CHAPTER VI
SUMMARY AND CONCLUSION

6.1 INTRODUCTION

An equity investor is interested in maximising returns in relation to the total funds invested. The funds committed comprises of two parts; funds made directly through subscription to the equity (including premium) and funds indirectly committed on account of retention of earnings by the company.

When a business firm needs finance to fulfill its investment needs it can choose to raise funds through external sources (debt, preferred stock and common stock) or through internal sources (retained earnings). There is virtually no limit to the amount of money that can be raised from external sources, provided the management can convince prospective investors of the desirability of investing in or lending money to the firm. The pecking order hypothesis suggested by (Myers and Majluf, 1984) supports the view that firms prefer to use funds in the order of internal funds, external debt, and external equity. The amount of money that a firm can raise by retaining earnings is limited by the profits of the firm and the amount paid in dividend to its owners. However, the investment needs are forecasted several years into future and firms accumulate profits over the years and need not rely exclusively on the earnings retained from the current year’s profits. These accumulated profits can be used to finance the investment needs of a firm through bonus issues.

Bonus issues are issues of securities to the company’s existing shareholders, without the company receiving any cash in the process. There is a mere rearrangement of the existing capital structure.
The substantial reserves of the company are transferred into the ordinary share capital account. Bonus issues can be termed as capitalisation issues since it increases the equity base of the company without any inflow of cash. The increased equity base is supported by the same amount of net assets of the company resulting in reduced value per equity share. Consequent to a bonus issue the earnings stream in the short run does not increase. Hence, when the existing earnings are distributed over a larger equity base, it leads to reduced earnings per share. Since the earnings stream of the company determines the market value of a stock, the market value also decreases. The stock returns that are based on the market price also declines.

Companies with low reserves will have to depend on the external sources of funds. In India, the preference for bonds or preference shares are low and firms mostly depend on equity issues. Of late there has been a preference for rights issues, which makes the existing shareholder eligible for additional shares. Companies lured by encouraging business profits make rights offers to primarily fund their expansion plans. Rights issues are made either to reduce the costs associated with new issues or to act in the interest of the existing shareholders. Rights issues refer to the issue of additional shares of a firm to the existing shareholders to maintain their share of the ownership of the firm. Unlike in bonus issues, in rights issues there will be inflow of cash. However returns from investment tend to accrue only after sometime. Hence, when the same earnings are divided over a larger equity base the earnings per share gets diluted, leading to a decline in market price. The price behaviour after the offering will depend on the impact of the investment on the future earnings of the firm. For profitable companies the market price and hence, the returns may improve after some time.
The activity in the stock tends to increase around the bonus and rights issues. Since investors are interested in the returns and capital gains associated with a stock they try to use any information to increase their returns. A bonus or rights issue involves the existing shareholders and would be a signaling device about the future prospects of the company. It is widely believed that unless the earnings prospects are bright a company will not go in for a bonus issue and rights issues are subscribed by those existing shareholders with favourable view of the firm’s prospects. The theoretical attribute of a bonus offer leaves the market value of the company and shareholders wealth unchanged. However, the reality regarding returns from investing in bonus offers differs vastly. When a shareholder is entitled to additional shares as a pre-emptive right he has the choice to exercise his right, renounce his right or to sell. Since renunciation results in loss, in the form of decline in the price of stock held, a shareholder may either sell rights and benefit over the differential between the ruling market price and subscribed price or hold on to get capital gains. In order to understand the behaviour of returns around bonus/rights issues the study was undertaken with the following objectives.

1. to study the general trends in the issue of bonus and rights shares in India
2. to study the impact of bonus issues on the stock returns and
3. to study the impact of rights issues on the stock returns.

The study covers a period of 8 years from 1989 to 1997. The sample for the study includes 100 bonus offers at 1:1 ratio, 66 bonus offers at 1:2 ratio, 191 rights offers at 1:1 ratio and 101 rights offers at 1:2 ratio. These stocks were all listed in Bombay Stock Exchange. The daily and monthly stock returns of these issues and the returns on the monthly index of BSE 200 index have been used for the study.
6.2 ANALYSIS OF DATA

To study the impact of bonus issues on the behaviour of stock returns the following hypotheses were formulated:

1. There is no significant difference between the stock returns before and after the ex-bonus days.
2. There is no significant difference between the stock returns of 1:1 and 1:2 bonus issues and
3. The ex-bonus day has no significant influence on the stock returns.

To test the hypothesis that there is no significant difference between the stock returns before and after the ex-bonus days the period around ex-bonus days was divided into pre-bonus period and post-bonus period. Summary statistical analysis is used to evaluate the behaviour of returns during pre-bonus and post-bonus period. The 't' test is used to test the hypotheses. The distribution of the returns is analysed using frequency tabulation. The association among the returns during pre-bonus and post-bonus period is analysed using correlation technique.

The existence of abnormal gain around the ex-bonus day was analysed by calculating the abnormal returns. The behaviour of abnormal returns are also analysed with the use of summary statistical measures, frequency tabulation and correlation technique. To test the hypothesis that there is no significant difference between the stock returns of 1:1 and 1:2 bonus issues 't'-test were administered on the difference in the mean of the stock returns of 1:1 and 1:2 bonus issues. The impact of the ex-bonus day on the stock returns is analysed using event study methodology. To formulate a strategy which would help the investors gain from the bonus issue, either by entering cum-bonus and
To study the impact of rights issues on the behaviour of stock returns, the following hypotheses were formulated:

1. There is no significant difference between the stock returns before and after the ex-rights days.
2. There is no significant difference between the stock returns of 1:1 and 1:2 rights issues and
3. The ex-rights day has no influence on the stock returns.

Summary statistical measures, frequency tabulation and correlation techniques were used to analyse the behaviour of stock returns around ex-rights day. To test the existence of abnormal returns around ex-rights day, abnormal returns were calculated and their behaviour is analysed using summary statistical measures, frequency tabulation and correlation techniques. The hypothesis that there is no significant difference between the stock returns before and after ex-bonus days was tested by examining the means of the stock returns during pre-rights and post-rights period. The hypothesis that there is no significant difference between the stock returns of 1:1 and 1:2 rights issues was tested by administering 't' tests on the means of the stock returns of 1:1 and 1:2 issues.

Using event study methodology, the impact of the ex-rights day on the behaviour of stock returns was analysed. The holding period return of top ten gainers were analysed to formulate an investment strategy to gain healthy returns by either entering cum-rights and exiting ex-rights or holding on to the stock for three or one month during cum-rights period and exiting one day before ex-rights day.
6.3 RESULTS OF THE ANALYSIS OF STOCK RETURNS FOR BONUS ISSUES

6.3.1 FINDINGS OF 1:1 BONUS ISSUES

The returns observed during pre-bonus period are on an average positive (0.3059 percent), which has increased on the ex-bonus day (0.9884 percent). The returns have declined during the post-bonus period (-0.4216 percent). The hypothesis that there is no significant difference between the stock returns before and after ex-bonus day has been rejected in the case of 1:1 bonus issues. There is a possibility of gaining abnormal returns only during the pre-bonus period (0.3275 percent) and on the ex-bonus day (1.0076 percent). However, the gain would be very low. During post-bonus period abnormal loss of -0.4235 percent is observed.

The fluctuations in the returns are higher during the post-bonus period (Co-efficient of variation of 208.4914) than during pre-bonus period (Co-efficient of variation of 205.0343). For the abnormal returns the fluctuations are higher during post-bonus period (Co-efficient of variation of 210.1062) than during pre-bonus period (Co-efficient of variation of 191.9083). The fluctuations in the returns (Co-efficient of variation of 409.0955) and abnormal returns (Co-efficient of variation of 405.8753) are very high on the ex-bonus days. Positive skewness is observed for both the returns and abnormal returns during pre-bonus period and on the ex-bonus day. During post-bonus period the distribution of returns and abnormal returns are negatively skewed. The distribution of returns and abnormal returns is flat for pre-bonus period and post-bonus period. The distribution of returns and abnormal returns is peaked on the ex-bonus day.
The returns are concentrated between -4.00 percent and 4.00 percent during pre-bonus and post-bonus periods. The abnormal returns are concentrated between -4.40 percent and 4.40 percent. On the ex-bonus day the returns vary between -8.00 percent to 20.00 percent and abnormal returns between -8.80 percent to 22.00 percent.

Positive association of returns is observed among the returns and abnormal returns during pre-bonus and post-bonus periods, pre-bonus periods and ex-bonus day. Negative association is observed among returns and abnormal returns during ex-bonus and post-bonus periods.

The cumulative abnormal returns observed shows the existence of a mild positive impact of the ex-bonus day on the returns during the pre-bonus period and negative impact during the post-bonus period. However, the ex-bonus day does not seem to have any significant impact on the stock returns. Hence, the hypothesis that the ex-bonus day has no influence on the stock returns is accepted for 1:1 bonus issues.

An analysis of the holding period returns reveals that entering during cum-bonus period and exiting during ex-bonus period does not give healthy returns. There exists a possibility of gaining healthy returns when the investors exit during the cum-bonus period (i.e.) the holding period returns of three months before the ex-bonus day seems to yield better returns.

6.3.2 FINDINGS OF 1:2 BONUS ISSUES

The behaviour of returns and abnormal returns are more or less similar. Only during the pre-bonus period (0.2581 percent) and on the ex-bonus day (0.5321 percent) there is a possibility of gaining abnormal returns. The returns are positive during the pre-bonus period (0.2281 percent), which has increased marginally on the ex-bonus day
(0.5695 percent) and declined during post-bonus period (-0.5433 percent). The hypothesis that there is no significant difference between the stock returns before and after ex-bonus day has been tested and rejected for 1:2 bonus issues. The fluctuations and hence the risk associated with the returns and the abnormal returns are higher during the pre-bonus period (Co-efficient of variation of 242.0868 and 226.8113 respectively) than during post-bonus period (Co-efficient of variation of 134.6585 and 137.7460 respectively). The risk seems to be the highest on the ex-bonus day (Co-efficient of variation of 759.1922 for returns and 823.0595 for abnormal returns)

The returns and abnormal returns are positively skewed during the pre-bonus period and on the ex-bonus day. Negative skewness is observed during post-bonus period. The distribution of returns and abnormal returns are not normally distributed during all the periods.

The returns are concentrated between -4.00 percent to 4.00 percent during pre-bonus period and post-bonus periods and abnormal returns fall between -4.40 percent to 4.40 percent. On the ex-bonus day the returns fall between -20.00 percent to 16.00 percent and abnormal returns between -22.00 percent to 17.60 percent.

The association among returns observed during pre-bonus period, ex-bonus day and post-bonus period are positive. The abnormal returns during pre-bonus and post-bonus period are negatively related. During other periods the abnormal returns are positively related.

The cumulative abnormal returns observed shows a positive effect of the ex-bonus day on the stock returns during pre-bonus period and a mild negative effect on the stock returns during post-bonus period. However, tests with the help of ‘t’ statistic reveals that the ex-bonus day
has no significant impact on the stock returns around ex-bonus days. Hence, the hypothesis that the ex-bonus day has no influence on the stock returns is accepted for 1:2 bonus issues.

The holding period returns observed also reveals the possibility of gaining healthy returns by exiting during the cum-bonus period itself. Holding for at least three months prior to the ex-bonus day yields higher returns.

6.3.3 SUMMARY OF THE FINDINGS OF BONUS ISSUES

For both 1:1 and 1:2 bonus issues during the pre-bonus period positive returns are observed which increases marginally on the ex-bonus day. However, during post-bonus period negative returns are observed. This may be due to the initial overreaction of the market, which is followed by a marginal correction. These findings seem to confirm the findings of previous studies by Fama et al. (1969) 2 and Obaidullah (1992) 3 that the returns increases two to four months preceding the effective date and is complete by the ex-bonus day.

The fluctuations and hence the riskiness of the stock is higher during the pre-bonus period than during post-bonus period for 1:2 bonus issues. This confirms the findings of Yosef and Brown (1977) 4, that there exists abnormally large amount of risk prior to splits. The increased risk could be due to uncertainty regarding the earnings stability and the future dividend prospects of the companies. For 1:1 issues the riskiness is higher during post-bonus period. There is a temporary increase in the riskiness of the securities on the ex-bonus day, which declines afterwards. This finding falls in line with the findings of Brennan and Copeland (1988) 5, that the period surrounding the ex-bonus day may be when large variability in security returns occurs.
The distribution of returns vary between -4.00 percent and 4.00 percent for both pre and post-bonus periods. The returns are positively skewed during pre-bonus period and on ex-bonus days and negatively skewed during post-bonus period. Positive returns along with high fluctuations observed during the pre-bonus period significantly differ from the negative returns observed during post-bonus period and the relatively low fluctuations and hence the risk. Since the stock returns during pre-bonus period and post-period differ significantly, the hypothesis that there is no significant difference between the stock returns before and after the ex-bonus day may be rejected.

Positive abnormal returns are observed during the pre-bonus period and negative abnormal returns are observed during post-bonus period. Though the gain seems to be very low the existence of abnormal returns is confirmed. The behaviour of abnormal returns is similar to that of the returns. There is a significant difference in the behaviour of abnormal returns between the pre-bonus and post-bonus periods.

The behaviour of returns and abnormal returns for both 1:1 and 1:2 bonus ratios are more or less similar. The similarity in the stock returns of 1:1 and 1:2 bonus issues have been statistically proved. Hence the hypothesis that there is no significant difference between the stock returns of 1:1 and 1:2 bonus issues is accepted. Hence, it may be concluded that the ratio of the issue of bonus shares does not influence the stock returns. These findings confirm the findings of Obaidullah (1992) and Ramaswami (1996) that the bonus ratio has little effect on the behaviour of returns. The cumulative abnormal returns are positive during pre-bonus period and negative during post-bonus period for both 1:1 and 1:2 bonus ratios. However, the ex-bonus day has no significant impact on the returns during pre-bonus period and post-bonus period. Hence the hypothesis that the ex-bonus day has no significant influence
on the stock returns is accepted. An analysis of the holding period returns also reveals the possibility of gaining better returns by exiting during the pre-bonus period.

6.4 RESULTS OF THE ANALYSIS OF STOCK RETURNS FOR RIGHTS ISSUES

6.4.1 FINDINGS OF 1:1 RIGHTS ISSUES

The average returns observed during pre-rights period (0.2460 percent) are positive, which has declined on the ex-rights day (-0.5696 percent). The returns have improved during the post-rights period (-0.1484 percent). The hypothesis that there is no significant difference between the stock returns before and after ex-rights day has been rejected for 1:1 rights issues. There seems to be a possibility of positive abnormal returns during the pre-rights period (0.2508 percent). There also seems to be no possibility of gaining abnormal returns on the ex-rights day (-0.5874 percent) or during post-rights period (-0.1605 percent). The behaviour of returns and abnormal returns are similar.

The fluctuations in the returns are higher during the pre-rights period (co-efficient of variation of 575.8130) than during post-rights period (co-efficient of variation of 564.5552). For the abnormal returns also similar behaviour with respect to risk is observed. The fluctuations in the returns (co-efficient of variation of 705.8813) and abnormal returns (co-efficient of variation of 690.8409) are low on the ex-rights days. For both the returns and abnormal returns negative skewness is observed during pre-rights period and on the ex-rights day. During post-rights period the distribution of returns and abnormal returns are positively skewed. The distribution of returns and abnormal returns are platykurtic during the post-rights period and leptokurtic during pre-rights period and ex-rights day.
The returns are concentrated between -16.00 percent and 4.00 percent during pre-rights period and -4.00 percent to 4.00 percent during post-rights period. The abnormal returns are concentrated between -13.20 percent and 8.80 percent during pre-rights period and -4.40 percent to 4.40 percent during post-rights period. On the ex-rights day the returns vary between -20.00 percent to 20.00 percent and abnormal returns between -22.00 percent to 17.60 percent.

The returns during pre-rights period and ex-rights day, pre-rights and post-rights period are negatively correlated. The stock returns during ex-rights and post-rights period are positively correlated. Negative association of abnormal returns has been observed among pre-rights period and ex-rights day and pre-rights and post-rights period. However, positive association is found among abnormal stock returns between ex-rights and post-rights period.

The cumulative abnormal returns observed shows a mild increase during the pre-rights period and decrease during the post-rights period. However, the ex-rights day does not seem to have any significant impact on the behaviour of returns. Hence, the hypothesis that the ex-rights day has no influence on the stock returns is accepted for 1:1 rights issues.

An analysis of the holding period returns reveals that entering during cum-rights period and exiting during ex-rights period does not give healthy returns; but there may be a possibility of gaining healthy returns when the investors exit during the cum-rights period itself.

6.4.2 FINDINGS OF 1:2 RIGHTS ISSUES

The returns are positive during the pre-rights period (0.1857 percent), which has declined on the ex-rights day (-1.5411 percent). Though negative returns are observed during post-rights period (-0.0526 percent), they have improved over the ex-rights day.
The hypothesis that there is no significant difference between the stock returns before and after ex-rights day has been rejected for 1:2 rights issues. During the pre-rights period there is a possibility of gaining abnormal returns. The behaviour of returns (0.0525 percent) and abnormal returns (-0.0453 percent) are more or less similar during the post-rights period. The fluctuations and hence the risk associated with the returns and the abnormal are higher during the post-rights period (co-efficient of variation of 1480.2281 and 1770.4194 respectively) than during pre-rights period returns (co-efficient of variation of 750.8852 and 700.1492 respectively). On the ex-rights day the risk seems to be low for both returns and abnormal returns.

The returns and abnormal returns are positively skewed during the pre-rights period. Negative skewness is observed on the ex-rights day and during post-rights period. The distribution of returns and abnormal returns are not normally distributed during all the periods.

The returns are concentrated between -4.00 percent to 12.00 percent during pre-rights period and between -4.00 percent to 4.00 percent during post-rights periods and abnormal returns fall between -4.40 percent to 13.20 percent during pre-rights period and between -4.40 percent to 4.40 percent during post-rights periods. On the ex-rights day the returns ranges between -20.00 percent to 12.00 percent and abnormal returns between -22.00 percent to 8.80 percent.

The returns observed during the pre-rights period and ex-rights days are negatively related. The returns during pre-rights period and post-rights period and ex-rights days and post-rights period are positively related. The association of abnormal returns is similar to the association of returns during all the periods.
The cumulative abnormal returns observed shows an increase during pre-rights period and decreases during the post-rights period. However, tests with the help of ‘t’ statistic reveals that the ex-rights day has no impact on the returns around ex-rights days. Hence, the hypothesis that the ex-rights day has no influence on the stock returns is accepted for 1:2 rights issues. The holding period returns observed also reveals the possibility of gaining healthy returns by exiting during the cum-rights period itself.

6.4.3 SUMMARY OF THE FINDINGS OF RIGHTS ISSUES

For both 1:1 and 1:2 rights issues during the pre-rights period positive returns are observed which decreases on the ex-rights day. Though negative returns are observed during post-rights period the returns seem to improve. During the pre-rights period there should have been dissemination of information regarding rights issue and the market does not seem to view rights issue favourably, since negative returns are observed on the ex-rights day and during post-rights period. These findings seem to confirm the findings of Smith (1977) 8, Logue and Jarrow (1978) 9, Marsh (1979) 10, Hess and Frost (1982) 11 that a small price reduction occurs in the period surrounding the equity issue. The fluctuations and hence the riskiness of the stock is pronounced during the pre-rights period than during post-rights period for 1:1 issues and vice versa for 1:2 issues.

For both 1:1 rights offer and 1:2 rights offer the distribution of returns for a maximum number of companies vary between -4.00 percent to 4.00 percent during pre-rights period. The returns are concentrated between -4.00 percent and 4.00 percent during post-rights period and on the ex-rights day the returns for all the companies are widely scattered.
Positive returns observed during the pre-rights period significantly differ from the negative returns observed during post-rights period. The holding period returns also reveal the possibility of better returns by exiting during the cum-bonus period than during ex-bonus period. The hypothesis that there is no significant difference between the stock returns before and after the ex-rights day has been tested and rejected. Hence it may be concluded that the stock returns before and after the ex-rights day differ significantly.

There seems to be a possibility of gaining abnormal returns during the pre-rights period. However, the gain seems to be very low. Abnormal losses are observed on the ex-rights day and during post-rights period. These findings fall in line with the findings of Scholes (1972) who found abnormal gains in the period leading up to the issue and a small price fall in the month of the issue.

Positive returns and abnormal returns are observed during pre-rights period and negative returns are observed during ex-rights and post-rights period for both 1:1 and 1:2 rights offers. The behaviour of returns and abnormal returns for both 1:1 and 1:2 rights ratios are similar. The hypothesis that there is no significant difference in the stock returns of 1:1 and 1:2 rights issues have been tested and accepted. Hence it may be concluded that the ratio of the issue of rights shares do not influence the returns. These findings confirm the findings of Scholes (1972), Marsh (1979) and Hess and Frost (1982) that the returns over the issue period are not related to the size of the issue.

The cumulative abnormal returns show a mild negative influence during pre and post-rights period for both 1:1 and 1:2 rights ratios. The ex-rights day has no significant impact on the returns during pre-rights period and post-rights period for both 1:1 and 1:2 rights offers. Hence the hypothesis that the ex-rights day has no influence on the stock returns has been accepted.
6.5 CONCLUSION

The following are the conclusions drawn from the study

1. Positive returns are observed during the pre-bonus period and on the ex-bonus day. Negative returns are observed during post-bonus period. There is a possibility of gaining abnormal returns during pre-bonus period. Holding the stock for three months and disposing just before ex-bonus day seems to yield healthy returns. The event (ex-bonus day) as such has no significant impact on the stock return. The size of the issue also seems to have no influence on the behaviour of returns.

2. Positive returns are observed during pre-rights period, which declines on the ex-rights day. Though negative returns are observed during post-rights period there seems to be an improvement over the ex-rights day. Positive abnormal returns are observed during pre-rights period and negative abnormal returns are observed on the ex-rights day and during post-rights period. However trading during cum-rights period also might yield better returns since the holding period returns are high for the three month before ex-rights. Hence, entering a stock three months before ex-rights day and exiting one-day before ex-rights day yields better returns. The effect of the ex-rights day on the behaviour of returns is insignificant. The size of the issue does not alter the behaviour of returns.

6.6 SUGGESTIONS FOR FURTHER STUDY

The impact of the bonus and rights issue on the return behaviour may be analysed using the board meeting dates, where decision regarding announcement of the bonus or rights issues are made. Since information spreads right from the board meeting date itself this would reveal the real impact of announcement effect of bonus or rights issue. A comparison of the effect of announcement date in the board meeting, book closure, ex-rights day and ex-bonus day may be attempted.
REFERENCES


13. ibid.,
