

Since **RCULS** and **ICULS** are two out of several kinds of convertible debts, there are several literatures of review which related to convertible debt security.

Craig M. Lewis, Richard J. Rogalki, James K. Seward (2000), firms that issue convertible debt have high debt- and equity- related costs of external finance. Existing theories of convertible debt finance differ primarily in their identification of the specific causes of the debt- and equity-related costs of external finance.

A firm seeking external capital that confronts high debt- and equity-related financing costs has at least three responses:

First, according to Stiglitz and Weiss, (1981), it may differ or postpone investment, thereby foregoing the intended use of the issue proceeds.

Second, due to Jung et al. (1996), a firm may raise capital by bearing the incremental costs of choosing to issue the wrong security.

Third, a firm may issue a hybrid security, such as convertible debt.

When firms design a hybrid security like a convertible bond, they choose how 'debt- like' or 'equity-like' the offer will be by specifying security characteristics such as the conversion ratio, maturity date, coupon rate, call period and the time to first call. Several theories suggest that managers can design convertible debt to mitigate a variety of debt- and equity-related costs of external financing, including asset substitution problems, (Green, 1984); financial distress and asymmetric information problems (Stein 1992); risk uncertainty (Brennan and Schwartz, 1988); and overinvestment problems (Mayers 1998).

A common feature of these theories is the prediction that information and agency cost limit the ability of the issuers to raise capital efficiently and to fund profitable

investment opportunities. Since convertible debt issuers face different sources of external financing costs, security design is an important way to distinguish between the theories.

Myers (1977) argues that firms with valuable investment opportunities should maintain low debt levels to avoid debt overhang, or the underinvestment problem. If debt levels are too high, a firm may be unable or unwilling to raise new investment capital, even if it has immediate access to positive NPV projects. Brennan and Schwartz (1988), suggest that convertible debt is likely to be issued by companies that investors perceive as risky, firms whose risk is hard to access, or firms whose investment policies are hard to predict. Companies with high operating and financing risk are likely to face high costs of issuing standard securities like straight debt or common equity.

Dann and Mikelson (1984), Eckbo (1986) and Mikelson and Partch (1986) document that investors' reaction to the announcement of convertible debt offers are negative on average. Lewis et al. (2003) says that, there are several theories suggest several different but not mutually exclusive reasons that firms offer convertible debt.

If investors use preissue information to forecast issue decisions and the type of security that a firm is likely to offer, any empirical analysis of the full issuer universe obscures the interpretation of investor reactions.

Green (1984), Brennan Schwartz (1988), and Stein (1992) emphasis the demand for investment capital as a motive for convertible debt issue. Empirical tests rely upon two attributes of a firm's investment policies; the rate of future growth and the profitability of future investment allocations. However, Lewis et al. (1999) have shown that the development of other issuance motive measures should be assessed by their ability to explain security choice decisions, security design decisions, and investor reactions to convertible debt offer announcement.

Table 2: Summary of studies analysing long – run abnormal stock returns.

Author(s), year	Title	Calculation procedure
Ahmad-Zaluki, Campbell and Goodacre (2007)	Initial Public Offerings	buy-and-hold abnormal returns (BHAR) & cumulative abnormal returns (CAR)
Brav and Gompers (1997)	Initial Public Offerings	buy-and-hold abnormal returns (BHAR)
Carter et. al (1998)	High Vs Low Underwriter Reputation	buy-and-hold abnormal returns (BHAR)
Danielova, Thirumalai and Zutter (2003)	Exchangeable Debt Offerings	buy-and-hold abnormal returns (BHAR)
Dichev and Piotroski (1999)	Public And Private Debt Issuance	buy-and-hold abnormal returns (BHAR)
Eberhart and Siddique (2002)	Season Equity Offerings	geometric mean of firm-specific wealth relatives
Ehrhardt (2000)	Initial Public Offerings & Season Equity Offerings	buy-and-hold abnormal returns (BHAR)
Lee and Loughran (1998)	Convertible Bond Issuance	buy-and-hold abnormal returns (BHAR)
Ljungqvist (1997)	Pricing Initial Public Offerings	geometric mean of firm-specific wealth relatives
Loughran and Ritter (1995)	Season Equity Offerings	buy-and-hold abnormal returns (BHAR)
Spiess and Affleck-Graves (1995)	Season Equity Offerings	buy-and-hold abnormal returns (BHAR) & cumulative abnormal returns (CAR)
Teoh et. al (1998)	Season Equity Offerings	buy-and-hold abnormal returns (BHAR)

2.1   Long-Horizon Event Studies

The standard practice in short-horizon event studies of market efficiency has been to use cumulative abnormal returns. A new line of research, beginning with Ritter (1991), Ikenberry, Lakonishok and Vermaelen (1995), Chen, Tyrone and Chia (2005) and others, has been evolving to study long-run performance following corporate events such as stock splits, stock buybacks and convertible issuance terms. One of the major hurdles in this area is the accurate measurement of abnormal returns and the associated test statistics for periods longer than one year.

2.1.1   Cumulative Abnormal Return (CAR)

The convention in much of the research that analyzes abnormal returns has been to sum either daily or monthly abnormal returns over time. Define R_{it} as the month t simple return on a sample firm, $E(R_{mt})$ as the month t expected return for the benchmark of Malaysian equity market, and $AR_{it} = R_{it} - E(R_{mt})$ as the abnormal return in month t. Cumulating across t periods yields a cumulative abnormal return (CAR)[2]:

$$CAR_{it} = \sum_{t=1}^{t} AR_{it} \tag{1}$$

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[2] The Cumulative abnormal returns (CARs) simply add the returns of the event firm and the benchmark over time and then compute their difference. They ignore the effects of compounding returns and do not represent the actual wealth effect of investors.

2.1.2 Buy-And-Hold Abnormal Return (BHAR)

In contrast, the return on a buy-and-hold investment in the sample firm less the return on a buy-and-hold investment in an asset/portfolio with an appropriate expected return (BHAR) is;

$$\text{BHAR}_{ii} = \prod_{t=1}^{36} (1 + R_{it}) - \prod_{t=1}^{36} (1 + R_{mt}) \tag{2}$$

Equation (2) defines the theoretical BHAR for a sample firm as the holding period compounded return over T periods minus its expected return under the null hypothesis. To make this definition operational, the researcher will specify a model of expected returns for sample firms. A number of choices are available to researchers, including the single-factor market model, the Fama–French three factor model, single-control firm or reference portfolio chosen on the basis of size and book-to-market ratio.

Barber and Lyon (1997) and Kothari and Warner (1997) advocate the use of a single-control firm as a benchmark because reference portfolios introduce newlisting, rebalancing and skewness bias in the calculation of BHAR. However, Lyon, Barber and Tsai (1999) point out that carefully constructed reference portfolios, as in this study, overcome these sources of bias and smooth out the measurement noise related to the use of a single-control firm.

2.2 CAR Vs BHAR

In this section, the researcher discusses issues that lead to biases in the calculation to detect long-run abnormal stock returns. The differences between the CAR and BHAR result from the effect of monthly compounding; CAR ignore compounding, while BHAR include the effect of compounding. If individual security returns are more volatile than the returns on the market index, it can be shown that CAR will be greater than BHAR if the BHAR is less than or equal to zero. As the annual BHAR becomes increasingly positive, the difference between the CAR and BHAR will approach zero and eventually become negative.

Barber and Lyon (1997) prefer the use of BHAR because CAR is "a biased predictor of long-run buy-and-hold abnormal returns." The researcher decided to employ BHAR for three main reasons: **(1)** CAR overestimate abnormal returns in the case of underperformance, Barber & Lyon (1997); **(2)** periodical rebalancing, as in the case of CAR, does not consider related transaction costs and represents an artificial approach; and **(3)** compounding, as in the case of BHAR, better reflects the return an investor would realize when buying the shares of a company that went public and holding them for a specific time period, Kothari and Warner (1997).

The sampling properties of BHAR have been investigated extensively in the literature, and a number of problems have been identified. First, reference portfolios may include newly listed firms while sample firms have been usually tracked for a longer time. Because newly listed firms, in general, underperform their benchmarks, the corresponding long-horizon BHAR may be upward biased. This problem is often referred to as the new-listing bias.

Second, a rebalancing bias arises when reference portfolios are periodically (for instance, monthly) rebalanced, whereas sample firms do not change over the same time horizon. Consider an equally weighted reference portfolio. If all securities have to maintain the same weight over time (e.g., on a monthly basis), then it is implicitly assumed that securities that have outperformed the market average are sold, while securities that have underperformed the market average are bought. This rebalancing process is problematic for the following reason: If monthly returns for individual securities are negatively correlated, then the rebalancing process is implicitly done by selling securities that will not perform well in the coming month and by buying securities that should perform above the market average during the same time frame. Mean reversion will create an upward bias in the reference portfolio. Hence, large portfolio returns, in part due to negative serial correlation; do not necessarily reveal a profitable strategy.

Third, end-of-period stock prices quite often represent bid or ask quotes rather than actual market prices. Indeed, Blume and Stambaugh (1983) found that securities with high returns at time $t - 1$ have a higher probability of being recorded as traded at the ask price at time t, whereas securities with low returns at time $t - 1$ have a higher probability to be recorded as traded at the bid price at time t. This bid-ask bounce creates negative serial correlation in the monthly returns of individual firms, and it biases the return of an equally weighted reference portfolio. However, this problem is more pronounced in daily rather than monthly returns.

Fourth and last is the so-called bad model problem. This problem arises because any test against the null hypothesis of zero abnormal returns is a joint test of the hypothesis and the specification of the asset pricing model used to conduct the test, Fama (1998, 1970). Rejection of the null hypothesis of no abnormal returns may be in part due to a bad model. To minimize this and other problems, the researcher should be very careful about the choice of a benchmark. In particular, the study reference portfolios

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are constructed with non-event firms from the same industry (i.e., REITs that did not announce an open-market stock repurchase) according to size and book-to-market ratio, Giambona, Giaccotto and Sirmans (2005). Also, to minimize the new-listing as well as rebalancing bias, the researcher uses reference portfolios constructed without monthly rebalancing and / or investment in newly listed firms after the event month, Lyon, Barber and Tsai (1999).

DATA

&

METHODOLOGY

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS)"

Chapter 3

3.0   Data and Sample Selection

The initial sample of private straight and convertible debt offerings is collected from the Investor's Digest for the period from 1 January 1990 to 31 December 2003. To be included, the company must have been listed on the Main Board, Bursa Malaysia at the time of the offering and have monthly data available on the DATASTREAMS files for the year-end prior to and after the debt offering. For a firm that made several announcements of the same type of security, the study chooses only the first announcement, if the gap between the announcements less than three years.

3.1   Cumulative abnormal returns (CAR)

$$CAR_{it} = \sum_{t=1}^{t} (R_{i1} - R_{m1}) + (R_{i2} - R_{m2}) \ldots\ldots (R_{it} - R_{mt})$$

Therefore, the formula of cumulative abnormal returns can be summarized as:

$$CAR_{it} = \sum_{t=1}^{t} AR_{it}$$

Define R_{it} as the month t simple return on a sample firm, $E(R_{mt})$ as the month t expected return for the benchmark of Malaysian equity market, and $AR_{it} = R_{it} - E(R_{mt})$ as the abnormal return in month t. Cumulating across t periods yields a cumulative abnormal returns (CAR). The expected return is calculated from 100 companies (shares) listed on the Main Board, Bursa Malaysia.

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3.2 Buy-and-hold abnormal return (BHAR)

$$\text{BHAR}_{it} = (1 + R_{i1})(1 + R_{i2}) \ldots (1 + R_{it}) - (1 + R_{m1})(1 + R_{m2}) \ldots (1 + R_{mt})$$

Therefore, the formula of buy-and-hold abnormal returns can be summarize as;

$$\text{BHAR}_{it} = \prod_{t=1}^{36} (1 + R_{it}) - \prod_{t=1}^{36} (1 + R_{mt})$$

BHAR for a sample firm as the holding period compounded return over T periods minus its expected return under the null hypothesis. To make this definition operational, the researcher will specify a model of expected returns for sample firms.

Barber and Lyon (1997) advocated application of buy-and-hold abnormal returns for two reasons. First, they represent the measure of interest to long-term investors. Second, Barber and Lyon (1997) and Kothari and Warner (1997) present evidence that using cumulative abnormal returns over long periods leads to biased statistical tests. To measure the long-run performance of the underlying stock after exchangeable debt offerings, researcher computes returns for one-, two-, and three-year holding periods subsequent to the offering. A maximum horizon of three years was chosen because it represents the shortest maturity of exchangeable debt issues.

EMPIRICAL RESULTS

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS)"

Chapter 4

4.0   EMPIRICAL RESULT

This chapter presents the findings and data analysis for the study. The data has been analyzed using cumulative abnormal return (CAR) and buy-and-hold abnormal returns (BHAR). In this chapter, the data will be examined to:

I.   Determine the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS), one year period.

II.   Determine the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS), two year period.

III.   Determine the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS), three year period.

4.1 PERFORMANCE OF (RCULS) AND (ICULS), ONE YEAR

4.1.1 PERFORMANCE OF RCULS AND ICULS

Table 3: BHAR and CAR for ICULS and RCULS for one year.

PANEL A		PANEL B	
MONTH	BHAR		CAR
1	0.028748		0.028748
2	0.039646		0.039498
3	0.009247		0.009988
4	0.686458		0.685368
5	0.726791		0.701721
6	0.725942		0.697055
7	0.742179		0.703623
8	0.672782		0.666684
9	0.726997		0.698262
10	0.790553		0.733222
11	0.767247		0.720593
$BHAR_{12}$	**0.767236**	CAR_{12}	**0.719173**

The performance of the sample firms' stocks following their issuance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) is shown in Table 2. Panel A in Table 2 shows the abnormal returns of BHAR for 12 months, even though at the first quarter after the issuance the returns are quite low, after that the performances of the stocks reach 76.7236 percent.

The abnormal returns of CAR for 12 months, as shown in Panel B are quite similar with BHAR, but the result shows that CAR's abnormal returns for the time period are lower than BHAR with 71.9173 percent. As with previous studies, Spiess and Affleck Graves (1995) states that the abnormal stock returns of the companies after the events are small and can be positive in the first month or so.

4.1.2 TREND OF RCULS AND ICULS

Figure 1: Trend of BHAR and CAR for one year.

TREND OF BHAR Vs CAR

Figure 1 shows the trend or the movement of BHAR and CAR from the first month following the issuance of RCULS and ICULS, up to 12 months. On average, the trend for the abnormal stock returns by both methods are similar, yet it shows some differences starting from the second quarter. In the second quarter, both methods show a huge increase in their abnormal returns, clearly from less than 10 percent to hike up over 68 percent. However, the returns increase at lower marginal rate when entering the third quarter before going down in the middle of the third quarter.

From the end of the third quarter onwards, the abnormal stocks return grows back and maintain at the level of 68 percent and above. Based on the average of 12 months, the buy-and-hold abnormal returns outperform the cumulative abnormal return.

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4.2 PERFORMANCE OF (RCULS) AND (ICULS), TWO YEAR

4.2.1 PERFORMANCE OF RCULS AND ICULS

Table 4: BHAR and CAR for ICULS and RCULS for two year.

PANEL A		PANEL B	
MONTH	BHAR		CAR
2	0.039646		0.039498
4	0.686458		0.685368
6	0.725942		0.697055
8	0.672782		0.666684
10	0.790553		0.733222
12	0.767236		0.719173
14	0.806178		0.734232
16	0.759986		0.703561
18	0.667233		0.653051
20	0.570746		0.601389
22	0.555606		0.579352
$BHAR_{24}$	**0.579291**	CAR_{24}	**0.583221**

The performance of the sample firms' stocks following their issuance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) is shown in Table 3. Panel A in Table 3 shows the abnormal returns of BHAR for 24 months, with good abnormal stock returns are stated at the first half of the first year after the issuance the returns are high, as the performances of the stocks reach 72.5942 percent from 3.9646 percent on the second month of the same year.

The abnormal returns of CAR for 24 months, as shown in Panel B are quite similar with BHAR, but the result shows that CAR's abnormal returns for the two year period are higher than BHAR with 58.3221 percent. It is consistence with Eberhart and Siddique (2002) which states that the abnormal stock returns of the companies' increase over the time after the events and it goes higher to companies that issue debt instruments.

4.2.2 TREND OF RCULS AND ICULS

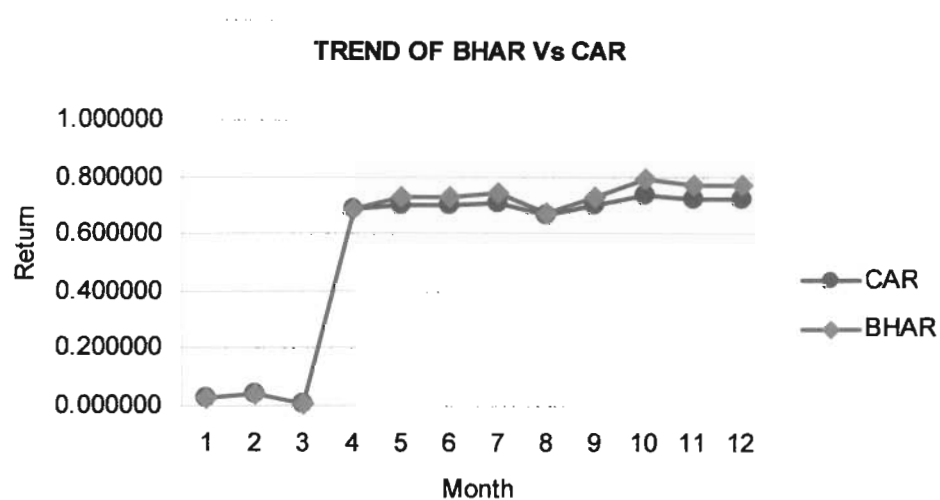**Figure 2: Trend of BHAR and CAR for two year.**
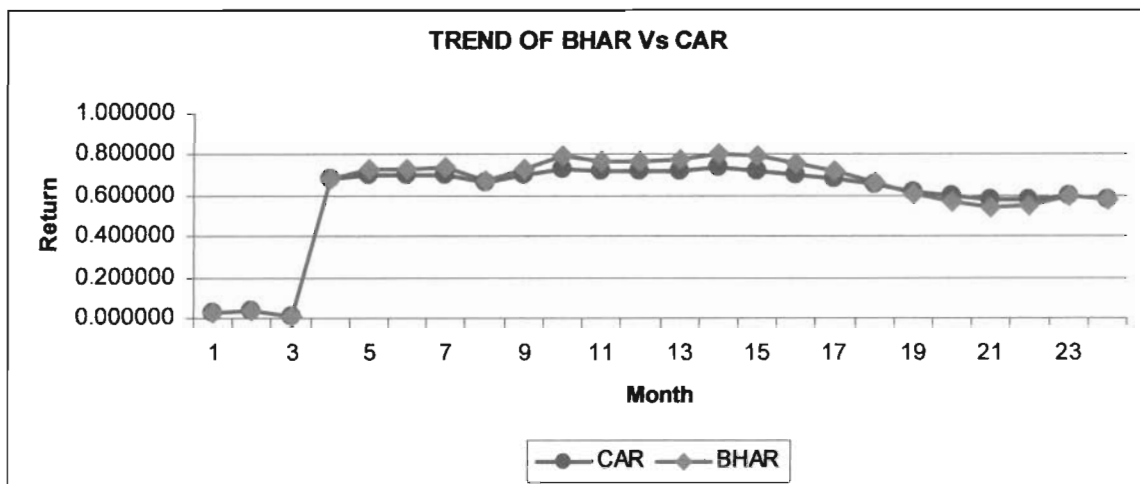
Figure 2 shows the trend or the movement of BHAR and CAR from the first month following the issuance of RCULS and ICULS, up to 24 months. On average, the trend for the abnormal stock returns by both methods are almost similar, yet it shows some gaps starting from the second quarter of the first year. In the second quarter, both methods show a huge increase in their abnormal returns, clearly from less than 10 percent to hike up over 68 percent. However, the returns increase at lower marginal rate when entering the third quarter before going down in the middle of the third quarter.

From the end of the third quarter onwards, the abnormal stocks return grows back and maintain at the level of 68 percent and above. Based on the average of the first half of the study, the buy-and-hold abnormal returns (BHAR) outperform the cumulative abnormal returns (CAR). However, in the second half, BHAR has reduced marginally compared to CAR, thus resulting the CAR to be higher than BHAR at the end of 24th month.

4.3 PERFORMANCE OF (RCULS) AND (ICULS), THREE YEAR

4.3.1 PERFORMANCE OF RCULS AND ICULS

Table 5: BHAR and CAR for ICULS and RCULS for three year.

PANEL A		PANEL B	
MONTH	BHAR		CAR
2	0.039646		0.039498
4	0.686458		0.685368
6	0.725942		0.697055
8	0.672782		0.666684
10	0.790553		0.733222
12	0.767236		0.719173
14	0.806178		0.734232
16	0.759986		0.703561
18	0.667233		0.653051
20	0.570746		0.601389
22	0.555606		0.579352
24	0.579291		0.583221
26	0.568004		0.576324
28	0.580165		0.584856
30	0.643375		0.610520
32	0.644258		0.604253
34	0.576470		0.566236
$BHAR_{36}$	**0.563503**	CAR_{36}	**0.558167**

The performance of the sample firms' stocks following their issuance of RCULS and ICULS is shown in Table 4. Panel A in Table 4 shows the abnormal returns of BHAR for 36 months, with an increasing abnormal stock returns are recorded at the first 15 – month, from 3.9646 percent on the second month of the study to around 80 percent on the 15th month. On the contrary, starting from the 16th month till the 36th month, the abnormal stocks return continuously declining.

The abnormal returns of CAR for 36 months, as shown in Panel B again are quite similar with BHAR, but this time the result shows that BHAR's abnormal

returns for the three - year period are higher than CAR with a difference of 0.5336 percent.

The decline in abnormal stocks return is possible as investors tend to convert the Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) before the instruments reach it maturity. The conversion period usually starts one year after the issuance and ends only when the RCULS and ICULS reach its maturity. With the conversion of the instruments, the number of stocks available in the equity market increases resulted in additional supply of common stocks of the sample firms. To appeal to the ceteris paribus conditions with increase in supply and unchanged in demand of the shares, the shares price of the selected firms will tend to decline.

4.3.2 TREND OF RCULS AND ICULS

Figure 3: Trend of BHAR and CAR for three year.

TREND OF BHAR Vs CAR
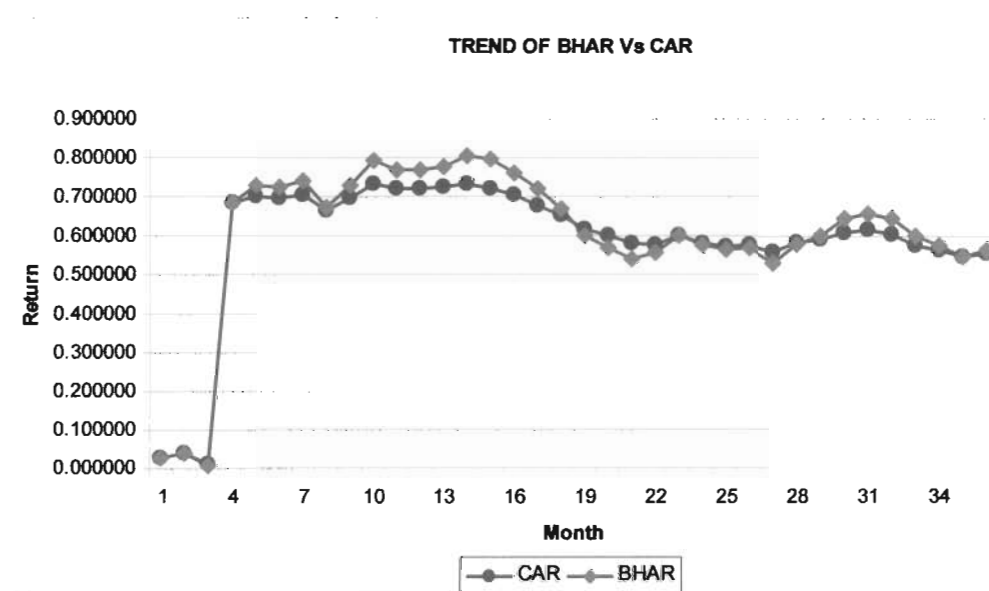
Figure 3 shows the trend or the movement of buy-and-hold abnormal returns (BHAR) and cumulative abnormal returns (CAR) from the first month following the issuance of RCULS and ICULS, up to 36 months. On average, the trend for the abnormal stock returns by both methods are almost similar, it moves up and down at almost the same time starting from the first month till the 18th month. In the second half, both methods show more consistence results in their abnormal returns, clearly from the largest gap of 7.1946 percent in the 14th month to just above 4 percent in the 32nd month. Even though the abnormal stocks returns of BHAR and CAR intercepts several times in the second half, the returns show low volatility in term of the stocks abnormal return.

At the end, the abnormal stocks return the buy-and-hold abnormal returns (BHAR) outperform the cumulative abnormal returns (CAR) over a 0.5338 percent margin. Overall, either BHAR or CAR is used in calculating the abnormality of the stocks return, both methods give the same result that stocks return relating to the issuance of RCULS and / or ICULS out-perform the stock market (KLCI).

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CONCLUSIONS

&

RECOMMENDATION

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS)"

Chapter 5

5.0 CONCLUSION

There is substantial debate over the long run performance of stock returns following various corporate events. This research paper enters this fray with a re-examination of the long run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) issuing firms. As Malaysia is only a developing market, the number of RCULS and ICULS available in the market quite limited and seldom thus may contribute to aspect of reliability of results obtained.

Based on the findings, both BHAR and CAR produce the same results, whether it is a one – year, two – year or three – year periods of analysis, stocks of the issuing companies over-performance the benchmark, Kuala Lumpur Composite Index (KLCI). Contrary with Butler and Wan (2006) results based on United States stock market (NYSE), they find that the convertible debt issuing firms are underperformance compared to the benchmark. Since they are using the U. States equity market which is far more advance and developed compared to Malaysian equity market. This issue is quiet confirm as Ahmad-Zaluki, Campbell and Goodacre (2007) use Malaysian Main Board data and find a significant long-run overperformance following the events.

Moreover, the sample firms selected by some other studies such as Eckbo, Masulis, and Norli (2000), Dichev and Piotroski (1999), Spiess and Affeck-Graves (1999) and Lee and Loughran (1998) on long-run performance following convertible security issues relies on U.S. market data and also reports substantial stock price underperformance. Plus, Kang, Kim, and Stulz (1999), using Japanese market data, which is also a developed market, find long-run underperformance subsequent to issues of convertible debt.

In addition to differences in the results obtained, it is due to the number of sample firms selected for the study. As the reader may realise Bursa Malaysia is a small equity market comparing to the United Kingdom (FTSE), United States (NYSE) and Japan (NIKKEI). Among prior researches that use large sample size based on huge market are Gompers and Lerner (2003) selecting 3,661 sample companies, Ritter and Welch (2002) selecting 6,169 sample companies, Brav et al. (2000) selecting 4,622 sample companies, Loughran and Ritter (1995) selecting 4,753 sample companies and Loughran (1993) selecting 3,656 sample companies.

At the end of this study, the researcher hopes any investor regardless of either individual or corporate who's been searching for portfolios to put their money may consider investing in these instruments (RCULS and ICULS). So far it has been proven that in small capital market like Bursa Malaysia, the abnormal returns are quiet high in the short-run and even higher in the long-run. The issuance or listings of RCULS and ICULS would be an indicator to the investors as a timing of when and where to invest when the time comes. However, it is advisable to the investor or reader to consult with the professionals or remisiers before investing in any instrument or counter.

5.1   RECOMMENDATION

After the research is done and studied over, here some recommendations to make the study on the long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS) in the future:

- **Extension of Analysis**

  The study can be done by selecting a few developing countries in the Asian region or future researcher may straight a way takes the ASEAN members as the size of the research. With a number of countries selected, the future researcher maybe able to broaden the sample size and this may lead to reliability of the results obtained to be worthy. At the same time, the study can make comparisons between the selected countries in order to see the performance of the companies following the events.

- **Additional methodologies to be applied**

  Due to limited time frame, this study only applies a couple of methodologies as to search for long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS). In the future, it would be appreciated if a study runs in depth on its

methodologies, such as using the Fama – French three-factor model[3] or the Carhart four-factor model[4]

- **Additional comparison**

  Furthermore, future researcher may make comparison between straight debts versus convertible debts instruments. It can also be lengthen to compare between Main Board (using Emas Index) with Second Board (using Second Board Index). The outcomes can be very useful to the investors as they can expect the returns generated from various kind of instruments. Last but not least, as an Islamic country, future researcher may conduct studies on the long-run performance of Islamic Straight Debt Instrument (SUKUK) as Malaysia is the largest market in the world for Islamic Financial Instruments.

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[3]Fama–French factors are constructed using the six value-weighted portfolios formed on size and book-to-market based on the work of Fama and French, 1998 and Fama and French, 1993.
[4] The Carhart four-factor model is an additional to the Fama – French three-factor model with the difference in the return on a value-weighted portfolio of high momentum (winners) stocks and low-momentum (losers) stocks.

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APPENDICES

"The long-run performance of Redeemable Convertible Unsecured Loan Stocks (RCULS) and Irredeemable Convertible Unsecured Loan Stocks (ICULS)"

APPENDIX A

YEAR	COMPANY	ISSUE	MATURITY	ICULS	RCULS
1990	ICULS			4	
	GENERAL LUMBER BHD.	10-Nov			
	KFC HOLDINGS BHD.	20-Sep	1995		
	TIME ENGINEERING BHD.	12-Jan	1995		
	LAND AND GENERAL BHD.	22-Sep	1994		
	RCULS				2
	WORLDWIDE HOLDINGS BHD.	18-May	1998		
	IGB CORP. BHD.	17-Aug	1995		
1991	ICULS			1	
	OYL INDUSTRIES BHD.	11-Jul	1995		
	RCULS				2
	DUNLOP ESTATE BHD.	30-Jun	1996		
	RENONG BHD.	31-Jul	1996		
1992	ICULS			4	
	ARAB M'SIAN CORP. BHD	4-Aug	1997		
	BERJAYA GROUP BHD.	3-Mar	1997		
	IJM CORP. BHD.	15-Feb	1997		
	UNIPHEONIX CORP. BHD	12-Dec	1997		
	RCULS				1
	BERJAYA SPORTS TOTO BHD.	31-Oct	1997		
1993	ICULS			1	
	SITT TATT BHD.	12-Aug	1998		
	RCULS				1
	BERJAYA SINGER BHD.	16-Sep	1998		
1994	ICULS			5	
	ARAB M'SIAN FINANCE BHD	21-Nov	1999		
	AMMB HOLDINGS BHD.	21-Nov	1999		
	OSK HOLDINGS BHD.	23-Mar	1999		
	ANSON PERDANA BHD.	28-Feb	1999		
	UTD. ENGINEERS (M) BHD.	23-May	1999		

	RCULS				1
	DAMANSARA REALTY BHD.	24-Mar	1999		
1995	**ICULS**			3	
	ARAB M'SIAN CORP. BHD	3-May	2002		
	ARAB M'SIAN DEV. BHD	17-Feb	2002		
	SAPURA TEL. BHD.	15-Sep	2000		
	RCULS				
1996	**ICULS**			5	
	BERJAYA LEISURE BHD.	27-Mar	2001		
	HOSPITAL PANTAI BHD.	23-Sep	2001		
	PHILEO ALLIED BHD.	13-Sep	2001		
	PHILEO LAND BHD.	16-Oct	2001		
	RENONG BHD.	22-May	2001		
	RCULS				
1997	**ICULS**			7	
	AMFB	26-May	2002		
	AMMB HOLDINGS BHD.	9-May	2002		
	DUNHAM BUSH (M'SIA) BHD.	18-Jun	2002		
	M'SIAN PLANT'S BHD.	17-Apr	2002		
	MULTI-PURPOSE HLDGS BHD.	14-Jan	2002		
	SIAH BROTHERS CORP. BHD.	29-Mar	2002		
	TANCO HOLDINGS BHD.	21-Jan	2002		
	RCULS				
1998	**ICULS**				
	RCULS				
1999	**ICULS**			8	
	AMANAH CAP. PARTNERS BHD.	4-Aug	2004		
	BERJAYA GROUP BHD.	18-Oct	2009		
	HALIM MAZMIN BHD.	1-Jul	2004		
	INSAS BHD.	20-Apr	2009		
	KUMPULAN EMAS BHD.	16-Nov	2004		
	MWE HOLDINGS BHD.	8-Oct	2004		
	PHILEO ALLIED BHD.	30-Nov	2004		
	TONGKAH HOLDINGS BHD.	30-Aug	2004		

	RCULS				
2000	**ICULS**			7	
	EUROPLUS BHD.	20-Jul	2005		
	FABER GROUP BHD.	1-Nov	2005		
	FORMIS (MALAYSIA) BHD.	17-Mar	2005		
	GRAND CENTRAL ENT. BHD	18-Feb	2005		
	GULA PERAK BHD.	1-Sep	2005		
	OSK HOLDINGS BHD.	2-Mar	2005		
	YCS CORP. (ICULS A)	5-May	2005		
	RCULS				
2001	**ICULS**			3	
	HIAP AIK CONSTRUCTION BHD.	31-Jan	2006		
	PATIMAS COMPUTERS BHD.	20-Feb	2006		
	TANAH EMAS CORP. BHD.	10-Dec	2006		
	RCULS				
2002	**ICULS**			14	
	ARTWRIGHT HOLDINGS BHD.	6-Mar	2007		
	AVENUE ASSETS BHD.	22-Nov	2007		
	BERJAYA SPORTS TOTO BHD.	5-Aug	2012		
	CAMERLIN GROUP BHD.	15-Jul	2007		
	CRESCENDO CORP. BHD.	26-Aug	2007		
	DATAPREP HLDGS. BHD.	6-Aug	2005		
	GADANG HOLDINGS BHD.	22-Oct	2007		
	HONG LEONG INDUST. BHD.	28-Jun	2007		
	i- BHD.	2-May	2007		
	KUMPULAN JETSON BHD.	28-Nov	2012		
	MUTIARA GOODYEAR DEVL. BHD.	16-Jan	2007		
	PANTAI HOLDINGS BHD.	1-Aug	2007		
	RASHID HUSSAIN BHD.	24-Dec	2012		
	WAH SEONG CORP. BHD.	21-May	2012		
	RCULS				1
	FURQAN BUS. ORG. BHD.	20-Dec	2005		
2003	**ICULS**			8	
	CREST BUILDER HLDGS. BHD.	25-May	2006		
	EQUINE CAPITAL BHD.	26-Aug	2008		
	GEORGE KENT (M'SIA) BHD.	30-Sep	2013		

	INTEGRAX BHD.	31-Mar	2005		
	JOHAN HOLDINGS BHD.	30-Sep	2013		
	NAM FATT CORP. BHD. (A)	25-Jun	2011		
	TAP RESOURCES BHD.	30-Jun	2006		
	VTI VINTAGE BHD.	22-Aug	2006		
	RCULS				
	CREST BUILDER HLDGS. BHD.	25-Feb	2008		1
				70	9

APPENDIX B

YEAR	COMPANY	AMT. O/STANDING	TOTAL (RM)
1990	**ICULS**		
	GENERAL LUMBER BHD.	60,581,490	
	KFC HOLDINGS BHD.	21,998,000	
	TIME ENGINEERING BHD.	231,879,200	
	LAND AND GENERAL BHD.	12,528,005	**326,986,695**
	RCULS		
	WORLDWIDE HOLDINGS BHD.	1,280,000	
	IGB CORP. BHD.	27,884,125	**29,164,125**
1991	**ICULS**		
	OYL INDUSTRIES BHD.	58,608,519	**58,608,519**
	RCULS		
	DUNLOP ESTATE BHD.	306,597,208	
	RENONG BHD.	675,000,000	**981,597,208**
1992	**ICULS**		
	ARAB M'SIAN CORP. BHD	143,929,970	
	BERJAYA GROUP BHD.	100,919,823	
	IJM CORP. BHD.	63,064,000	
	UNIPHEONIX CORP. BHD	43,467,860	**351,381,653**
	RCULS		
	BERJAYA SPORTS TOTO BHD.	90,766,769	**90,766,769**
1993	**ICULS**		
	SITT TATT BHD.	9,473,001	**9,473,001**
	RCULS		
	BERJAYA SINGER BHD.	29,798,933	**29,798,933**
1994	**ICULS**		
	ARAB M'SIAN FINANCE BHD	201,438,666	
	AMMB HOLDINGS BHD.	422,432,000	
	OSK HOLDINGS BHD.	14,997,750	
	ANSON PERDANA BHD.	38,121,204	
	UTD. ENGINEERS (M) BHD.	270,966,568	**947,956,188**

	RCULS		
	DAMANSARA REALTY BHD.	300,000,000	**300,000,000**
1995	**ICULS**		
	ARAB M'SIAN CORP. BHD	411,256,233	
	ARAB M'SIAN DEV. BHD	145,630,348	
	SAPURA TEL. BHD.	103,389,999	**660,276,580**
	RCULS		
1996	**ICULS**		
	BERJAYA LEISURE BHD.	28,976,216	
	HOSPITAL PANTAIBHD.	31,350,000	
	PHILEO ALLIED BHD.	227,903,708	
	PHILEO LAND BHD.	150,090,000	
	RENONG BHD.	434,508,462	**872,828,386**
	RCULS		
1997	**ICULS**		
	AMFB	469,576,932	
	AMMB HOLDINGS BHD.	435,061,855	
	DUNHAM BUSH (M'SIA) BHD.	21,999,499	
	M'SIAN PLANT'S BHD.	214,046,000	
	MULTI-PURPOSE HLDGS BHD.	766,893,366	
	SIAH BROTHERS CORP. BHD.	115,600,000	
	TANCO HOLDINGS BHD.	80,000,000	**2,103,177,652**
	RCULS		
1998	**ICULS**		
	RCULS		
1999	**ICULS**		
	AMANAH CAP. PARTNERS BHD.	176,841,000	
	BERJAYA GROUP BHD.	614,730,144	
	HALIM MAZMIN BHD.	19,862,000	
	INSAS BHD.	103,767,866	
	KUMPULAN EMAS BHD.	63,806,250	
	MWE HOLDINGS BHD.	64,420,533	
	PHILEO ALLIED BHD.	150,000,000	
	TONGKAH HOLDINGS BHD.	161,995,236	**1,355,423,029**

	RCULS		
2000	**ICULS**		
	EUROPLUS BHD.	84,087,707	
	FABER GROUP BHD.	231,969,662	
	FORMIS (MALAYSIA) BHD.	29,149,601	
	GRAND CENTRAL ENT. BHD	37,393,000	
	GULA PERAK NHD.	192,375,000	
	OSK HOLDINGS BHD.	98,253,462	
	YCS CORP. (ICULS A)	52,329,475	
	YCS CORP. (ICULS B)	90,000	**725,647,907**
	RCULS		
2001	**ICULS**		
	EUROPLUS BHD.	7,385,040	
	HIAP AIK CONSTRUCTION BHD.	24,183,562	
	PATIMAS COMPUTERS BHD.	59,998,500	
	TANAH EMAS CORP. BHD.	40,957,430	**132,524,532**
	RCULS		
2002	**ICULS**		
	ARTWRIGHT HOLDINGS BHD.	11,505,462	
	AVENUE ASSETS BHD.	179,500,000	
	BERJAYA SPORTS TOTO BHD.	616,495,336	
	CAMERLIN GROUP BHD.	129,393,315	
	CRESCENDO CORP. BHD.	40,785,870	
	DATAPREP HLDGS. BHD.	26,544,000	
	DATAPREP HLDGS. BHD.	34,062,520	
	GADANG HOLDINGS BHD.	14,502,000	
	HONG LEONG INDUST. BHD.	208,152,780	
	i- BHD.	40,392,000	
	KUMPULAN JETSON BHD.	11,336,000	
	MUTIARA GOODYEAR DEVL. BHD.	85,134,000	
	PANTAI HOLDINGS BHD.	61,180,035	
	RASHID HUSSAIN BHD.	620,940,385	
	WAH SEONG CORP. BHD.	82,948,703	**2,162,872,406**
	RCULS		
	FURQAN BUS. ORG. BHD.	37,655,072	**37,655,072**
2003	**ICULS**		

	CREST BUILDER HLDGS. BHD.	18,500,000	
	EQUINE CAPITAL BHD.	77,400,000	
	GEORGE KENT (M'SIA) BHD.	33,382,000	
	INTEGRAX BHD.	33,420,900	
	JOHAN HOLDINGS BHD.	57,023,582	
	NAM FATT CORP. BHD. (A)	213,347,295	
	NAM FATT CORP. BHD. (B)	100,645,127	
	TAP RESOURCES BHD.	12,052,084	
	VTI VINTAGE BHD.	19,240,000	**565,010,988**
	RCULS		
	CREST BUILDER HLDGS. BHD.	10,000,000	**10,000,000**

APPENDIX C

Studies in long-run abnormal performance following convertible bond issues

Study	Sample		Pre-offer (%)	Post-offer (%)	
	Period	*n*	EW	EW	VW
U.S. data					
Lee and Loughran (1998)	1975–1990	986	–	$-3.90^{a,\#}$	–
McLaughlin et al. (1998)	1980–1993	828	$17.30^{a,***}$	$-3.13^{a,**}$	–
Spiess and Affleck-Graves (1999)	1975–1989	400	$10.24^{a,***}$	$-6.29^{a,***}$	–
			–	$-3.72^{b,***}$	-3.00^{b}
Dichev and Piotroski (1999)	1964–1991	1193	–	$-11.24^{a,***}$	$-8.33^{a,**}$
Eckbo et al. (2000)	1964–1995	459	–	-2.82^{a}	$-4.98^{a,**}$
Lewis et al. (2001)	1979–1990	566	$55.80^{a,\#}$	$-5.30^{a,\#}$	–
Japanese data					
Kang et al. (1999)	1980–1988	1329	–	$-7.91^{a,***}$	–

All returns are annualized returns based on the assumption of Ritter (2003), except for Lewis et al. (2001), who calculated the mean annual return during the 5 years after the offer.

Most of the BHARs are based on the size/book-to-market-matched firms/portfolios. Lewis et al. (2001) used industry and OIBD/assets ratio matched firms as benchmarks.

The figures for Dichev and Piotroski (1999) are the abnormal returns for firms of the largest debt offering quintile.

EW = equal-weighted portfolio; VW = value-weighted portfolio; n = number of samples in the study. [a] BHAR: The pre-offer return in the work of Lewis et al. (2001) is an event firm buy-and-hold return. [b] CTAR using the Fama–French three-factor model.

** 5% significance level.

*** 1% significance level.

No significance level is provided in the particular study.