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Wealth Effects Associated with Announcements of Hybrid Securities in an Emerging Country: Evidence from Malaysia

Abdul Rahim, N.* and Abdul Rahman, F.

Department of Accounting and Finance, Faculty of Economics and Management, Universiti Putra Malaysia, 43400 Serdang, Malaysia.

ABSTRACT

This paper examines the market reaction to hybrid security announcements in an emerging country, specifically Malaysia, from January 1996 to December 2009. The results indicated that announcements of the intention to issue convertible bonds in Malaysia are significantly associated with negative abnormal returns of 1.10% (significant at the 10% level) on the event window of (-1, 1). On the other hand, announcements of the intention to issue warrant-bonds document significantly positive abnormal returns of 2.25% (significant at the 5% level) on the same event window. The 'univariate' test confirmed that the wealth effect associated with the announcement of the intention to issue warrant-bonds is larger (i.e., more positive) than convertible bonds, in line with a few studies conducted in different markets. The findings of this study highlight that listed firms with high risk uncertainty in Malaysia contribute to more negative abnormal returns in comparison to lower risk uncertainty firms.

Keywords: Event study, convertible bonds, warrant-bonds, emerging country

INTRODUCTION

Extensive research has been carried out on the wealth effects of security issues such as debt, equity, and hybrid securities such as convertible bonds. Hybrid securities have been the centre of attention due to these securities being unique in terms of having characteristics of both debt and equity. Almost half of the studies on the announcement effects of hybrid securities focused on the United States, as they are the largest issuers of convertible bonds, followed by Japan. However, relatively few studies have been performed using data from emerging countries. For

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E-mail addresses:
huda@upm.edu.my / huda_rahim@hotmail.com (Abdul Rahim, N.),
asafar@upm.edu.my (Abdul Rahman, F.)
* Corresponding author

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example, Chang, Chen, and Liu (2004) used sample data from Taiwan, Li and Wang (2008) used data from China, and Mohd Ashhari and Sin-Chun (2009) used data from Malaysia.

Motivated by the limited literature available in this particular area in emerging countries, this study seeks to find the announcement effects associated with the intention to issue hybrid securities, namely, convertible bonds and warrant-bonds in Malaysia. Although one study of the market response associated with the intention to issue convertible bonds has been carried out in Malaysia (Mohd Ashhari & Sin-Chun, 2009), the present study expands the previous study sample period and compares the market response between two similar hybrid securities: convertible bonds and warrant-bonds. The current study also investigates whether or not the wealth effects of these hybrid securities announcements are the same. The wealth effects based on the sub-sample method of offerings (rights issue and private placements) of hybrid securities are also examined. An investigation into determinants of market response associated with these hybrid securities was also conducted. The justification for investigating Malaysian market is due to the important role that hybrid securities played during the Asian Financial Crisis (1997 to 1999) and during the recovery period (until the end of 2001). The issuance of convertible bonds and warrant-bonds increased significantly during the financial crisis and recovery period (1997 until 2001), especially in 1999, in comparison to other alternative debt and equity.[1]

This study contributes to the literature by focusing on the wealth effects associated with announcements of hybrid securities in an emerging country. The uniqueness of this study is partially on hand collected dataset and testing a well-developed hypotheses, namely, 'asymmetry information hypothesis', 'the risk uncertainty hypothesis', 'certification hypothesis' and 'signalling hypothesis' in the different settings of the institutional and debt market structure. The research covers the announcements of the intention to issue hybrid securities in Malaysia from January 1996 to December 2009. The findings document that the wealth effects of the intention to issue convertible bonds in Malaysia induce significantly negative abnormal returns of 1.10% on the event window (-1, 1), whereas the warrant-bonds induce significantly positive abnormal returns of 2.25% on the same event window. There is a significant difference between the mean of these abnormal returns, confirming that the market perceived warrant-bonds as more advantageous than convertible bonds. However, when other factors are taken into accounts, there are no significant differences between convertible bonds and warrant-bonds.

[1]The issuance of bonds with warrants and convertible bonds constituted 12.17% of the private capital market (3.36% and 8.81%, respectively) in 1999.

The organisation of this paper is as follows: Section 2 considers various theoretical arguments about the factors that determine market reaction to the announcements of these hybrid securities and hypotheses construction. Research design and methods are discussed in Section 3, with empirical results and discussion presented in Section 4. Finally, this paper is concluded in Section 5.

THEORIES AND CONSTRUCTION OF THE HYPOTHESES

Asymmetry Information Hypothesis

A theory proposed by Myers and Majluf (1984), based on asymmetric information, notes that external financing signals negative market information to the outside investors. Investors perceive that announcements of equity may give a negative signal to the market, as investors know that managers have access to private information. Therefore, managers will issue equity when the share price is overvalued. With the existence of asymmetric information, Myers and Majluf (1984) suggested an order in issuing securities; first, use retained earnings, then use less risky assets such as straight debt, followed by issue hybrid securities. The final option is to issue external equity. This theory suggests that issuing securities is likely to have a negative impact on the share price.

In a similar fashion to other firms in emerging countries in Asia, Malaysian listed firms tend to have high concentrated family ownership with one controlling owner, government or state ownership[2], as well as affiliated groups that are also controlled by families (Claessens, Djankov, & Lang, 2000; Claessens, Fan, & Lang, 2006). These characteristics are different from developed countries such as Japan which tend to be controlled by banks or financial institutions. The institutional background of Malaysian firms is very similar to network-oriented countries in terms of concentration of ownership (family and group affiliation), except for the control aspect. Concentrated ownership suggests lower information asymmetry, leading to positive (or less negative) abnormal returns. Based on this argument, announcements of the intention to issue hybrid securities in Malaysia are hypothesised to be associated with positive abnormal returns.

Hypothesis 1: Announcements of the intention to issue hybrid securities in Malaysia are associated with positive abnormal returns.

Risk Uncertainty Hypothesis

The 'risk uncertainty hypothesis' is first discussed by Brennan and Schwartz (1988). The basic idea of this hypothesis is that convertible bonds are suitable for a firm that has a risk uncertainty or disagreement about risk between investors and

[2]According to GLC Transformation Programme Progress Review 2011, as on 1st April 2011, Government-link companies constitute RM353 billion (approximately £70.60 billion) of the total market capitalization or 36% of the Bursa Malaysia.

shareholders. According to this hypothesis, companies that issue convertible debt have the largest risk uncertainty in which issuing straight debt can be very costly. While the value of the straight debt in a convertible bond might be low, this low values is offset by the increased value of the conversion. In other words, if investors perceive that the risk of a firm is high but firms perceive the risk as low, the value of the straight bond will decline, but the value of the 'option' or the conversion value will increase. Based on the risk uncertainty argument, the second hypothesis is:

Hypothesis 2: Announcements of the intention to issue hybrid securities in Malaysia by firms with high risk uncertainty are associated with more positive abnormal returns than by firms with less risk uncertainty.

Method of Offering

The 'certification hypothesis' of Hertzel and Smith (1993) suggests that private placement investors have an opportunity to assess the firm's value and the investment opportunities, thereby alleviating the asymmetric information in issuing securities suggested by Myers and Majluf (1984). According to Hertzel and Smith (1993), this 'certification hypothesis' is in agreement with the 'ownership hypothesis' that private placement improves managerial performance due to increased monitoring by the block-holders. Heinkel and Schwartz (1986), in their 'signalling hypothesis', suggest that rights offering of equity convey more favourable information than non-rights equity offering, leading to a less negative stock price response during the announcement of security. Based on the 'signalling hypothesis' of Heinkel and Schwartz (1986) and the 'certification hypothesis' of Hertzel and Smith (1993), the rights issue and private placements of hybrid securities in Malaysia are expected to be associated with positive (or less negative) abnormal returns.

Hypothesis 3: Announcements of the intention to issue hybrid securities in Malaysia by method of private placements are associated with positive abnormal returns.

Hypothesis 4: Announcements of the intention to issue hybrid securities in Malaysia by method of rights offering are associated with positive abnormal returns.

RESEARCH DESIGN AND METHODOLOGY

Event Study Methodology

In order to investigate the wealth effects of the announcement of the intention to issue hybrid securities, the standard event-study methodology was used, as proposed by Brown and Warner (1985). The announcement dates were taken from two sources; the Investors' Digest for the announcements from 1996 to 1999, and the Bursa Malaysia website for announcements from 2000 to 2009. The announcement date recorded in Investors' Digest is the date that Kuala Lumpur Stock Exchange (currently known as Bursa Malaysia) received the announcement from listed companies.

Therefore, this date is treated as the event date, day 0. Announcements on the Bursa Malaysia website are received directly from public listed companies, merchant banks, or companies' secretary through the Listing Information Network (LINK). Once again, the date that announcements are published on the website are treated as the event date (day 0).

The estimation period for market model is 171 days, starting at day 180 until day 10, before the announcement date (-180, -10). The test period is from 5 days before the announcement until 5 days after the announcement (-5, 5). The returns index (RI) series of the securities that are already adjusted for dividend are downloaded from Datastream. Logarithmic returns are computed as $ln\ (P_{i,t}) - ln\ (P_{i,t1})$. The logarithmic returns are used because they are more normally distributed than the discrete returns (Strong, 1992). The market model defined as $R_{it} = \alpha_i + \beta_i R_{mt} + e_{it}$ is used to find the expected return, where R_{it} is return of security i in period t, R_{mt} is return of the market, α_i is alpha or the intercept of the security i, β_i is beta or the slope of the security i, and e_{it} is the error term of security i in period t.

Before August 2009, public listed companies on Bursa Malaysia were segregated based on their market capitalisation, namely, the Main Board (at least RM60 million market capitalisation) and the Second Board (at least 40 million market capitalisations). On 3 August 2009, the Main Board and the Second Board were merged to form Bursa Malaysia Main Market. This revamp required to use more than one benchmark of market index. Two benchmarks of the market index were used according to their listing board for announcements before August 2009; Exchange Main Board All Shares Index (EMAS) if the company listed in the Main Board, and the Second Board Index if the company listed in the Second Board. For announcements after August 2009, FTSE Bursa Malaysia EMAS index is used as the benchmark if the announcements are from the main market and ACE Index if the company is from the Access Certainty Efficiency (ACE) market, previously known as MESDAQ market. This approach has been used by Ahmad-Zaluki, Campbell, and Goodacre (2007) in their Malaysian IPOs study, in which they used the market index according to the listed companies' board. All the indices are based on the market-capitalisation or a value-weighted index as it is available from Datastream.

To calculate the abnormal return, the return on a security is regressed against the market index to get the beta and the alpha. The beta is also adjusted according to Scholes and Williams (1977) for thin trading purpose. Then, the difference between the actual return on the security (as computed with the natural log) and expected return from the market model is computed as $AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$. The average abnormal return is computed by dividing the abnormal return by the number of sample or announcements as $AAR = 1/n \sum AR_{it}$.

The *t*-statistic presented by Brown and Warner (1985, p. 7) is used to test the

significance of the average abnormal return. The calculation of *t*-statistic for time t is *t-stat = AAR/ SD (AAR)*, where AAR represents average abnormal return across securities in the sample. SD (AAR) is the standard deviation for average abnormal return for all securities in the sample calculated during the estimation period. The *t*-statistic for cumulative average abnormal return (CAR) is slightly different from the above. It is calculated by dividing CAR over the square root of the number of days in the event window multiplied by the estimated standard deviation. For example, the *t*-statistic for two-day event window of (1,0) is:

$$t\text{-}statistic = CAR_{(-1,0)} / \sqrt{2} * SD\ (AAR)$$

Sample Selection

The chosen sample consists of listed firms on Bursa Malaysia from 1996 to 2009. The list of convertible bonds and warrant-bonds issues was downloaded from Datastream, Fully Automated System and Tendering (FAST) and Security Commission websites. From the list, announcements of hybrid securities were tracked back from Investors' Digest for the time period of 1996 to 1999. For the period of 2000 to 2009, announcements were collected from Bursa Malaysia's website. The information about method of offerings is available on the Investors' Digest, Bursa Malaysia's website, the prospectus of offerings, and Annual Reports.

The final sample of convertible bonds consists of 105 announcements and 28 announcements for warrant-bonds, with a total of up to 133 announcements of hybrid securities altogether. Any package announcement related to earnings and dividends, either actual or forecast in single day before and after the announcements of the hybrid securities (or in a three-day trading period), was excluded from the sample. However, package announcements other than that were included in the sample.

In the second part of this study, the determinants of the abnormal returns of hybrid securities in Malaysia were investigated using multivariate analysis. The sample dataset for this analysis consisted of 117 announcements, including announcements from financial companies which have characteristic data available from Datastream.

Variables and Measurement

The five-day cumulative abnormal return of the event window (1, 5) was used in this work as the dependent variable in multiple regression analysis. The justification of using the longer event window as dependent variable is because market in Malaysia is smaller compared to other developed country. Using a longer event window in this study is more appropriate as it is common in emerging market to either have insider trading or delay in market reaction (Salamudin, Ariff, & Nassir, 1999).

The first explanatory variable is company size, measured as a proxy of asymmetric information. As discussed before, listed firms in Malaysia are highly concentrated that suggests lower asymmetric information. However, the listed firms still have to disclose or report their earnings, investments and activities to the public in the Annual Report as one of

the compulsory requirements of Securities Commissions. Larger firms generally have lower asymmetric information than smaller firms. Thus, company size is hypothesised to have a positive relationship with abnormal returns. The proxy that is used to measure company size is market value (Datastream code: MV), defined as the market price at the fiscal year-end prior to the announcement multiplied by number of common shares outstanding at that time. This variable was taken from Datastream.

To test the 'risk uncertainty hypothesis', standard deviation of firm equity return was employed as the second explanatory variable. Firms with a higher standard deviation are hypothesised to have higher risk uncertainty. The standard deviation of firm's equity return was calculated based on the raw return of the issuer over the window (-80, -6) (Lewis, Rogalski, & Seward, 2003; Dutordoir & Van de Gucht, 2007). This variable was expected to have a positive coefficient with the dependent variable.

The third variable is the Dummy rights variable is equal to 1 if the hybrid securities are offered by the method of rights offerings, 0 if not offered by method of rights offerings, and the Dummy placements variable is equal to 1 if the hybrid securities are offered by the method of private placements, and 0 otherwise are constructed. The omitted or based variable is the combination of 2 mixed announcements (a combination of private placement and rights offerings) and another 7 of unidentified announcements. To test whether there is a different relationship between convertible bonds and warrant-bonds with regard to abnormal returns, a Dummy CB and WB is equal to 1 if the security is a convertible bond and 0 if the security is a warrant-bond is employed.

EMPIRICAL RESULTS AND DISCUSSION

The analysis and discussion of the empirical results of the study performed in this research are divided into three sub-sections. The first sub-section discusses the descriptive statistics of the firms that announced the intention to issue hybrid securities in Malaysia. The second sub-section contains the analysis of the market response towards the announcements of the intention to issue hybrid securities, and also focuses on the sub-samples based on method and purpose of offerings. Finally, the determinants of the abnormal returns are discussed on the third sub-section.

Descriptive Statistics

Table 1 contains descriptive statistics for announcements of the intention to issue hybrid securities and the characteristics of the issuance of hybrid securities in Malaysia. It shows that the highest numbers of announcements of hybrid securities in Malaysia were made in 1999 and 2000, with 22 announcements for each year. One possible factor that caused the higher numbers of hybrid securities announcements in these years was because at that time Malaysia was recovering from the Asian Financial Crisis that started in 1997 and ended at the end of 1999.

During this crisis, companies were forced to restructure in order to survive. There were 27 companies that announced their intention to issue hybrid securities during the financial crisis, and four of them were distressed companies. Four more companies were distressed in 2000, three in 2001, four companies in 2002, and one in 2004, 2005, 2007, and 2008, respectively, contributing to 19 distressed companies in total. The distressed companies were identified as they underwent the Scheme of Arrangement under Section 176 of the Company Act of Malaysia, 1965, or were listed in Practice Note 4 or Practice Note 17 of the Bursa Malaysia.

Private placements and rights issue are the preferable method of offering hybrid securities in Malaysia. During the study period, 33% of the announcements (44 announcements) used the rights issues and 59% (79 announcements) used private placements as their method of the offerings. The method of offerings is not able to be identified for 7 announcements, while 3 announcements used both rights and placements.

TABLE 1
Descriptive statistics for the announcements of the intention to issue hybrid securities in Malaysia

Year of announcement	Securities		Announcement per year		Method of offering			
	CB	WB	Total	Distress Firms	RI	PP	Mixed	Data not available
2009	7	1	8	0	4	4	0	0
2008	3	0	3	1	3	0	0	0
2007	3	4	7	1	1	6	0	0
2006	4	0	4	0	2	2	0	0
2005	6	0	6	1	3	3	0	0
2004	5	0	5	1	2	3	0	0
2003	10	0	10	0	0	9	1	0
2002	15	2	17	4	3	12	2	0
2001	11	0	11	3	5	6	0	0
2000	15	7	22	4	6	16	0	0
1999	16	6	22	4	5	17	0	0
1998	5	0	5	0	5	0	0	0
1997	0	0	0	0	0	0	0	0
1996	5	8	13	0	5	1	0	7
Total	**105**	**28**	**133**	**19**	**44**	**79**	**3**	**7**
Total (%)	**78.95**	**21.05**	**100**	**14.29**	**33.08**	**59.4**	**2.26**	**5.26**

The sample consists of 133 announcements of the intention to issue hybrid securities by listed firms on Bursa Malaysia (formerly known as the Kuala Lumpur Security Exchange or KLSE) from 1996 to 2009. CB is convertible bonds, WB is warrant-bonds, RI is rights offering, PP is private placements, and Mixed is a combination of private placement and rights offerings.

Market Reaction to the Announcements of the Intention to Issue Hybrid Securities

Table 2 depicts average abnormal returns and *t*-statistics for the 5 days before and 5 days after the announcement of the intention to issue convertible bonds and warrant-bonds. Significant positive excess returns of 0.98% (significant at the 5% level) and 0.63% (significant at the 10% level) were documented on three and four day before the announcement, suggesting that companies announced their intention to issue convertible bonds after a positive stock run-up. A significant positive excess return of 0.77% (significant at the 5% level), and a non-significant positive abnormal return of 0.18% were revealed on the announcement day of convertible bonds and warrant-bonds, respectively. On the other hand, significant negative excess returns of 1.34% was reported (significant at the 1% level) on the day after the announcement of convertible bonds. As for warrant-bonds sample, a significant positive abnormal return of 1.66% (significant at the 1% level) was observed on the day after the announcement. Both results suggest that the market is delayed in responding to the announcements.

The cumulative average abnormal return (CAR) for the two-day event window is 0.23% for convertible bond sample and 0.59% for warrant-bonds sample (both are not significant). On the three-day event window, a significant negative CAR of -1.10% (significant at the 10% level) was reported for the convertible bonds sample and a significant positive CAR of 2.25% was revealed (significant at the 5% level) for the warrant-bonds sample. For a longer event window of (1, 5), a significant negative CAR of 2.34% (significant at the 1% level) was documented for the convertible bonds sample and a non-significant negative CAR of 0.67% for the warrant-bonds sample.

Based on these results, two conclusions can be drawn. Firstly, on event window of (-1, 1), announcements of the intention to issue convertible bonds in Malaysia are associated with the significantly negative CAR of 1.10% suggesting that investors in Malaysia perceived the announcement of convertible bonds convey a negative signal. This result contradicts with Hypothesis 1 that the announcement of the intention to issue hybrid securities in Malaysia is associated with positive (or less negative) abnormal returns. However, this result is consistent with the empirical studies carried out using data from other countries that observe negative effects from the announcement of convertible bonds (Burlacu, 2000; Suchard, 2007; Mohd Ashhari & Sin-Chun, 2009; Duca *et al*., 2012). Secondly, the announcement of the intention to issue warrant-bonds in Malaysia on the three-day event window of (-1, 1) is associated with the significantly positive CAR of 2.25%. In this case, Hypothesis 1 that the announcement of the intention to issue hybrid securities in Malaysia is associated with positive (or less negative) abnormal returns is accepted.

To investigate that the announcement of warrant-bonds issued in Malaysia is associated with more positive or larger

abnormal returns compared to convertible bonds, the independent sample *t*-test, Mann-Whitney test. Table 3 presents the results of the differences in means and medians of CARs on a selective event window between convertible bonds and warrant-bonds. This table indicates that the one-tail test of differences in mean between the CARs of convertible bonds and warrant-bonds on the event window of (-1, 1) is significant at the 10% level (t =1.44). The equivalent non-parametric test (Wilcoxon rank-sum/ Mann-Whitney) also confirms that the distributions of the means of convertible bonds and warrant-bonds on the same event window differ significantly (p = 0.01).

The significant difference in mean on event window (-1, 1) confirms that the announcement of the intention to issue warrant-bonds is associated with larger abnormal returns than convertible bonds, which is in line with other empirical studies such as those presented by Billingsley *et al*. (1990), Jayamaran *et al*. (1990), Kang *et al*. (1995), De Roon and Veld (1998) and Gebhardt (2001). Similarly, Abdul Rahim *et al*. (2014), in their meta-analysis study, also found that warrant-bonds are associated with less negative abnormal returns compared to convertible bonds. This results suggest that in Malaysian market, investors perceive that the announcement of issuing warrant-bonds as a good news whereas the announcement of issuing convertible bonds as a bad news.

TABLE 2
Average abnormal returns around announcements of the intention to issue convertible bonds and warrant-bonds in Malaysia

Convertible Bonds (n=105)			Warrant-bonds (n=28)	
Event Day	AAR%	T-test	AAR%	T-test
-5	0.00	0.00	0.06	0.13
-4	0.63	1.65*	0.33	0.67
-3	0.98	2.58***	-0.14	-0.29
-2	0.48	1.28	-0.09	-0.19
-1	-0.54	-1.44	0.41	0.83
0	0.77	2.05**	0.18	0.36
1	-1.34	-3.53***	1.66	3.34***
2	-0.62	-1.63	-0.24	-0.47
3	-0.50	-1.33	-0.57	-1.13
4	0.14	0.37	-0.41	-0.82
5	-0.02	-0.06	-1.12	-2.25
CAR(-1,0)	0.23	0.44	0.59	0.84
CAR(-1,1)	-1.10	-1.67*	2.25	2.61**
CAR(1, 5)	-2.34	-2.77***	-0.67	-0.60

The sample consists of 105announcements of the intention to issue convertible bonds and 28 announcements of the intention to issue warrant-bonds by listed firms on Bursa Malaysia (formerly known as the Kuala Lumpur Security Exchange or KLSE) from 1996 to 2009. The AAR was calculated based on the market model.

* is significant at the 10% level, ** is significant at the 5% level and *** is significant at the 1% level. The significance is based on the two-tail test.

TABLE 3
Cumulative abnormal returns for selective event windows around announcements of convertible bonds and warrant-bonds in Malaysia

		Mean	Test statistic for differences in mean
CAR (-1,0)	CB	0.23	*t*-test: $p = 0.39$
	WB	0.59	Mann-Whitney: $p = 0.39$
CAR (-1,1)	CB	-1.11	*t*-test: $p = 0.08$
	WB	2.25	Mann-Whitney: $p = 0.01$

The sample of the announcement of the intention to issue convertible bonds (CB) consists of 105 announcements and 28 announcements for warrant-bonds. The one-tail test of differences between the mean of convertible bonds and warrants confirms that the mean CAR (-1, 1) for convertible bonds is significantly lower (more negative) than for warrant-bonds at 10% level ($t = -1.44$). The equivalent non-parametric test (Wilcoxon rank-sum/Mann-Whitney) confirms that the distributions of the mean CAR (-1, 1) of convertible bond and warrant-bond differ significantly ($p = 0.01$).

*is significant at the 10% level ** is significant at the 5% level and *** is significant at the 1% level.

Table 4 documents average abnormal returns and *t*-statistics across 5 days before and 5 days after the announcement of the intention to issue hybrid securities by the method of offerings, namely, private placements and rights offerings[3]. On the day of the announcement, the announcement of hybrid securities by means of rights issue revealed significant positive abnormal returns of 1.34% (significant at the 5% level). On the contrary, for the subsample of private placement, a non-significant positive abnormal return of 0.55% was observed. However, significant abnormal returns of 0.75% were reported on the fourth and fifth days before the announcements, indicating that the news was already known by the public and the market reacted accordingly. Significant negative abnormal returns of 0.88% and 1.37% were also reported on the day after the announcement of private placements and second day of the announcement of rights issue.

On selective event window of (-1, 0) and (-1, 1), non-significant CARs were documented for both sub-samples. Nevertheless, the 5 day event window of (1, 5) revealed significant negative CARs of 2.65% and 1.99% (both CARs are significant at the 5% level) for both sub-samples. Based on the results on the longer event window of (1, 5), Hypothesis 3 and Hypothesis 4, that announcements of the intention to issue hybrid securities in Malaysia by private placements and rights offerings are associated with positive abnormal returns are both rejected. The results indicate that in Malaysian market

[3] The event study for the announcements of the intention to issue hybrid securities for the mixed offerings (3 announcements) and the 'unknown offerings' (7 announcements) are not performed.

issuing hybrid securities by means of rights offering and private placement do not convey favourable information; in such, this information would mitigate asymmetry information. The results contradict with a study by Field and Mais (1991) which revealed significant positive abnormal returns of 1.80% on the two-day event window of (-1, 0) for the announcements of convertible bonds by method of private placements in the United States. However, the results of rights offerings of hybrid security are consistent with the findings in a study by Abyhankar and Dunning (1999) that found significant abnormal returns of 0.95% for the rights offerings of convertible bonds in the UK.

TABLE 4
Average abnormal returns around the announcements of the intention to issue hybrid securities in Malaysia for sub-samples method of offerings

Rights Issue (n=44)			Placement (n=79)	
Event Day	AAR%	T-test	AAR	T-test
-5	0.99	1.71	-0.39	-0.98
-4	-0.07	-0.11	0.75	1.89*
-3	0.74	1.27	0.75	1.87*
-2	0.21	0.37	0.64	1.62
-1	-0.41	-0.70	-0.48	-1.21
0	1.34	2.31**	0.55	1.39
1	-0.69	-1.19	-0.88	-2.21**
2	-1.37	-2.37**	-0.07	-0.17
3	0.57	0.98	-1.31	-3.28***
4	0.05	0.08	0.01	0.02
5	-1.20	-2.06**	0.26	0.65
CAR(-1,0)	0.93	1.14	0.07	0.13
CAR(-1,1)	0.23	0.23	-0.81	-1.17
CAR(1, 5)	-2.65	-2.04**	-1.99	-2.24**

The announcement of the intention to issue hybrid securities by listed firms on Bursa Malaysia (formerly known as the Kuala Lumpur Security Exchange or KLSE) from 1996 to 2009 for the sub-samples method of offerings consisted of 79 announcements of private placements and 44 announcements of rights offerings. However, the event study for the sub-samples of mix offerings (3 announcements) and unknown offerings (7 announcements) were not performed. The AAR was calculated based on the market model.

* is significant at the 10% level, ** is significant at the 5% level and *** is significant at the 1% level. The significance is based on the two-tail test.

Cross-sectional Regression Results and Discussion

Table 5 is an Ordinary Least Square (OLS) regression between cumulative abnormal returns for the five-day event window of (1, 5) for a total of 117 sample of hybrid securities issued in Malaysia. 'Heteroskedasticity' was corrected using the 'Breusch-Pagan/ Cook-Weisberg' test. The dependent variable is the CAR on the event window (1,5), while the independent variables are log of market value, standard deviation of the companies' raw returns on the event window of (-80, -6), dummy rights, dummy private placements, as well as dummy convertible bonds and warrant-bond. The formula for the Multiple Regression is as follows:

$$\begin{aligned} CAR(1,5) = {} & \alpha + \beta_1(\text{Log Market value}) \\ & + \beta_2(\text{Standard deviation}) + \\ & \beta_3(\text{Rights offering}) + \beta_4 \\ & (\text{Private placements}) + \beta_8 \\ & (\text{Dummy CB and WB}) + \\ & \beta_9(\text{Dummy clean}) + \beta_{10} \\ & (\text{Dummy economy}) + e_{it} \end{aligned}$$

The significance of the results is based on the robust standard error. The rights offering variable was omitted in the regression because of the collinearity problem[4]. The Log Market value is not statistically significant in explaining or determining the CAR, and this is consistent with the findings of Kang and Stulz (1996) and Abhyankar and Dunning (1999).

[4]The average VIF for this model is 1.15 after eliminating the rights offering.

The Standard deviation of stock returns, a proxy for the 'risk uncertainty hypothesis', indicates a significant negative relationship (significant at the 5% level) with the CAR, which contradicts with Hypothesis 2. The coefficient for this variable is 1.97, suggesting that announcements of the intention to issue hybrid securities by high risk uncertainty companies are associated with 1.97% lower abnormal returns, contradicting with the 'risk uncertainty' theory. The possible reason for having significant but contradictory result is that the standard deviation might capture the effect of the financial crisis. The result is also in line with the findings of Dutordoir and Van de Gucht (2007), whereby a significant negative relationship was found between standard deviation and the abnormal returns in both hot and non-hot market issues of convertible bonds although the result is more pronounced in non-hot market issues.

Contrary to Hypothesis 4, the announcements of the hybrid securities issued through private placements reported a non-significant negative coefficient of 0.44 with abnormal returns. The results contradict with the 'certification hypothesis' of Hertzel and Smith (1993) that private placement conveys more information, and hence reduces asymmetric information. Thus, Hypothesis 4 that the announcement of hybrid securities by the method of private placements induces positive abnormal returns, is rejected.

With regard to the relationship with the CAR, the Dummy CB and WB variable reported a non-significant positive coefficient of 0.97, suggesting that convertible bonds or warrant-bonds are not determinants of abnormal returns. The R^2 for the model is 6.94%, while the F-test is 2.63; statistically significant at the 5% level implying that this model can predict the cumulative abnormal returns on the event window (1, 5).

CONCLUSION

This study investigated the market reaction associated with announcements of convertible bonds and warrant-bonds between 1996 and 2009 in an emerging country, Malaysia. In addition, the announcement effects for sub-samples method of offerings of hybrid securities were also investigated in this market.

There are several conclusions that can be drawn from the findings of this study. Firstly, announcements of the intention to issue convertible bonds in Malaysia are associated with significantly negative abnormal returns of 1.10% (significant at the 10% level) on the event window of (-1, 1). Secondly, announcements of the intention to issue warrant-bonds document significantly yielded a positive abnormal return of 2.25% (significant at the 5% level) on the same event window. One finding that is of particular interest in this study is the finding of a significant difference between mean CAR of convertible bonds and warrant-bonds on event window (1, 1). This result confirms that announcements of warrant-bonds in Malaysia are associated with more positive abnormal returns than convertible bonds announcements. The result is not consistent with the current trend, in which the statistics provided from the Bank Negara Malaysia stated that there were issuances of convertible bonds while the issuances of warrant-bonds is almost disappear.[5]

This paper leaves a gap for future research into the disappearance of warrant-bonds in Malaysia. Another potential research topic with regard to convertible bonds and warrant-bonds specifically in the Malaysia market is to compare the announcement effects of these hybrid securities with the Islamic bonds or 'Sukuk' that accompanied with warrants. This combination of 'Sukuk' and warrants is permissible in Islamic jurisprudence (or 'Shariah' law) as warrants itself are permissible security under one condition; the underlying security or the shares involved must be 'Shariah' approved. As with the case in Malaysia, the underlying shares must be listed in 'Shariah Index'.

[5] The latest statistics in 2014 indicated that the issuance of convertible bonds is RM214 millions (constituted of 4% of private capital market) but there were no issuance for warrant-bonds after 2004 (or maybe there were issuance of warrant-bonds but the amount is insignificant to report)

TABLE 5
OLS regression for the determinants of abnormal returns

Independent variables	Predicted sign	Coefficient/T-statistic
Constant		6.92
Asymmetric Information Hypothesis		
Log Market value	(+)	-1.05 (-0.58)
Risk Uncertainty Hypothesis		
Standard deviation on (-80, -6)	(+)	-1.97 (-2.65)**
Method of offering		
Private placements	(+)	-0.44 (-0.17)
Other Variable		
Dummy CB and WB	(-)	0.97 (0.57)
R^2 (%)		6.94%
F-test		2.63**

The sample consists of 117 announcements (all announcements with available data in Datastream including financial companies) of the intention to issue hybrid securities by listed firms on Bursa Malaysia (formerly known as the Kuala Lumpur Security Exchange or KLSE) from 1996 to 2009. The dependent variable is a cumulative abnormal return for five-day event window (1, 5) and the independent variables are log of market value, standard deviation of the companies' raw returns on the event window of (-80, -6), method of offerings, as well as dummy convertible bonds and warrant-bond. The figures in the parenthesis are the *t*-statistic based on the robust standard error.

** is significant at the 5% level. The significance is based on the two-tail test.

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