#### CHAPTER 5

# CONCLUSION AND RECOMMENDATIONS

## 5.1 Summary and Discussion

The objectives of this study are: to explore the extent to which beta coefficients are useful for predicting the future returns, and to determine the usefulness of beta coefficients in securities portfolio analysis and investment strategy. This study used the weekly closing prices of 71 KLSE CI's component stocks and the weekly closing levels of the KLSE Composite Index, for the period 1991 to 1995. The data from 1991 to 1993 is used to compute beta coefficients of the stocks using equation (3.2). Portfolios of two to seven securities were then formed based on the ascending value of beta coefficients and the betas of portfolios were also computed using simple average formula, equation (2.2b). Based on the plots of the weekly composite index from January 1994 to December 1995, five periods (length of each period is between 3 to 6 months) were identified for analysis. The first, third and fifth periods are declining periods(bearish market) and the second and fourth periods are rising periods(bullish market).

The results of correlations analysis, as shown from Table 4.1 to Table 4.2 in Chapter 4, gave us some interesting indications. Firstly, it shows that beta

coefficient is a better predictor during the declining period as compared to rising period. The results show that the correlation coefficients(both Pearson's and Spearman's) between beta and returns of securities, and between beta and returns of portfolios were higher in magnitude during declining periods than rising periods.

Secondly, beta as predictor of future returns is good for at least two years(1994-1995) after the computation period(1991-1993), for declining market, that is significant results for the three declining periods, and one year after computation period for rising market that is, significant result only for second period; for reasons explained earlier in Chapter 4. Thirdly, the betas of portfolios of securities are better predictors than betas of securities, as the results show that the magnitude of correlation coefficients for both Pearson's and Spearman's are higher for portfolios as compared to that of securities. Finally, the results also indicate that the ability of betas of portfolios as predictor can be improved as we increase the number of securities in the portfolios.

### 5.2 Conclusion.

For a sample of 71 component stocks of the KLSE CI, the results of this study have shown that beta coefficient is a reasonably good predictor of the returns of the securities for two year after its computation for bearish market and one year after its computation for bullish market. Although the main objective of this study is not to determine whether beta is a better predictor in the bullish or bearish market, but the difference in the ability of beta in predicting the future returns between the two markets(bullish and bearish), is worth noted and further investigated in future studies.

When portfolios of 2, 3, 4, 5, 6 and 7 securities are constructed their beta coefficients are better predictors of returns than the beta of individual securities and this finding is consistent with the findings of Kok and Goh (1992). This study also confirmed the expectations made earlier, that high beta securities is expected to have greater returns than low beta securities during bullish period, proven by the significant positive correlation coefficients in the second period, and lower returns than low beta securities during bearish period, proven by the significantly negative correlation coefficients during the three declining periods(first, third and fifth).

Thus, despite some insignificant results obtained in this study and some contestable assumptions made in the development of Capital Asset Pricing Model, which is largely due to market imperfections, beta as expressed in the CAPM model, is useful in predicting future returns to a certain extent and also useful in securities portfolio analysis and investment strategy.

### 5.3 Recommendations.

This study can be further improved by:

- a. having more declining and rising periods so as to further investigate whether there is any significance difference in the predictive ability of betas between the bearish and bullish period.
- b. besides grouping of individual securities into portfolios based on the ranking of their beta coefficients from lowest to highest, another set of portfolios could also be formed based on beta coefficients' ranking and the sector from which the securities come from, so as to ensure every portfolio is represented by securities from different sectors. This will enable us to make comparison of portfolios' performance.
- applying the beta adjustment techniques, such as Blume adjustment procedures in order to improve the accuracy of the estimates of future betas.