CHAPTER 5: RESULTS AND ANALYSIS

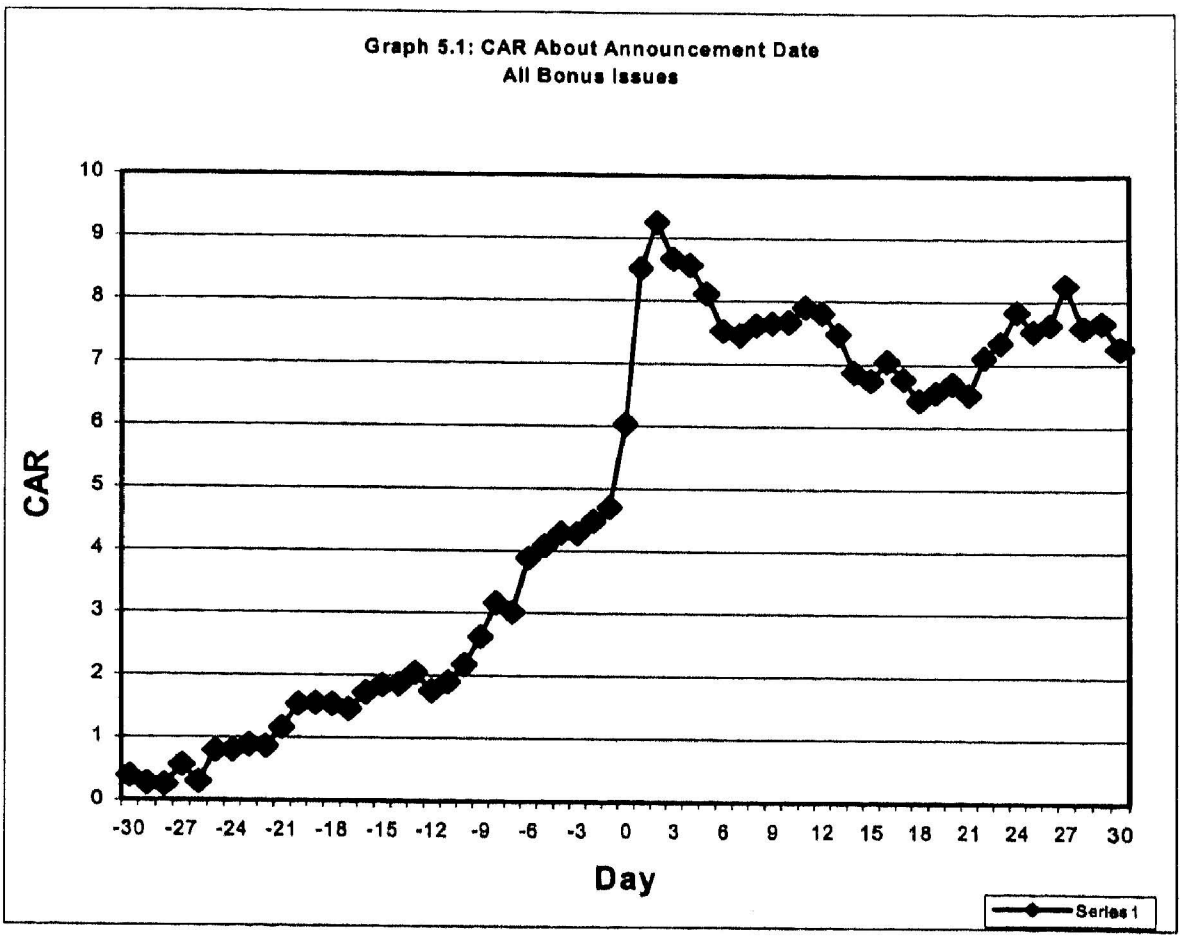
In our study, the main aim is to have a closer examination of price movement immediately before and after the announcement date and ex-date of the bonus issues. This chapter presents the empirical results on the announcement effect and the ex-date effect based on data and methodology mentioned in the earlier chapter.

To evaluate the effects of the various distribution ratios of bonus issues on stock price returns about the announcement date, the changes of the daily mean AR and the daily CAR are examined. The mean CAR for the test period from 30 days before to 30 days after the bonus announcement dates and bonus ex-dates for all the samples and for the various distribution ratios are grouped earlier are shown in Tables 1 – 4 in Appendix II.

The empirical results on the residuals around announcement dates and ex-date are shown in the first half of the chapter, followed by discussion and interpretation of the two sets of events.

5.1 RESIDUAL ANALYSIS

5.1.1 Residual Around Announcement Date



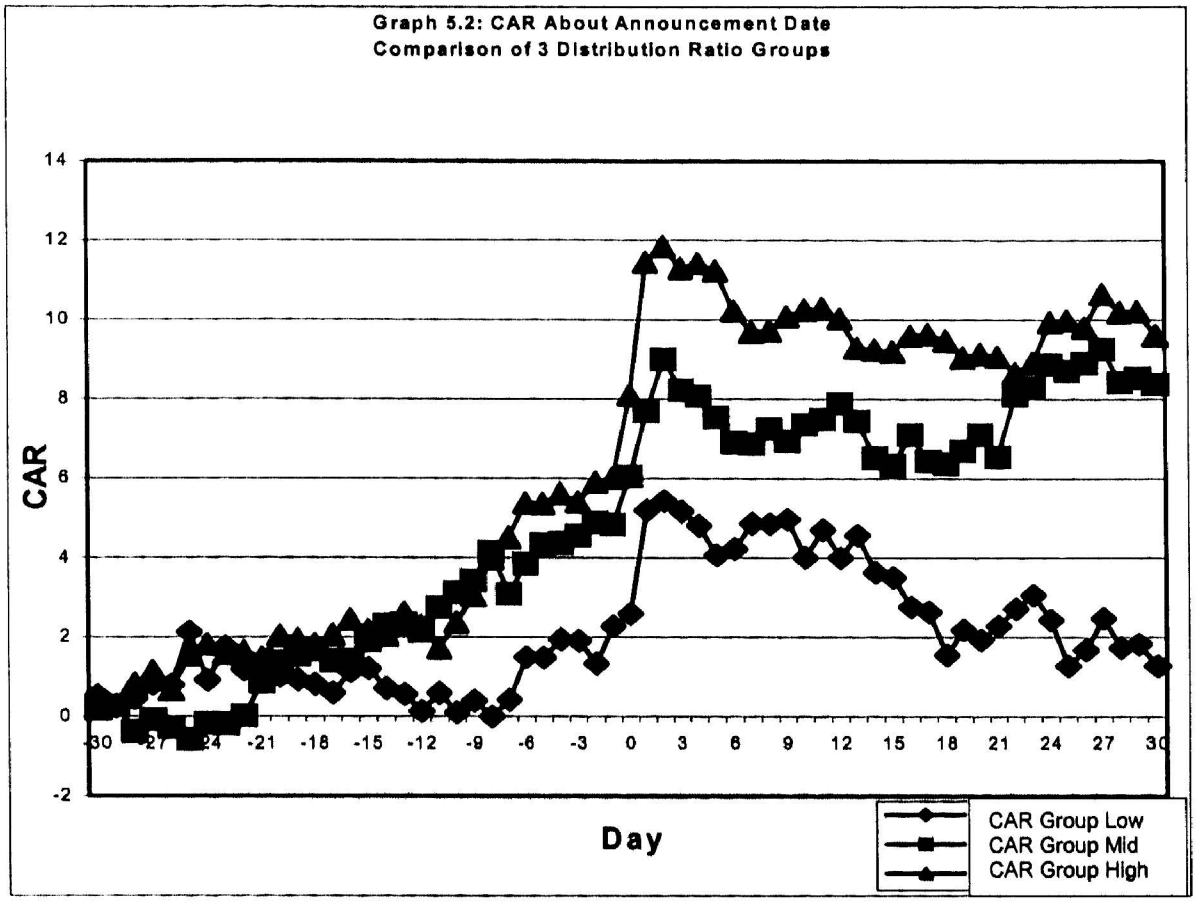
As shown in Appendix II, not all the CAR figures are significant. The CAR values are only significant for day –13 and from days –10 to +30. Large significant positive jumps occur at day –1 to day +2, and are significant at the 0.05 level (two-tailed test) for 95% confidence level.

As shown in Graph 5.1, for all bonus issues, the CAR increases before the announcement date. The CAR seems to be on a rising trend from day –30 until day +2.

From the graph, there is an obvious "take-off" point for the CAR at day –10, which correspond with 2 trading weeks before the announcement date. The CAR climbs from +2.20% at day –10 to + 9.25% at day +2, a total difference of +7.05% over 12 days. The CAR values from day –10 to day +2 are all significant at the 0.05 level (two-tailed test) for 95% confidence level.

Despite the up-trend prior to the announcement date, it appears that the price takes a correction after the announcement. There are consecutive negative returns with respect to the market from day +2 to day +6. After that the CAR starts to register a very slight positive upward trend before it decline again from day +12 to day +21. Then the CAR shows a slight up-trend again from day +22 to day +30. The CAR on day +2 is highest at +9.25%.

The CAR seems to settle at a higher level than before announcement day which is at about the 7% level.



As shown in Appendix II, not all the CAR figures are significant. Group Low (Distribution Ratio: Less Than 50%) the CAR values are all not significant. Group Medium (Distribution Ratio: 50-100%) the CAR values are significant only on day -9, -8 and days –6 to +30. Large significant positive jumps occur at day –1 to day +2, and are significant at the 0.05 level (two-tailed test). Group High (Distribution Ratio: More Than 100%) the CAR values are significant only on days –8 to +30. Large significant positive jumps occur at day –1 to day +2, and are significant at the 0.05 level (two-tailed test) for 95% confidence level.

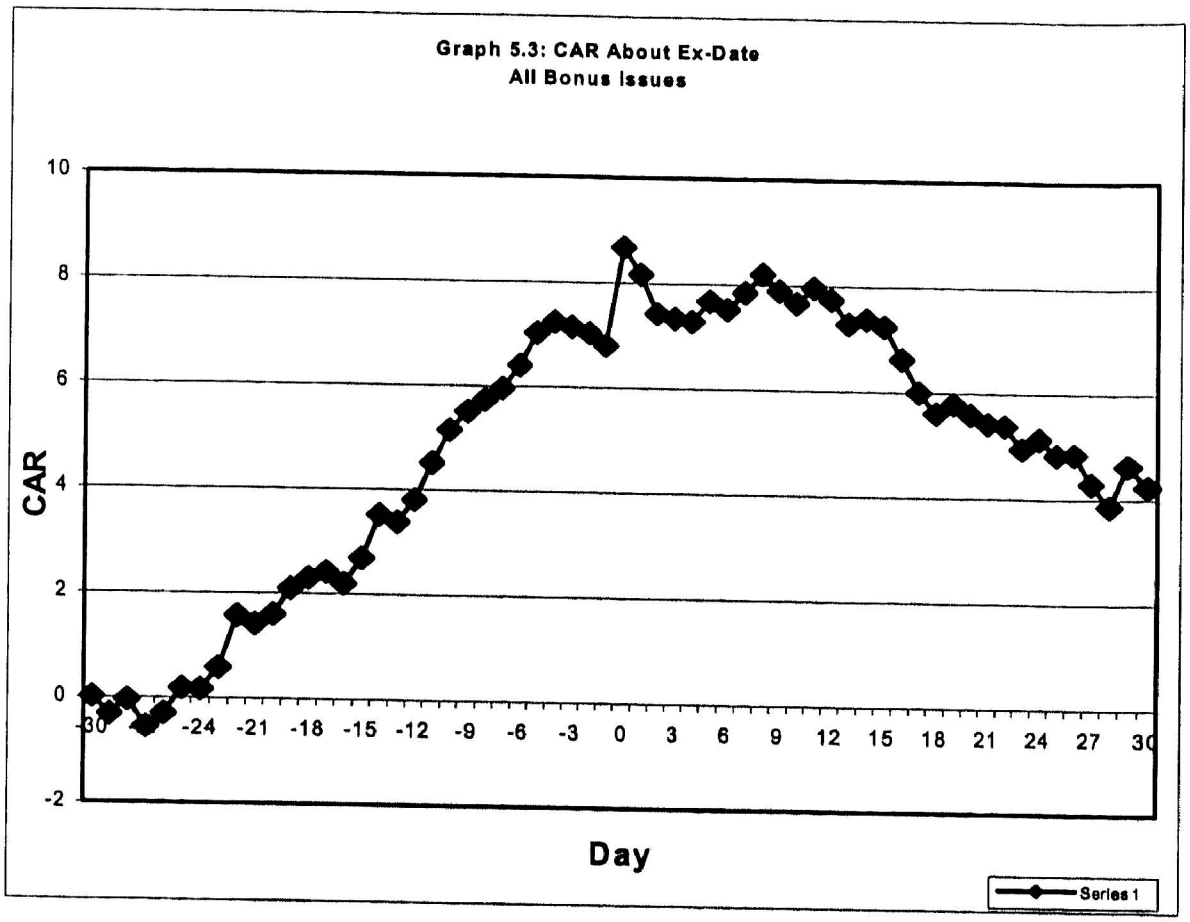
As for residuals for the various Distribution Ratio Groups, referring to Graph 5.2 shows the average CAR for the various groups. From the data collected suggests that investors perceive that bonus issues of higher ratio would bring about better returns.

The CAR for each group increases before the announcement date and continue to do so just after. At the announcement date the CAR for the Group Low (Distribution Ratio: Less Than 50%) is 2.59%, which is lower than Group Medium (Distribution Ratio: 50-100%) of 6.06% and Group High (Distribution Ratio: More Than 100%) of 8.10%.

For Group Low the CAR continues to rise to 5.45% on day +2 after the announcement and then began to decrease gradually until day +6 and then it levels off a little, before going on down trend with some fluctuations in between until day +30. However the CAR for this group is not significant.

For Group Medium, the CAR continues to rise to 9.01% on day +2 then declines gradually until day +20 and then gradually rise again until day +30. The reaction is similar for Group High, the CAR rising to 11.85% on day +2, declines from day +3 onwards until day 8 before recovering and then leveling off until day +30. The CAR for this two groups are significant.

5.1.2 Residual Around Ex-Date



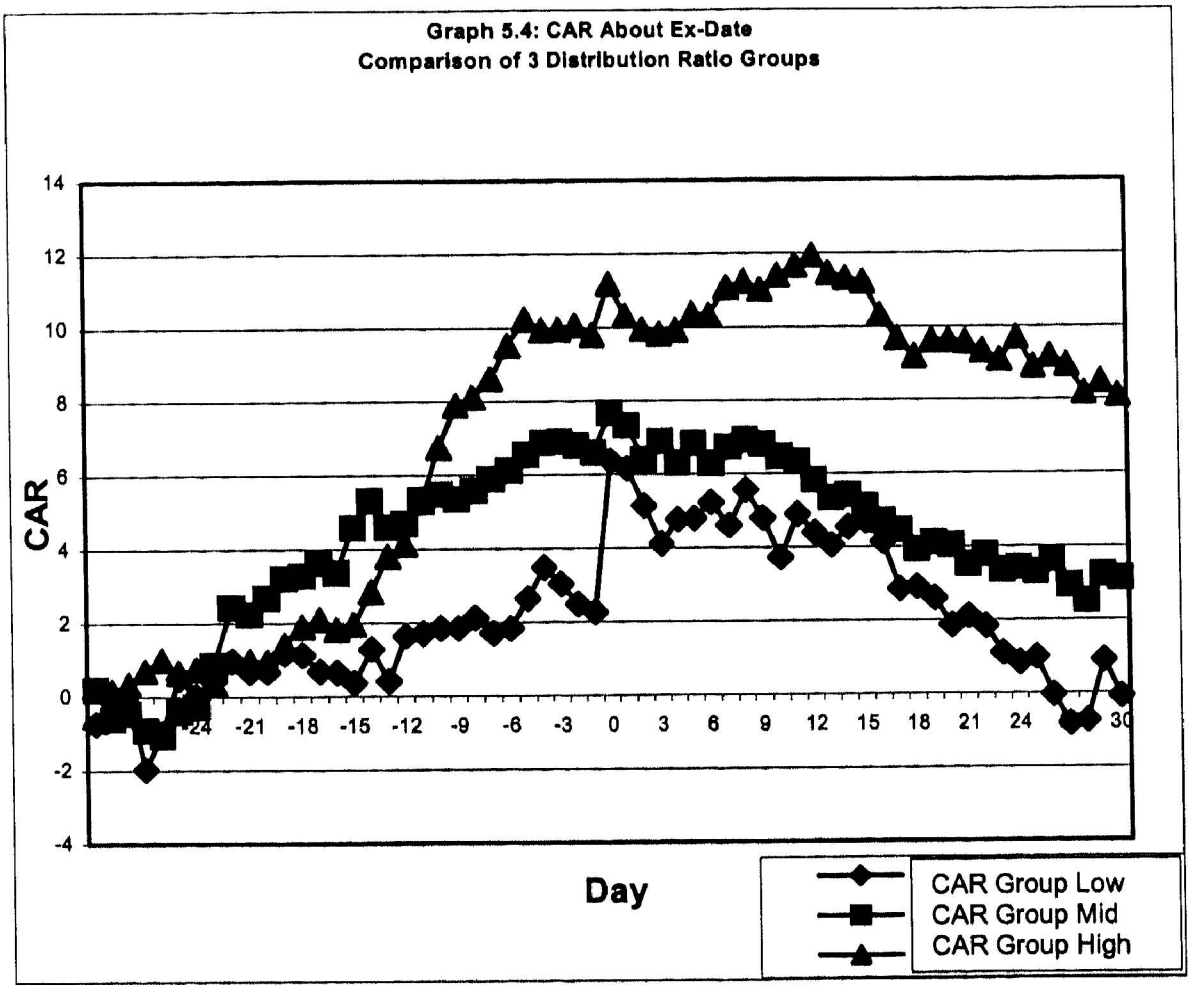
As shown in Appendix II, not all the CAR figures are significant. The CAR values are only significant for days –19 to +30. Large significant positive jumps occur at day 0 and are significant at the 0.05 level (two-tailed test) for 95% confidence level.

Refer to Graph 5.3, for all bonus issues, the cumulative adjusted returns (CAR) increases before the ex-date.

From Graph 5.3, we can see there is a gradual steady up-trend movement of the CAR indicating a steady better-than-market return from –30 days to day -1 of the ex-date of the bonus issue. The CAR on day –1 of ex-date is 6.60%. There is a steep jump in CAR on ex-date of bonus issue. It shoots up from 6.60% before ex-date to 8.67% on ex-date within a day for a difference of

2.07% gain. The large significant positive jumps occur at day 0 and are significant at the 0.05 level (two-tailed test) for 95% confidence level.

The CAR then gradually erode away in the next 30 days. The CAR reduces from 8.67% at day 0 to 4.23% at day +30. The maximum CAR occurs on ex-day of the bonus issue. The CAR values for this is also significant at the 0.05 level (two-tailed test) for 95% confidence level.



As shown in Appendix II, not all the CAR figures are significant. Group Low (Distribution Ratio: Less Than 50%) the CAR values are all not significant on day 0, +5, +6 and day +8. The very large significant positive jumps occur at day 0 are significant at the 0.05 level (two-tailed test) for 95% confidence level. Group Medium (Distribution Ratio: 50-100%) the CAR values are significant only on days –20 to +12. Large significant positive jumps occur at

day 0 and are significant at the 0.05 level (two-tailed test) for 95% confidence level. Group High (Distribution Ratio: More Than 100%) the CAR values are significant only on days –11 to +30. Large significant positive jumps occur at day 0 are significant at the 0.05 level (two-tailed test) for 95% confidence level.

As for Residuals for the various Distribution Ratio Groups, Graphs 5.4 shows the average CAR for the various groups. Similar to the residuals around announcement date, from the data suggests that investors perceive that bonus issues of higher ratio would bring about better returns.

The CAR for each group increases gradually before the ex-date and continue to do so until just before the ex-date. At the ex-date the CAR for the Group Low (Distribution Ratio: Less Than 50%) is 6.39%, which is lower than Group Medium (Distribution Ratio: 50-100%) of 7.68% and Group High (Distribution Ratio: More Than 100%) of 11.19%.

For Group Low the CAR continues to rise a little for another day after the ex-date and then began to decrease gradually until day +30. In fact by day +19 onwards, the CAR enters the negative territory and ended on –0.09% CAR on day +30. However these CAR figures are not significant.

For Group Medium, the CAR begins to declines gradually immediately after ex-date until day +30 ending on CAR of 3.12%. However the CAR values are not significant from day +12 onwards.

However the reaction is different for Group High, declining about 1.37% from day 0 until day 3, then gradually rise again until day +12 peaking with CAR 11.95% on day +12 and then decline again until day +17 and then leveling off on CAR of +8.12% on day +30. The CAR values for this group are significant at the 0.05 level (two-tailed test) for 95% confidence level.

5.2 DATA INTERPRETATION

5.2.1 Data Interpretation Around Announcement Date

By logical deduction, the "take-off" point for the CAR at about day -10 before the announcement date can be the consequence of the following happenings.

i) Some investors by their own analysis came to realize the possible good company performance and profit potential of the stocks, starts to buy up the shares. The demand pushes the prices of the shares up

ii) There may be insider trading. Believing the bonus announcement will be a welcome news to the market and the share price is likely to go up, some insiders may have engaged in trading either by themselves or through their friends or relatives. Here the insiders refer to whoever in the course of their work possess the information on the forthcoming event before the public announcement is made.

iii) The news of the impending bonus announcement has leaked out to the market which has attracted a sizeable number of investors or sufficient number of influential speculators to the stock. Given the unlikelihood of investors to suddenly attract to a certain stock without any fresh factors, the cautiousness expected of the illegal insider trading which makes prices increase only gradually, the suddenness and the magnitude of the surge in share prices is most likely due to the leakage of news on the forthcoming public announcement to the market.

The share price took a minor correction shortly after the announcement, before it started to stabilize. The minor price correction may be due to the profit taking activities of some of the traders who have access to the inside information or had responded to the market rumour earlier on.

Deriving from the results, it appears that the maximum realizable abnormal return by exploiting the market inefficiency on bonus announcement is about 7.05% which is achieved by buying the stock about 2 weeks (10 days) before the expected announcement and then sell it 2 days after the announcement.

The observation on abnormal returns before the announcement date is similar to the results obtained by Neoh [1986], despite differences in data population and sample selection.

The price behavior in our study during the post announcement period indicates market is not consistent with the semi-strong form of Efficient Market Hypothesis in treating the announcement of the bonus issue.

As for the CAR of the bonus issues on announcement date for the 3 Groups of distribution ratios, two distinct characteristics can be clearly seen from the graphs.

i) The CAR curve for the Group High (Distribution Ratio More Than 100%) is above the CAR curve for Group Medium (Distribution Ratio 50% to 100%) which in turn is above the CAR curve for Group Low (Distribution Ratio Less Than 50%). This observation suggests that investors perceive that bonus issues of higher ratio would bring about better returns.

ii) The rapidity in which the CAR levels decline after hitting a peak soon after announcement date, suggesting that the market do not react efficiently to announcement of bonus issues and that the KLSE is not efficient in the semi-strong form in treating the announcement of the bonus issue.

The post-announcement market positive reaction to the various distribution ratios of bonus issues may suggest that the investors perceived bonus issues of higher distribution ratios as containing more favorable new information about the value of the company than that of lower distribution ratios. The

market may expect higher abnormal earnings and profit distributions for the subsequent years for the companies announcing higher distribution ratios than for those companies announcing lower distribution ratios.

5.2.2 Data Interpretation Around Ex-Date

The gradual upward movement of the CAR during the last 30 days before the ex-date partly reflects the price appreciation around the announcement period. This results are partly expected as the period before ex-bonus date overlaps in different degree with the post announcement period of the different counters.

Another possible explaination is that investors are anticipating some amount of abnormal gains comes ex-date because ex-date is a publicly known date and investors knows that on ex-day, they will gain "free" some amount of shares at no extra cost. As such investors will accumulate and buy the shares on the few days before ex-date in order to "gain" from the "free" shares, and thus pushes the prices of the stocks gradually upwards.

The more astonishing part of the findings is on the price adjustment on the ex-day itself. The gain within a single day when the stock goes ex-bonus is +2.07%. Although some excess return can be expected due to the higher marketability, it is not able to account for the huge gain. For academicians, market analysts and investors, the gain has some important implications.

i) Practically, there may be a chance for a market participant to earn abnormal gains when shares goes ex-bonus. Given a total transaction cost of buying and selling shares of between 1-1.5 %, one can expect an average net gain of about 1% more when selling it on the ex-day itself.

ii) The price adjustment process is not efficient around the ex-bonus date. In theory, the total value of a company should remain the same on the

day it goes ex-bonus. The adjustment in share prices should be essentially mechanical. As the announcement of the bonus issue is made at least more than several weeks before the stock goes ex-bonus, whatever changes in the perceived value of the shares should have occurred before the ex-date if the market is efficient.

iii) If the market cannot even make a simple price adjustment accurately when it goes ex-bonus, the ability of the market in adjusting correctly the share value to new public information, when it involves a complex valuation, seems to be doubtful.

From the results of the CAR of bonus issues on ex-date for the various groups of distribution ratios, the following deductions can be made from the results.

i) Similar to the CAR curves about the announcement dates, the CAR curve about the ex-dates for the Group High (Distribution Ratio More Than 100%) is above the CAR curve for Group Medium (Distribution Ratio 50% to 100%) which in turn is above the CAR curve for Group Low (Distribution Ratio Less Than 50%). This observation suggests that investors perceive that bonus issues of higher ratio would bring about better returns. Investors perceived they will get more "free" shares with higher distribution ratios.

ii) Some investors or some "program buying" investors may not be aware of the bonus issues ex-date. These "program buyers" will automatically buy shares when it reaches a low preset threshold level, which was exceeded when the stock goes ex-bonus (on ex-date the stock price adjusts for the bonus issue). This will normally trigger a buying spree by this investor, which ultimately pushes the price upwards. Also any individual investor who do not know about the bonus ex-date will suddenly find the stock price lower than before and thus thinking this is a "value buy" because of the price suddenly becoming low, will buy the stock up on the ex-date of the bonus issue.

iii) With higher distribution ratios, the share prices become more affordable after the ex-date. The higher the distribution ratio the more the affordability, meaning that the quantum of the price adjustment after the ex-date is bigger. As an example, a stock trading at RM6.00 before ex-date, after a 2:1 bonus, after the ex-date price is RM2.00. More investors can afford the stock at RM2.00 as thus their demand pushes the prices upwards after ex-date.

The biggest help towards a stock price rise post ex-date is mainly due to affordability and liquidity. Based on fundamentals, the valuation of a stock must be based on valuation principles and not based on its absolute share price. However to a general non-institutional investor who have limited personal fund size, the absolute share price is seen as a hurdle towards investing in a very promising counter if it is trading on a very high price. How many general non-institutional investors can afford stocks that is trading at RM20.00 - RM30.00 and above per share.

In this respect a bonus issue will help. An investor who is reluctant to pay more than RM6.00 per share previously due to limited financial resources, is now willing to pay RM2.00 per share after a bonus issue of 2:1 hence opening up the stock to a larger pool of investors.

In such a case, the bonus distribution ratio should be fairly significant to make a difference in the absolute share price. As can be seen, the lower bonus distribution ratio of less than 50%, does not show as high a CAR increase as the higher distribution ratio of more than 100% which shows very significant CAR increase in this study. The affordability argument will not apply to stocks which are already affordable in the first place.

As an example, Malayan Banking Berhad (Maybank as on 30 December 2002 trading at RM7.70) has used bonus issues to enhance its affordability with 3 bonus issues in the past 7 years. In 1994, Maybank issued a bonus of 1:2, in 1998 issued a bonus of 1:1 and in 2001 issued a bonus of 1:2. If not for the bonus issues, Maybank shares will be trading at about RM35.00 today.

Another possible reason for the price rise is the liquidity of the stock whose reasoning is very much the same as the affordability reasoning. After the bonus issues there is now more shares of the stock in the market, and through greater affordability should help trading liquidity of the stock.

From the study, it is obvious that to benefit from the ineffective price adjustment mechanism when stocks goes ex-bonus, the best short term trading rule would be to buy the stock about 6 weeks before ex-date and then selling it on ex-day itself. If you trade only on stock with higher bonus distribution ratios, this trading rule may give on the average a gain of about 10%.