5.Analysis

5.1 Hypothesis 1: There is no abnormal return generated when bonus issue is first announced (Refer Table 4 and Figure 3)

It is found that the stock that had bonus issues experienced an upward movement in the stock price from t-10 up to t+3. Significant abnormal returns are recorded on day t-2, t-1, t and t+1. The stock price decreased continuously for a few days after day t+3 although the daily decrease is not significant except for t+9. At the end of the study window (t+20), the stock prices settled at a higher level as compared to the beginning period of the study window (t-20). This trend could be clearly shown on the Table 4 and Figure 3 and is consistent with previous research.

Maximum cumulative abnormal return is recorded at day t+2 and it decreased after that. This could be due to the fact that market over react to the announcement of bonus issues at day t. Once the market has enough time to analysis and studies the news, the market players buy or sell according to their analysis. This makes the market price settled at a price that reflects the true value of the stock.

The positive cumulative abnormal return of 4.8176 for t-20 to t-1 shows that the market players have anticipated the bonus issues before the official announcement. This could also due to leakages of information. Any market players who have the ability to anticipate the bonus issues or have the inside information regarding the upcoming bonus issues are able to earn an above average return by trading based on the information. The t-test shows that the magnitude of cumulative abnormal return earned from this period is significant at 0.05 probability level.

Meanwhile, for the period after the announcement i.e. t to t+20, no significant cumulative abnormal return is earned. This observation shows that the KLSE market is efficient in terms of reaction to new information. The market players are not able to outperform the market based on the released information after twenty (20) days of the announcements.

The major reaction of market players is reflected in t-1 to t+1. In an efficient market, market players will react immediately to any new information and these three days are the time when we could expect major price reaction. This study finds that most of the positive cumulative abnormal return for bonus issues is earned in this three-day period and this shows that the market is efficient in responding to the news.

A comparison of cumulative abnormal return for t-20 to t+20 and from t-10 to t+10 shows that most of the reaction to bonus issues only starts from t-10 and the reaction is over at around t+10. The market players only generate additional 0.6472 returns over the additional holding periods.

Table 4 : Average Abnormal Return (AR) and Cumulative Abnormal for all Bonus Issues

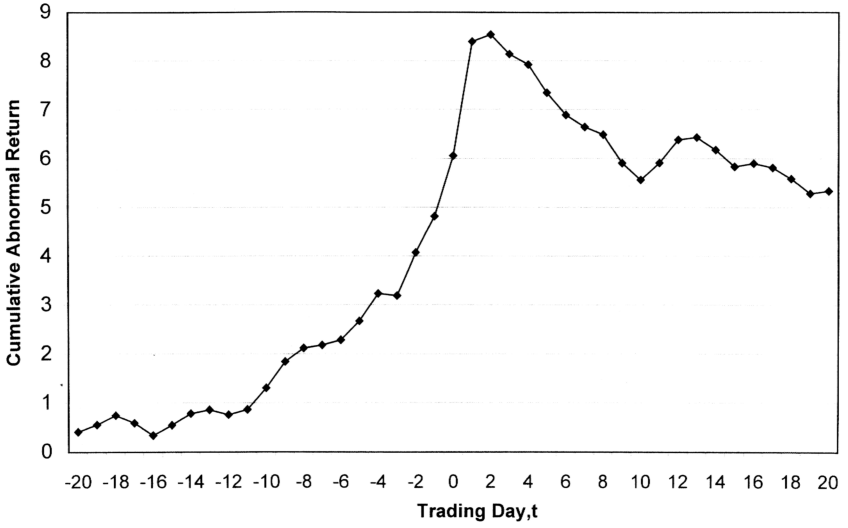
t	AR	CAR	t-test (AR)
-20	0.4142	0.4142	1.4918
-19	0.1453	0.5595	0.5112
-18	0.1906	0.7501	0.6866
-17	-0.1571	0.5930	-0.6227
-16	-0.2496	0.3433	-0.9595
-15	0.2043	0.5476	0.9654
-14	0.2410	0.7886	1.0563
-13	0.0776	0.8662	0.3186
-12	-0.1028	0.7634	-0.4710
-11	0.1069	0.8703	0.3602
-10	0.4360	1.3063	1.7150
-9	0.5380	1.8444	1.7976
-8	0.2776	2.1219	1.0326
-7	0.0597	2.1816	0.2754
-6	0.1048	2.2864	0.5092
-5	0.3838	2.6702	1.2787
-4	0.5666	3.2368	1.6086
-3	-0.0430	3.1937	-0.1459
-2	0.8845	4.0782	2.4192 *
-1	0.7393	4.8176	2.5584 *
0	1.2459	6.0635	3.9018 *
1	2.3416	8.4052	3.8175 *
2	0.1433	8.5484	0.5751
3	-0.4042	8.1442	-1.5930
4	-0.2227	7.9215	-0.7593
5	-0.5787	7.3428	-2.7289
6	-0.4508	6.8920	-2.1933
7	-0.2436	6.6484	-1.1502
8	-0.1545	6.4939	-0.5634
9	-0.5833	5.9106	-2.3454 *
10	-0.3425	5.5682	-1.7904
11	0.3448	5.9129	0.8219
12	0.4773	6.3902	1.5186
13	0.0494	6.4396	0.1890
14	-0.2565	6.1831	-1.0451
15	-0.3444	5.8387	-1.3664
16	0.0691	5.9078	0.2944
17	-0.0890	5.8188	-0.4112
18	-0.2243	5.5945	-1.0485
19	-0.3042	5.2903	-1.5983
20	0.0548	5.3450	0.2711

Window	CAR	t-Test
t-20 to t-1	4.8176	3.2653 *
t to t+20	0.5275	0.3835
t-1 to t+1	4.3269	5.9505 *
t-10 to t+10	4.6978	3.2294 *

Average alpha, a =0.1339
Average beta, b = 0.8236

*significant at 0.05 probability level

Figure 3: Cumulative Abnormal Return of all Bonus Issues



5.2 Hypothesis 2: Any abnormal return earned is the same for all bonus issues distribution ratios. (Refer Table 5,6,7 and Figure 4)

All distribution ratios experienced an upward movement in cumulative return before the announcement day, day t. Over the study window, all distribution ratios achieved a higher cumulative return at t+20 as compared to t-20. However, the extent of the cumulative return is different according to the distribution ratio. The higher the distribution ratio, the higher the cumulative return. This is also consistent with previous research carried out by Hemandas (1994).

All three categories of stock experienced a significant abnormal return around the announcement date. For category 1, significant abnormal return is recorded at day t-20, t-2, t-1, t and t+1. Category 2 recorded the abnormal return at day t while category three has abnormal return at t+1.

Another similarity for all the categories is that part of the cumulative abnormal return is lost after the t+3. This could be due to the fact the market player realized that they had overacted towards the news and they were revising the analysis after they gathered more information. Nevertheless, an overall higher cumulative return is still maintained for all three categories.

Further analysis reveals that there is an anticipation of information before the official announcements. The t-tests based on the cumulative abnormal return from t-20 to t shows that the higher the distribution ratio, the higher the t-test value. Similar to the finding based on all bonus issues, there is no significant movement after the announcements. Again, all three categories of distribution ratio shows a positive cumulative abnormal return from t-10 to t+10 with most of the activities is concentrated in t-1 to t+1. This again indicates that the market is efficient in responding to the news.

Table 5 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Bonus Issues with distribution ratio r > 1:2

t	AR	CAR	t-test (AR)
-20	1.3269	1.3269	2.8907 *
-19	0.7239	2.0509	1.4007
-18	0.5230	2.5739	0.9963
-17	-0.1563	2.4176	-0.3306
-16	-0.0052	2.4124	-0.0116
-15	0.0838	2.4962	0.2275
-14	0.7177	3.2140	1.7644
-13	-0.0275	3.1865	-0.0789
-12	-0.5080	2.6786	-1.5189
-11	-0.0810	2.5976	-0.1947
-10	0.1910	2.7886	0.5175
-9	0.9906	3.7792	1.9448
-8	0.4766	4.2557	1.0343
-7	0.2781	4.5338	0.8642
-6	-0.1788	4.3551	-0.5897
-5	0.8100	5.1650	1.4080
-4	0.8810	6.0461	1.2841
-3	-0.1125	5.9335	-0.2148
-2	1.5281	7.4617	2.1821 *
-1	1.0156	8.4773	2.6524 *
0	1.6274	10.1047	2.9603 *
1	3.3890	13.4937	2.8723 *
2	-0.0173	13.4764	-0.0481
3	-0.6483	12.8280	-1.8095
4	0.1456	12.9736	0.2772
5	-0.9060	12.0676	-2.4805 *
6	-0.5853	11.4823	-1.5887
7	-0.2852	11.1971	-0.8580
8	-0.6237	10.5734	-1.4356
9	0.0100	10.5833	0.0256
10	-0.0864	10.4969	-0.3423
11	-0.0106	10.4863	-0.0228
12	-0.2749	10.2114	-0.7901
13	-0.2555	9.9559	-0.5556
14	-0.0798	9.8761	-0.1912
15	-0.3541	9.5220	-0.7854
16	-0.0173	9.5046	-0.0439
17	-0.1707	9.3340	-0.4603
18	-0.5396	8.7943	-1.8162
19	-0.5057	8.2886	-2.1180 *
20	0.4516	8.7402	1.2844

Window	CAR	t-Test
t-20 to t-1	8.4773	3.1886 *
t to t+20	0.2629	0.1138
t-1 to t+1	6.0320	4.4096 *
t-10 to t+10	7.8993	2.9679 *

Average alpha, a = 0.1748
Average beta, b = 0.7902

*significant at 0.05 probability level

Table 6 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Bonus Issues with distribution ratio 1:3 < r≤1:2

t	AR	CAR	t-test (AR)
-20	-0.3166	-0.3166	-0.8306
-19	-0.6554	-0.9720	-1.9322
-18	0.0691	-0.9029	0.2196
-17	-0.2742	-1.1771	-1.0760
-16	-0.5367	-1.7138	-2.1148 *
-15	0.5312	-1.1826	1.9038
-14	-0.1015	-1.2841	-0.3285
-13	0.0274	-1.2567	0.0697
-12	0.1640	-1.0927	0.4078
-11	0.2185	-0.8742	0.3673
-10	0.3349	-0.5393	0.9872
-9	0.2232	-0.3161	0.6853
-8	0.2311	-0.0850	0.5643
-7	0.0967	0.0117	0.2704
-6	-0.0322	-0.0205	-0.1056
-5	0.0587	0.0382	0.2247
-4	0.3317	0.3699	0.9005
-3	-0.0447	0.3253	-0.0970
-2	0.7897	1.1150	1.7708
-1	0.5972	1.7122	1.1863
0	1.2958	3.0080	2.4505 *
1	1.3573	4.3654	1.9500
2	0.0933	4.4587	0.2023
3	-0.0931	4.3656	-0.2138
4	-0.8401	3.5254	-2.1422
5	-0.4638	3.0617	-1.5748
6	-0.3885	2.6732	-1.4186
7	0.0490	2.7222	0.1438
8	0.1874	2.9096	0.4114
9	-1.1414	1.7682	-2.9791 *
10	-0.4662	1.3020	-1.2237
11	1.2096	2.5117	1.1388
12	1.3818	3.8935	1.8522
13	-0.0094	3.8841	-0.0271
14	-0.2310	3.6531	-0.6539
15	-0.2226	3.4304	-0.6909
16	0.3444	3.7748	0.9089
17	0.2699	4.0447	0.7402
18	-0.3171	3.7277	-0.8743
19	0.1580	3.8856	0.4697
20	-0.4438	3.4418	-1.8911

Window	CAR	t-Test
t-20 to t-1	1.7122	0.9041
t to t+20	1.7296	0.7036
t-1 to t+1	3.2504	4.1237 *
t-10 to t+10	2.1762	1.2076

Average alpha, a = 0.1033
Average beta, b = 0.7741

*significant at 0.05 probability level

Table 7 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Bonus Issues with distribution ratio 1:3 > r

t	AR	CAR	t-test (AR)
-20	-0.4557	-0.4557	-0.8971
-19	0.1001	-0.3556	0.2189
-18	-0.3430	-0.6986	-0.8351
-17	0.0166	-0.6821	0.0358
-16	-0.3454	-1.0275	-0.5454
-15	-0.0266	-1.0541	-0.0645
-14	-0.2720	-1.3260	-0.7731
-13	0.3791	-0.9469	0.6046
-12	0.3696	-0.5773	0.9949
-11	0.3440	-0.2333	0.5948
-10	1.1155	0.8822	1.5594
-9	0.0355	0.9177	0.0505
-8	-0.0813	0.8364	-0.1746
-7	-0.4661	0.3703	-0.9262
-6	0.9210	1.2914	1.7890
-5	-0.0466	1.2447	-0.0917
-4	0.2416	1.4863	0.5208
-3	0.1090	1.5953	0.2721
-2	-0.3596	1.2357	-1.0813
-1	0.3574	1.5931	0.4695
0	0.3495	1.9426	0.8646
1	1.5623	3.5049	2.1525 *
2	0.5643	4.0691	1.0714
3	-0.3450	3.7241	-0.5548
4	-0.0899	3.6343	-0.1879
5	-0.0461	3.5881	-0.1178
6	-0.2544	3.3337	-0.7167
7	-0.5930	2.7407	-1.3151
8	0.3430	3.0837	0.6517
9	-1.0238	2.0599	-1.9602
10	-0.7083	1.3516	-1.7070
11	-0.1871	1.1645	-0.3630
12	0.7407	1.9052	1.4425
13	0.7942	2.6994	1.7123
14	-0.6751	2.0243	-1.4239
15	-0.5063	1.5180	-1.0853
16	-0.1578	1.3602	-0.3963
17	-0.4514	0.9088	-1.6199
18	0.5939	1.5027	1.1460
19	-0.5634	0.9393	-1.1002
20	-0.0521	0.8872	-0.1259

Window	CAR	t-Test
t-20 to t-1	1.5931	0.7266
t to t+20	-0.7059	-0.4036
t-1 to t+1	2.2691	2.2263 *
t-10 to t+10	1.5849	0.7352

Average alpha, a = 0.0869
Average beta, b = 0.9696

*significant at 0.05 probability level

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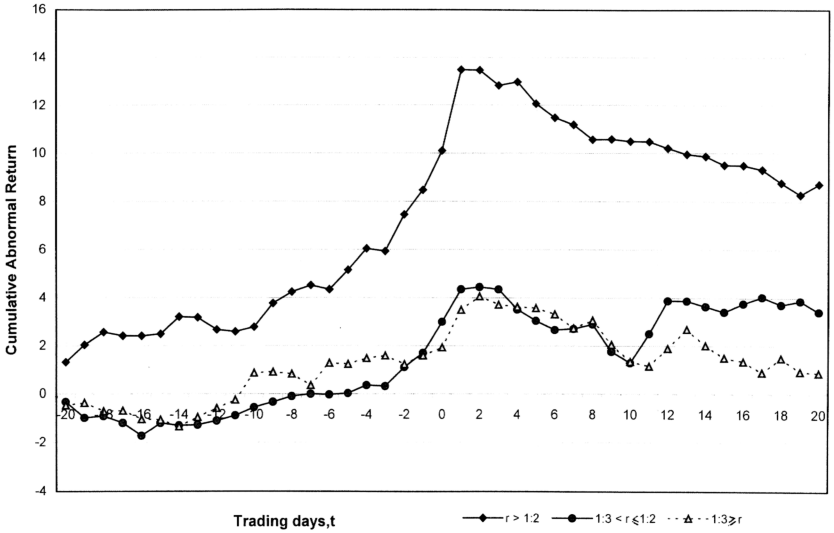
Figure 4: Cumulative Abnormal Return of Bonus Issues by Distribution Ratio



5.3 Hypothesis 3: There is no difference in abnormal return for Main and Second Board bonus issues (Refer Table 8,9 and Figure 5)

The study shows that both the Main Board and Second Board bonus issues recorded a positive cumulative abnormal return at the end of the study window. On the period before the announcement date, stock prices of the Second Board companies had been observed to move upward while the stock price movement of the main board companies is less obvious. Second Board significant return is achieved at day t and day t+1 while significant return for the Main Board is achieved at day t-2, t-1, t and t+1. After these periods, part of the abnormal return is lost. Nevertheless, the companies in the two boards are observed to settled at a level which is higher than t-20.

A point to note is that Second Board bonus issues have a more attractive return by achieving 13.84% cumulative return at t+20 while Main Board only recorded 2.47% cumulative return. This could be due the fact that Second Board companies are young and aggressive, with strong growth potential. Besides, Second Boarder have often been the target of takeovers by people in search of quick listing vehicle due to its smaller free float, compared to Main Board companies. Thus market rumors injected a strong speculative element in the Second Board and these retail players drove and pushed prices up to unrealized levels not justified by fundamental value during the bull-run before the financial crisis. Some Second Board stocks even registered historical price-earning (P/E) ratio. For example, Transwater, a specialist engineering group which topped the KLSE's best performing stock list recorded a price gain of 720% and a PE of 980 times over six month period ending September 1996 (Investors Digest, July 1998).

From the analysis based on cumulative abnormal return, Second Board generates a much higher cumulative abnormal return as compared to Main

Board for all study windows. As expected, the market anticipates positively to the news. Once the announcement is made, there is no more significant movement. The Main Board bonus issues even show a negative cumulative abnormal return from t to t+10. This reflects that the market had over reacted and they are revising their expectation based on the new released information. Most of the events are carried out about two weeks before and after the announcements and we could observe most activities are in one day before and after the announcements. The extending of the holding period after day t+10 generates only average return that consume rates with the risk of the particular shares.

Table 8 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Main Board of Bonus Issues

t	AR	CAR	t-test(AR)	
-20	0.1588	0.1588	0.4916	
-19	-0.0211	0.1376	-0.0774	
-18	-0.0075	0.1301	-0.0307	
-17	-0.2498	-0.1196	-1.0564	
-16	-0.3757	-0.4953	-1.9363	
-15	0.2013	-0.2940	0.9253	
-14	0.0996	-0.1944	0.4463	
-13	0.0957	-0.0987	0.3474	
-12	-0.1278	-0.2265	-0.5244	
-11	0.2391	0.0127	0.7148	
-10	0.5601	0.5727	2.0334	*
-9	0.0987	0.6715	0.3876	
-8	0.1637	0.8352	0.5677	
-7	0.0872	0.9224	0.3391	
-6	0.2023	1.1247	0.9011	
-5	0.2120	1.3368	0.7392	
-4	0.2161	1.5529	0.7522	
-3	0.0833	1.6362	0.2480	
-2	0.8463	2.4825	1.9653	*
-1	0.6648	3.1472	2.2246	*
0	0.8383	3.9856	2.4988	*
1	2.0860	6.0716	3.4904	*
2	0.2147	6.2863	0.7272	
3	-0.3299	5.9565	-1.2916	
4	-0.1230	5.8334	-0.3560	
5	-0.6395	5.1939	-2.9739	*
6	-0.5155	4.6784	-2.4460	*
7	-0.3232	4.3552	-1.4157	
8	-0.4493	3.9059	-1.4696	
9	-0.6437	3.2622	-2.3969	*
10	-0.3481	2.9141	-1.5976	
11	0.2743	3.1884	0.5241	
12	0.3393	3.5277	0.9881	
13	-0.0125	3.5151	-0.0516	
14	-0.3575	3.1576	-1.6612	
15	-0.1753	2.9823	-0.7811	
16	0.1066	3.0889	0.4394	
17	0.0812	3.1701	0.4028	
18	-0.3406	2.8296	-1.4003	
19	-0.2544	2.5752	-1.2244	
20	-0.1031	2.4720	-0.5074	

Window	CAR	t-Test	
t-20 to t-1	3.1472	2.1674	*
t to t+20	-0.6752	-0.4783	
t-1 to t+1	3.5891	5.1433	*
t-10 to t+10	2.9015	2.0081	*

Average alpha, a = 0.1170
Average beta, b = 0.8238

*significant at 0.05 probability level

Table 9 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Second Board of Bonus Issues

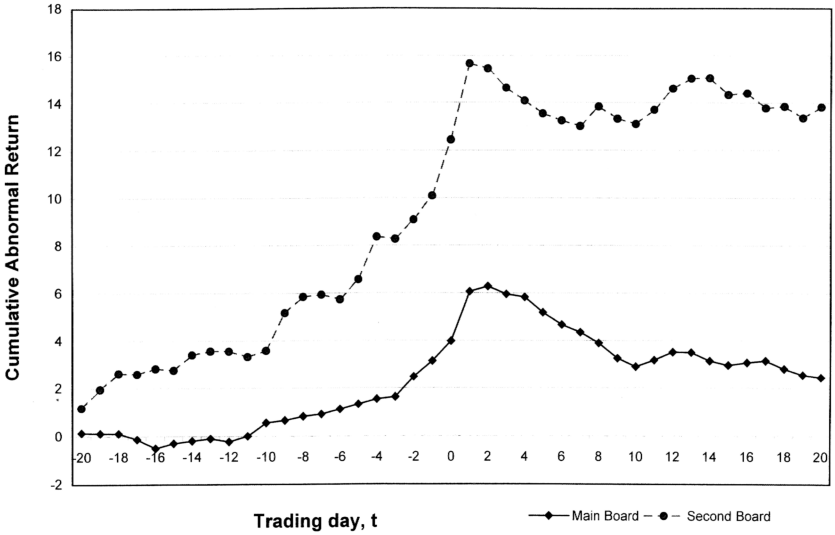
t	AR	CAR	t-test(AR)
-20	1.1872	1.1872	2.2678 *
-19	0.7816	1.9688	1.0449
-18	0.6697	2.6384	0.8501
-17	-0.0272	2.6112	-0.0400
-16	0.2383	2.8495	0.2989
-15	-0.0739	2.7756	-0.1550
-14	0.6425	3.4181	1.0895
-13	0.1578	3.5759	0.3241
-12	-0.0031	3.5727	-0.0065
-11	-0.2375	3.3352	-0.3782
-10	0.2607	3.5959	0.4413
-9	1.5856	5.1815	1.8795
-8	0.6737	5.8551	1.0848
-7	0.0898	5.9449	0.2083
-6	-0.2052	5.7397	-0.4408
-5	0.8417	6.5814	1.0580
-4	1.7852	8.3666	1.6875
-3	-0.0943	8.2723	-0.1571
-2	0.8216	9.0939	1.1445
-1	1.0104	10.1043	1.3638
0	2.3503	12.4546	3.2229 *
1	3.2199	15.6746	2.0156 *
2	-0.2156	15.4589	-0.4696
3	-0.8268	14.6321	-1.2723
4	-0.5422	14.0899	-0.9512
5	-0.5411	13.5488	-1.0318
6	-0.2960	13.2528	-0.5820
7	-0.2282	13.0246	-0.4406
8	0.8208	13.8454	1.3708
9	-0.5172	13.3281	-0.8963
10	-0.2173	13.1108	-0.5795
11	0.6009	13.7116	0.9153
12	0.9030	14.6146	1.2760
13	0.4378	15.0524	0.6094
14	0.0188	15.0712	0.0268
15	-0.7153	14.3560	-1.0129
16	0.0657	14.4216	0.1120
17	-0.6275	13.7942	-1.0736
18	0.0696	13.8638	0.1568
19	-0.4819	13.3818	-1.1255
20	0.4599	13.8418	0.9124

Window	CAR	t-Test
t-20 to t-1	10.1043	2.6768 *
t to t+20	3.7374	1.121
t-1 to t+1	6.5806	3.4233 *
t-10 to t+10	9.7755	2.7130 *

Average alpha, a = 0.1752
Average beta, b = 0.8230

*significant at 0.05 probability level

Figure 5: Cumulative Abnormal Return of Bonus Issues by Listing Board



5.4 Hypothesis 4: Any abnormal return earned following a bonus issue is the same for the period before and after the crisis (Refer Table 10,11 and Figure 6)

The study shows that both the period before the crisis and after the crisis recorded a positive cumulative abnormal return at the day t+20. However, the cumulative return at the end of the study window is different.

For the period before the crisis, significant profit is observed on day t-1, t, and t+1. After achieving its highest cumulative return at day t+1, part of the gain is lost and significant loss is observed at day t+5, t+8, t+9 and t+10. At the end of the study window, most of the share price falls back to the level before the announcement of bonus issues.

For the period after the financial crisis, significant abnormal gain is recorded at day t-20, t-2, t and t+1. Although there were drop in stock price after day t+1, there was no significant loss as shown by the period before the crisis. As a result, most of the abnormal gain is maintained.

This finding is quite unexpected because the market sentiment at post crisis period is quite negative and daily volume transacted is much smaller. The market performance is weak resulting a depreciated Ringgit, sizeable current account deficit, high interest rate, and increasing inflation pressure. With the government crackdown on corruptions and other matters, foreign institutional investors are very cautious of the political repercussions. These foreign players are reluctant to invest following the speculative raid on the Ringgit and anticipation of more bad news. Furthermore, it takes time for the investors to digest and consolidate their position before restore the confidence in the market. Thus, a cross tabulation is done in order to investigate why our findings shows a much higher cumulative abnormal return for the post crisis period.

Table 10 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) of Bonus Issues for the period before 1997 currency crisis

	AR	CAR	t-test(AR)
-20	0.1568	0.1568	0.4235
-19	0.0530	0.2098	0.1768
-18	0.0808	0.2906	0.3033
-17	-0.1252	0.1654	-0.4784
-16	-0.4213	-0.2558	-1.2300
-15	0.3424	0.0866	1.2074
-14	0.3293	0.4159	1.2535
-13	0.3569	0.7728	1.0462
-12	-0.2876	0.4852	-1.2300
-11	-0.2155	0.2696	-0.8672
-10	0.5127	0.7823	1.5844
-9	0.1890	0.9713	0.6317
-8	-0.0843	0.8869	-0.3342
-7	0.1992	1.0861	0.6643
-6	0.4050	1.4911	1.6287
-5	0.1549	1.6459	0.4691
-4	0.1760	1.8219	0.5826
-3	0.2063	2.0282	0.7272
-2	0.2040	2.2322	0.6866
-1	0.6666	2.8987	2.0965 *
0	1.1066	4.0054	2.9499 *
1	1.6067	5.6120	2.5147 *
2	-0.2049	5.4072	-0.6694
3	-0.4524	4.9548	-1.4942
4	-0.3139	4.6409	-1.1789
5	-0.7596	3.8813	-3.1989 *
6	-0.2841	3.5972	-1.3139
7	-0.1009	3.4963	-0.5005
8	-0.7630	2.7333	-2.5557 *
9	-0.5733	2.1600	-2.2844 *
10	-0.5148	1.6451	-2.5928 *
11	0.0000	1.6452	0.0000
12	0.2436	1.8888	0.7011
13	0.0402	1.9290	0.1782
14	-0.1579	1.7711	-0.6282
15	-0.2086	1.5625	-0.8782
16	-0.1915	1.3711	-0.6654
17	0.4582	1.8293	1.7772
18	-0.4670	1.3623	-1.9339
19	-0.4164	0.9460	-1.8812
20	-0.2923	0.6537	-1.2421

Window	CAR	t-Test
t-20 to t-1	2.8987	2.0719 *
t to t+20	-2.2451	-1.4015
t-1 to t+1	3.3799	4.5764 *
t-10 to t+10	1.3755	0.9717

Average alpha, a = 0.1553
Average beta, b = 0.8507

*significant at 0.05 probability level

Table 11 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) of Bonus Issues for the period after 1997 currency crisis

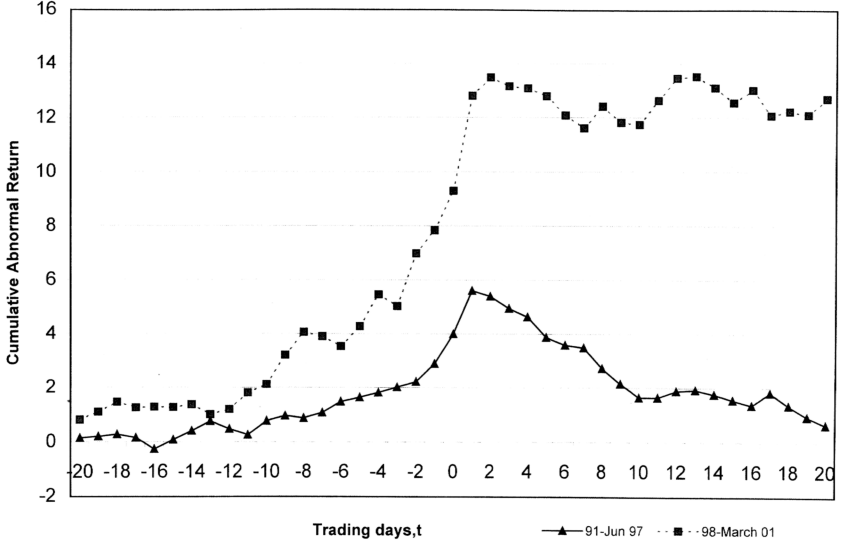
t	AR	CAR	t-test(AR)	
-20	0.8193	0.8193	1.9920	*
-19	0.2907	1.1100	0.5158	
-18	0.3635	1.4735	0.6242	
-17	-0.2074	1.2661	-0.4096	
-16	0.0206	1.2867	0.0518	
-15	-0.0132	1.2735	-0.0422	
-14	0.1020	1.3755	0.2428	
-13	-0.3622	1.0134	-1.1415	
-12	0.1882	1.2015	0.4431	
-11	0.6145	1.8160	0.9395	
-10	0.3154	2.1314	0.7604	
-9	1.0876	3.2190	1.7946	
-8	0.8474	4.0664	1.5108	
-7	-0.1599	3.9065	-0.5343	
-6	-0.3677	3.5387	-1.0521	
-5	0.7442	4.2829	1.2992	
-4	1.1816	5.4645	1.5359	
-3	-0.4356	5.0288	-0.7084	
-2	1.9560	6.9848	2.4517	*
-1	0.8539	7.8387	1.5391	
0	1.4653	9.3040	2.5450	*
1	3.4988	12.8028	2.8962	*
2	0.6915	13.4943	1.6664	
3	-0.3284	13.1659	-0.7285	
4	-0.0792	13.0868	-0.1252	
5	-0.2939	12.7929	-0.7388	
6	-0.7133	12.0796	-1.7588	
7	-0.4683	11.6113	-1.0526	
8	0.8035	12.4148	1.6072	
9	-0.5989	11.8159	-1.1793	
10	-0.0710	11.7448	-0.1869	
11	0.8876	12.6324	1.6839	
12	0.8453	13.4777	1.4148	
13	0.0638	13.5414	0.1109	
14	-0.4117	13.1297	-0.8304	
15	-0.5583	12.5714	-1.0473	
16	0.4793	13.0507	1.2102	
17	-0.9506	12.1002	-2.7216	*
18	0.1578	12.2579	0.3987	
19	-0.1277	12.1303	-0.3688	
20	0.6012	12.7314	1.7004	

Window	CAR	t-Test	
t-20 to t-1	7.8387	2.5562	*
t to t+20	4.8927	2.0647	*
t-1 to t+1	5.8180	4.0061	*
t-10 to t+10	9.9288	3.4604	*

Average alpha, a = 0.0977
Average beta, b = 0.7809

*significant at 0.05 probability level

Figure 6: Cumulative Abnormal Return of Bonus Issues by Announcement Period



From Table 12 below, there were 74 bonus issues recorded for the period before the crisis and these stocks fall quite equally into the three distribution ratio categories. However, we noticed that out of 47 bonus issues at the period after the crisis, 27 (57%) of this stock has a distribution ratio of r >1:2 and only 7 (14%) stock that has distribution ratio of r ≥ 1:3. From the finding on hypothesis 2, the higher the distribution ratio, the higher the cumulative return. Thus, for the period before the crisis, the higher cumulative return in category 1 is averaged out by a smaller cumulative return of category 3. However, for the post crisis period, this was not the case and thus we observed a much greater cumulative return. The cumulative return at this period is likely to be lower if there were equal number of shares that falls into these three distribution ratios.

Table 12: Cross tabulation in terms of distribution ratio and period of announcement for Bonus Issues

	r > 1 : 2	1 : 3 < r ≤ 1 : 2	1 : 3 ≥ r	Total
Before Crisis	29	26	19	74
After Crisis	27	13	7	47
	56	39	26	121

Furthermore, for the period before the crisis, 65 (88%) of the stocks are listed in Main Board and only 9 stocks are listed in the Second Board. However, for the post crisis period, the numbers of stock listed in both boards are almost equal. Again, it is found that Second Boarders generate a much higher profit as compared to Main Boarders. Thus, the cumulative return at pre-crisis period may be higher if there were almost equal number of Second Board share that had bonus issues. Refer Table 13.

Table 13: Cross tabulation in terms of period of announcement and board of listing for Bonus issues.

	Before Crisis	After Crisis	Total
Main Board	65	23	88
Second Board	9	24	33
	74	47	121

Table 14: Cross tabulation in terms of distribution ratio and board of listing for Bonus Issues.

	$r > 1:2$	$1:3 < r \leq 1:2$	$1:3 \geq r$	Total
Main Board	34	35	19	88
Second Board	22	4	7	33
	56	39	26	121

Further analysis discovers that before the crisis, market players had over reacted towards bonus issues and they revised their expectation after the official announcement. This resulted a negative cumulative abnormal return of –2.2451 from t to t+20. This means that before the financial crisis, any market player who buy the shares after the company had announced the bonus issues would actually incurred a loss over the twenty one (21) days although the loss is not significant.

5.5 Hypothesis 5: There is no abnormal return generated when right issue is first announced (Refer Table 15 and Figure 7)

The study on the rights issues shows an upward movement of the stock price before the announcement date. The average abnormal return drops on day t+1 and t+2 and the stock price increase again from day t+3 until t+7. It recorded the highest cumulative abnormal return at day t+7. At the end of the study window, the stock price maintained a positive cumulative return. The cumulative return is increasing prior to the announcement and slowly leveled off after that. However, there is no significant movement recorded during the announcement period except day t+16 that is observed to have a significant negative return.

This finding is consistent with the study by Isa and Tan (1997). However, the result is in contrary to Ariff's (1998) study whom observed a negative cumulative abnormal return during his study window. Although this study find a positive price reaction prior the announcement, there is no clear evidence that this price movement was due to the rights issues announcement

The positive cumulative abnormal return before the announcement day reveals that there are expectations of rights issues before the official announcements. This could be due to leakages of information or the anticipation of market players. Once the announcement is made, the trading based on the released news generated no more abnormal return. Further, the analysis suggests that rights issue is actually not a significant event as there is no significant movement on the announcement date.

Table 15: Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for all Rights Issues

t	AR	CAR	t-test(AR)
-20	0.7860	0.7860	1.8846
-19	0.3719	1.1578	0.9829
-18	0.4373	1.5952	1.2241
-17	-0.1213	1.4738	-0.2634
-16	0.8079	2.2817	1.4586
-15	0.4131	2.6949	0.9270
-14	0.7893	3.4842	1.4144
-13	0.4310	3.9152	0.7541
-12	-0.1693	3.7459	-0.4613
-11	-0.4935	3.2525	-0.9231
-10	0.5003	3.7528	0.8224
-9	1.0840	4.8368	1.7015
-8	0.7207	5.5575	1.9071
-7	-0.0010	5.5566	-0.0018
-6	-0.3272	5.2293	-0.9498
-5	0.7793	6.0087	1.8407
-4	-0.4618	5.5468	-0.9842
-3	0.0062	5.5531	0.0144
-2	0.4858	6.0389	0.9062
-1	-0.6438	5.3951	-1.1955
0	0.8458	6.2409	1.5975
1	-0.8847	5.3561	-0.8144
2	-0.2527	5.1034	-0.4707
3	0.3409	5.4444	0.7079
4	0.4419	5.8863	0.8873
5	0.5342	6.4205	0.9491
6	0.4019	6.8223	0.4534
7	0.1660	6.9883	0.1786
8	-1.0611	5.9273	-1.6949
9	0.0954	6.0226	0.2255
10	-0.3016	5.7210	-0.5590
11	-0.2705	5.4506	-0.6713
12	-0.3013	5.1493	-0.5493
13	0.6117	5.7609	1.0715
14	-0.2583	5.5026	-0.6256
15	0.4775	5.9802	0.7768
16	-1.5623	4.4179	-2.5862 *
17	0.5598	4.9776	0.9619
18	-0.4081	4.5696	-1.1307
19	0.2443	4.8139	0.5563
20	-0.1548	4.6591	-0.3359

Window	CAR	t-Test
t-20 to t-1	5.3951	2.7387 *
t to t+20	-0.7359	-0.2513
t-1 to t+1	-0.6827	-0.5401
t-10 to t+10	2.4686	0.7202

Average alpha, a = -0.0193
Average beta, b = 1.1915

*significant at 0.05 probability level

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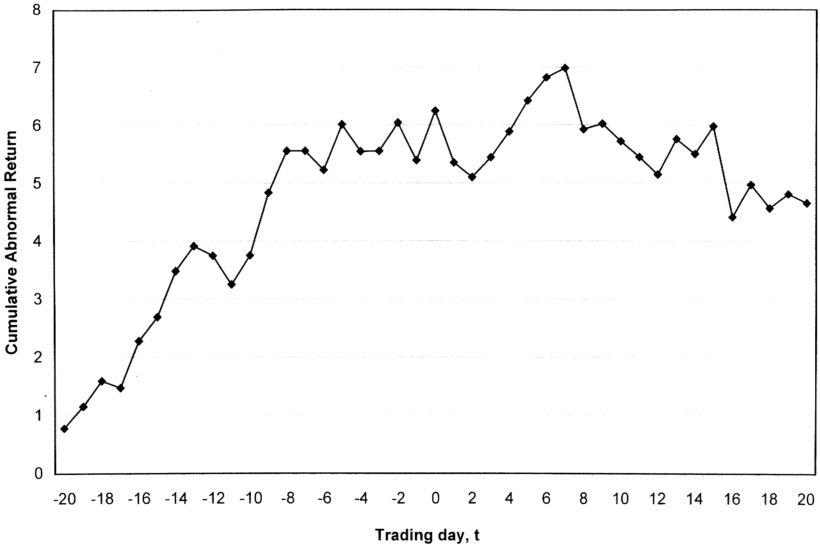
Figure 7: Cumulative Abnormal Return for All Rights Issues



5.6 Hypothesis 6: Any abnormal return earned is the same for all rights issues distribution ratios (Refer Table 16,17,18 and Figure 8)

When rights issues are analyzed based distribution ratio, it is found that all the categories of distribution ratios recorded a positive cumulative abnormal return. The extent of the cumulative abnormal return is inversely related to the distribution ratios. The lower the distribution ratio, the higher the cumulative return and this is clearly shown especially for category 1 and category 3. The higher the distribution ratio, the more investors need to pay for each share they holds. Thus, the investors may perceive the lower the distribution ratio; the less fund the company need to raise. As a result, they would prefer a lower distribution ratio as compared to a higher distribution ratio, which indicate a higher amount of fund needed. This finding is consistent with previous research carried out by Kananathan (1994).

The analysis based on cumulative abnormal return indicates that only category three has a significant positive cumulative abnormal return prior to the rights issues announcement. Other categories of distribution ratio have no significant cumulative abnormal return.

A point to note is that the number of share that fall into category two and three are eight (8) and ten (10) respectively. This sample size is very small compared to category one that has twenty three (23) shares. It is believed that with an increase in sample size for category two and three, a clearer trend of the cumulative abnormal return could be shown.

Table 16 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Rights Issues with distribution ratio r > 1:2

t	AR	CAR	t-test(AR)
-20	0.9269	0.9269	1.4948
-19	0.6374	1.5643	1.1227
-18	0.0653	1.6296	0.1317
-17	-0.2937	1.3359	-0.3710
-16	0.2932	1.6291	0.5378
-15	1.4157	3.0448	2.0129 *
-14	1.1624	4.2072	1.4577
-13	-1.2431	2.9641	-2.1904 *
-12	-0.6022	2.3619	-1.3573
-11	-1.1708	1.1911	-1.5002
-10	0.4848	1.6759	0.7058
-9	1.4089	3.0847	1.5742
-8	0.9945	4.0793	2.0230 *
-7	-0.9458	3.1335	-1.1010
-6	-0.4740	2.6595	-0.9047
-5	1.0923	3.7518	1.8202
-4	-0.6811	3.0707	-0.9087
-3	-0.0434	3.0273	-0.0762
-2	1.1484	4.1757	1.2806
-1	-0.3639	3.8119	-0.4285
0	0.8953	4.7071	1.5506
1	-1.3444	3.3628	-0.8597
2	-0.4718	2.8909	-0.7327
3	0.4215	3.3124	0.7785
4	0.3331	3.6456	0.5336
5	0.2155	3.8610	0.3789
6	-1.4255	2.4356	-2.4698 *
7	1.3810	3.8166	0.8767
8	-0.6731	3.1435	-0.7287
9	0.4767	3.6202	0.7022
10	-0.3865	3.2336	-0.5048
11	0.3893	3.6229	0.7809
12	0.1144	3.7372	0.1600
13	1.1041	4.8414	1.2586
14	-0.8967	3.9447	-1.5648
15	0.5287	4.4734	1.1853
16	-1.4687	3.0047	-1.6255
17	0.8375	3.8421	0.9072
18	-0.1403	3.7018	-0.2844
19	0.9087	4.6105	1.7460
20	0.3907	5.0012	0.6409

Window	CAR	t-Test
t-20 to t-1	3.8119	1.4610
t to t+20	1.1894	0.4
t-1 to t+1	-0.8130	-0.4974
t-10 to t+10	2.0425	0.5893

Average alpha, a = -0.0674
Average beta, b = 1.2570

*significant at 0.05 probability level

Table 17 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Rights Issues with distribution ratio 1:3 < r≤1:2

t	AR	CAR	t-test(AR)
-20	0.7449	0.7449	0.9053
-19	-0.0417	0.7032	-0.0624
-18	0.3336	1.0368	0.4380
-17	0.0695	1.1063	0.2044
-16	2.5775	3.6838	1.1626
-15	-0.7602	2.9236	-1.4837
-14	0.5492	3.4728	0.3210
-13	3.1897	6.6625	1.7348
-12	0.8192	7.4817	0.9063
-11	0.6968	8.1785	0.4598
-10	0.7398	8.9183	0.3675
-9	-1.1336	7.7847	-1.9735
-8	-0.0265	7.7582	-0.0374
-7	0.9770	8.7352	1.0064
-6	0.3293	9.0645	0.4598
-5	0.9853	10.0498	1.3045
-4	-0.2825	9.7673	-0.4602
-3	-0.7358	9.0315	-1.5238
-2	-0.7510	8.2805	-1.4365
-1	-1.1641	7.1164	-1.6822
0	0.6524	7.7687	0.3308
1	-1.0208	6.7479	-0.3401
2	-1.1647	5.5832	-0.6794
3	-0.2787	5.3045	-0.1577
4	1.0248	6.3293	0.7485
5	1.5520	7.8813	1.0014
6	2.9543	10.8356	1.0708
7	-1.1568	9.6788	-1.1027
8	-3.3404	6.3385	-2.4033 *
9	-0.1355	6.2030	-0.2717
10	0.2590	6.4620	0.1636
11	-1.3762	5.0858	-1.0597
12	-0.4089	4.6768	-0.2346
13	0.4337	5.1105	0.3388
14	1.5273	6.6378	1.7778
15	0.6591	7.2969	0.2314
16	-0.2986	6.9983	-0.2511
17	-0.5584	6.4399	-0.4642
18	-0.5141	5.9258	-0.4710
19	-0.7991	5.1267	-0.5165
20	-1.5555	3.5713	-1.1979

Window	CAR	t-Test
t-20 to t-1	7.1164	1.2973
t to t+20	-3.5451	-0.3632
t-1 to t+1	-1.5326	-0.3485
t-10 to t+10	-1.7165	-0.1375

Average alpha, a = 0.00
Average beta, b = 0.87

*significant at 0.05 probability level

Table 18 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Rights Issues with distribution ratio 1:3 > r

t	AR	CAR	t-test(AR)
-20	0.5087	0.5087	0.6614
-19	0.1186	0.6273	0.1684
-18	1.3388	1.9660	1.9682
-17	0.1054	2.0714	0.1874
-16	0.5244	2.5958	0.7867
-15	-0.8537	1.7421	-2.1015 *
-14	0.1607	1.9027	0.3463
-13	1.9071	3.8099	3.1410 *
-12	-0.0077	3.8021	-0.0093
-11	0.0445	3.8466	0.1350
-10	0.3430	4.1896	0.2786
-9	2.1435	6.3332	1.4721
-8	0.7160	7.0492	0.7719
-7	1.3896	8.4388	2.0711 *
-6	-0.5148	7.9240	-1.0249
-5	-0.1053	7.8187	-0.1199
-4	-0.1009	7.7178	-0.1315
-3	0.7139	8.4317	0.6130
-2	-0.0487	8.3829	-0.0945
-1	-0.8714	7.5115	-0.9277
0	0.8867	8.3982	0.9859
1	0.2815	8.6797	0.2019
2	0.9808	9.6605	1.0722
3	0.6514	10.3120	0.8488
4	0.2257	10.5377	0.2129
5	0.4530	10.9907	0.2961
6	2.5628	13.5535	1.0685
7	-1.5704	11.9831	-3.2078 *
8	-0.1300	11.8531	-0.1759
9	-0.5970	11.2562	-0.9237
10	-0.5548	10.7014	-0.8640
11	-0.9032	9.7982	-1.8161
12	-1.1711	8.6271	-1.5261
13	-0.3787	8.2484	-0.5854
14	-0.2185	8.0299	-0.3400
15	0.2147	8.2446	0.2547
16	-2.7885	5.4561	-2.9917 *
17	0.8156	6.2717	1.3950
18	-0.9390	5.3327	-2.0371 *
19	-0.4490	4.8837	-0.9167
20	-0.2889	4.5948	-0.4189

Window	CAR	t-Test
t-20 to t-1	7.5115	2.1532 *
t to t+20	-2.9167	-0.4344
t-1 to t+1	0.2968	0.2163
t-10 to t+10	6.8548	1.0121

Average alpha, a = 0.076
Average beta, b = 1.298

*significant at 0.05 probability level

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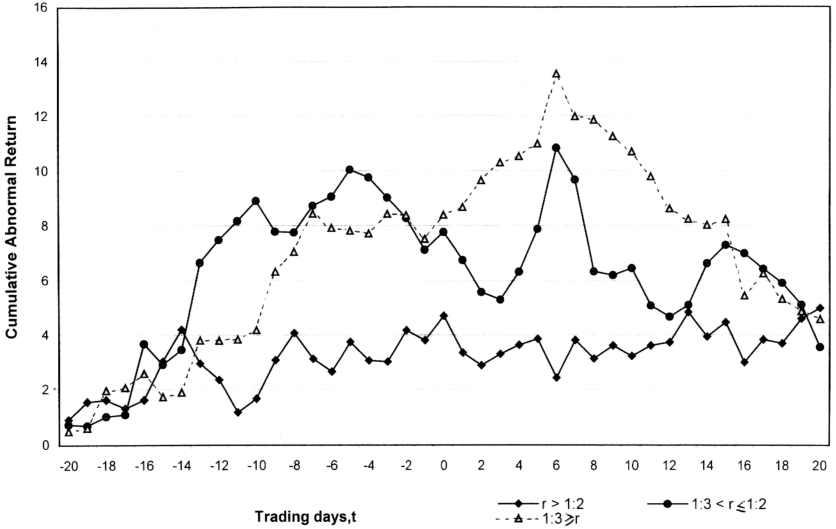
Figure 8: Cumulative Abnormal Return of Rights Issues by Distribution Ratios



5.7 Hypothesis 7: There is no difference in abnormal return for Main and Second Board rights issues. (Refer Table 19,20 and Figure 9)

Both the Main Board and Second Board rights issues shown a positive cumulative abnormal return. Main Board right issues experienced an upward movement in cumulative return and recorded a significant gain on day t-13 and day t-5. After day t+8, the share price moved downward and a significant loss is recorded on day t+8 and day t+16. With majority of the stocks are from Main Board, we could expect that the overall pattern of cumulative abnormal return is similar to our findings in hypothesis 5 and this is indeed the case.

As for Second Board, the price movement is quite drastic on the period both before and after the announcement. Prior to the announcement, the price moves up significantly on day t-15, t-14 and day t-8. However, the prices drop after day t-8 and drop further after the announcement day. Although the price did pick up after that, another downward movement later followed it.

The Main Board rights issues achieved a significant cumulative abnormal return prior to the official announcement of rights issues. However, no significant movement is observed on the event day and the period following the event days. This phenomenon could be due to speculation activities prior to the announcement. Once the market players are informed, the market players will adjust their portfolio accordingly.

From the analysis of the sample, it is found that all Second Board shares have a distribution ratio $r > 1:2$ except one right issue with $1:3 < r \leq 1:2$. The lack of shares that have a lower distribution ratio, that is share from category two and three, will bias the findings. Also, the small sample size (10 shares) for Second Board right issues unable this study to draw any solid conclusion if the board of listing influences any abnormal return gains.

Table 19 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Main Board of Rights Issues

t	AR	CAR	t-test(AR)
-20	0.6622	0.6622	1.4893
-19	0.1663	0.8285	0.3549
-18	0.2361	1.0645	0.6614
-17	0.2043	1.2688	0.5993
-16	0.7596	2.0284	1.0877
-15	-0.0229	2.0055	-0.0452
-14	0.3003	2.3058	0.4599
-13	1.1393	3.4451	2.2596 *
-12	-0.1906	3.2545	-0.4479
-11	-0.3362	2.9183	-1.0348
-10	0.4071	3.3254	0.6245
-9	0.6505	3.9759	1.0532
-8	0.3316	4.3076	0.7558
-7	0.6823	4.9899	1.1577
-6	-0.1074	4.8825	-0.3607
-5	1.1768	6.0594	2.2308 *
-4	-0.6822	5.3772	-1.8498
-3	0.4187	5.7959	0.8097
-2	0.2737	6.0696	0.4163
-1	-0.6241	5.4455	-1.0814
0	0.8301	6.2756	1.2652
1	-0.4883	5.7873	-0.3518
2	-0.2005	5.5868	-0.3089
3	0.5512	6.1381	1.2756
4	0.2468	6.3849	0.4261
5	0.2545	6.6394	0.3866
6	1.2276	7.8670	1.1110
7	0.2530	8.1200	0.2072
8	-1.7040	6.4160	-2.8388 *
9	-0.4511	5.9648	-1.3218
10	-0.3670	5.5978	-0.7561
11	-0.3432	5.2546	-0.8856
12	-0.2029	5.0517	-0.3719
13	0.3565	5.4082	0.6311
14	0.0928	5.5010	0.2130
15	0.2884	5.7894	0.3591
16	-1.2181	4.5713	-2.2346 *
17	0.1770	4.7483	0.3718
18	-0.6716	4.0767	-1.7135
19	-0.0295	4.0472	-0.0588
20	-0.2067	3.8405	-0.4326

Window	CAR	t-Test
t-20 to t-1	5.4455	2.5745 *
t to t+20	-1.6049	-0.4748
t-1 to t+1	-0.2823	-0.1747
t-10 to t+10	2.6796	0.6284

Average alpha, a = -0.0023
Average beta, b = 1.2297

*significant at 0.05 probability level

Table 20 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) for Second Board of Rights Issues

t	AR	CAR	t-test(AR)
-20	1.1573	1.1573	1.1060
-19	0.9886	2.1459	1.8211
-18	1.0412	3.1870	1.0732
-17	-1.0981	2.0890	-0.6993
-16	0.9526	3.0415	1.2558
-15	1.7213	4.7628	2.0386 *
-14	2.2565	7.0193	2.3071 *
-13	-1.6938	5.3256	-1.0512
-12	-0.1053	5.2202	-0.1379
-11	-0.9652	4.2551	-0.4832
-10	0.7799	5.0350	0.5121
-9	2.3845	7.4195	1.3434
-8	1.8879	9.3074	2.9399 *
-7	-2.1192	7.1882	-1.7515
-6	-1.0088	6.1794	-0.9291
-5	-0.4530	5.7264	-1.1076
-4	0.2213	5.9476	0.1389
-3	-1.2724	4.6752	-1.9566
-2	1.1434	5.8186	1.3585
-1	-0.7049	5.1138 ✓	-0.5194
0	0.8944	6.0082	1.1013
1	-2.1137	3.8945	-1.7977
2	-0.4146	3.4799	-0.4380
3	-0.3110	3.1689	-0.2081
4	1.0467	4.2157	1.0471
5	1.4013	5.6169	1.2879
6	-2.1580	3.4590	-2.5186 *
7	-0.1036	3.3554	-0.1819
8	0.9320	4.2873	0.5535
9	1.7894	6.0767	1.4005
10	-0.0989	5.9779	-0.0584
11	-0.0448	5.9330	-0.0379
12	-0.6062	5.3268	-0.3920
13	1.4025	6.7293	0.8786
14	-1.3467	5.3827	-1.3667
15	1.0639	6.4465	2.5612 *
16	-2.6293	3.8172	-1.4234
17	1.7463	5.5635	0.9176
18	0.4090	5.9726	0.4933
19	1.0931	7.0657	1.2085
20	0.0062	7.0719	0.0050

Window	CAR	t-Test
t-20 to t-1	5.1138	1.0335
t to t+20	1.9581	0.3213
t-1 to t+1	-1.9241	-1.3906
t-10 to t+10	1.7228	0.3371

Average alpha, a = -0.072
Average beta, b = 1.073

*significant at 0.05 probability level

Figure 9: Cumulative Abnormal Return of Rights Issues by Listing Board

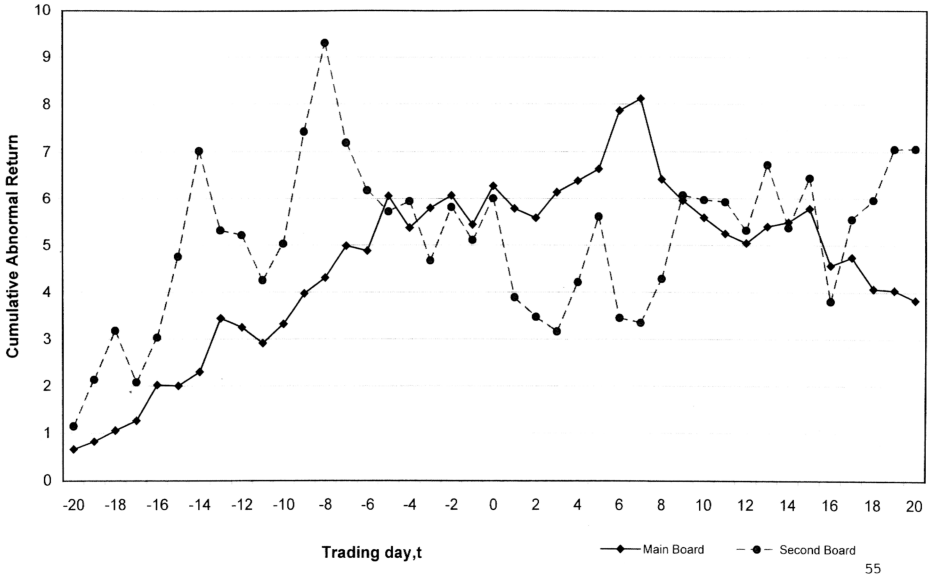


Table 21: Cross tabulation in terms of distribution ratio and board of listing for Rights issues.

	$r > 1:2$	$1:3 < r \leq 1:2$	$1:3 \geq r$	Total
Main Board	14	7	10	31
Second Board	9	1	0	10
	23	8	10	41

5.8 Hypothesis 8: Any abnormal return earned following a rights issue is the same for the period before and after the crisis. (Refer Table 22,23 and Figure 10)

As for the pre and post crisis analysis, both the period recorded a positive cumulative abnormal return with the post crisis period achieving a higher cumulative return. For the period before the crisis, the price moves upward until day t-7 and maintained at that level until day t+10 before it moves downward. The similar trend could be observed from the findings from hypothesis 5 because the period before the crisis comprises 31 shares, which this about 75% of the sample size. Furthermore, all the three categories of stock are present in the period before the crisis.

However, the post crisis price movement is quite drastic. Although the post crisis period is observed to have a significant return on day t+3 and had a positive cumulative return at day t+20, it is difficult to conclude if there is any announcement effect of the rights issues. This is because of the small sample size of post crisis rights issues that meet this study's sampling requirement. Also, the lack of rights issue with a smaller distribution ratio makes this period may not be representative enough. See Table 24 and Table 25.

Table 22: Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) of Rights Issues for the period before 1997 currency crisis

t	AR	CAR	t-test(AR)
-20	0.6158	0.6158	1.3062
-19	0.2925	0.9083	0.6523
-18	0.4423	1.3505	1.1345
-17	0.0438	1.3943	0.0826
-16	0.3907	1.7850	1.0457
-15	0.3663	2.1513	0.7605
-14	0.4582	2.6094	0.9331
-13	0.8036	3.4131	1.3925
-12	-0.0838	3.3293	-0.2094
-11	-0.2805	3.0488	-0.5765
-10	0.9108	3.9596	1.2692
-9	1.0089	4.9685	1.4023
-8	0.7550	5.7235	1.8752
-7	0.3099	6.0334	0.6375
-6	-0.3007	5.7328	-0.7481
-5	0.5532	6.2860	1.2792
-4	-0.4894	5.7966	-1.2064
-3	-0.0076	5.7890	-0.0146
-2	1.0595	6.8485	1.6574
-1	-0.9484	5.9001	-1.6590
0	0.1701	6.0702	0.3927
1	0.0224	6.0926	0.0210
2	-0.1468	5.9458	-0.2543
3	-0.2970	5.6488	-0.5605
4	0.2164	5.8651	0.4041
5	0.1980	6.0632	0.3381
6	0.2506	6.3138	0.2673
7	-0.2169	6.0968	-0.2335
8	-0.1457	5.9511	-0.2669
9	0.2277	6.1789	0.4834
10	-0.2445	5.9343	-0.3729
11	-0.6898	5.2445	-1.4589
12	-0.5268	4.7177	-0.9089
13	0.5045	5.2222	0.9265
14	-0.4469	4.7753	-0.8674
15	-0.0412	4.7342	-0.0952
16	-1.1217	3.6125	-2.4810 *
17	0.3069	3.9194	0.7138
18	-0.2346	3.6848	-0.6460
19	-0.0175	3.6674	-0.0570
20	-0.0265	3.6408	-0.0706

Window	CAR	t-Test
t-20 to t-1	5.9001	2.5197 *
t to t+20	-2.2592	-0.6932
t-1 to t+1	-0.7559	-0.6003
t-10 to t+10	2.8855	0.8094

Average alpha, a = -0.0355
Average beta, b = 1.1755

*significant at 0.05 probability level

Table 23 : Average Abnormal Return (AR) and Cumulative Abnormal Return(CAR) of Rights Issues for the period after 1997 currency crisis

t	AR	CAR	t-test(AR)
-20	1.3723	1.3723	1.4945
-19	0.6451	2.0174	0.9013
-18	0.4203	2.4377	0.4746
-17	-0.6900	1.7477	-0.7186
-16	2.2448	3.9925	1.0941
-15	0.5746	4.5671	0.5099
-14	1.9301	6.4972	1.0734
-13	-0.8523	5.6449	-0.5480
-12	-0.4639	5.1810	-0.5128
-11	-1.2271	3.9539	-0.7228
-10	-0.9134	3.0405	-0.8623
-9	1.3428	4.3832	0.9297
-8	0.6025	4.9858	0.6125
-7	-0.9647	4.0211	-0.5448
-6	-0.4095	3.6115	-0.5834
-5	1.4801	5.0917	1.3179
-4	-0.3762	4.7155	-0.2475
-3	0.0490	4.7645	0.0622
-2	-1.2926	3.4720	-1.7427
-1	0.3004	3.7724	0.2254
0	2.9404	6.7127	1.8508
1	-3.6967	3.0160	-1.2638
2	-0.5811	2.4349	-0.4337
3	2.3187	4.7536	2.6786 *
4	1.1410	5.8946	0.9360
5	1.5764	7.4710	1.0958
6	0.8707	8.3417	0.3820
7	1.3531	9.6948	0.5262
8	-3.8986	5.7962	-2.2984 *
9	-0.3151	5.4811	-0.3250
10	-0.4785	5.0026	-0.5172
11	1.0296	6.0322	1.6288
12	0.3977	6.4299	0.2857
13	0.9437	7.3736	0.5582
14	0.3264	7.7001	0.5838
15	2.0854	9.7855	0.9750
16	-2.9283	6.8572	-1.4182
17	1.3438	8.2009	0.6579
18	-0.9459	7.2551	-0.9613
19	1.0560	8.3110	0.6752
20	-0.5522	7.7588	-0.3577

Window	CAR	t-Test
t-20 to t-1	3.7724	1.0453
t to t+20	3.9865	0.6063
t-1 to t+1	-0.4560	-0.1278
t-10 to t+10	1.0487	0.1155

Average alpha, a = -0.031
Average beta, b = 1.241

*significant at 0.05 probability level

Figure 10:Cumulative Abnormal Return of Rights Issues by Announcement Period

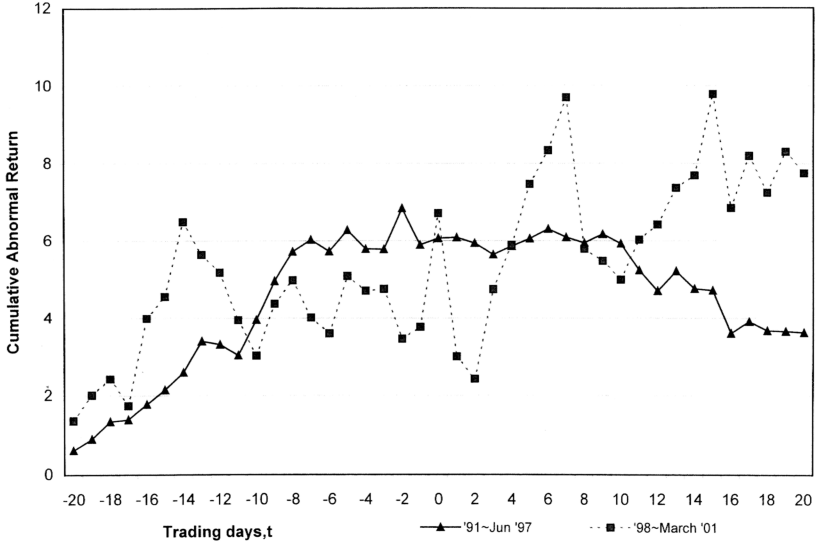


Table 24: Cross tabulation in terms of period of announcement and board of listing for Rights issues.

	Before Crisis	After Crisis	Total
Main Board	24	7	31
Second Board	7	3	10
	31	10	41

Table 25: Cross tabulation in terms of distribution ratio and period of announcements for Rights issues.

	$r > 1:2$	$1:3 < r \leq 1:2$	$1:3 \geq r$	Total
Before Crisis	17	4	10	31
After Crisis	6	4	0	10
	23	8	10	41